

Virtual Graffiti: Dyscribing Humans

by

Todd Hopkins

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Carleton University
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Abstract

Numerous studies have tracked the emergence of often radically new, digital incarnations of real-world practices, establishing valuable heuristic bridges from traditional to virtual culture, and laying the groundwork for disciplinary study of such practices.

This study joins these efforts, by tracking the emergence of a new, ‘digital-borne’ analogue to traditional graffiti praxis, which it terms ‘virtual dyscription’ (encompassing the traditional praxis in a radically new form). The study follows essentially the same method as in the previous studies: developing a robust working characterization of the traditional practice, employing this characterization to identify and delineate the corresponding digital analogue, and then characterizing the new phenomenon in a manner thorough and nuanced enough to enable rigorous disciplinary investigation.

However, the case of such digital-borne graffiti is unusually complex, owing to the fledgling nature of rigorous graffiti study, the equal importance of both praxis and product in the concept, and the absence of any accepted inter-disciplinary understanding of the very *notion* of graffiti.

Chapter 1, then, surveys scholarly sources on traditional graffiti to identify key conceptual features of graffiti praxis in general, while assessing the value of graffiti study in diverse disciplinary contexts. Based on this survey, Chapter 2 develops and nuances a synthetic characterization of such praxis (including problematic features), sufficiently robust and flexible to investigate homologic affinities in the radically new digital environment. With this in hand, Chapter 3 investigates the relevant context of this new environment, considers a number of graffiti-like candidates, and distinguishes website defacement as the most appropriate homologue to traditional graffiti in the virtual world. Chapter 4 then explores the nature and (still more) problematic features of such *virtual* dyscription, against the background of the traditional practice, generating a working taxonomy of dyscriptive praxis in general; and Chapter 5 illustrates this characterization through a preliminary encounter with the extant corpus of archival material, arguing that such dyscription stands in an interestingly parallel relation to traditional graffiti in the middle of the last century, before the explosion of interest in the so-called New York style. Chapter 6 supplements Chapter 5’s exploration of the artifacts of virtual dyscription with a series of anecdotal interviews with the dyscriptors themselves, framed in terms of what it calls the ‘dyscriptive cycle’, which generates the bulk of such dyscription. The study also includes an appendix outlining some emerging stylistic tendencies and genres evident in the material.

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Table of Contents

Abstract	ii
Acknowledgements	iii
Table of Contents	iv
List of Figures	vii
List of Appendices	xi
Introduction	1
Chapter 1: The Problem of Graffiti	14
Tanzer’s Early Archaeology and Antiquarian History	15
Read’s Folk Epigraphy	19
Brassai’s Paris.....	21
Graphology: Graffiti Writing in Literary Theory	23
Mailer and Castleman: Modern Graffiti Studies and New York City.....	25
MacDowall on New Media and Digital <i>Faux-Graffiti</i>	35
Baird & Taylor on Graffiti Studies in Contemporary Archaeology	40
Conclusion: The Problem as Solution	44
Chapter 2: A Syntagmatic Characterization of Traditional Graffiti.....	48
The Six Components of the Syntagma	49
Dyscription	61
Conceptual Modelling: Avoiding ‘Universalism’	65
Investigating the Dynamics of Traditional Dyscription	68
Conclusion: View from the Bridge.....	98
Chapter 3: Distinguishing the Virtual Homologue	99
The Digital Environment	101

Graffiti-like Praxis: Hacking, Hackers and Hacktivists	106
Website Defacement as Homologic Focus	118
Case Study: Bill’s Berry Farm.....	122
The Mirror Archive	128
Conclusion: Virtual Dyscription.....	135
Chapter 4: Characterizing Virtual Dyscription	138
The Emblematic Case	139
Investigating the Dynamics	153
Conclusion: <i>Esse Est Bipercipi</i>	194
Chapter 5: The Acts and Artifacts of Virtual Praxis	197
The Generic Dyscriptive Cycle: Act and Product	198
Virtual Dyscription: A Qualitative Encounter.....	211
Conclusion: Virtual New York.....	269
Chapter 6: Toward an Ethnography of Virtual Dyscription.....	274
The Dyscriptive Cycle	274
1. Virtual Dyscriptors	282
2. Target Websites (Webmasters).....	310
3. Archivists.....	326
4. Media	338
Conclusion: <i>Cacoethes Codiendi</i>	348
Conclusion.....	358
Future Research Paths	360
Appendix A: Etymology of ‘Graffiti’	365
Appendix B: Static Images of Virtual Dyscription	370
List of Figures	370

LEETBOYS	375
LEETMIR.....	378
CoupdeGrace.....	381
MrWWW.....	386
APRILGHOST (4prili666ho5T) - from his artist book	388
Appendix C: CD-ROM Virtual Dyscription	397
Appendix D: Some Emerging Styles of Virtual Dyscription.....	398
Appendix E: Research Ethics Approval.....	420
References	426

List of Figures

Figure 1- Schema of style dynamics of traditional dyscription (with disciplinary emphases).....	93
Figure 2 – Schema of style dynamics of digital dyscription (scholarly emphases).....	117
Figure 3– Website homepage of Bill’s Berry Farm on April 9th, 2014	124
Figure 4 – Website defacement of www.billsberryfarm.com by “Synchronizer” (Zone-h 22183576).....	125
Figure 5 – Defacement image changes if viewer attempts to right click.....	126
Figure 6 – HTML source code file at Bill’s Berry Farm original index file	127
Figure 7 – Schema of style dynamics of virtual dyscription	191
Figure 8 - Homepage before defacement (Zone-h 625001).....	202
Figure 9 - Website homepage after homepage replacement (Zone-h 625001).....	203
Figure 10 - See the modifications to the top as well as within the body of the document. This is a sample of homepage modification, not a replacement. (Zone-h 8030).....	205
Figure 11 – List of the mass defacement of the ubc.ca domain	208
Figure 12 - Homepage Defacement by Evil Angelica (Zone-h 8011).....	209
Figure 13 - Source code for Figure 11 (Evil Angelica’s lewd comments).....	209
Figure 14 - Carleton Computer Science Society Homepage (2013)	214
Figure 15 - Defacement of Carleton site. June 1st, 2005. (Zone-h 2326008).....	214
Figure 16 (above) - Under construction: No links active, no news in the banner.	216
Figure 17 – ‘News’ banner with dyscription. The message continues on to scroll saying the teachers should do more website maintenance. (Zone-h 20417614).....	217
Figure 18 - Bottom right: LeeTBoy Team is 'in' the website. (Zone-h 20959003)	218

Figure 19 - High visibility commercial website	221
Figure 20 – Eboz (KriptekS) dyscribes the Google Pakistan website with a homepage replacement (DNS redirect). (Zone-h 18638930).....	221
Figure 21 - Structural context – ‘alleyway’ type, in-text defacement by “Affix” and friends. (Zone-h 100000)	223
Figure 22 - Structural context - local police station	223
Figure 23 - LatinHack Team homepage replacement of Woodstock Police website (Zone-h 15570860)	224
Figure 24 - Structural context: local commercial fast food website (see below [Figure 18] for dyscription).....	225
Figure 25 - Dyscribed with a homepage modification and partial corruption of the website’s style and functionality by “DX” (Zone-h 18683991).....	225
Figure 26 (above) – Structural context: a high status commercial software company site (AVG.com)	227
Figure 27 – Structural context: the dyscription of AVG's website by DNS redirect (Zone-h 20949089)	228
Figure 28 – Status: a commercial software site with lower status than AVG.com (Figure 26)	228
Figure 29 – Homepage replacement of Zend Software (Zone-h 20374745).....	229
Figure 30 – Israeli professional-commercial website (see Figure 24 below for defacement).....	233
Figure 31 – Defacement displaying high stylistic and content-based disfigurative intensity (Zone-h 21227724)	234

Figure 32 – The analogous situation in the virtual world of the WWW is gaining access to what is considered to be an ‘impossible to access’ website, such as that of a government (.gc).....	240
Figure 33 – The dyscriptor has left their email coordinates. There are many examples of these sorts of proposals. (Zone-h 21237293).....	245
Figure 34 – Note the “Greetz” to the community and the contact information, a potential dialogic feature of the act of dyscription, intensifying the overall expressivity. (Zone-h 20704997).....	245
Figure 35 – Another simpler “Greetz” from the year 2002 (Zone-h 127227).....	245
Figure 36 – (2000) Use of multiple copy/paste (Zone-h 8441).....	248
Figure 37 – (2000) – Example of poem and more complex graphics (Zone-h 26665) ..	248
Figure 38 – (2001) Example of simple text purpose statement (Zone-h 12843).....	249
Figure 39 – Example of a ‘purpose statement’ and use of simple graphics (Zone-h 5878).....	249
Figure 40 - Homepage replacement with simple text string (Zone-h 21289789).....	250
Figure 41 – Homepage replacement with text string using minimal features (Zone-h 17512971).....	250
Figure 42 – Year 2012 – Homepage replacement with colour background and email callout (Zone-h 17363897).....	251
Figure 43 – Simple use of text characters for image construction (Zone-h 17378731...)	252
Figure 44 – Use of text for complex image (Zone-h 17437936).....	252
Figure 45 - Traditional drawing by Evil Angelica (Zone-h 265141).....	254
Figure 46 – Homepage replacement with drawing (Zone-h 12851).....	255

Figure 47 – Example of simple collage technique with drawing/painting/text	257
Figure 48 – Example of cut and paste collage	257
Figure 49 – Drawing and mixed techniques (no archive reference available)	258
Figure 50 – Schema wiith modes of digital dyscription	349

List of Appendices

Appendix A: Etymology of ‘Graffiti’	238
Appendix B: Static Images of Virtual Dyscription	243
Appendix C: CD-ROM Virtual Dyscription	270
Appendix D: Some Emerging Styles of Virtual Dyscription	271

Virtual Graffiti: Dyscribing Humans

Introduction

In the 1970s, the colourful images of graffiti in the New York City subway system came into broad public view, provoking widespread debate and announcing the emergence of a radically new kind of aesthetic phenomenon, one bearing witness to the new social and technological dynamics of the urban environment. Among other things, this study proposes that a digital-borne homologue of such traditional graffiti praxis is on the cusp of emerging from the visible (and invisible) vicinities of the WWW, bearing witness, in its turn, to the radically new modalities of the digital environment.

The advent of this environment, with its virtual worlds, has been accompanied by the emergence of new ‘digital-borne’ analogues bearing important and suggestive affinities to traditional ‘real-world’ concepts and practices; and this, in turn, has prompted scholars to track the emergence of, delineate, and investigate such analogues, both as a preliminary encounter with the new forms, in relation to their traditional antecedents, and as a means of enabling rigorous, disciplinary study of these new phenomena.

Researchers in a wide range of cultural contexts have established such heuristic bridges from the traditional to the virtual world, laying groundwork for the rigorous disciplinary usage and study of such diverse concepts and practices as textuality (Gunder, 2001), dance performance (Dixon, 2007), the literary (Hayles, 2008), theatre (Eaket, 2010),

collective action (Blodgett, 2011), handwriting (Neef, 2011), identity (Chango, 2012), and letter writing (Jordan, 2013).

This study hopes to join these efforts, by tracking the emergence of a new, digital-borne homologue¹ to traditional graffiti praxis, which it terms ‘virtual dyscription’. The study follows essentially the same method as in these previous studies: developing a robust working characterization of the traditional concept or practice, employing this characterization to delineate the corresponding digital analogue amidst a welter of emergent and often (as yet) ill-defined related phenomena, and then characterizing the delineated concept or practice in a manner thorough and nuanced enough to reward serious scholarly investigation.

However, the case of graffiti is unusually complex—even in comparison with related praxes such as literature, dance, theatre or handwriting—for three main reasons: first, though numerous scholars, from a host of disciplines, have established the existence of this practice as far back as antiquity, rigorous graffiti *study* is a comparatively recent phenomenon, having itself largely emerged only with the dramatic emergence of ‘New York style’ graffiti (and its celebration in the media) in the 1970s, only a few decades before the explosion of digital culture itself, and thus the *understanding* of the practice had hardly taken shape before a radically new *form* of the practice had emerged; second, partly because of this, there has yet to emerge any accepted inter-disciplinary understanding of the very *notion* of graffiti, without which any attempt to track its appearance in the highly complex environment of virtual reality would be profoundly

¹ As the name implies, homology seeks more rigorous and fundamental relationships than analogy; for example, two things are said to be ‘homologous’ when it can be shown that they have similar structure, attributable to common origin; things are said to be ‘analogous’ when they can be shown to have similar functions or uses, without similarity of structure or origin.

impaired; and third, the nature of graffiti, however it be understood, is inherently complex in the sense that it is equally significant both as act and product, as attested by the lively scholarly interest in each. Thus, unlike the related studies, whose focus lay either on long-studied (e.g., literature, theatre, social action) or commonly understood (e.g., identity documents, handwriting, letters) phenomena, without this inherent structural complexity, the present work faced an additional and preliminary *conceptual* challenge, in its attempt to distinguish and characterize the new phenomenon of virtual graffiti.

The Heuristic Value of Graffiti Studies

Since the archaeological discovery in the mid-19th century of a startling corpus of well-preserved ‘informal’ inscriptions on the preternaturally preserved stucco walls of ancient Pompeii, and especially since the emergence of the now indexical New York City-style graffiti in the 1970s and its subsequent development into a global, pop-cultural phenomenon, the study of graffiti has proved to be an important *topos*, as well as a sensitive vector for critical inquiry into the dynamics of cultural production. Acts of graffiti are commonly treated as valuable, site-specific, material traces of the activities, and even states of mind, of the common folk, inhabitants of life-worlds which are often historically, culturally and psychologically remote from those of the graffiti viewer; and as such, graffiti can provide an unexpected record of both ordinary and extraordinary activities which might otherwise have remained invisible and inaccessible.

For the archaeologist and ancient historian, the inscriptive products of graffiti writing have provided a subtle and nuanced record of the thoughts and activities of otherwise

invisible citizens of the early civilizations—city and country dwellers, farmers and sailors, the very young and the very old—whose traces inform attempts to characterize everyday life in ancient times (Baird & Taylor, 2011). The analysis and debate concerning the classification of transgressive inscription, as recorded on a wide variety of material surfaces and sites, has led to productive critiques of once prevalent notions of literacy, subjectivity and communicative action (Bagnall, 2008; De Certeau, 1979; Gordon, 2002). Literary studies, for example, has taken up a host of topics centered on acts of unauthorized inscription, including the analysis of medieval church graffiti, Elizabethan wall-writing (Fleming, 2001; Plesch, 2002), 18th-century glass-writing, and other ‘crimes of writing’, which continue to inform critical approaches to writing, expression and representation (Stewart, 1991). Most prominent among these treatments of graffiti, however, are those of contemporary social anthropologists and art historians, for whom the now widespread contemporary phenomenon of NYC-style graffiti continues to predominate as a critical site for research into the cultural dynamics of transgression, appropriation, authority and aesthetic appreciation (Austin, 2001; Castleman, 1982; Chalfant & Cooper, 1984; Waclawek, 2009).

Among the characteristics that have made of graffiti a special and richly instrumented human activity are its performative aspect, like dance or music, being always both an act and a product; its site-specificity, in that a fulfilled instance of graffiti is wedded to a unique spatio-temporal material surface (Fleming, 2001; Gordon, 2002) and cannot be remediated (in time or space) without losing almost all its quiddity; its apparent operation, at times primitive to the distinction between word and image (Brassai, 1964; Baudrillard, 1976); its constitutive transgressive moment, performed outside or beyond

the ordering of authorized norms of property, propriety and literacy (Ferrell, 1993; Hebdige, 1979); and its status as a lively stylistic ‘boundary’ phenomenon, anticipating and proposing new and emergent forms of aesthetic sensibility (Waclawek, 2009). These are only some of the more controversial and provocative aspects of contemporary theorizations of graffiti in circulation within (and more rarely in between) contemporary disciplinary approaches to graffiti praxis.

The suitability of graffiti as a heuristic aide for cultural analysis, in a multitude of disciplinary contexts, arises from the constellation, in one discrete human activity, of a set of distinct and provocative conceptual features, including key notions of authority, style, the human, inscription and property, all of which hover about the *locus medii* between the self and world. This conceptual nexus is supplemented by the long lineage of graffiti-writing praxis, evolving within its historical context, which has shown a remarkable continuity over the course of several millennia, in most human communities (Baird & Taylor, 2011; Ganz, 2009).

Both the long history of *some* form of graffiti praxis, evidenced by the scholarly work alluded to above, and the obvious affinities between graffiti and similar traditional practices such as painting, writing or theatre, all of which have well-established digital homologues, suggests that we might also expect to see the emergence of graffiti praxis in the digital environment. And if so, the identification of the ‘digital-borne’ phenomenon should both contribute to the extension of scholarship on graffiti praxis in general, and set the stage for the comparative analysis of the relevant virtual and traditional homologues, much as we have seen arise in art history, literary studies and cultural studies over the last 20 years.

Building a Conceptual 'Bridge'

This project seeks to establish preliminary groundwork for the investigation of ‘virtual graffiti’ by attempting to build a conceptual ‘bridge’ for graffiti study, between the ‘real’ world, which has been the privileged locus of graffiti scholarship, and the ‘virtual’ world, in which graffiti has yet to be formally studied.² The need for such a bridge emerges primarily from the profound heterogeneity of the two environments, and the far greater complexity of the latter, especially relevant to the aforementioned characteristics of graffiti; for example, the whole notion of inscription, at the heart of graffiti praxis, is fundamentally problematized when there is no longer anything resembling a real-world *wall* (see Chapter 4 - *Inscription*). This radical environmental heterogeneity introduces an entirely new conceptual *pressure* on the very notion of graffiti, beyond the well-documented and hitherto manageable tensions within the concept (see esp. intro. to Baird & Taylor, 2011; MacDowall, 2005); which in turn introduces a need for hitherto unnecessary conceptual work, if a serviceable heuristic bridge is to be achieved, as a precondition for advancing graffiti study properly into the virtual world.

The critical questions informing the study, then, are: ‘Is there a useful homologue to traditional graffiti praxis in the virtual world?’; and if so, ‘What are its characteristic features, and how do these stand in relation to the traditional real-world praxis?’ Given the value of graffiti study in general, as evidenced by the aforementioned multidisciplinary body of scholarship emerging in this area, if these questions should be

² Although there have been contemporary studies of what I call ‘graffiti-like’ or ‘faux-graffiti’ phenomena arising in the digital environment (MacDowall, 2005), I will argue that these are ultimately not suitable homologues of traditional graffiti praxis. Scholarly work that has, as it were, sketched some margins of the virtual praxis, will be discussed in the literature review below (Ch.1 – *New Media*, and Ch. 3, particularly the sections on *Hacking Studies*).

adequately addressed, we may one day see ‘migrated’ versions of such wide-ranging studies, focussing now on *virtual* graffiti. However, within the limited compass of the present study, I can only hope to facilitate such work, through the construction of the conceptual bridge alluded to above. That bridge, and this work in general, thus has an essentially propaedeutic character, meaning to function as a kind of a heuristic link between the fairly well-explored terrain of ‘real-world’ graffiti and the (as yet *possible*) context supporting the emergence of its virtual homologue. The paths leading deeper into the new digital environment, whether art historical, socio-political or otherwise, though perhaps of great interest, must be followed by others skilled in such exploration.

The study begins, then, in Chapter 1, with a review of the major scholarly literature on traditional graffiti, sifting through and identifying key conceptual features of graffiti praxis, and distinguishing those aspects of such praxis that seem to be widely accepted from those that seem more problematic or at least constrained by the academic contexts in which we find them. The extant scholarly literature on the subject reveals a rich ‘currency’ of useful and sometimes controversial explicit and implicit concepts, offering a host of useful elements for developing a synthetic characterization of graffiti praxis in general.

In Chapter 2, I attempt to develop such a synthetic characterization, sufficiently robust and flexible to investigate homologic affinities in the radically new digital environment. I explore six key conceptual components emerging from that discipline-specific survey, which together appear to offer a ‘syntagmatic’³ characterization of graffiti praxis in

³ I use the term ‘syntagma’ to denote to a synthetic conceptual nexus which characterizes a given phenomenon; for a fuller description of my use of this term, please see Chapter 2.

general, and I propose the verbal noun ‘dyscription’⁴ (combining key connotations of the Greek ‘dys-’, as “bad, ill or abnormal—destroying a word’s good sense or increasing its bad sense” [Liddell & Scott, 1987], and the ‘scription’ central to graffiti) to describe the most salient features of both act and product, especially as these come under heightened conceptual pressure in the digital environment. Given the essentially *propaedeutic* (vs. empirical) aim of this Chapter, and indeed of the study as a whole, I have focused, in illustrating these components, on exemplars (vs. examples) of traditional graffiti, composed of the most salient features of graffiti praxis as determined by the synthetic survey above, to minimize the distraction of ancillary elements, and maximize the heuristic function of the characterization.⁵ Using this conceptual syntagma as a heuristic touchstone, I then extend and nuance the characterization of traditional graffiti praxis to include dynamic factors governing the intensity of each of the six constitutive elements, and consider, in this light, problematic cases in the conceptual nexus. This work results in the generation of a first-order working taxonomy of traditional dyscriptive praxis in general. Here too the use of exemplars is of critical value, as it allows us to *manipulate* the ‘model’ by weakening or intensifying given factors and then assessing the resulting effect on the overall syntagma. Thus we may observe, for example, what happens to the overall notion of graffiti as we vary the intensity of its unauthorized or proprietorial character.

⁴ The English noun ‘graffiti’ comes under significant semantic and syntactic pressure when asked to cover the full range of conceptual inflections in the praxis (e.g., to denote the act or the actor), an especially critical requirement when investigating virtual homologues; for a fuller explanation and justification for my introduction of this term, please see Chapter 2—‘Dyscription’.

⁵ A common technique in conceptual modeling, from philosophy, through anthropology and economics, to systems engineering (see Kung, C.H. & Solvberg, A. *Activity Modeling and Behavior Modeling*, 1986, pp. 145-171).

With this basic heuristic apparatus in place, a conceptual ‘bridge’ from the real to the virtual context is half complete; we have, as it were, brought ourselves within view of the digital environment, with a reasonably nuanced understanding of the general character of real-world graffiti. It remains, however, both to gain a broad synoptic understanding of the digital terrain in which we are to search for the virtual homologue, and then to identify such a homologue, if possible, and characterize *this*, in terms of the traditional syntagma we have developed.

Thus, in Chapter 3, I provide a brief historical survey of the digital environment and its virtual worlds, with an eye to distinguishing graffiti from other, graffiti-like praxes observable there; taking note of what might now be termed dyscriptive potentialities inherent in the structure of this environment (e.g., the nature of its walls, or of property), and of current scholarly research on seemingly dyscriptive activity, such as that of ‘hackers’ and ‘hacktivists’; in an attempt to distinguish the best homologue to traditional graffiti praxis from a number of graffiti-like candidates. Based on the work of these early chapters, I identify website defacement as the most appropriate homologue to traditional graffiti (dyscription) in the virtual world, locate it in the broader context of the digital/virtual environment described above, and introduce a surprising and surprisingly vast archive of such material currently present on the web.

In Chapter 4, following the pattern established in Chapter 2, I first explore the nature of *virtual* dyscription against the traditional syntagma, again employing synthetic exemplars, here based on my study of the archival material. I then extend and nuance the characterization of virtual graffiti praxis to include dynamic factors governing the intensity of each of the six constitutive elements, again manipulating our model to assess

the effect of varying intensities in the six syntagmatic elements, and again considering problematic cases, based on this conceptual exploration. This completes the working taxonomy of dyscriptive practice *in general*. The chapter as a whole is composed against the backdrop both of the archival material and of scholarly research related to the phenomenology of the virtual (Manovich, 2001; Hansen, 2004), to frame the discussion of the new medial characteristics of virtual graffiti.

With this more nuanced characterization of virtual graffiti, the conceptual ‘bridge’ in the notion of graffiti praxis, from the real to the virtual world, and with it the *specific* propaedeutical work of the study, is complete,⁶ and we are, albeit modestly, equipped to make some novel, preliminary, *empirical* forays into the uncharted territory of virtual dyscription: ‘novel’ simply because they have not been made before; ‘preliminary’ because I have neither the expertise nor the proper venue in this study to attempt a comprehensive investigation along any specific disciplinary lines, let alone the kind of synthetic multidisciplinary survey I was enabled to make based on the rich body of past scholarship on traditional graffiti praxis; and ‘empirical’ because of the extraordinary resources of the Zone-h archive.

On this foundation, and within this framework, Chapter 5 summarizes a two-year exploration of roughly 5,000 virtual dyscriptive artifacts spanning the 14-year history of the Zone-h archive, illustrating the characterization of the virtual phenomena developed in Chapter 4.⁷ In a sense, the chapter may best be read as a first qualitative encounter with

⁶ As I stressed above, given the novelty of the phenomenon and the preliminary nature of this work, the study as a whole is best seen, I think, as propaedeutic to future, more detailed, comprehensive, and discipline-specific study of virtual dyscription.

⁷ The number was chosen, based on consultation with statisticians, merely to ensure a satisfactory sampling to enable qualitative observation of notable characteristics among the group, and to support the empirical

virtual dyscription, firmly contextualized by comparison to the homologous work of scholars on traditional graffiti. Here I argue that such dyscription stands in an interestingly parallel relation to traditional graffiti in the middle of the last century, before the explosion of interest in the so-called New York style.

Chapter 6 supplements Chapter 5's exploration of the *artifacts* of virtual dyscription, with a number of anecdotal interviews with *artisans*, framed and discussed in terms of what I call the 'defacement cycle', which generates the bulk of virtual dyscription: the dyscriptor him/herself, the website owner/administrator, the archive administrator, and the media; providing what I hope are some suggestive preliminary notes toward an ethnography of virtual dyscription, again firmly contextualized by comparison with scholarly work on traditional graffiti writers.

In Appendix A, I provide an etymological analysis of the word 'graffiti', the results of which complement and nuance the conceptual work in Chapters 1 and 2. Appendix B contains static images used as reference material for Chapter 6, and Appendix C is a CD-ROM with examples of virtual dyscription exploiting multi-media techniques (animation, sound, video, etc.). In Appendix D, as an illustration of potential disciplinary study of this new phenomenon, I anticipate a possible avenue for art historical study, offering brief characterizations of some emergent 'styles' or stylistic groupings apparent in the sampled material. Again, the observations are entirely qualitative in nature, merely attempting to capture some general stylistic tendencies observable in the material as a whole, and some intriguing 'nameable' styles, of an aesthetic, ethnic or personal character.

validity of the virtual graffiti syntagma; and was in no way meant to support quantitative statistical analysis or conclusions.

Research Contributions

The present study offers:

- (a) a first-ever attempt to generate a robust and nuanced understanding of traditional graffiti practice and products *in general*, including consideration of the problematic aspects of the traditional form;
- (b) as part of this attempt, proposal of a new working term (*dyscription*), whose forms, unlike the narrow and rigid traditional term, can efficiently describe all the elements of act, actor, product and production of graffiti, serving the full range of grammatical functions demanded by rigorous discourse on graffiti—a grammatical demand that will emerge as conceptual and far more pressing in the case of *virtual* dyscription, with its ‘double walls’, complex production, and human/machine actors;
- (c) delineation of website defacement as the most significant digital analogue (or rather here, the more exacting *homologue*) of traditional graffiti practice and products, comparing it to a host of other, either similar or simply specious candidates;
- (d) characterization of this new phenomena, as act and product, in the digital context, against the backdrop of the traditional homologues (and cultural context), with consideration of the *further* problematization of the traditional notion—and specifically of its constitutive elements—in its new and more complex digital form;
- (e) characterization of the digital and social context surrounding the production of virtual graffiti, focusing on the ‘defacement cycle’ involving dyscriptors, the media and website

hosts, and especially on the structure and role of the Zone-h digital archive, which houses the bulk of the extant virtual graffiti artifacts;

(f) generation of a first-order working taxonomy of dyscriptive praxis *in general*, with: 2 species (real-world/traditional and digital/virtual), 2 modalities (act and product), 2 walls (code/*codicis* and screen/*perceptis*), 6 elements (unauthorized, human, inscriptive, stylistic, defacement, property), and 5 mediations (visual, aural, audio-visual, ergodic, haptic), for a total of 240 taxonomic categories.

Chapter 1: The Problem of Graffiti

Literature on the topic of traditional graffiti over the last century and a half can be roughly grouped into six thematic areas or disciplinary styles, roughly following the chronological order of their first appearance as scholarly (and sometimes para-scholarly) publications: Mid-19th Century Archaeology; Folk Epigraphy; multidisciplinary studies of the New York City phenomenon; New Media studies; and finally the work of contemporary Archaeologists.

Even though the existence of traditional graffiti practice, as far back as antiquity, has been well-documented by numerous scholars in archaeology and ancient history, rigorous graffiti study is a relatively recent phenomenon. The widely mediatized phenomenon of graffiti in the New York City subway system in the late 70s and 80s stimulated academic interest in the topic in general, however, our *understanding* of the complex phenomenon had hardly taken shape when the advent of the digital culture itself set the stage for a radically new form of the practice. This lively effervescence partly explains why there has yet to emerge any accepted, inter-disciplinary understanding of the very *notion* of graffiti, without which any attempt to track its appearance in the highly complex environment of virtual reality would be seriously impaired.

The extant literature on traditional graffiti reveals a number of useful and sometimes controversial implicit and explicit concepts, providing the key elements that will shape my attempt to build a synthetic characterization of graffiti praxis in general. However it

be understood, the nature of graffiti is inherently complex in the sense that it is equally significant as both act and product. In this section I review the major scholarly literature and identify the key conceptual features of graffiti praxis, distinguishing those that seem to be the most widely accepted from those that seem more controversial, or at least constrained to the academic context in which we find them.

Whether a surface is of rock, stone, clay, wood, paper, stucco or cement; and whether the inscriptive act that marks the surface is accomplished by gouging, scratching, carving, drawing or painting; we will see that the scholarship on traditional graffiti, from the ancient variety up the most recent, can partake of a shared and fundamental materiality that allows the basic notions of a ‘surface’ and an ‘inscriptive act’ (among others), essential to this materiality, to remain conceptually stable—or at least stable *enough* to permit fields as diverse as archaeology, ancient history, folk epigraphy, sociology and art history to coherently employ the word “graffiti” to recognize and label the same kinds of objects and, perhaps more controversially, the same kinds of inscriptive practices, although these ‘things’ may arise in different times and places.

Tanzer’s Early Archaeology and Antiquarian History

Over the time between the Renaissance and the mid-nineteenth century, the formal discipline of archaeology emerges out of the various activities of historians, artists and art specialists, architects, and the Renaissance ‘connoisseur’.⁸ One important feature of archaeology was the collection, analysis and classification of ancient inscriptions.

Typically those of interest were incised on stone or marble (as these were the most likely

⁸ Renfrew, C. & Bahn, P. G. (1991), *Archaeology: Theories, Methods, and Practice*, London: Thames and Hudson Ltd.

to be well preserved), of a formal character, and of obvious scholarly interest. The ubiquity of this kind of inscription made it easy to put aside anything marginal or difficult to classify (faint markings, ambiguous readings, those of questionable provenance, etc.). However, the discovery and excavation of an almost perfectly preserved Pompeii (beginning in the 1750s and culminating in the 1860s) would reorient the use and meaning of the word ‘graffiti’, drawing on both its technical (scratching) and formal (images and words) aspects to account for a surprising new variety of inscriptions discovered on the preternaturally preserved stucco walls and surfaces of the city. The most startling feature of these ‘graffiti’ was their sexual and ribald content. In a very conservative, Classical context, this ‘lack of decorum’ inflects the word ‘graffiti’ to denote not only unclassified inscriptions, but inscriptions that should be classified as puerile, indecorous, unauthorized and/or beneath the interest of serious scholarship. These new ‘graffiti’ would also produce a dissonance in long-standing academic ideals concerning the character and behaviour of the Classical Roman (Gordon, 2002, p. 392).⁹

The Graffiti of Pompeii

From a historiographical perspective, Pompeian scholarship on graffiti has shaped how this evidence has been viewed within the disciplines of history and archaeology overall (Baird & Taylor, 2011). In 1856, with Garucci’s publication of *Graffiti di Pompeii*¹⁰ the value of the inscriptions for the interpretation of the social, political and domestic life of a

⁹ A more subtle consequence of the Pompeian graffiti was epistemological. The new ‘graffiti’ opened up a new way of looking at the corpus of unclassified inscriptions in general, and allowed researchers to better ‘see’ the less well-preserved walls and surfaces of what were otherwise ‘marginal’ excavations. In addition, the apparently spontaneous and everyday character of the Pompeian graffiti would make it easier to ‘see’ the parallel between ‘graffiti’ and contemporary modalities of inscriptive defacement, soon to be treated as ‘graffiti’.

¹⁰ Published in France as *Graffiti de Pompei: inscriptions et gravures traces au stylet*.

provincial Roman town of the first century was immediately recognized and developed. In 1899, the German scholar Arthur Mau in *Pompeii: Its Life and Art* devotes a chapter to graffiti, remarking, with disappointment, that these kinds of inscription unfortunately bring us into contact only with an underclass who were “accustomed to scratch their names upon stucco or confide their reflections and experiences to the surface of a wall” (481-2); but graffiti does not provide any further insight into the habits of the cultivated men and women of the time. A series of familiar truisms appear early in these late-nineteenth century studies, and are reinforced throughout the first half of the twentieth century: the study of this kind of *inscription* permits unmediated contact with the writer, they are made by the lower classes, and they are a curious subcategory of ancient epigraphy.

In subtle ways, Helen Tanzer’s (1939) widely read *The Common People of Pompeii: A Study of the Graffiti*, goes beyond the truisms and takes the first tentative steps towards classifying two types of graffiti, framing a set of questions that will animate debates on the topic to the present day. For Tanzer, graffiti is the product of an *inscriptive* act of scratching with a sharp instrument *or* scrawling with a charcoal or red chalk (3)¹¹. Tanzer is also one of the first scholars to make a clear and strong correlation between the activities of the citizens of ancient Pompeii and contemporary Londoners

Tanzer identifies two types of graffiti: the first are the ancient equivalents of our modern handbills, posters, newspaper advertisements and personal or public notices, but scratched into public surfaces; the second, what she refers to as *cacoethes scribendi*—

¹¹ She never directly calls it writing, although she will sometimes ‘slip’ when making more personal or anecdotal references, as in the citation that follows in the next sentence.

compulsive writing— the “idle scribblings” or “little nothings of sentiment and opinion” which seem “to have afflicted the infantile mind at all times and all places since the beginnings of writing”, are also found scratched or scrawled onto public surfaces.

Whether there is a question of late Victorian decorum at work in orienting Tanzer’s work or whether she simply focusses on what is most interest to her among the over fifteen thousand catalogued so-called graffiti is hard to decide. However, it is clear that she notes two kinds of graffiti and one demonstrates a very strong analogy to contemporary practices based upon a similarity in inscriptive means (scratching, scrawling, scribbling), a specific kind of expressivity (infantile, puerile, sentiments, opinion), a lack of decorum (defacing) and, following from these, that it is probably unauthorized.

Having drawn this distinction between what she implies is a perhaps casual but more authorized ‘graffiti’ and the *unauthorized* ‘compulsive’ kind, Tanzer then associates the former with the ‘decorative’ and the latter with ‘defacement’¹², with the notion of authorization providing the differential factor. The type of graffiti that most clearly links the ancient with the modern, however, is clearly the unauthorized “idle scribbling” variety, as she makes clear when she equates this type to the then contemporary phenomenon: “In these days of plentiful lead pencils and crayons no plane surface in public places anywhere from garage door to public monument is likely to escape such inscriptions” (p. 5). This second type, *unauthorized inscriptive defacement*, constitutes the praxis as it now ‘comes down’ to modern times.

¹² Anticipating what will become the crux of the modern debate concerning graffiti, although here it is merely noted as a potential vector of graffiti: decoration or defacement: “It is not remarkable then that the walls of Pompeii were decorated or defaced with graffiti, but it is extraordinary that these trifling notes should have been preserved for us...” in *The Common People of Pompeii: A Study of the Graffiti* (p.6).

Read's Folk Epigraphy

The study of graffiti embraces a great number of subjects. The field of research is virtually unexplored in this country and its bearing on history and art has hitherto been neglected. (Pritchard, 1967, p.xi)

The publication and critical reception of scholarly works on the graffiti in Pompeii in the late-nineteenth century garnered a great deal of public attention, primarily due to a fascination with the apparently depraved nature of some of the inscriptions. The serious scholarly treatment of this kind of ancient inscription helped to justify interest in what was now considered to be contemporary and local 'graffiti', which had typically passed beneath the notice of scholars. English concerns about the impropriety of both the *cacoethes scribendi*-type of ancient graffiti and its reflection in the modern phenomenon would linger for a long time, and as a result the term 'graffiti' was marginalized in favour of 'epigraphy' or 'lexography', at least in more formal studies (Read, 1935; Reisner, 1971).

The work of what can loosely be termed 'folk epigraphists' represents the second thematic approach to the study of graffiti, and the first time that scholarly attention was paid to contemporary graffiti practices. Their work is usually framed by lexicology, where graffiti is treated as a useful written record of the speech habits, attitudes and ways of thought of the 'common folk'. Allen Walker Read's *Classic American Graffiti* (1977 [1935])¹³ is the pioneering work in this field, first published privately in France due to concerns about the obscenity of the subject matter. Walker's work both introduced

¹³ The original title of Walker's 1935 book was *Lexical Evidence from Folk Epigraphy in Western North America: A Glossarial Study of the Low Element in the English Vocabulary*. When it was re-issued in 1977, the title was changed to *Classic American Graffiti*. The word 'graffiti' appears only in the book's title.

modern graffiti as a topic of serious academic study to lexicographers, and inadvertently contributed to a further marginalization of general graffiti studies, which were, for the next thirty years, typically associated with an interest in *latrinalia* and obscenity.

Over the course of the sixties and early seventies, just prior to the explosion of interest in New York City-style graffiti, there was a minor renaissance of interest in general graffiti studies, reflected in the publication of Lindsay's *The Writing on the Wall* (1960), Brassai's *Graffiti* (1964), Freeman's *Graffiti* (1966) and Reisner's *Graffiti: Two Thousand Years of Wall Writing* (1971); although, by contemporary academic standards, these books would be considered as somewhat idiosyncratic or journalistic accounts rather than serious scholarly research. One notable scholarly exception is the publication of Violet Pritchards' frequently referenced *English Medieval Graffiti* (1967), whose detailed research and impressive hard-pencil rubbings of medieval church graffiti in England opens up "a new and almost untouched field of research" for historians (p. ix). What these efforts have in common is the attempt to draw attention to graffiti as a consistent human inscriptive tradition that had, at the time of their writing, been largely overlooked by serious scholarship. In supporting these claims, they point out the breadth and variety of graffiti practice, the central transgressive motif that animates the contemporary practice and diverse forms of unauthorized inscriptive defacement, as appear to be practiced in the city and countryside around the world; however, since many textual examples are provided (rarely any photographs), and the readers are assumed to be familiar with the phenomenon in their own daily experience, the authors (with the exception of Brassai) do not feel the need to provide an explicit definition of the phenomenon, although some do organize a basic taxonomy by analysis of literal and

figurative message content: Sex, Death, Caprice (Brassaï, 1964) or Advertising, Drugs, Excreta, Homosexuality, Mexican, and Gossip (Reisner, 1971).

Brassaï's Paris

Over the course of the 1940s and 50s, the photographer Brassaï noted and photographed graffiti on the walls of Paris. The inscriptions are of unknown age and provenance, although judging by their height off the ground and their locations many were probably made by children or adolescents over the last centuries. His writing on the subject of graffiti is original. He may be the first person to draw our attention to the historical continuity of inscriptive defacement. He makes a convincing case that this kind of inscriptive activity has not only a wide geographical distribution, but a very long historical constancy, stretching as far back as we can trace humans and their engagements with the material surfaces of their worlds. In this regard, he emphasizes how the act of graffiti serves as a kind of cultural constant and an overlooked site of cultural analysis. Using the 'lens' of graffiti, Brassaï's mid-60s exhibitions and catalogues announce the comparative analysis of the work of his anonymous graffiti writers and those of Modern artists like Picasso (supplementing the debates on Primitivism put forward in Robert Goldwater's *Primitivism in Modern Art* [Rev. ed. 1967/1938], which continued to animate lively controversies in the art world in the mid-sixties).¹⁴

¹⁴ As Mark Antliff and Patricia Leighton eloquently note in their entry 'Primitivism' in *Critical Terms for Art History* (Nelson, R.F., & Shiff, R., 2003), "In assessing the 'primitive' one should first note that the term does not constitute an essentialist category but exemplifies a relationship, The relation is one of contrast, of binary opposition to the 'civilized'..." (217); and thus the term can be fraught with negative ideological implications. Although I do not use the term here, I nonetheless believe that the notion of 'primitive' as simply a 'coming before', as in the phrase 'primitive to the distinction between word and object', may yet be useful in the discussion of graffiti, displaying perhaps a time/space bias, but not the more negative biases of the Western colonial past.

Brassaï focuses on the role graffiti plays as an active mediator between the self (the mind) and the world (the material surfaces), and argues that the material surface is determinative in shaping the potential of what he calls their expressive modalities, thereby shaping the potential character of the inscriptive agents¹⁵. What we learn from Brassaï is the degree to which the surface, the wall, plays a crucial and active part not only as material support for the inscriptive act, but also as an active agent in itself, shaping while being shaped by the figures upon it, ‘proposing’ to a writer who interactively ‘disposes’ of the surface in creating a figure. The walls are full of latent images, visual metaphors waiting to be completed by both writer and wall, thereby becoming acts of graffiti; a kind of inscriptive language spoken through the interaction of wall and writer;¹⁶ a process of interactive symbiosis embodied in the singular actuality of graffiti; and a relation of inscriptive gesture to participative surface, where we recognize that in the process of informing we are also conforming to the surface. Seen in this light, the act of graffiti comes to ‘represent’ a material enactment of the hermeneutic process itself. Brassaï’s writing style is essayistic and idiosyncratic. What he manages to do, however, is to provide a preliminary list of the key features of a hitherto unexamined and highly charged phenomenon. Among the key conceptual nodes he traces are (a) the unexamined apparent constancy of the act across cultures and across time, (b) the informing/conforming logic (hermeneutic) of mind and material (of inscriptive agent and surface), (c) the heuristic value of graffiti for evaluating other, contemporary expressive phenomena (i.e., Modern Art); and finally, (e) he anticipates the ‘second surface’

¹⁵ In *Graffiti (Masques et visages, 1993 [1964])*, Brassaï almost goes too far: “Everything is born in function of the material, as if predetermined by it.” Trans. by T. Hopkins.

¹⁶ Brassaï’s approach to the active role of materials could also be linked to Latour’s later formulation of the role of the non-human ‘actant’ in his actor-network theory, an interesting affinity that becomes even more suggestive when we come to exploring the new materialities of the digital environment.

phenomenon, most evidently in his remarks on the evanescence of graffiti and its remediation to the photographic surface for preservation (see also MacDowall). He does not explore or critique this phenomenon – but notes the close relationship graffiti maintains with other media. This aspect of the act of graffiti is only emergent, but one that will become emphasized in the digital environment.

Brassaï's (1993 [1964]) photos and exhibition played a pioneering role in transforming graffiti from urban 'noise' into objects with aesthetic value, worthy of cultural and scholarly interest. His work anticipates the critical role photography plays in documenting, presenting and disseminating the New York signature graffiti phenomenon, while also setting the stage for the debate concerning the status of 'remediated' graffiti: is it any longer graffiti at all? We will encounter this problem in our overview of both the New York phenomenon and in the relationship of graffiti to the "New Media" (MacDowall, 2005).

Graphology: Graffiti Writing in Literary Theory

Brassaï set the stage for a more theoretical approach to the study of both the act and the product of graffiti, one that emerged in parallel with the "linguistic turn" (Rorty, 1967) in literary studies over the course of the 80s and 90s. New York style graffiti (see below) came to exemplify a kind of materialized *arche*-writing 'primitive' to the distinctions of word and image (Derrida, 1967)¹⁷. New York style graffiti turns up as a kind of case-study for provocative re-framing of writing practice 'outside' the literary.

¹⁷ In *On Grammatology* (1967), Derrida calls for an investigation into all the investitures to which a – graphy (the graphic writing system in its widest sense) is submitted, and so a call too for a 'graphology'. As Fleming (2001) notes: "[for Derrida] Foucault's Renaissance is a fruitful place in which to begin this 'cultural graphology', for, in its description of language as 'a thing inscribed in the fabric of the world', it

In 1976, Baudrillard theorizes contemporary graffiti in *Kool Killer, or the Insurrection of Signs* to conclude that “graffiti has no content and no message: this emptiness gives it strength” (p.80), a strength drawn from a deeper stratum, a “migratory (*transhumance*) rhetoric” (de Certeau, 1979, p.154) of phatic enunciation.¹⁸ Echoing these views, literary scholar Susan Stewart (1991) puzzles over the contradictions implicit in the products of graffiti writing, noting that “graffiti [New York signature-style] in particular combine the remoteness, abstraction, and simultaneity characteristic of mechanical modes of production with the ethic of presence, signature, and individuality characteristic of handicrafts,” however, she concludes her essay thus “It is precisely graffiti’s mere surface, repetition, lack of use, meaninglessness that gives us the paradox of insight...And this is exactly the point: graffiti have no lasting value, no transcendent significance.” This ‘paradox of insight’ persists and serves as indexical function of graffiti in *The Practice of Cultural Analysis* where Mieke Bal (1999) situates the *graffitio*, what she calls wall-writing, as “a good case for the kind of objects at which cultural analysis would look at, and—more importantly—how it can go about doing so” (p.2).

This opening is fruitfully explored by scholars of Renaissance writing culture, who re-introduce and re-consider a wide variety of graffiti praxis hitherto ignored by serious scholarship, albeit in a highly specialized context. Contemporary literary scholars of the mediaeval and early modern period (Fleming, 2001; Goldberg, 1990; Gordon, 2002;

represents an apparent exception to Derrida’s rule that the Western philosophical tradition is characterized, from Plato to the present, by its systemic ‘distain for the signifier” (p. 25).

¹⁸ The privileged ‘lieu’ of this order of enunciation becomes theorized as the “non-lieux” of Marc Augé’s (1992) “super-modernity”, exemplified by the ‘in between’ spaces of the modern transportation architecture (crossings, stations, overpasses, waiting areas, traffic signage, etc.).

Plesch, 2002) use the topos of graffiti as a mode of writing to “challenge the founding division on literary studies between the sensible and the intelligible” (Gordon, 2002, p.375), and explore, as Fleming argues (2001, p. 115) a historical moment when the distinction between the letter and the spirit could be differently understood, and a culture inhabited by “writing that is not seeking apotheosis as a text” (Fleming, p. 115).

Sonja Neef’s *Imprint and Trace: Handwriting in the Age of Technology* (2011) attempts to develop and move beyond some of these oppositions by returning to contemporary graffiti “as a performative akin to a speech act, and as a form of handwriting which inscribes the subject and the body...as a basic operation of culture as a performative, and event rather than a predefined symbolic text” (p.268). Neef’s contemporary focus permits more ‘empirical’ attention to not only the artifacts but also the acts of ‘writing’.

Mailer and Castleman: Modern Graffiti Studies and New York City

In the 70s and 80s, what would become an entirely new sub-discipline of graffiti scholarship emerged, focused on the highly charged images found throughout New York City¹⁹, typified by the now classic bubble-lettered ‘tag’, and bringing into popular parlance the word ‘graffiti’ as a singular noun. This phenomenon now serves as an index against which the contemporary meaning of the word ‘graffiti’ is gauged; and this special

¹⁹ Although there had always been frequent casual newspaper references to vandalism in the public transit system and in the poor neighbourhoods and boroughs of the city, one particular variety of otherwise ordinary, everyday graffiti caught the attention of New York dailies (*New York Times*, 1971) because of its appearance all across the city: a cryptic marking made with a magic marker “Taki183”. The author was tracked down and when interviewed explained that the mark was a conflation of his nickname (Demetrius/Demetraiki/Taki) and the street he lived on (183rd Street). Since he worked as a city-wide courier, he had been able to leave his mark on city surfaces everywhere he went in the course of his deliveries.

modality of graffiti informs what I will call Modern Graffiti—or what now typically comes to our mind now when the term is used.

Although the NYC-style tag (in all its variations) is part of a long, historical continuum of graffiti writing, the status of New York City, the particular character of the graffiti imagery, and the dynamics of a new media ecology created an ‘explosion’²⁰, as if this graffiti had come full-fledged out of nowhere. The idea of defining this new thing was, in many ways, pre-empted by a rush to simply describe or photograph the plethora of images and then track down their authors.

Graffiti in the Public Eye: Norman Mailer and New York City

Norman Mailer and John Naar’s *The Faith of Graffiti*, originally appearing in *Esquire* magazine (May 1974), played a critical role in drawing widespread media attention to the New York City phenomenon, while also making the first serious claim that these practices should be considered as a form of artistic expression²¹. To this day, the text and photos serve as one of the key ‘constitutional’ documents in the construction of graffiti as art.²² Mailer conceives New York graffiti atavistically, seeing the local practice as a re-emergence of one that first occurred with humankind’s earliest ancestors, exemplified by

20 (Castleman, 1982; Mailer, 1974)

²¹ The article is accompanied by a series of beautifully produced photographs by John Naar, the now internationally acclaimed fine art photographer. The remediated images of New York graffiti, in print, TV, and film documentaries, will begin to serve as an archive for what were otherwise highly ephemeral marks, given the eradication programmes put in place by city authorities.

²² The title of the article came from one of the young dyscriptors who told him that “the name is the faith of graffiti” and that the impetus to write (which is what the youth called their activity) was to “put up your name and watch it go by,” because “you’ve got to get your name around” (Mailer, 1974, p. 6). Mailer noted the apparent pleasure the youth took in the “elusiveness of meaning,” and how too much focus on style simply slowed down your ability as a writer to get your name around. At first, this writing was unauthorized, typically on private or public property, and the activity took place often in darkness, under pressure, “with one eye over the shoulder”, and the fear of serious punishment. Mailer (1974) would compare them to the vines of a “thick jungle covering the walled tombs of technology” (p. 14).

the paintings of the Paleolithic Period²³. For Mailer, both the cave paintings and graffiti represent new forms of graphic expression. Consequentially, in what is a kind of modern 'Paleolithic' primitivism, Mailer explicitly *disconnects* the New York phenomenon from the more immediate (2,000 year old) genealogy of wall-writing from which it emerges; urging us to see NYC graffiti as a categorically new form of artistic modality. This would establish the key terms of a debate that occupies much contemporary thinking on the topic of graffiti: is it art or crime? The mediatization of this particular debate provoked the self-fulfilling production of a new kind of graffiti-writing, where now famous graffiti 'artists' are given 'authorized' surfaces (walls and canvas) on which to produce their stylistically evolving 'tags' for a different kind of publicity and profit.

By introducing this atavistic notion of graffiti and linking it to a long history of artistic expression²⁴, Mailer explicitly disassociates the New York practice from almost everything else that had hitherto been called graffiti. Although Mailer would identify some definitive features of all graffiti (the unauthorized defacement of property), they are gradually lost sight of as they are blended into highly theoretical problems centered on defining what is and is not Art. At this time, the primary axis of engagement lay in filling in the 'Art', or aesthetic aspects, of the binary 'Art or Crime?', which oriented the public debates on the practice of this kind of graffiti writing.²⁵

Vandalism with Style: 'New York' Graffiti in Anthropology, Sociology and Art History

²³ This is not the first or the last time that scholars and journalists will draw a speculative historical parallel between the praxis of the graffiti writer and that of early hominoids.

²⁴ Mailer (1974) sees Art as a river rolling through history with New York graffiti taking its place as the "alluvial delta," or the "mouth of one hundred painterly streams" (p. 17).

²⁵ The influence of Mailer's work contributed to the appropriation the term 'graffiti' to denote the New York modality; from this point forward, wall markings that followed the New York style were now identified as 'graffiti' and worthy of consideration as artistic expression.

It is this kind of New York graffiti that draws the attention of academic scholarship (Austin, 2002; Castleman, 1982; Chalfant, 1984; Ferrell, 1993; Prigoff, 1987). Craig Castleman pioneering ethnographic text, *Getting Up: Subway Graffiti in New York* (1982) inaugurates the academic study of the New York phenomenon. Largely putting aside Mailer's existential concerns with the 'meaning' of graffiti writing, sociologists and anthropologists produced a number of highly descriptive studies, focusing on what exactly it was that the 'writers' were actually doing. Although these scholars acknowledge the complex relationship of NYC graffiti to the history of wall-writing, they would now consider it as a distinctive form. Their use of the word 'graffiti', and the wide popularity of both their work and the phenomenon, would effectively fuse the term to the practices of highly particular, localized New-York group of graffiti writers using a style that would be dated to the late 1960s. The singular focus on this most particular style serves to define the phenomenon – if an inscription did not show these stylistic cues, it was no longer treated as 'graffiti', but something else: 'merely' *latrinalia*, defacement, vandalism, crime, dirt.

The groundwork for the evolution of the New York City phenomenon of the mid 70s, or what is now called "letter-based signature graffiti" (Waclawek), into a legitimate candidate for appreciation by the art historian, was established by the ethnographic and survey studies of the anthropologists, cultural historians and sociologists. By the mid-80s and early 90s, the word 'graffiti' (or one of its metonyms, such as 'subway', 'aerosol' or 'spraycan') was regularly used as an adjective appended to the noun 'art' in the titles of many scholarly and para-scholarly studies of the phenomenon. To note only a few of most prominent and commonly referenced scholarly publications: Martha Cooper and

Henry Chalfant, *Subway Art* (1984). Henry Chalfant and James Prigoff, *Spraycan Art* (1987); Joe Austin, *Taking the Train: How Graffiti Art Became an Urban Crisis in New York City* (2001); Ivor Miller, *Aerosol Kingdom: Subway Painters of New York City* (2002); and Nicolas Ganz, *Graffiti World: Street Art from Five Continents* (2004).

Although these early works addressed, often in some detail, the aesthetic qualities of graffiti, documenting the major aspects of style, technique and materials, and formalized the vocabulary and typologies of signature-graffiti styles, they mainly “illustrate and describe rather than critically analyze”, and “none have thoroughly analyzed the critical implications of this transposition [into gallery spaces], nor fully explored graffiti as an art form” (Waclawek, 2009, pp. 6-7). The analysis of graffiti as an art movement arose only on the sidelines of art history until the mid-2000s (Waclawek). The role of signature-graffiti in the development and dissemination of a world art movement, and the transition to “post-graffiti” art forms including Urban Art and Street Art, awaited further analysis.²⁶

Although much of the sociological and anthropological research on graffiti places emphasis on what can be called the ‘acts’ of graffiti writing, such as the character of the writers and their motivations, the art historical analysis will begin to pay closer attention to the formal aesthetic features of the ‘products’ of graffiti: the qualities of the visual traces that remain. This is only a change in emphasis, as both act and product are fused in a fulfilled moment of graffiti, but one that will facilitate the treatment and art historical reading of graffiti as part of “a long-standing and culturally relevant pictorial tradition”

²⁶ Anna Waclawek’s 2009 PhD dissertation, *From Graffiti to the Street Art Movement*, (Art History Department, Concordia University, under the supervision of Dr. Johanne Sloan) is the most comprehensive scholarly synthesis of this critical transition. Waclawek, an art historian by training, provides a good overview of the extant literature on graffiti, paying special attention to coaxing out the social, but especially the formal aesthetic, factors at play in the evolution of graffiti from a proto-aesthetic into a complex art form.

(Waclawek, iii), and trace its impact on both the art world and visual cultural studies. Nevertheless, both disciplinary traditions will explicitly use the concept of ‘*style*’ to orient how they see and think about graffiti.²⁷

The Social-Anthropology of Graffiti

Subtending the work of the art historians on the status of traditional graffiti as an object of aesthetic appreciation is the primary fieldwork of the anthropologists, sociologists and cultural historians. I will use the label ‘sociologists’ to refer to this broad group, including those perhaps better categorized as criminologists (e.g., Coffield, 1991; Ferrell, 1993). Although these scholars, as Waclawek notes, may have simply illustrated and described the images produced, they also produced a body of critical analysis of the roles and actions of the key actors, and offered a set of practical critical categories useful for the characterization of graffiti production.

Janice Rahn’s *Painting Without Permission* (2002), anthropologist Susan Phillips’ *Wallbangin’: Graffiti and Gangs in L.A.* (1999), and cultural theorist Ivor Miller’s *Aerosol Kingdom* (2002) develop the role of identity and motivation in the production of signature graffiti. Rahn, working in parallel with an analysis of hip-hop culture, emphasizes the learning aspects of graffiti practice that cultivate learning through non-institutional communication networks, linked to a desire to play a role in the visual structure of the city (Rahn, 2002, p. 139), while Phillips focusses on graffiti writing as a non-violent alternative to violent or criminal gang membership, noting how “graffiti is

²⁷ As we will see when we later begin our exploration of website defacement (Chapter 3), perhaps one of the reasons it has not been addressed by scholars as a homologue to traditional graffiti is that it does not ‘look’ like the New York style or obviously share the now indexical New York aesthetic, making it easy to put to the side or otherwise treat like what the ancient historian, Helen Tanzer (1939), calls the *cacoethes scribendi*.

adopted by those without power, to negotiate relationships with both the society from which they are disempowered and others within their own groups” (Phillips, 1999, p. 20, cited in Waclawek). Nancy Macdonald’s *The Graffiti Subculture* (2001) suggests that both learning and power relationships should be contextualized as negotiations of masculine identities in sub-cultural networks, while Ivor Miller’s *Aerosol Kingdom* (2002) considers the status of graffiti as a “culture of resistance” and the locus for the writers’ “affirmation of their own identities while questioning the values of the society they were born into” (p. 87). These authors ask us to pay attention to the roles that empowerment, belonging and masculinity play, both in the act of graffiti writing and in determining the content and style of graffiti productions (Waclawek, 2009, p. 11).

A deep analysis of graffiti as subculture with style is presented in Dick Hebdige’s *Subculture: The Meaning of Style* (1979) which focuses primarily on questions of deviance, youth and illegality. Graffiti is treated as one of many possible ‘styles’ constructed and maintained to threaten mainstream culture, an “art that embodies resistance to assimilation” (Miller 36). This attitude situates acts of graffiti outside authorized settings and legal sanction and objects to using the term ‘graffiti’ to refer to activities in anything like mainstream institutional settings. However, graffiti writing can appropriate elements of mainstream culture into its visual language and as prime loci of dissemination, borrowing symbols and appropriating places in order to distort, exaggerate or create a kind of dialogue with those places and symbols. The subculture relies upon a dynamic whereby, as Waclawek succinctly puts it, “graffiti is at once physically accessible and functionally inaccessible to outsiders,” (p. 163) which facilitates, in its

writers, a sense of power and superiority as creators of their own publically visible world—one not easy to penetrate or understand by outsiders.

Since graffiti is constituted by both an act and a product, its style should be considered as a dual concept as well, and style will be realized in the form of the act and the product.

Broadly speaking, in evaluating the relevance of style to an understanding of graffiti writing, the sociologist typically places greater emphasis on performative aspects, or the ‘act’: feats of access and daring, interaction with other writers, competitive expressions of bravado, and the construction of reputation within a carefully managed subculture or community; whereas art historians, in their evaluation of the relevance of style to signature graffiti writing, tend to put more emphasis on the visual stylistic aspects of the product.²⁸ One of the major contributions to graffiti studies that sociologists and art historians have made is the description and documentation of the acts and products of signature graffiti writing, while emphasizing the importance and dynamic range of style.²⁹

Post-Graffiti and Faux-Graffiti Styles

During the 80s and 90s, the New York signature style developed rapidly, was promulgated through various media (TV, freight train, movies, hip-hop culture, etc.), and successfully transitioned to the art galleries. The move into the gallery space would represent a transformation but also a rupture in the graffiti tradition, based upon the clearly authorized context of gallery-based production, with factions situated on both

²⁸ Although we separate the terms for analytical purposes, it is important to keep in mind that in any fulfilled instance of graffiti the two forms are always present and tightly woven together.

²⁹ The sociological analysis of the ethos and style of traditional signature graffiti writing provides a set of compelling affinities with the emergent culture of hacking; and this reinforces our intuitive notion that this community would appear to offer a fruitful starting point for any search for authentic virtual graffiti (see Chapter 3).

sides of the debate concerning the status of the canvas-bound, safely stored objects displayed in the gallery space.³⁰ Post-graffiti art, also referred to as “neo-graffiti”, “urban painting” or simply “street art”, is now a new term in the graffiti literature “to identify a renaissance of illegal, ephemeral, public art production,” which, unlike the signature-based style, “boasts greater diversity and includes art produced of, rebellion against, or an addition to the established signature graffiti tradition” (Waclawek, 2009, p. 3). The post-graffiti movement introduced a number of stylistic, technical and material innovations with less emphasis on spray paint and more on other modes of inscription, exploiting such formal art techniques as stencilling, printmaking and painting “to create largely figurative works” using oil and acrylic paint, chalk, charcoal sticks, mosaic tiling, laser light and a host of other media techniques. The social dynamics of these groups of writers are more clearly aligned with the expectations of the art world and they work at the friable boundary between tacitly authorized and unauthorized inscription. Post-graffiti work is typically understood as an ephemeral, performative gesture whose character is responsive to its urban context, incorporating, as art historian Martha Buskirk (2003) argues, its inevitable fading, tearing, dissolution and finally disappearance into its aesthetic ‘life-cycle’—and thus the experience of the viewer, who experiences the world as “a series of unfolding encounters” (Waclawek, 2009, p. 18). Waclawek also draws our attention to the work of Miwon Kwon who introduces the vocabulary of performative

³⁰ The *Post-Graffiti* exhibition at the Sidney Janis Gallery in New York (1983) featured the works of eighteen graffiti writers (including Jean-Michel Basquiat) and served as the “official baptism”(Waclawek) of graffiti as art. The show provoked debate in the pages of *Art Forum* where Kate Linker concludes the transition to canvas fails. See also Suzi Gablik’s (1984) “Graffiti in Well-lighted Rooms.” in *Has Modernism Failed?*; where she notes that graffiti is “a radical art with a radical methodology because it’s illegal” (p. 112), and stresses that the institutionalized forms are no longer ‘real’ graffiti.

spatiality into post-graffiti stylistics, with factors such as “site-specificity”, “ephemerality”, “cityscaping”, and the “public art” paradigm (Kwon, 2002).

The primary vector channeling the attentions of scholars, from the early days of modern graffiti scholarship, was the recognition of style in the products of graffiti—the marks left on the material urban surfaces—and the acts performed to make such marks. With this broad case study of the NYC-phenomenon in mind, and the emphasis placed on style by earlier scholars, we would expect that style, even in its most elementary and even proto-aesthetic manifestations, would mark an important analytical category for identifying not only graffiti in its traditional, ‘real-world’ manifestations, but an important characteristic contributing to the identification of a homologue to the traditional practice in the digital environment.

The ‘rupture’ in the graffiti writing tradition that occurs with the advent of authorized surfaces and institutionalized graffiti (“Street Art”, etc.) underscores the critical role the concept of authorization plays in the discrimination of graffiti from graffiti-like productions in the real world. I take the position taken by many prominent graffiti scholars (Ferrell, 2001; Linker, 1984; Stewart 1991; MacDowall, 2005) that legal ‘graffiti’, what I will call “faux-graffiti”, is a categorically different kind of activity (as interesting as it may be) than graffiti proper.

This theme is encountered in the context of what has been called the “New Media” (Mitchell, J.T. & Hansen M.B., 2010) and the production of a number of faux-graffiti productions that have arisen there.

MacDowall on New Media and Digital *Faux-Graffiti*

Forms of new media have regularly appropriated graffiti as a model for their operation, either as an aesthetic device for the design and marketing of commercial hardware and software, or as a conceptual tool for understanding flows of information within contemporary urban environments. In this process, graffiti provides both content and concept. (MacDowall, p. 134)

Modern graffiti, with its privileging of the NYC signature-style tag and the artistic status of such an object, informs the production a number of graffiti-like analogues in the digital environment, which are now studied and even produced by polyvalent new media artist-scholars: (a) the virtual graffiti gallery, (b) projections of digital images onto urban surfaces, and (c) suites of software applications designed to mimic New York-style tagging in virtual environments. I shall argue that these phenomena have little to do with what might be considered virtual graffiti, best exemplified by the practice of website defacement; however, they have clearly appropriated the term ‘graffiti’ to denote their highly domesticated practices.

The first scholar to specifically address how notions of traditional graffiti enter the world of new media is Lachlan MacDowall. In “The Graffiti Archive and the Digital City”, his contribution to *Place: Local Knowledge and New Media Practice*, edited by P. Butt, D. Bywater and N. Paul (2008), MacDowall asks us to consider how “the content and the concept” (p. 134) of graffiti have influenced the conception of new media works, and how thinking about the relationship between graffiti and emerging technologies informs what he calls “new media futures”. MacDowall focuses on tracing the extension of New York signature graffiti, both as a particular style and as a conceptual perspective, into the

new digital medium, building an explicit critique of the engagement of new media projects with the material conditions of corporate and state power; noting how, in the digital environment, what were once marginal artistic practices have “slipped” into roles as mainstream corporate applications (p. 143). MacDowall’s critical concerns about graffiti’s appropriation indirectly support the view that most of these projects do not result in anything that can persuasively be called digital or virtual *graffiti*, although they are all instances of new and culturally relevant virtual phenomena. MacDowall effectively traces something like a second transformation or ‘rupture’ in the history of graffiti: the first having occurred with the remediation of the products of traditional graffiti writing onto authorized surfaces of canvas and art gallery in the 1970s; the second, perhaps more subtle, now arising with the appropriation and domestication of key aspects of graffiti praxis to fulfil roles in product development for consumers in the digital environment.

MacDowall argues that the visual style and transgressive cachet of the New York signature graffiti are aspects of graffiti’s content that are attractive to many new media projects, especially those looking to cultivate an anti-authoritarian resonance. The locative aspect of the act of traditional graffiti tagging is also borrowed to serve as a conceptual model for “an individualized, highly mobile, geographically engaged subject” that, according to MacDowall, “is not dissimilar from an ideal, late capitalist consumer” (p. 135).

MacDowall examines three broad categories of new media project: archives, tagging, and what he calls “urban space” (p.136). Taking each in turn, he shows how both the content

and the concept of New York-style signature graffiti are appropriated, in different ways, to inform the development of a diverse set of new media projects.

MacDowall first notes the many new media projects based upon the digital archiving of photographs of ‘real world’ graffiti, for private or public access through web-based computer applications. The most popular example of this kind of archive is *Art Crimes*, a web accessible virtual art gallery, organized by region, city, surface and artist, made up of user-uploaded digital photographs of real-world graffiti.³¹ MacDowall notes that “*Art Crimes* archives a particular type of graffiti deemed to have aesthetic value, with the site’s authors claiming they want to ‘spread the truth that this kind of graffiti...is being done by artists...not by gangs’”(MacDowall, 2008, p. 141). Ironically, the same technology also underpins the now widespread emergence of online digital graffiti archives managed by police and municipal agencies that are used for the apprehension of graffiti writers by local authorities. The content of these sites is typically uploaded by citizens, with time/date/location information, which is then ‘pinned’ to an interactive, digital map that can be used by law enforcement to spot trends, collect evidence and track the perpetrators (see *GraffitiTracker.net*). Both the virtual gallery and the police database are full of digital pictures of what is probably traditional graffiti (it may be ‘faked’), but the contents on display, which are simply pictures of traditional inscriptive defacements made on real-world surfaces, cannot in any meaningful way be considered *virtual graffiti*. There are many other graffiti archives somewhere ‘in between’ the art gallery and the crime prevention database, for example projects designed to chronicle the natural appearance and evolution of graffiti in particular cities, neighbourhoods or specific sites,

³¹ The site can be found at www.graffiti.org.

such as bridge underpasses (see *grafarc.org*). In each case, however, what we may have is a virtual or digital gallery of *traditional* graffiti. The archiving of pictures of graffiti joins a long and interesting aestheticizing tradition begun by Brassai (1964), but in and of themselves, though encountered on the web, these digitized photos are clearly not instances of distinctively *virtual* graffiti.

Computer applications for digital ‘tagging’ make up another new media project category. As MacDowall notes, these projects, such as *Grafedia.net*, “draw on the concept of a graffiti tag as a marker of place” (p. 139) as a model for developing the user interface for mobile- and web-based computer applications. In these kinds of applications, ‘digital graffiti’ is defined as the capacity of a public user to annotate the multimedia content of the application. However, ‘tagging’ software permitting the annotation of multimedia content does not itself produce any ‘digital graffiti’, it is a tool for making annotations in the digital environment, an authorized feature provided to authorized users of the software. Although we could imagine situations where the resultant annotations might breach conventions of proper use, there are no notable instances of the traditional (i.e., transgressive) graffiti writing ethos migrating, through the agency of such software packages, into these application environments.

The third type of new media project, which MacDowall ties to the broad notion of the manipulation of urban space (p. 142), involves the use of digital technology to capture, for example, the gestural acts of drawing a signature graffiti-style tag (either on a touch screen or by capturing body movements with instruments) and projecting (typically with laser projector) the results onto real surfaces of the urban landscape. These projects take on various guises and now make up a ‘digital graffiti’ sub-culture, with media sponsored

festival circuits (see *digitalgraffiti.com*). The use of digital technology to register and project light images on urban surfaces is perhaps the most likely candidate for producing unauthorized inscriptive defacements, but we clearly have a case of a new inscriptive device for making marks in the real world, and not, properly speaking, *virtual* graffiti.

MacDowall makes an important case concerning how the new digital media extend not only the existing media history of graffiti, but also some aspects of the practices of signature-style graffiti, into the digital environment, and concludes by articulating a concern that “far from taking place in an autonomous sphere, new media practice is by necessity engaged with the material conditions of state and corporate power” (p. 143). He clearly identifies a group of new media activities that have appropriated key aspects of the signature graffiti-style to inform the contours of various, new, ‘digital graffiti’³². He draws our critical attention in asking what the status of these kinds of products might be, noting what is not so much an aesthetic but an ideological ‘rupture’ arising in the remediation of traditional graffiti praxis (content and concept) into these new media projects, especially when the transgressive style and attitude of graffiti is harnessed to the design and marketing objectives of corporate interests. In making his case, MacDowall also helps us make the case that these new media projects, in their current implementations, do not exemplify the migration of the traditional act of inscriptive defacement into the virtual world, and so cannot properly be called instances of virtual graffiti. All these projects are inscribed within the norms of authorized usage—their

³² The adjectives ‘digital’ and ‘virtual’ graffiti are often treated as synonyms. This can be confusing as inscriptive tools using digital technology can clearly be used to deface real surfaces—imagine a high power laser device. ‘Digital’ simply denotes a kind of technical infrastructure, whereas ‘virtual’ connotes a new order of experience permitted through the agency of this new infrastructure. In Chapter 3, I develop this distinction in more detail and use the phrase ‘digital environment’ and ‘virtual world’. *Virtual* graffiti would necessarily arise in the digital environment and not in the ‘real’ world.

aesthetic content, sub-cultural cachet and conceptual borrowings are all in the service of semblance, at best the negative inscription of the fundamentally transgressive act of inscriptive defacement. Although the appropriation of some of the distinct traditions of New York-style signature graffiti are perhaps useful for achieving the objectives of these projects, their development and marketing in commercial and even art-institutional contexts make them at best graffiti-like or what I have called ‘faux graffiti’.

Further research into these types of faux graffiti, as MacDowall recommends, is both pertinent to graffiti studies in general and serves as a useful case study on the dynamics of post-capitalist cultural appropriation, but such digital productions cannot properly be considered as instances of distinctively *virtual* graffiti; and thus scholarly interest in the true virtual kin to traditional graffiti must be directed elsewhere.³³ Once a working synthetic characterization of graffiti is in place, however, a new and hitherto unexamined set of artifacts will indeed come into view, which clearly exemplifies the migration of traditional graffiti writing into the virtual world.

Baird & Taylor on Graffiti Studies in Contemporary Archaeology

Ancient graffiti, then, are not necessarily defined only by their content or subject, nor by the surface onto which they are made, nor by the techniques with which they are produced. As with so many categories of evidence used by scholars, graffiti as a discrete class is largely a modern invention and in some contexts almost can be seen as ‘the Other’ against which the formality of

³³ Again, I want to emphasize that there are potentially two problems: first, most so-called ‘digital’ or ‘virtual’ graffiti is not, properly *graffiti* at all, it is faux graffiti; second, in the case that it may be graffiti (e.g. unauthorized light projections in the real world, pictures of traditional graffiti in an digital archive), then it is not properly speaking *virtual* graffiti.

parchments, papyri and lapidary inscriptions are held up. (Baird & Taylor, 2011, p. 5)

There has been much recent activity in the archaeology of epigraphy, highlighting the widespread production of graffiti, or what has also been called “everyday writing”, in Ancient Greece and Rome (400 BCE – 800CE), rendering visible its ubiquity and pervasiveness (Bagnall, 2008), comparing it to the practices of graffiti writing in Medieval and Renaissance Europe (Pritchard, 1967; Plesch, 2002; Gordon, 2002), and examining parallels to ancient epigraphic cultural discourse in the contemporary practices of Web messaging and Social Media (Keegan, 2011). Contemporary archaeology is the discipline where we find perhaps the most rigorous and formalized approach to the topic of graffiti, as the very meaning of the praxis itself is often under explicit scrutiny; and so we might expect to find some useful and even characteristic features of the phenomenon have been identified in this context.

In *Ancient Graffiti in Context*, the preeminent collection of recent scholarship on ancient graffiti, edited in 2011 by Jennifer Baird and Claire Taylor, we find an excellent overview which highlights the contemporary state of affairs of graffiti studies in the discipline. In the introduction to their volume, Baird and Taylor review the contemporary corpus of scholarly research on the topic of graffiti, asking if we can discern a definition of graffiti that could include everything that contemporary Classical scholars would like to call graffiti. In “Ancient Graffiti? The Problem of Definition”, an introduction to the articles collected in their volume (2011), Baird and Taylor identify a set of notions, drawn from particular archaeological research contexts, and ask what constitutes

graffiti's particularity, an approach that yields a set of criteria which are summarized (pp. 3-7). These criteria are then examined to ascertain if they are sufficient to define the concept of graffiti for all archaeological contexts. A brief overview of the results of this analysis reveals some commonalities and also some problems: using 'inscription' technically (as a carving *in* stone), for example, as the criteria for something being graffiti, limits us to scratchings, while clearly archeologists treat marks left in charcoal, paint, ink, etc., as 'graffiti' too (p. 4). The authors then consider, in turn, the location of marks, spatial position relative to one another, surface type, and attitudes towards the marks to draw out the criteria of *defacement, style and property*; however, these concepts necessarily engage contemporary subjective judgments very difficult to actually 'excavate', and so cannot stand alone as definitive criteria. Next, they consider a set of criteria drawn by analogy to practices of contemporary graffiti writing. This provides the adjectives 'subversive', 'illicit', and 'unauthorized' *writing*, however, any approach drawing on modern analogues risks the highly problematic imposition of modern categories on ancient states of mind and being (e.g., transgression, literacy), and as illuminating as the contemporary analogues may be, from a strictly archaeological perspective the comparative insight are suggestive but controversial. Taking each group in turn, the authors demonstrate that although the various criteria (i.e., unauthorized, inscriptive defacement of surfaces that may be stylized) may help discern distinctive features of some graffiti, they also exclude many others that scholars want to call graffiti too (i.e., a painted mark on a potsherd ?).

The intellectual integrity and analytical acumen of the historians of antiquity and archaeologists resulted in the identification of what we shall see are almost all the relevant components of a synthetic characterization of the phenomenon. However, because of the epistemological requirement to protect practitioners from imposing modern categories on the ancient world (whose artifacts are considered as ‘pure’ historical sources), and perhaps some concern that even a working definition might marginalize some sub-disciplines of archaeology by placing their objects of study outside the category of graffiti, the archaeologists are understandably reluctant to formalize a synthetic definition as the benefits do not, as yet, outweigh the controversies related to historical distance. Naturally, this prophylactic attitude will also emphasize the objective material products of graffiti—the physical inscriptions—at the expense of the more speculative, performative aspects of the act, however interesting this kind of speculation may become (Bagnall, 2008; Keegan, 2011).

As Baird and Taylor (2011) explain, “One of the central questions tackled throughout this volume is precisely the question of definition, so we offer no universal solution here” (p. 6). Graffiti is implicitly defined by its explicit indefiniteness. The problem of definition and classification remains an important one, which scholars of ancient graffiti continue to trouble over. To overcome it, they rely on what Baird and Taylor call a contextualized approach within what is already a carefully circumscribed historical context. This approach draws attention to most of the central conceptual features (*inscription, defacement, authorization, style, propriety*) that we have encountered in other disciplinary fields dealing with graffiti.

The approach of the archaeologists makes good sense in the broad context of historiography and the related specific cases of archaeological classification. Their notion of a critical contextualism provides a suggestive framework for proceeding with what they acknowledge as the useful and often necessary work of definition, and helps us to build up a synthetic characterization of graffiti, to act as a bridge, albeit in a completely contemporary context, for our preliminary investigation to employ in its search for a homologue to graffiti praxis in the digital environment.

Conclusion: The Problem as Solution

Graffiti is by nature an interdisciplinary and sometimes ambiguous concept; scholars, for example, have treated it variously as an act (Castleman, 1982), an object (Baird & Taylor, 2011), a form of agency (Hebdige, 1979), a performance (Ferrell, 1993), or some combination of these, depending on the respective academic context or project objectives. However, when the phenomenon of graffiti comes to the disciplinary attention of the archaeologist, ancient historian, folk epigraphist, sociologist, criminologist, art historian or cultural theorist, there is rarely any disagreement concerning the first-order meaning of the term, nor does an urgent demand for definition emerge – it is always obviously graffiti –and the researcher selectively or contextually (Baird & Taylor, 2011) limits the broad set of *implicit* notions shaping the understanding of graffiti, to better function within the disciplinary paradigm, targeting close-range ‘bull’s eyes’ within the respective specific scholarly context. Although this disciplinary approach has resulted in an impressive number of contributions to our appreciation of the past, as well as the nature and history of literacy, deviance, criminal transgression, artistic expression and

communication theory, it is less useful when it comes to our encounter with a categorically new material environment where the very notions of a surface or a wall, an inscription, property, and even the broad nature of human agency itself, are under sometimes radical mutative pressure (Hayles, 1999; Wolfe, 2010).

In the early work of Tanzer (1939) and other late 19th-century ancient historians, we find a fundamental distinction between something like authorized or “decorous” graffiti and unauthorized or more “compulsive” varieties, which latter are more often associated with something like *defacement*. The latter type is the *cacoethes scribendi* which, as Tanzer notes, seems “to have afflicted the infantile mind at all times and at all places since the beginnings of writing” (p. 5). The preoccupation of the ancient historian is to use selections of inscriptive graffiti as source material to draw a picture of ancient life in Pompeii, not to attempt an explicit definition of what underlies the affinities between ancient and modern forms of graffiti. However, it is precisely the *cacoethes scribendi* type, which no public surface has “likely escaped” for over 2,000 years of recorded history, that is noted but then put to the side. The characteristics of this type of graffiti, which Tanzer acknowledges have clearly situated the phenomenon of graffiti as a useful historical constant, will not be explicitly developed or used for the purposes of comparison.

In the case of Modern Graffiti, the need for a synthetic characterization of the phenomenon of graffiti is not felt, due to a single-minded focus on one particular type of graffiti – the variety that emerged in NYC in the early 1970s. Although Mailer (1973) and others note the apparent relationship of banal and mundane ‘latrinalia’ and other such “puerile wall-writings” (Tanzer, p. 6) to the New York ‘tag’, it is finally only to claim

that a profound gap separates the two phenomena. The continuous 2,000-year-old or more *human* phenomenon of mundane wall-writing, noted and studied by the folk epigraphists, is treated as a categorically different, inferior and uninteresting genus. This classification will emphasize a highly context-specific set of *stylistic* practices as definitive of all acts of so-called ‘graffiti’, and link the definition of the phenomenon to the definition of art itself, ultimately obscuring the constitutive elements of the broad and inclusive view of graffiti praxis (i.e., unauthorized defacement of property) that link the contemporary New York style to the broad, general phenomenon. Effectively, Modern Graffiti establishes as its *cacoethes scribendi* any inscriptive defacements that do not conform to the stylistic conventions based upon the New York signature style and its development within the critical gaze of the art world.

In the case of the contemporary archeological perspective, although most of the key components of a synthesis are identified and considered (*inscription, defacement, unauthorized, style, property-propriety*), and the usefulness of something like a working definition is identified (Baird & Taylor, p. 3), an overarching and understandable concern with the imposition of modern assumptions makes attempts at synthesis controversial and impractical: any modern assumptions drawn from the consideration of contemporary acts of graffiti will prejudice an ‘objective’ analysis of the ancient ‘source’. This makes the project of establishing any kind of synthetic characterization or ‘working definition’ of graffiti a kind of (understandable) epistemological ‘*cacoethes scribendi*’ for the archaeologist; however, for the philosophical anthropologist, building a conceptual bridge from a very real ‘traditional’ world to a very real and co-present ‘virtual’ one, can

make good use of the archeologists' conceptual acumen in identifying the basic concepts of graffiti-praxis without suffering from the problems of historical distance³⁴.

Each discipline typically notes and then puts to the side its '*cacoethes scribendi*'; typically seen as the most banal, sometimes puerile, mundane, but most immediately recognizable forms of the phenomenon of graffiti. The reasons for such discrimination vary, but it sometimes results in a premature analytical closure, the consequent systematic exclusion of some common features of a broad phenomenon, and the inevitable privileging of what are 'special' features of more restricted if nevertheless useful versions.³⁵ Taking into account the contributions of the disciplinary formulations, and what those disciplines have marginalized, we are now in a position to assemble a first *synthetic characterization* of an act (and product), the understanding of which has, until now, been constrained to function within particular disciplinary paradigms, or worked implicitly in the background as a sometimes unwritten consensus among the scholars working in these disciplines.

³⁴ See the latter section of Chapter 2, *Problems of Historical Representation* (p. 60), for a detailed discussion of this issue as it arises in the context of the synthetic characterization.

³⁵ I in no way mean to question the sophistication or contextual acumen of the disciplinary modes of analysis we have surveyed. My argument is that it is precisely these qualities which have, ironically, encouraged a fragmentary and discipline-centred understanding of graffiti; and in many cases it is clear that the representative scholars are well aware of the broader phenomenon of graffiti—in fact, it is often directly alluded to in their introductory or concluding remarks. However, I do think that such graffiti scholars did not feel the need to develop a broad synthetic characterization of graffiti's features, as they focused on the immediate contours of a new, rich, and unexamined set of materials that had come to hand, whether the excavation of the startling artifacts preserved at Pompeii or the mediatized explosion of subway graffiti of New York City.

Chapter 2: A Syntagmatic Characterization of Traditional Graffiti

In the first part of Chapter 2, I outline and explore six conceptual moments emerging from the survey of Chapter 1, which can be drawn together to offer a synthetic characterization of graffiti in general. I introduce the term ‘emblematic’ to denote those cases of graffiti lying close to the center of this characterization, and ‘problematic’ for those cases displaying atypical spectrums of intensity. Combining the six moments into a unified conceptual structure, or ‘syntagma’³⁶, I suggest the term ‘dyscription’ to reflect these specific contours and to supplement and sharpen the term ‘graffiti’ for the purposes of study. Unlike the narrow and rigid traditional term, graffiti, dyscription can efficiently denote all the elements of act, actor, product and production of graffiti, serving the full range of grammatical functions demanded by rigorous discourse on graffiti—a grammatical demand that will emerge both as conceptual and far more pressing in the case of *virtual* dyscription. In the second part of Chapter 2, adopting the same investigative strategy, I return and explore the dynamic range of traditional graffiti (dyscription), sketching the spectrums of intensity within each of the six conceptual moments and in this light, considering ‘problematic’ cases in the conceptual nexus.

In both the emblematic and dynamic contexts, I use narrative exemplars (vs. examples) of traditional graffiti, composed from the most salient features of graffiti praxis as

³⁶ In this study, ‘syntagma’—literally, the constructive (here linguistic) result of co-arrangement—refers to the basic conceptual architecture of the six constitutive elements of a fulfilled instance of graffiti: the unauthorized, stylistic human inscriptive defacement of property; which will come under considerable stress in the digital environment.

determined by the synthetic survey above, to minimize the distraction of ancillary aspects and maximize the heuristic function of the characterization. The use of exemplars is of critical value, especially when considering the dynamic range of graffiti, as it allows us to manipulate the model by weakening or intensifying given factors and then assessing the results on the overall syntagma.

I emphasize the concept of ‘style’, drawing on that concept’s archaic etymological roots, to emphasize the act of in-scribing with a stylus to produce something in some medium, which is precisely the manner or mode of production realized in the act of graffiti. The ‘style’ of graffiti is a dual concept because graffiti is both an act and a product, and graffiti’s style is realized in both these forms. I then introduce the concepts of the *dialogic* and the *monologic* aspects of the stylistic act and product, creating four aspectual quadrants for evaluating dyscriptions: the act as dialogue and monologue, and the product as dialogue and monologue.

Here we seek a syntagmatic characterization or ‘working definition’ of traditional graffiti sufficiently robust and flexible to use in tracking the transition of graffiti praxis to the radically new digital environment, and to discern graffiti from graffiti-like phenomenon. With this basic heuristic apparatus in place, our bridge to the digital environment is half-complete.

The Six Components of the Syntagma

Acts of graffiti leave traces almost everywhere we care to look: scratched inside a bathroom stall, sprayed onto the underside of a bridge span, scraped into the drying cement of the sidewalk, carved into a picnic table, painted on a boulder on the side of the

highway, scribbled in the margins of a library book, a “wash me” drawn in the grime of a windshield. In the historical exploration of human habitation, there does not appear to be a time or a place where, along with the usual potsherds, statues, dwelling places and urban infrastructures, research has not also brought examples of inscriptive defacement to the attentions of archaeologists and historians.

Can we characterize a typical act of graffiti? Can we imagine a simple, uncontroversial example of the act and product; one that most thoughtful observers would agree is exemplary of what we commonly mean when we use the word, in whatever context or medium?

At three a.m., someone wearing a hooded sweatshirt to conceal their appearance approaches the smooth white marble portico of a respectable downtown bank property, and spray paints a series of cryptic, multicoloured characters on its surface, then leaves without being detected. In the morning, a pedestrian notices the image from the sidewalk and later says to her colleague over coffee: “Did you see the graffiti on the front of our building?” “Yeah, that’s quite something. They’ll have a hard time getting that off.” (Author’s dramatization)

I propose that we have here a contemporary exemplar of the common understanding of graffiti; with an uninterrupted lineage reaching down through the annals of human history, on different surfaces with various inscriptive tools, as easily identifiable to an

ancient Roman³⁷ as its otherwise cryptic ‘tag’ is to us today. If we look more carefully at the act (and product), we can discern six conceptual moments which when all are present, with sufficient intensity, make it an act of graffiti *per se* and not of another kind, say of writing, embellishment, art, social protest, vandalism or advertising. Each shall be distinguished for analytical purposes, although it is evident that they will often overlap and mutually inform the others. In different contexts, certain elements will naturally come to the fore, but all six will, I suggest, always be present in some way in a fulfilled act of graffiti.

In this first part of Chapter 2, let us then attempt to define what is *emblematic* of graffiti, its essential constitutive elements; both positively (by locating what I would call the generic ‘center’ of the concept) and negatively (by eliminating each element in turn, and seeing if we have lost what most would recognize as graffiti). Later, with reference to this emblematic center, we will investigate the *problematic* in graffiti, sketching spectrums of intensity within each of the constituent elements, and considering liminal cases, which latter will prove of special importance when we turn to the digital environment and *virtual* graffiti.

As if we were naïve anthropologists watching this event take place, let us attempt, then, to characterize its most essential, typical and inalienable components, roughly in the order of our perception, drawing carefully from the conceptual survey of Chapter 1.

i. Human

³⁷ See below in sub-section *The Problem of Historical Representation* (Chapter 2, p.60) for some of the controversies related to inferring states of mind.

First we see a person, a human being.

A dog urinating on the wall; a worm chewing its way out of a religious icon; a provocatively shaped growth of lichen; a corrosive effect of acid rain; however visually interesting and other wise ‘graffiti-like’ such acts and products might appear, none would properly be termed graffiti. Graffiti is a *human* moment. All of the scholars, researchers and commentators on graffiti implicitly agree that human agency is a definitive feature of graffiti (though this most obvious and seemingly unproblematic element will be profoundly problematized in the case of virtual graffiti).

ii. Inscriptive

What is she doing? She is making an inscription, leaving a mark, delineating in or on something (OED, Shorter, 3rd ed.)—broadly speaking, she is writing. Her inscription requires something that leaves a mark: a wet finger, a stick, a sharp stone, a magic marker. She is using three cans of spray paint. What is she painting on? Many surfaces can take an inscription, from natural raw surfaces (rock, earth, wood, skin) to worked surfaces (stone, lumber, iron, cloth, clay, parchment, paper), and all their various manifestations as objects populating the histories of our rural and urban experience (buildings, bridges, walls, doors, vehicles, statues, paintings, books etc.). She is spray painting a marble exterior wall. Graffiti is a moment of *human inscription*.

As we have noted in the previous section, the etymological record and all the disciplinary approaches to graffiti agree upon the centrality and presence of an inscriptive act. It is the pivotal moment upon which the others depend for their articulation. As Brassai noted (1964), the inscriptive act will always interactively engage a surface that then participates

and shapes the stylistic modalities of the emergent inscription. However, in this concept we focus on the inscriptive act itself, without considering its stylistic potential. We have produced a group of words to identify the special varieties of inscriptive act, depending on the tools used for making the marks and the surfaces designed to receive them: scratching, carving, sculpting, painting, writing, typing, printing, and many others. Many post-modern scholars (Derrida, 1967; Fleming, 2001; Stewart, 1991) are now happy to call all of these, broadly speaking, modes of inscription or ‘writing’.

In this sense we can say that all graffiti is writing, but not all writing is graffiti.

iii. Stylistic

What (and even *why*) is she writing? This is not a simple act of vandalism; it is an inscriptive act with some form of *style*, however rudimentary³⁸. Perhaps she has used an alphabetic script or a representational figure, and we make out a word or recognize an image; perhaps it can be interpreted as an icon or a symbol. If she had simply walked by and sprayed a line, at waist height, as she passed, like someone keying a car door, then we would be inclined to classify the act as something else, at least as far as its stylistic qualities are concerned: perhaps inscriptive vandalism, or simply an outburst of anger. There is, of course, a point on the continuum of style where it becomes difficult to discern an act of stylistic inscription from an act of vandalism, but this certainly does not mean that we cannot distinguish them in *kind*. Our emblematic form of graffiti, at least, is nowhere near the problematic limits of this continuum. Our author has inscribed three

³⁸ In a loose sense, graffiti might even be defined, even for exasperated street cleaners, as ‘vandalism with style’.

large letters, quickly but attentively, onto the marble surface, a *stylistic human inscription*.

In the development of our working definition of graffiti, the concept of style is the most critical, because if all we have are unauthorized, human inscriptive defacements of property, then all we are finally talking about are acts of vandalism. Although I argue that our emblematic act and all emblematic acts of graffiti display a degree of style, on what grounds do I form the judgment? I suggest that there is some kind of continuum of style, but how do we calibrate the continuum? What constitute the stylistic qualities of graffiti such that we can differentiate the act of vandalism from a ‘stylistic’ act of graffiti? In the second part of this chapter, we take this up in some detail.

Style

To answer this question, let us return to the concept of ‘style’, so prevalent in the early discussion of graffiti as an artistic phenomenon (as in the ‘New York-style’). With careful attention to how we use the term, we might say that graffiti is unauthorized, human inscriptive defacement of property, with *style*.

The word ‘style’ comes from the Latin *stylus*, meaning “an instrument made of metal or bone having one end sharp pointed for incising letters on a wax tablet, and the other flat and broad for smoothing the tablet and erasing what was written” (O.E.D, Shorter, 3rd ed.). The stylus is the instrument used for pressing or im-pressing a mark in the surface, the medium of inscription. If we hold this archaic sense close, and then consider the later sense of ‘style’ as both the manner or mode of doing something or performing an action, we can see that ‘style’, the im-pressing on a surface to produce something, is precisely

the manner or mode of production realized in the act of graffiti. The concept of ‘style’ mirrors graffiti’s *im-pressive* and pro-ductive character and identifies the emblematic character of its style.³⁹

The style of graffiti, its mode or manner of production, is a bifocal or a dual concept because graffiti is *both* an act and a product, and graffiti’s ‘style’ is realized in both these forms. Although we separate them for analytical purposes, in any act of graffiti the two aspects are always tightly woven together.

*The Stylistic Act and Product*⁴⁰

In the pure *act* of graffiti⁴¹, we include all the activities involved, for example, in gathering materials, identifying target surfaces, planning and gaining access to the targets, working in groups (or not), and the overall performative engagement of the dyscriptor with the inscriptive tools at the selected surface, which results in inscriptive defacement. A focus on the act of our hoodie-clad defacer would take into account the selection and acquisition of the spray paint (it may be illegal to sell it to minors), the efficiency of her gestures (time pressure), her skills of concealment (fear of being apprehended), what and how she has chosen to deface, and overall visibility. All such

³⁹ These two terms ‘mode’ and ‘manner’ capture the dual character of graffiti as both act and product. ‘Mode’ is more clearly related, through the Latin, to a *way* of expressing and gravitates towards the act, whereas ‘manner’ draws us towards a characterization of the quality of the act, to the result or the ‘product’. Acts are not products, but the word ‘production’ (like ‘expression’) carries these two things (producing and thing produced; expressing and thing expressed), a dual character reflected in the definition of the word ‘style’: the manner or mode of expression (OED).

⁴⁰ I discuss four aspects of graffiti (act/product, dialogic/monologic) under the rubric of ‘Style’ here (and later in Chapters 4 and 5) because of the inherent relations between these four aspects and the concept of style itself (as the manner or mode of production). Style is what most intimately links the act to the product, and the actor’s ‘dialogue’ with the surface to what he leaves *on* it; and so seems the most natural place to outline these relationships. We could equally discuss the full aspectual complement under the rubric of ‘inscription’ or ‘authorization’, for example, but I do not think we would ‘see’ the aspects as vividly.

⁴¹ There is no such thing as a ‘pure’ product (or act) of graffiti, which is always both act and product. I use the adjective ‘pure’ where helpful to emphasize a (strictly theoretical) focus on one aspect or the other.

factors inform the style of the performative *act*, and will contribute to the intensity of her graffiti's stylistic charge.

If we focus strictly on the pure *product* of graffiti, we are looking at what our defacer has left behind, the specific object in its specific context, these multicoloured cryptic characters spray painted on the bank's white marble, of which we can ask: Are the characters or images well-rendered? Do they mean anything? Is the defacement 'beautiful' in some way? Does the context play an interesting role? This order of questioning addresses the style realized in the *product* of graffiti, or how the product contributes to graffiti's stylistic charge.

Dialogic and Monologic Aspects of Act and Product

As the unauthorized human stylistic inscriptive defacement of someone's property, both the act and product of graffiti will typically display what I will call dialogic and monologic aspects⁴². These terms, however, in the same manner as 'act' and 'product', are intended only to serve as aspectual poles on a theoretical spectrum, which itself serves only as a useful heuristic tool to situate tendencies, or locuses of intensities, observed in fulfilled dyscription, which will always manifest *both* dialogic and monologic aspects. Although we will schematize graffiti stylistics later in this chapter using these four 'labels', it is important to avoid conceiving these aspectual polarities as

⁴² The term 'dialogic' was selected to denote the simple focus on those aspects of the act and product of graffiti "pertaining to, or of the nature of a dialogue" (OED, Shorter, 3rd ed.), and is not intended to imply any particular alignment with Bakhtin's use of the concept in literary theory. I chose the term 'monologic' to contrast those aspects of graffiti which, as in a dramatic monologue, "speak by themselves"(OED); although, just as in dramatic performance, the 'monologue' is always, and always meant to be, heard by *someone* in a certain dialogical context, of course. Although other candidate terms for denoting the 'opposite' of dialogue came to mind ('formal' or 'autologic', among others), none had the simple rhetorical advantage of the contrast 'dialogic-monologic', and none solved the problems attendant on any such artificial (however useful) divisions.

names for discrete kinds of graffiti—we are only trying to indicate various tendencies on spectrums of stylistic intensity. Likewise, I will use the terms ‘pure act’ and ‘pure product’ to situate us at the poles of a related theoretical spectrum, without suggesting there can ever be such a *thing* as a pure act or product of graffiti. With these caveats in mind, I can provide a brief working definition of the terms.

Dialogic aspects pertain to the nature of the ‘dialogue’ or (imagined) conversation between the graffiti and its location, target and surface, or what we might more broadly term the ‘context’ in which it occurs. Monologic aspects pertain to the nature of what the graffiti says ‘in and of itself’, regardless of the context within which the graffiti arises. These two aspects are present, one might argue, in any act of inscription, most notably artworks; but in graffiti there is typically, by its very nature, both more dialogic intensity and more interplay between the dialogic and monologic aspects of the *dyscription*.

The pure *act* of graffiti begins a dialogue with the location or specific context with which it engages. What you decide to deface becomes an active voice in the dialogue. Our young woman has made a mark on a well-known bank, which instantiates a different kind of dialogue than the same act occurring in a back alleyway. The dialogic aspect of her act is complemented by the monologic aspects of the act that emerge by considering first the formal material characteristics of the specific site itself (e.g., How intrinsically difficult is it to access? How resistant are the surfaces to inscription?); and second, the characteristic qualities of the dyscriptor herself, independent of the *specific* site and *specific* act (e.g., What is her particular style in the performance of such acts, compared to other dyscriptors, regardless of the site?) The monologic aspect of the act considers how both the site and the dyscriptor ‘speak for themselves’.

When we come to treat of the pure *product* of graffiti, the dialogic and monologic aspects also come into play in shaping the overall style. The product can engage in a dialogue with or comment on the surface upon which it appears. If our defacer's characters spelled the words "Profit Kills" on the wall of a commercial bank, a specific dialogical relationship is engaged with that particular surface. The monologic aspects of the pure product of graffiti are those related to the object in and of itself, which emerge through an analysis of what we typically consider as the formal aesthetic features displayed by the inscriptive defacement.

Our emblematic acts of graffiti are both acts and products, and these two elements will display both dialogic and monologic aspects. By analyzing the elements and aspects constituting the dyscriptive event, we limn the stylistic contours of the dyscriptive event's style. It is clear from an overview of the scholarly corpus on the topic of graffiti that the overwhelming number of examples under scholarly scrutiny display some degree of style, and based on this precedent and the discussion above, I shall take as emblematic that the acts and products of graffiti will be *stylistic* human inscriptions.

iv. Defacement

The woman is clearly defacing the bank's impressive and respectable-looking marble wall.

The transitive verb *deface* combines the Latin substantive *facies* (*fac-*), "to appear, shine" (thus "form, appearance, aspect"), with the prefix *de-*, which has the privative force of "undoing or depriving the thing" (OED, Shorter, 3rd ed.) of some quality, and so spoiling

its form, usually by drawing or writing something upon it. Defacement (like the summary ‘dyscription’ I shall propose below) is, importantly, both the active focus of the complex concept of graffiti, and, unlike ‘graffiti’, a verbal noun properly denoting *both* the act and product of the act.

The inscription, here the tag in our model, is a mark made on a surface not meant to receive it (Plesh, 2002, p.168), and for this reason we say it mars or ‘de-faces’ that surface. The common person walking past, who notes the inscription, will undoubtedly agree that, however much skill or imagination may have been employed by the author, the white marble wall was not meant to bear these marks. In watching the woman spray paint the wall, we witness a moment of stylistic human inscriptive *defacement*. If Picasso himself inscribes a beautiful image on this marble wall, he has nonetheless de-faced it. Defacement may be beautiful, but it is always defacive; and emblematic graffiti always involves defacement.

If however, the same marble wall were dedicated to ‘graffiti art’ tags, for example, and the woman inscribed another one here, her act of stylistic human inscription would no longer be graffiti—although it would *look* like graffiti, and this very *semblance* inscribes defacement, negatively, into the essential definition of graffiti.

v. Property

The marble wall in our emblematic case above is not the property of the woman who marks it. The physical material, the white marble surface upon which her marks are being made, does not ‘belong’—is not *proper*—to her (thus her act is, in a very literal sense,

inappropriate). If it were *her* bank, then, strange as it may sound (and look), we could not truly call it graffiti, but would be forced to recognize (and make the effort to *interpret* it) as a rather strange (but perhaps funky) form of commercial decoration, perhaps a (doomed) attempt to draw younger clients—graffiti-like, but not graffiti.⁴³

The concept of property comprises two relevant and related components. In the historically constrained and simplest sense, property is the modern legal “condition of being owned or belonging to some person or persons” (OED, Shorter, 3rd ed.). You own a car, a house, a piece of land, so they are your property. However, if we broaden the notion of property beyond the strictly legal connotation, we come to the complex and socially negotiated sense of what is ‘proper’ to a person, a people, or a situation, and so what is appropriate or “in conformity with the demands or usages of society”(OED); what is ‘correct’, decorous, or proper.

And again, if the wall truly and completely belongs to no one, even in that broadest sense, the woman’s stylistic human defacement would hover on the very edge, and finally escape the category of graffiti altogether. Property status is of course a highly complex, socially negotiated norm: public spaces can belong to a sometimes diffuse or vague commons; when the ‘environment is yours and mine’ even a remote, untitled region of wilderness may be considered as belonging to a larger social or ethical trust. On the other hand, in the most typical instances, and certainly in this emblematic case, it is perfectly clear whether the given surface belongs or does not belong to someone or something—

⁴³ In the last five years this kind of pseudo-graffiti has become a tactic in many advertising campaigns.

what is and what is not one's 'property'—and thus graffiti is emblematically an act of visible, stylistic human inscriptive defacement of (someone else's) *property*.

vi. Unauthorized

The intimately related concepts of property and defacement are themselves both kin to a higher, less tangible, but perhaps even more definitive element of our emblematic notion of graffiti. For, what most potently informs the illicit tenor of the woman's act here is our certain assumption that the respectable-looking bank would not *authorize* this act of inscriptive defacement of its property. All we would need to see is a sign beside the portico, reading, 'The People's Bank supports all forms of self-expression. Funky tags welcome!', and the dark core of graffiti is eviscerated in one blow. Or if there were no such sign, but we later discovered that the bank owner had, in fact, *paid* the woman to make the marks, we would instantly be forced to re-categorize this otherwise emblematic act of *faux* graffiti as some form of artistic commission. Hence, it is ultimately only *unauthorized* stylistic human inscriptive defacement of property that deserves the title of emblematic graffiti.

Dyscription

Such is the generic center of our syntagmatic characterization of graffiti: the act or product of unauthorized stylistic human inscriptive defacement of property; a network of six conceptual moments or components united in one distinct human act that has been practiced over several millennia in a wide variety of cultural communities.⁴⁴

⁴⁴Dyscription has been found in all *contemporary* cultural contexts where it has been sought (Reisner, 1971; Ganz, 2009; Waclawek, 2009), and stylized inscriptive defacement has been identified in most archeological contexts (Baird and Taylor, 2011).

For the near purpose of generating the nuanced and problematized dynamic characterization in the latter sections of this chapter, and the more distant but critical purpose of attempting to understand the mutation of this praxis into virtual graffiti in the digital environment, we shall combine these six conceptual moments into a unified conceptual structure, or *syntagma*; which will enable us to ask, when confronted with the vast range of graffiti-like productions before us in the past, present and unfolding future: Is it unauthorized? Is it made by a human being? Is it stylistic? Is it inscriptive? Is it a defacement? of property? And to ask also, in each case, to some (often critical) extent, how *much* so?

If we must simply answer ‘No’, at any stage in this syntagmatic analysis, then we have broken one of the minimal conditions sketched above, and are dealing with something that may well look ‘just like’ graffiti, in some ways, but is finally not, and so should be excluded from rigorous graffiti study. However, most (interesting) cases will not permit of any such neat typological binary, and our syntagma must therefore become, as it were, *dynamic*, shading toward or away from the emblematic center as the cases before us become complex and problematic; until we find ourselves on the (often grey) border of the concept itself, in one or more of the six regions that together define it, and can only sketch the liminal qualities discovered there, but constantly aided by the syntagmatic structure here emerging. This will be the work of the next section. Here there remains only a critical question of terminology.

Given the accumulated and sometimes troubling ambiguity in the concept of graffiti, owing both to its etymological complexity and the lack of any thoroughgoing synthetic characterization, as discussed above; and given the practical benefit of having a word that permits of all the grammatical shades needed here, from noun (which ‘graffiti’ serves, but only as *product*) to adjective and verb (which ‘graffiti’ does not serve at all); in order to capture the specific contours of the syntagmatic concept I have outlined above and shall nuance below, I would like to propose the term *dyscription* for such acts and products; which is meant to evoke, much as the *caco* in *caco-ethes*, the rich connotations of the Ancient Greek prefix, *dys-* (“bad, ill or abnormal—destroying a word’s good sense or increasing its bad sense”, Liddell and Scott)⁴⁵, as in our ‘dystopia’, ‘dyslexia’ or (particularly Nietzsche’s) ‘dyspepsia’, but now prefixed to the act of inscribing. The term is in no way meant to supplant the commonplace usage of ‘graffiti’, but merely to supplement and sharpen that term for the purposes of this and related study. Dyscriptive activity is, in fact, strikingly similar, literally and in its semantic core, to the *cacoethical* behavior in the original *cacoethes scribendi*. As the Liddell and Scott lexicon notes, such behavior is essentially prone to “*put a bad construction on things*”.

‘Dyscription’ is valuable not merely because of its greater semantic and syntactic flexibility in addressing the traditional phenomenon (e.g., dyscribing, dyscriptor, dyscriptive, dyscription), but because far greater pressure is exerted on the concept in the digital environment, and a new and compelling need emerges for a term strong yet flexible enough to capture the radically new modalities of ‘graffiti’ praxis in this context.

⁴⁵ *Dys-* is also a derivative of **deu-* “to lack, be wanting” (cf. Greek *dein* “to lack, want”), as in the sense of deontological ethics (the ethics of rule, duty, necessity); and thus, *dyscription* as the art of need.

Cacoethes scribendi

The term *cacoethes scribendi*, which we have seen used by the antiquarian historians to characterize and typically marginalize ‘indecorus’ inscriptions, is usually translated from the Latin as “compulsive writing”. The key term, however, is far richer and more applicative here than this narrow idiomatic usage would suggest: *cacoethes* is derived from the Greek adjective (κακόηθες) which is a compound of κακό (‘bad’) and ηθες (‘ethos’) and means something like “ill-disposed, malicious” (Liddell & Scott). The root ‘ethos’ also appears in a host of other English concepts, of course, often themselves with interesting affinities with graffiti study: ethics, ethnicity, ethnography, etc. The first recorded use of the compound term is in Aristophanes’ *Peace* (421 BC), where it figures twice, translated (rather loosely) as “the appearance...of being *great rascals*” and again in “you look *even worse*”, characterizing how ‘bad’ a group’s behaviour appears both from a distance and then up close:

Trygaeus

Ah! it's a rough job getting to the gods! my legs are as good as broken through it. [To the audience.] How small you were, to be sure, when seen from heaven! you had all the appearance too of being *great rascals*; but seen close, you look *even worse*. (Aristophanes *Peace* 821; trans. B.B. Rogers in Eugene O'Neill Jr. ed. v.2; italics mine).

The term is used by Plato in the *Republic* to denote an “evil disposition”, but specifically—and interestingly—in regard to the character of the representations of poets and craftsmen:

Is it, then, only the poets that we must supervise and compel to embody in their poems the semblance of the good character or else not write poetry among us, or must we keep watch over the other craftsmen, and forbid them to represent *the evil disposition*, the licentious, the illiberal, the graceless, either in the likeness of living creatures or in buildings or in any other product of their art, on penalty, if unable to obey, of being forbidden to practise their art among us, that our guardians may not be bred among symbols of evil, as it were. (Plato *Republic* 401b, trans. P. Shorey).

These deeper and richer connotations are, as with many Greek terms, narrowed and somewhat trivialized in Latin usage, where the term *cacoethes scribendi* first appears in Juvenal's *Satires* (Loeb Classical Library. trans. G.G. Ramsay, 1920): "Tenet insanabile multos scribendi cacoethes", or "the incurable *desire (or itch) for writing* affects many". In Latin usage, *cacoethes* is usually translated as a "bad habit" or, in medical contexts, as "a malignant disease". Thus, when Helen Tanzer comes to employ the phrase in 1939, it is to informally 'discount' a category of historically constant but indecorous inscriptive defacements—whose content is sexually explicit, rude, lascivious or simply perplexingly trivial—from what she calls "Graffiti". By the early 20th century, the term 'compulsive scribbling' had become part of the vocabulary of psychoanalysis, and even treated as symptom of neurosis. One of the aims of the present study is to rediscover, in dyscription, the rich and profound connotations of the original Greek term, in the heuristic grammar of graffiti studies.

Conceptual Modelling: Avoiding 'Universalism'

At the beginning of this chapter I argued that, to make good use of the working definition, the researcher, faced with any potential 'graffiti-like' production, should ask:

Is it unauthorized? Is it made by a human being? Is it stylistic? Is it a defacement? Of property? And, in each case, how much so? To the extent that we can answer ‘Yes’ at each stage of this syntagmatic analysis, we are likely dealing with a distinctive human act (and product) of dyscription.

Although I do argue that the syntagma is effective in this heuristic role, the six constitutive conceptual elements informing the analysis (i.e., authorization, human, stylistic, inscriptive, defacement and property) are in no way intended to denote absolute, immutable or ‘essential’ features (what Aristotle called *de re* modalities) of the world. For each particular case, each syntagmatic element must be evaluated, often with great care, *relative to the specific cultural context within which the dyscriptive analysis is being undertaken.*

So, for example, though most Canadian researchers might feel comfortable assessing what constitutes unauthorized inscription in the city of Ottawa, we must not assume that these same inscriptive acts would be unauthorized (at all or to the same degree) in Buenos Aires, in a small Inuit community in Nunavut, or even in different neighbourhoods of Ottawa itself. At the least, we would need to consult with the property owner, for example. And the same order of contextual ‘sensitivity’ applies to the other five elements active in the synthetic definition.

Given the widespread and now almost self-replicating mediatization of, and acculturation to, what might loosely be termed Western values and assumptions, even as culturally sensitive researchers, we must be careful to avoid misleading modes of ‘common sense’ generalization, especially when working with fictional exemplars drawn from, in this

case, even a very broad ‘Western’ perspective. There is always a risk of assuming that we ‘know’ what constitutes unauthorized behaviour, what is ‘proper’ and ‘improper’, what defaces a surface, etc.; whereas, in each specific case, especially in different cultural contexts, we must make a serious and sensitive effort in order to understand these properly.

This kind of underlying ‘relativism’ is, I think, a strength of the conceptual model (syntagma), reinforcing as it does the heuristic value of a synthetic definition of graffiti. The order of sensitivity in conceptual modelling which it requires is especially valuable when we come to the categorically new context and emerging ‘culture(s)’ of the digital environment and its virtual worlds, where the dyscriptive model not only identifies homologues to dyscriptive praxis in that new world, but also ‘registers’ (by virtue of the *hermeneutic* requirement) any mutational pressures on the six constitutive conceptual elements arising in that place; because, for example, we will need to ask: What is the character of inscription here? What is the nature of property? and clearly, as my research into virtual dyscription indicates, we do begin to bump up against some limits to the usefulness of our contemporary conceptual ‘tools’, at least until they can be re-calibrated. Dyscription is intended to serve, in this way, as a highly nuanced concept for understanding *how* it is that something is ‘graffiti’, in *any* world. If any of the six conceptual elements constituting the working definition slip from their roles as sensitive descriptive variables into prescriptive constants, then the heuristic value of the model is compromised.

Investigating the Dynamics of Traditional Dyscription

With reference to the emblematic center established above, we can now sketch spectrums of intensity *within* each of the six syntagmatic elements of dyscription, exploring the ‘internal’ dynamic range of dyscription, as well as its liminal contours, where graffiti becomes simply a product of rage or aggression (as in vandalism), or where it becomes something like art; in addition, we will continue to explore monologic and dialogic aspects of both the act and product of graffiti.

The synthetic characterization of graffiti provides a strong yet supple foundation both for generating a first-order taxonomy of ‘acts of inscription’ into dyscriptive (graffiti) and non-dyscriptive types, and for a more nuanced and ‘dynamic’ characterization of the concept of dyscription itself, which theoretically should enable the sketching of a more comprehensive taxonomy of dyscriptive phenomena in general, though such a taxonomy can only be hinted at in the limited confines of the present study.

In any given act of graffiti, then, all six components of our syntagma are present, but not all may be present with the same degree of intensity. For example, some forms of graffiti are more unauthorized than others, some displays less style than others, etc. We can imagine this as a hexagram with six different coloured sections, each section representing one of the six components of the syntagma. What we will try and do now is vary the intensity (hue) of the respective colours associated with each component; and these differences in intensity can aid us in characterizing different types of graffiti. To do this

we isolate each of the six components and then analyze it to determine if the intensity of the component is governed by any notable factors.⁴⁶

For the purposes of working individually with each of our six components, with an eye to discerning and characterizing the sources of modal intensity, I would like to propose a new hypothetical exemplar, to serve as a narrative reference point. By working through variations on this narrative, we can better discern the component-specific factors at play in the constitution of a given act of graffiti.

We live in a city where every morning we go for a 5 km run. Along our regular route, we pass through an exclusive neighbourhood enclave where we have admired an impeccably kept private house. The front door of the house opens onto a porch with steps down to a stone walkway that crosses a small landscaped garden bordered by a low ornamental fence with a gate. On the other side of the gate there is a sidewalk and a residential street. Over the years, we have frequently said hello to the home owner as he collects his morning paper. On Sunday morning we can clearly see that “Capitalist Pig” is painted in big green stylized letters on the front door.

If we later described what we had seen, we would typically say: “Someone scrawled graffiti on the guy’s house”; and there would be no doubt in our mind that if we were to ask the owner what happened, he would say that someone scrawled graffiti on his door.

From our analytical perspective, we would confirm that what we had witnessed was an

⁴⁶ When we turn now to consider each component individually, looking to discern the factors governing intensity, we have to remember that although the component is isolated for analytical purposes, it only ‘lives’ as a material phenomenon in the context of a fulfilled instance of dyscriptive graffiti, and never as *merely* ‘inscriptive’, or simply ‘unauthorized inscription’, but always as an *unauthorized, human stylistic inscriptive defacement of property*.

unauthorized, stylistic human inscriptive defacement of property, and classify it a full-blown emblematic act of dyscription.

If we continue on our run and see a ‘tag’ on the inside of a pedestrian tunnel, or recall having seen a phrase scrawled inside the bathroom at our workplace, or an image caught in the background of the TV newscast, would we say that they are all the same sort of thing? Are there different types of graffiti? How can we account for the similarities and differences?

Let us now imagine a series of runs, over the course of a rather unusual week, with observed variations in the respective syntagmatic components. And let us alter the *narrative* order of these dyscriptive elements, in favor of what might be termed their *logical* priority, in generating our emblematic understanding of graffiti. Of course, this order is even more open to debate than the narrative order followed in Chapter 1; however, I hope its virtues will emerge in the course of the following discussion.

1. Inscriptive

On Monday morning, when we pass in front of the house, instead of seeing yesterday’s “Capitalist Pig” scrawled on the door in green letters, we witness this startling scene: just as the owner emerges onto the porch, someone leaps from the bushes and throws a rock through a front window, screams “Capitalist Pig” and then runs off. It is hard to imagine that either the owner or we would call this an act of graffiti. Although is an unauthorized, human stylistic defacement of property, it lacks the most singular and definitive material aspect of graffiti: an inscription.

As the etymology of the word ‘graffiti’ indicates (see Appendix A), inscription can refer to either the act and or the product of scratching, cutting, carving, gouging or otherwise marking by ordinary or specialized instruments, on any conceivable plastic surface (writing, drawing, painting, etc.). Inscriptive acts would include those made *in* the surface material (the etching and carving modes, where something is removed from the surface), *on* the surface material (the ‘painting’ modes where something is added to the surface), or else *on top of* in cases where another three-dimensional object is added to a surface (stickers, sculptures, objects). It is obvious that without the presence of a material inscription of some kind, the question of graffiti cannot arise.

If we assume that the five other syntagmatic criteria are fulfilled, and focus solely on the act of inscription *per se* (that is, how a specific inscription is produced on the surface to which it is wedded), then we can discern two principal subcomponents that govern the ‘intensity’ of the inscription.

1.1 Evanescence/Permanence of Inscription

If the green inscription were applied so faintly as to hardly be visible at all; or if we re-pass the impeccably maintained house 10 minutes later, on the return leg of our run, and find that the original green inscription has already largely washed away—clearly inscribed with a fast-dissolving medium; how would these alter our original characterization of the act/product? Although we had clearly seen an act of unauthorized, human stylistic inscriptive defacement of property, the inscription’s intrinsic evanescence has decreased its ‘intensity’ in our mind, like a whisper not a shout; whereas, if the same letters had been carved into the door with a pick axe, then the level of inscriptive

intensity would be much higher, and the ‘potency’ of the dyscription would similarly increase.

In the wide middle-ground, we find carving, etching, and gouging; marks made by markers, paint, spray-painting (permanent or erasable); stickering and sculpting; all of which typically admit of varying degrees of permanence (or, from the perspective of the owner, difficulty of repair or removal⁴⁷).

If we move to either extreme on this continuum, we find the act no longer inscriptive but something else: if someone is etching on a window and the window breaks, we are left with something more like mere vandalism, rather than dyscription; and if someone attempts to make a mark with an empty or de-pressurized spray-paint can, we are in the realm of pantomime.

1.2 Aesthetic Register

Traditional graffiti, *qua* inscription, is centered on visual perception. Thus, as the inscriptive element in a dyscriptive act diminishes, relative to the entire act, its dyscriptive character likewise decreases. If the actual inscription in our exemplar were dwarfed by cries of “Capitalist Pig”, the smell of rotting garbage piled on the polluter’s doorstep, and the pain of a slap in the face, ‘graffiti’ would eventually become the least significant characteristic of the entire complex act/product. Such multi-media dyscriptive events are uncommon in the real world of witnesses and police; however, these other aesthetic registers come into play in an interesting and often compelling manner in the

⁴⁷ In some cases, the removal of an inscription leaves its own inscription: the grey “buff” (Castleman, 1982) square covering the graffiti on a bridge buttress.

virtual world, where multiple media are collapsed and managed as one *single* media modality⁴⁸.

Problems on the Margins of Inscription

In the context of traditional graffiti, we meet with potential controversy when we consider non-traditional modes of inscription: what exactly counts as an inscription? The best example is the case of what is now popularly called ‘Laser Graffiti’⁴⁹, the projection of some sort of mark onto a wall without really inscribing anything onto or into the surface. If the projection meets all our other criteria (i.e., unauthorized human stylistic defacement of property) is it dyscription? Is projected light sufficiently ‘inscriptive’? Here we would have to agree, assuming the other criteria are fulfilled, that the concept of inscription must be supple enough to include projected light. Given the evanescence and lack of permanence of the inscription (assuming a simple, low-power laser), the degree to which a property owner might object to the activity (unauthorized) might be dependent on the product ‘content’ (i.e., does it *deface* the surface?). These factors would come into play in the assessment of any particular instance. In most of the cases on public record, the light graffiti events are effectively authorized or tacitly approved slide-shows, however, the potential for intense dyscriptive projection seems high.

2. Defacement

We return to our daily run. Now, however, a large mural-in-progress partially covers a four-by-ten-foot panel that constitutes, when looking at the house, the right façade of the

⁴⁸ There are interesting examples of graffiti inscribed in Braille (Beale, 2007). Further, in Hip-hop culture, rap music has frequently been considered an auditory analogue to inner city acts of graffiti, often ‘marking’ the aural environment in the same way graffiti marks the visual (Hager, 1984).

⁴⁹ See, for example, the work promoted by Evan Roth at the Graffiti Research Lab at <http://www.graffitiresearchlab.com/blog/projects/laser-tag/>.

entrance way. The mural depicts a collection of colourful pigs, of every imaginable shape and form, all intertwined and floating on an indigo background, skillfully painted in manners ranging from the abstract to a high realism. The mural commemorates the pork industry, the source of the owner's fortune. On this Wednesday morning, as we pass by, the owner is out on the porch staring at a new, exceptionally well-conceived addition to the mural: a pig dressed in a tuxedo and top hat, smoking a cigar. Stopping, we offer our appreciation of the addition, but the owner replies "It's shocking. Someone must have done it last night. I don't know who, I never asked them to," and whimsically adds, "I'm not sure if I should call the police or hope they come back and do more!"

Although we are clearly in the presence of an unauthorized, stylistic human inscription on property, we are hard pressed to consider this an inscriptive defacement. For something to be graffiti, the inscription must somehow deface the surface; and the more it defaces the surface, all other things being equal, the 'more' it is graffiti.

The 'face' of something is a formal abstraction. It is not the positive surface material upon which the inscription is made, but what is considered the *countenance*, or intended appearance or form. A frown disfigures a happy face, a smile spoils a sad one, but the skin is not spoiled in either case. If we consider what it means for a surface to reflect an 'intention' such that we can make sense of defacement as 'a mark on a surface not intended to receive it', then we are invoking factors which we may call formal harmony and figurative context. In the case of acts of graffiti, the intensity of disfiguration or defacement is governed by the degree of harmony the stylistic inscription displays within the figurative context. Although the idea of the 'face' of an object is an abstraction, defacement—at least *traditional* defacement—always occurs on a well-defined, specific,

actual *surface*. We may roughly discern three principal factors which, working alone or together, contribute to the harmony of the figurative context.

2.1 Functional harmony

A window on a subway is designed for looking-through; the principal formal characteristic of its 'face' is that it is transparent. An inscriptive defacement that impairs this transparency, such as painting a large 'X' in thick, opaque strokes, would deface the functional surface more than a fine line describing a sort of 'frame' around the same window; and the former would thus produce a higher level of disfigurative, or dyscriptive intensity than the latter.⁵⁰

2.2 Formal harmony

This is the case of our painted pigs. The surface in question is a mural intended to bear painted figures of pigs in what is broadly understood as the Western painterly tradition. This serves as the figurative context. If someone, without permission, adds either a very poorly rendered pig, a big carrot that covers existing images, or an image that extends beyond the frame, then the formal harmony is spoiled; and this contributes to the disruption of the figurative context and increases the intensity of disfiguration. The well-painted pig would not disfigure that particular surface at all, although this inscription too is completely unauthorized.

2.3 Content harmony

⁵⁰ Note that if the 'framing' inscription was etched deeply in the glass, degrading the strength of the surface, then its disfigurative would be relatively higher than the painted version: the 'face' in this case oscillates between two functions of the surface: to see through and to safely contain passengers etc.

Even if an inscription, image or text, is well-integrated into the figurative context, from both a functional and a formal point of view, it may deface the surface because of what is communicated *by* the symbolic or literary meaning of the text or image. In the case of our pigs, for example, if the unknown dyscriptor painted his well-rendered pig wearing Jesus sandals and a frown, this would not be ‘breaking’ any formal conventions; however, the connotations of the image would be dissonant for the pork baron and his audience. Likewise, the incorporation of other religious symbols, political affiliations, ‘bad words’, into otherwise functionally and formally harmonious inscriptions can produce intense disfiguration.

A swastika carved into the marble of a tombstone in a Jewish cemetery would exemplify an extremely intense degree of defacement; whereas another name added to an unauthorized list of names carved in the wood of a dead tree in an abandoned lot would show little or no disfigurative intensity.

3. Unauthorized

The next morning, we pass the well-kept house in its exclusive neighbourhood, except this time we notice, for the first time, that there is a small sign attached to the fence stating that “All Graffiti Welcome”⁵¹; and further, we see the owner out admiring the painted green lettering on his front door.

If this were the case, there is no way, according to our synthetic characterization, we could classify this as *dyscription*. The owner of the property has given explicit approval

⁵¹ See the recent problems with the famous musician Chris Brown’s house in Los Angeles – a house that he has allowed to be covered in ‘graffiti’, except the ‘famous’ neighbours have complained, making media headlines (“Chris Brown to L.A. City: My House is Protected by the First Amendment”).

to the act, and to the extent that he gives either his explicit or tacit approval, the act loses its character as graffiti. Let us, then, examine some key sub-components that govern the intensity of such (dis)approval.

3.1 Visibility

An act of graffiti must at least be potentially visible to someone. The degree to which the act is visible depends upon two related factors: the number of people who can *potentially* see it and the *actual* amount of time that it remains visible. Generally speaking, public locations with high potential visibility (outside civic surfaces, front walls, subway cars, etc.) typically provoke a higher intensity of disapproval, and attempts to remove the graffiti are often rapidly implemented⁵². More private locations, with lower potential visibility (washrooms, library books, picnic tables), typically provoke a lower intensity of disapproval; and although they too may eventually be removed, they often remain in view for a much longer period of time. In either of these cases (public-private) the time period that graffiti remains in view, relative to the context, will indicate an increase in tacit approval.

If the “Capitalist Pig” painted on the door of the house were highly visible, though removed as quickly as possible and only actually seen by three people, the dyscription will, all else being equal, possess a heightened intensity of tacit disapproval, given the context. Whereas, with every passing week that the owner failed to remove the obtrusive inscription, our sense of tacit approval would naturally mount, and with it, the intensity of dyscriptive defacement would naturally diminish.

⁵² Sometimes the removal is legislated (Ottawa City by-law) and often the graffiti is difficult to remove, resulting in an equally visible, painted-over dull ‘patch’ (called a “buff” by graffiti writers).

3.2 Structural Context

The structural context identifies the objective setting in which we find an act of inscriptive defacement. Although all graffiti requires a surface, this surface is always embedded in a structural context: a named object, a front wall, a back alley, a main lobby, a house, a church, a latrine. Graffiti must always be *somewhere*, and the structural context is the name of place where we see it. For all identifiable structural contexts, the intensity of approval will vary with the perceived quality of the structure. All other factors being equal, the average citizen would quickly agree that graffiti on a church is more intensely disapproved of (unauthorized) than graffiti in a back alley.⁵³

Here, the graffiti, our “Capitalist Pig”, is on the front of an immaculate private house. In such contexts, dyscription is typically charged with a relatively high degree of disapproval, more than if the same inscription were to appear on the side of a railway car, less than if it appeared on a War Memorial.

3.3 Novelty

Another variable at work in determining the relative intensity of disapproval is the novelty of the act/product; roughly, whether or not this is the first time such dyscription has occurred in this place. If the unfortunate pork baron’s house has a history of receiving such marks, for example, or this is only one instance among many that are visible, the intensity of disapproval will tend to diminish. If this is the first time such a mark has

⁵³ I am not arguing that these display absolute values, only that ‘structural contexts’ and ‘quality scales’ are abstract categories at work in any human socio-cultural setting. The average Canadian ranks a place of worship ‘higher’ than an ‘alleyway’, a front wall higher than a back wall; however, there are, without doubt, cultural contexts that would display completely different evaluations, and alleyways that are places of worship, but I argue they would clearly have ‘structural contexts’ and ‘quality scales’ and that the relative position on the scale would affect the level of (dis)approval conferred on any inscriptive defacement of property.

appeared in such a place, and is alone, a higher intensity of disapproval will typically be at play.

3.4 Cleanliness

A given location's general 'cleanliness' also contributes to inflecting the quotient of disapproval. The quality of cleanliness, or the degree to which a location is free of matter otherwise foreign to its proper state, broadly reflected in the notion of being 'well-maintained', plays a role in governing the intensity of approval conferred on an act of graffiti. Were the house in our exemplar not immaculate, but unkempt and neglected, the intensity of 'unauthorization' generated by the defacement of its surfaces would naturally diminish.

3.5 Status

Status refers to the respect felt toward to a given structural context when compared to another of the same type, and is typically tightly coupled with the other three aspects of unauthorization above. Given an inscriptive defacement on the Notre Dame Cathedral in Paris, and the same mark on a derelict church in the inner city of North America, though both are functioning churches, the former would typically generate a far higher intensity of disapproval than the latter. Such status may be seen as resting *on top* of a given structural context, as a contingent rather than intrinsic factor, in determining the intensity of unauthorization for a dyscriptive act;⁵⁴ and virtually all structural contexts will possess it to some degree.

⁵⁴ These qualities are not inherent to the context, but rather contingent and socially generated and perceived. The inherent qualities are what make the space 'a surface' then 'a wall', a 'room', 'a house', a 'church' – the contingent qualities are what make it that specific iteration of a house or a church: this can

Compare, for example, the bathroom stall in a five-star restaurant with a similar stall in a local student pub. Without hesitation, all things being equal, we will unquestionably ascribe a higher status to the former and a lower status to the latter; and the higher the status, the more likely an inscriptive defacement in that space will be seen as ‘unauthorized’.

Problems On The Margins of (Un)Authorization

It is not uncommon to learn that there is a new graffiti wall downtown with some ‘great stuff on it’. Perhaps the most immediate controversy invited by our definition concerns the status of markings appearing on municipally sanctioned graffiti-walls. We consider all these productions to be, for lack of a better term, ‘faux-graffiti’, as they are clearly authorized. There is, however, a case to be made for any unauthorized marks that deface the *authorized* productions, and typically there is signage testifying to this potential problem: ‘No painting over’, ‘No explicit language’, ‘No writing beyond this point’, etc. Given the time available to these ‘artists’ and the sometimes adjudicated submission process, the style of these faux-graffiti works is often far more painterly (e.g., murals) than the average signature graffiti, but this is not why they are faux-graffiti—it is simply because the markings are the authorized use of someone’s property. This pivotal situation is not new: controversy arose when signature graffiti was first remediated onto canvas and into art galleries in the early 80s⁵⁵; and more recently, as Waclawek (2009) has

be as simple as “John’s house” or “The historically significant, nationally revered and highly sanctified Notre Dame de Paris”.

⁵⁵ The *Post-Graffiti* exhibition at the Sidney Janis Gallery in New York (1983) featured the works of 18 graffiti writers (including Jean-Michel Basquiat) and served as the “official baptism” (Waclawek) of graffiti as art. The show provoked debate in the pages of *Art Forum*, where Kate Linker concluded that the transition to canvass failed. See also Suzi Gablik’s “Graffiti in Well-lighted Rooms”, in *Has Modernism Failed?* which asserts that graffiti is “a radical art with a radical methodology because it’s illegal”(p. 112), and that institutionalized forms are no longer true graffiti (in Waclawek, 2009, p.143).

pointed out (p. 217), there have been ongoing controversies over the critical reception and categorization of illegal Street Art, versus its publically sanctioned simulacrum, often called Public Art (Kwon, 2002). In all cases of gallery graffiti, graffiti-walls and Public Art, the critical transgression is eviscerated with the shift to semblance (which negatively inscribes the transgressive act), and so we exclude any authorized inscriptive defacements from the corpus of dyscription and call it ‘faux graffiti’.

4. Property

On the next jog, in this extraordinary week, we discover that the immaculate house with the graffiti issues has been bulldozed, along with nearby dwellings, leaving only a nondescript smattering of rubble and debris, among which we notice, scrawled on some random shards of the immaculate house, various inscriptions on the general theme of inevitable comeuppance. Although we are clearly observing unauthorized stylistic human inscriptive defacement, the notion of *property* has been almost entirely truncated, and with it the dependent notion of graffiti itself. For unauthorized stylistic human inscriptive defacement to be graffiti it must engage, in some meaningful sense, with someone’s property; and in the case of the random shards of what was once a house, the proprietary intensity is so low that it barely registers on the dyscriptive scale, whereas if the same mark appeared on a piece of heavy equipment (e.g., a bulldozer) left at the site, the intensity would be noticeably higher.

The concept of property implies two related components, both relevant here. First, in the historically constrained and simplest sense, property is the modern legal “condition of being owned or belonging to some person or persons” (OED). We own a car, a house, a piece of land, so they are our property. However, second, if we broaden the notion of

property beyond the strictly legal connotation, we come to the complex and socially negotiated sense of what is ‘proper’ to a person, a people, or a situation, and so what is appropriate or “in conformity with the demands or usages of society” (OED); what is ‘correct’, decorous, or proper. This latter sense is a complex, socially negotiated norm which is exemplified in sometimes diffuse or emergent notions of what is “ours” (the environment, the sidewalk) or what is “mine” (that seat at the table), and so, what would constitute something like an appropriation or inappropriate usage.⁵⁶

Although it is difficult to disassociate, for the purposes of analysis, the concept of property from both *unauthorized* (in an owner’s right to deny permission) and *defacement* (of the ‘proper’ face of a thing), doing so allows us to distinguish three factors that govern the intensity of impropriety/transgression that is provoked.

4.1 Ownership

First we must keep in mind that an ‘owner’ can be both the legal owner of a physical object, and the socially negotiated or abstract ‘owner’ of an idea (e.g., the environment) which would be manifest in physical tokens that stood for this idea: the pristine beach, the old-growth forest, etc.

⁵⁶ *Private*: all the forms of property legally owned and cared for by corporations and individuals. This is the most typical and unambiguous form of property that we meet with. This would include, for example, most structures, buildings, houses and vehicles. *Public*: all the forms of property legally owned and overseen by forms of government (Federal, Provincial, Municipal, Regional, Community). This modality of property, due to the diverse aspects of public ownership and care, is typically more ambiguous than the private counterpart. This would include city infrastructure, highways, parks, schools, etc. *Proprietary*: this mode of property specifies those socially negotiated places and things that someone or some group cares about (proper usage, decorum), although they might not be clearly anyone’s public or private property (or, if so, of no apparent value to the owners). This mode of property includes many natural phenomenon (rocks, trees, ‘Nature’, the ‘environment’, a turtle’s shell), a place that constitutes a ‘view’ – a creative and often vague modality.

If it is clear who is the owner of the object now bearing an inscriptive defacement, then the potential intensity of impropriety is higher than if the ownership is vague. If we see a colourful mark on our neighbour's door, on the local bank's ATM, or on a city bus, we know the surfaces in question are privately owned, there is no question. However, when we see inscriptive defacements beneath certain highway interchanges or on long-abandoned buildings, the notion of ownership can become much less clear. Ownership might be heightened by the presence of a fence or sign, but otherwise we typically feel that the place is only 'marginally' property, belonging to no one in particular; and in such cases, the intensity of *impropriety* can be very low.

4.2 Maintenance Standards

Although it may be exceptionally clear that someone owns an object that has been subjected to inscriptive defacement, sometimes the owners do nothing about the marks. In these cases, without exploring the reasons for inaction, both the initial marks and especially any additional marks generate a respectively low and lower intensity of impropriety. The owner of an apartment building may forbid any graffiti on the ground-floor cement wall facing the back parking lot, and tenants would all agree that it is disgraceful; however, typically no one will bother to clean it off when it appears, monitor the situation, or call the police. Conversely, the hostile proprietorial intensity confronting a camper who paints their name across a beautiful granite face in the wilderness—should they come to the attention of other campers—might well lead the unfortunate inscriptor to believe that the complainants owned the forest, lake, beach and very granite that had

been defaced.⁵⁷ Intensity of care is not necessarily proportional, in other words, to the intensity of legal ownership. We may well consider the intensity of impropriety in the case of the apartment block to be far lower, in fact, than in the case of the granite face. We can see this interplay clearly in the case of scatological graffiti in children's playgrounds or schools, and in the marginal areas of urban transportational infrastructure. A child's playground is a place of special proprietorial interest to the parents and the community, whereas the urban environment, in spite of the often vigorous protestations of city managers, is usually treated as 'someone else's'.

5. Human

Our last jog occurs in our mind, perhaps some recollection of 'the good old days', before that once respectable neighbourhood and the house that stood in it were ploughed under. This time, on our imaginary run, we see the original green-lettered inscription and the artistic pig mural have both disappeared, but we are arrested by a striking sight on the small front lawn: the action of grubs has damaged the roots of healthy grass, leaving a series of yellowing blotches and lines that when taken together resemble a face with an animated expression on the lawn. A boy delivering newspapers quips "It looks like it's talking!" Although the effect is novel and interesting, we are clearly not in the presence of something properly termed graffiti. Graffiti is a distinctly human act that can be produced by males, females, the old, the young, the literate and the illiterate, regardless of ethnic group or religious affiliation. Animals and other natural phenomenon can leave all kinds of stylistic marks on almost any surface imaginable—we need only consult the works of urban photographers (Brassaï and many others)—to encounter many arresting

⁵⁷ See the recent (2014) controversy surrounding a 'wave' of graffiti in national parks in the USA. <http://www.theguardian.com/commentisfree/2014/oct/27/graffiti-national-parks-art-narcissism-crime>

examples; but we would not call such marks graffiti. The case may arise where the provenance of a given unauthorized stylistic inscriptive defacement of property is ambiguous or indiscernible. If the provenance is unknown, and none of the other components can contribute any certainty, then we have a liminal case that awaits clarification.

Once we have clearly discounted animal provenance, and we are certain that we are dealing with a human act of some sort, can we discern any factors governing the intensity of human engagement—or how one inscriptive act is more or less ‘human’ than another? There do not seem to be any meaningful ways to differentiate ‘degrees of humanity’, at least concerning an act of inscription; however, we can look at the negative instances that emerge at the extremes of the human continuum, where the broad notion of ‘the human’ begins to shade into something else. At these limits we find two useful cases: that of infants, and that of human ‘prosthetic’ extensions (stylus, paintbrush, spray-can) that function autonomously (what we may, for simplicity’s sake, call ‘robots’). We mention this latter extreme case not because it is especially relevant in the context of traditional graffiti⁵⁸, but because of the case’s critical relevance to our coming analysis of graffiti in the digital environment.

5.1 The Infant

Imagine the interesting half-scribble that an infant draws on the floor, the wall, the tabletop or any ‘adult’ surface. There is a point, later on in the child’s development, where that mark-making may have a notably different and more intentional quality, and

⁵⁸ Although the use of mechanical prosthetics is far from unusual: see the graffiti suitcase (Lynch) and the graffiti drone (Vanhemert).

in both cases a human (child) is involved; however, in the case of the infant, we can hardly treat the mark as an act of graffiti – not because it is not an unauthorized stylistic inscriptive defacement of property, but because there is as yet no real ‘human’ engagement. In the earliest stages of human development, we are dealing with something more animal-like, and so we heavily discount the intention of any such mark-making; at some point this changes, however, and we can comfortably speak of human engagement and the possibility of graffiti. We may include in the infant category the complex marks made by chimpanzees on the walls of their cages or on the surfaces provided them by researchers.

5.2 *The Robot*

Most human inscriptions are made with tools of some sort, and humanity continues its participation in a long and complex history of human-technical co-evolution⁵⁹. We would not doubt for a moment the human provenance of an inscription made by a human hand using an inscriptive tool; however, what of the case of the robot? If we found out that the “Capitalist Pig” had been inscribed on the door of the immaculate house by a *machine*, wired and programmed by a resentful neighbour working from their basement across the street, would we consider a human sufficiently responsible for the act for it to be termed dyscription? I think the answer is yes, but we can sense here the contours of a new kind of boundary phenomenon, and perhaps even imagine cases where the role of human agency is so diminished that we could no longer consider the apparent dyscription as having human origin at all. This might appear rather like the ‘infant’ stage of a new order

⁵⁹ Here I am specifically referring to Leroi-Gourhan’s formulation of this argument in *Le geste et la parole* (1964), and the extension of his line of thinking in B. Steigler’s *La technique et le temps. Tome 1: La faute d’Epiméthée* (1994).

of socio-technical development, or even a new techno-natural state where machines, like animals and plants, perform their own actions in their own non-human worlds, which happen to overlap and interact with ours. What do we make of the marks which an evolving computer virus leaves on our screen?

6. Stylistic

On the final morning of this instructive week, our jog brings us in front of the same impeccably maintained house, but this time we find the owner and two police officers staring at what appears to be a hastily executed, yard-long diagonal scratch across the front door of the house. The police explain that a car parked on the street overnight was keyed as well. In this case, most people would call this an act of vandalism, involving perhaps a concomitant ‘expression’ of rage, but no one would call it an act of graffiti.

What governs the stylistic intensity of an act of graffiti? If we isolate the component of style in an otherwise exemplary act of graffiti, holding the other five components (unauthorized, human inscriptive defacement of property) stable but always present in our mind, can we discern any specific formal, external, positive, empirical features of style that govern the stylistic intensity we experience? For clearly some inscriptions display more style than others.

Let us not forget that we are trying to identify the positive stylistic qualities embodied by an actual material act and product of *inscription*, the formally developed visible characteristics, not with the hope of exhausting every possible stylistic modality, but with an eye to identifying the major factors governing stylistic intensity in the case of typical unauthorized human inscriptive defacement of property.

As we noted in our introduction to the concept of style earlier in this chapter, what orients most profoundly our evaluation of the intensity of dyscriptive ‘style’ is the manner and the mode realized in the fundamental productive gesture of inscriptive defacement: the impression of a mark in a surface by means of an inscriptive instrument. Once we have considered the complex and comprehensive dimension of style, then we can also consider the contributions made by provenance (Who did it?) and purpose (Why was it done?)⁶⁰

Style

Style is realized in both the act and the product of dyscription. To characterize the stylistic intensity of dyscription, we can proceed by analyzing the dialogic and monologic aspects of each. These aspects can generate varying degrees of intensity which, when brought together, inform an overall contribution to the stylistic intensity of dyscription. Let us recall the first day of our run, where we first witnessed the large, green-lettered “Capitalist Pig” scrawled in green letters on the front door of the house in the well-kept neighbourhood. We can now anatomize the act and the product along the lines noted above.

The Act

The dialogic quality of the pure *act* arises from the dyscriptor’s engagement with the target location they have selected. In the case of our “Capitalist Pig”, since the house is in a secure neighbourhood, well-kept, and known to be owned by a wealthy, publicly recognizable industrialist, the selection of this target to deface, the planning and

⁶⁰ There will, of course, be many factors contributing to the particular level of style displayed by any particular act of graffiti in its particular context. Our effort here is to locate the major factors, the ones that will make sense, at a general level, of the differences of style displayed when *comparing* two examples or two groups of examples.

execution of a successful exploit (choosing and acquiring the access and inscription tools, gaining access to the site and surface, the production of a visible inscription, returning without being apprehended) all of these inform a kind of dialogue (or series of dialogues) between the dyscriptor and their target, whose intensity varies depending both on the features of the target and on the performance of the dyscriptor. In the case at hand, it appears that our dyscriptor has engaged in a dialogue at a number of levels, through their choice of target, their mode of operation, and the successful performance of a relatively 'dangerous' exploit. If we imagined an athletic event, for example a diving competition, the dialogic act here might be compared to how well a dive is performed. In the case we are considering, we would probably register a relatively high intensity of dialogic act. If the defacer had rung the doorbell during the daytime, and, as the owner watched, begun producing an impressive inscriptive mark on the door, the dialogic intensity might be even higher, due to the now explicit dialogue between the intruder, with her impressive sang-froid, and the owner, puzzled as to how the dyscriptor got there and why security had not yet arrived. On the other hand, if our defacer, walking home from school, is stopped at a long traffic light and pulls a black felt-tip pen from her satchel and draws a happy face on a lamp pole while waiting for the light to change, her act of inscriptive defacement, all things being equal, would barely register any dialogic intensity at all.

The monologic quality of an act of graffiti arises from two considerations: first, the intrinsic nature and structure of the specific location, effectively independent of the specific dyscriptor and dyscriptive act, which provides a locus for assessing intensity (how hard is this site to access? how high up is it? how protected is it?); and second, the characteristic 'style' of the dyscriptor, independent of the specific site and act (how

daring is she? how swift, clean or artistic is she?). To use the analogy of a dive performed at a formal competition, the monologic properties of the act might be compared to the degree of difficulty assigned to a specific dive, and the diver's general 'style' or strengths as a diver; that is, those elements which both logically and temporally *precede*, yet inform, the act itself.

These features, both of the site and of the dyscriptor, can be, and often are, evaluated independently of any particular performance—and many may be invisible to the typical viewer but well-known and esteemed by the community of dyscriptors (see Chapter 6). We might learn, for example, in our fictional case, that the site has a sophisticated security perimeter, and that the dyscriptor works exceptionally quickly and with great economy of motion, draws no attention to herself by the skilful concealment of her tools, leaves no trace but her chosen dyscription, and makes almost no discernible noise; in five minutes she can do what would take the average dyscriptor twenty. These kinds of qualities increase the monologic intensity of the act of dyscription, and are effectively independent of the actual performance.

Some of the most stylistic acts of inscriptive defacement display high levels of both dialogic and monologic intensity, such as in the cycle of subway car defacements in New York city, where the positive feedback loop of increased security and anti-graffiti surfaces stimulated even more ingenious methods of access and inscription, which cultivated higher and higher levels of monologic intensity, while the subway car itself provided a surface for 'dialogue' with New Yorkers.

The Product

The dialogic quality of the *product* emerges from a consideration of the implicit or explicit dialogue between the actual inscriptive product, on the one hand, and the targeted location and/or surface upon which it appears. Here we are focused on the product of the act of inscription, the figure that is left behind. Our defacer has left a legible mark, “Capitalist Pig”, which may act as a commentary, for example, when written on a door owned by a leading capitalist. The product engages in a dialogue with the particular surface. The intensity of the dialogue will typically depend on a host of contextual factors; for example, if there are already a number of such slogans inscribed on the door, then an additional mark would enter into a dialogue with a lower degree of intensity than if it were the first. If the dyscriptor had targeted a large advertising billboard promoting consumption of luxury goods, then the dialogic intensity of the intervention “Capitalist Pigs” would be notably higher, all things being equal, than the same inscription on a more anonymous door. These considerations arise regardless of the particular skill displayed in rendering the inscriptive defacement, but focus instead on how any kind of visible mark can be interpreted as commenting on the surface upon which it appears. A simple “X” scrawled across a sign saying “No Graffiti”, for example, displays a high level of dialogic intensity, though its monologic aspects (as we will see) may be comparatively uninteresting.

When we consider the monologic intensity of the product, we focus on what can be said about the product independently of the dialogue between the product and the defaced surface, including qualities, such as those of a dyscriptor’s ‘tag’, which will typically appear in any such product by this actor. This aspect highlights the aesthetic qualities of the thing in itself, as figurative product. In our example, we might, for example, examine

the calligraphic skill displayed by our dyscriptor in composing the letters “Capitalist Pig”, or her use of color; or, if she incorporated an image, her figural or representational skill and sensibility. Clearly, as we move along this spectrum of aesthetic evaluation, we will inevitably encounter traditional aesthetic categories such as originality, economy, necessity and composition, leading finally toward questions of beauty and ugliness. However, for our more limited purposes here, we may simply note that the monologic intensity of the product of inscriptive defacement will vary with the formal features of the object itself, regardless of where that object is found. In the case of the “Capitalist Pig”, our assessment of monologic intensity would be the same whether we found this on the door of a private house or a scrap door lying in the road.

The most extreme displays of dialogic intensity, if not accompanied by any corresponding monologic charge, will be hard to discern from an acts of vandalism. The most extreme displays of monologic intensity, with little or no dialogic counterpart, will be difficult to discern from what we typically call works of art. Dyscription typically lies in the broad middle range, displaying various degrees of stylistic intensity depending, in large part, upon the interplay of its dialogic and monologic aspects.

6.1 The Stylistic Range of Traditional Graffiti

We can compose a schema of the four stylistic aspects characterizing fulfilled dyscription,⁶¹ and use this schema to situate the various disciplinary approaches discussed

⁶¹ As noted earlier (pp.35-36), it is critical to remember that these quadrants are only indicative, in this respect, of *tendencies* in the perception of the variable intensities in graffiti’s style; that style will always be characterized by all four ‘aspectual’ features. The terms merely designate aspectual polarities, and are in no way intended to imply there is such a thing as ‘a monologic product of graffiti’ (for example); merely that this *aspect* of graffiti’s stylistic profile might factor predominantly in our account (or experience) of stylistic intensity.

in the literature review (Chapter 1) according to the different emphases displayed in their respective graffiti stylistics.⁶²

<i>Locus of emphasis</i>	<i>Dialogic</i>	<i>‘Monologic’ (Formal)</i>
<i>ACT</i>	<p>The implicit dialogue between the graffiti writer and the site he/she is attacking</p> <p>What the act implies</p> <p><i>Archaeology, Criminology, Sociology</i></p>	<p>The nature and structure of the target site, independent of the specific act and writer</p> <p>AND</p> <p>The nature and characteristic style of the writer, independent of the specific site and act</p> <p>How ‘hard’ was it to do? How ‘good’ at it is the writer?</p> <p><i>Social Psychology, Anthropology</i></p>
<i>PRODUCT</i>	<p>The often implicit (but sometimes explicit) dialogue between the graffiti product and its now defaced surface.⁶³</p> <p>What the inscription ‘says’ to its target</p> <p><i>Archaeology, Ancient History, Sociology, Political Science, Literary Studies</i></p>	<p>What may be said about the product independently of the dialogue between product and the defaced surface.</p> <p>The formal ‘style’ of a visible object: colour, balance, composition etc.</p> <p><i>Art History, Anthropology (Visual Culture)</i></p>

Figure 1- Schema of style dynamics of traditional dyscription (with disciplinary emphases)

⁶² As we noted in the literature review, any comprehensive study of graffiti will make some kind of attempt to account for the role of style; and, as we should expect, those programs’ various research objectives will typically emphasize or bring to the foreground different aspects of graffiti’s dynamic and complex stylistic profile.

⁶³ There is also an important and discernable ‘dialogue’ between the work and the *audience*—but a detailed study of the ‘audience’ is beyond scope of present study, and an inalienable feature of *all* public human expression action and production.

The schema provides an overview of the dynamic range of graffiti's style, and situates the typical locus of emphasis in respective disciplinary treatments of graffiti stylistics. These treatments frequently overlap of course, and are certainly never mutually exclusive (although some interpretations may effectively try and exclude others).

Notably, when viewed from our synoptic, interdisciplinary perspective, traditional graffiti studies have been sensitive to the full stylistic spectrum of dyscription. When we move to assess the stylistic qualities of virtual graffiti, although this same anatomy will structure our analysis, it will be complicated by the intrinsic synaesthetic potential of the virtual environment, where aural, animated, even haptic or ergodic, as well as visual inscriptive modalities can form seamless aspects of one dyscriptive gesture.

6.2 Provenance (Who did it?)

Given the prevalence and popularity of graffiti, and the high level of attention paid to it by numerous interests (the art world, news media, politicians, police, scholars), some dyscriptors have achieved a level of status that cannot be separated from the inscriptive acts they produce. Almost all graffiti is anonymous or pseudonymous; however, the factor of authority (or notoriety), especially in our media age, can unquestionably contribute to the stylistic intensity of inscriptive defacement. Nor is this merely a case of contrasting the high intensity conferred on graffiti by the famous street-artist Banksy with that of an anonymous scribe. For us, now, dyscription from an ancient Roman latrinalia will, all else being equal, possess far more stylistic intensity than that scrawled on the bathroom stall of our local coffee shop. Like the status of a given structural context in the case of (un)authorization, the 'status' of the dyscriptor him/herself here governs, to some extent, the stylistic intensity of the inscription.

Problems on the Margins of Style

Above are two major factors that contribute to the stylistic intensity of a given act of graffiti (Style, Provenance). If all are present at a very high level, we have something like the series of full-car subway train paintings that culminated in the early eighties in New York City, or else an unauthorized work of a Keith Haring or a Banksy⁶⁴. At the lowest end of the stylistic spectrum we have the barely structured marks that turn up on almost any imaginable surface; and which are finally indiscernible from inscriptive ‘noise’ or treated as vandalism, ‘dirt’, or even everyday ‘wear and tear’ on public surfaces.

Someone keyed my car door, what’s wrong with these people! A legitimate question arises as to how to discern, especially at the limits of this imaginary style continuum, the mark with style from the mark without any. I agree that it is impossible to draw a neat typological line, and although there may be numerous instances where a decision might be controversial, there are far more where it is clear that some order or intensity of style is present—and I am happy to focus on these ones. I would disagree with any assertion that issues of style can only emerge from the consideration of *sanctioned* practices.⁶⁵

Supported by the work of numerous scholars, among them Susan Stewart, Hal Foster and Jeff Ferrell, we contend that style is something that is discernable in both authorized and

⁶⁴ As Waclawek (2009) notes, neither Keith Haring nor Jean-Michel Basquiat were ever graffiti writers in the traditional sense, and neither performed or claimed to have performed ‘graffiti’, instead their artwork was categorized as ‘graffiti’ by the gallery system (p. 147). Banksy is clearly a very savvy and sophisticated purveyor of illegal Street Art (p. 24), although now most property owners would pay to have their walls defaced (or take legal action against anyone who removed a Banksy original, see Liljas’s article in *TIME* magazine *Vandalized Graffiti: Oh The Irony*).

⁶⁵ This is the tendency currently detectable in the attitude of some popular media outlets (Woods, 2014), municipal politicians, crime prevention units, and some academic research (Coffield, 1991; Ross, 2000); working toward the domestication of graffiti into what we have called ‘faux-graffiti’ (see ‘Authorization’ in this section)—categorizing the ‘style’ of any unauthorized defacement as ‘criminality’ or ‘vandalism’, while supporting authorized ‘graffiti’.

unauthorized productions, and thus the question of style arises in contexts which some viewers might consider to be simply criminal (vandalism, trespass, etc.).

It is perhaps much more useful, when considering the role of style in the evaluation of an act of graffiti, to note and acknowledge the negative instances, the places on the stylistic continuum where we see a potential act of graffiti turn into something else. We can discern two such critical spots. One is where graffiti lacks any observable style, and so is typically treated as a discharge of anger or as vandalism. The second margin, both formally and socially negotiated, is that tipping point where the intensity of style forces us to consider the inscriptive defacement as a work of art. As with most of the constitutive elements of dyscription, both of these margins are grey, but the bulk of graffiti sits comfortably in the broad ‘middle’ range, with its intensity easily gauged in terms of the ordinary ranges of the foregoing stylistic features.

Problems of Historical Representation

A broad objection might naturally arise concerning the virtue of concepts such as authorization, property and defacement, when categorizing historical and certainly pre-historical inscriptions. After all, how can the researcher be sure an ancient inscription was unauthorized? What can we say with certainty about ‘property’ when speaking of marks made prior to the formalization of private property? What can we say about propriety? Serious academic research suggests that a very strong case can be made for the historical continuity of traditional dyscription, as we define it, at least as far back as Classical Antiquity, and even farther (Baird and Taylor, 2011; Bagnall, 2009); however, we also acknowledge the ontological issues at play in historical representation, and the more subtle problems related to the rhetorical “minimization or maximization of historical

distance” (Hollander Jaap D., Paul, H. and Rick Peters) that can intensify, or make more compelling, accounts of graffiti’s genealogy—a case in point being the frequent equation, by scholars and popular writers alike, of the cave paintings of Lascaux with the productions of contemporary graffiti writers (Abel, 1977; Freeman, 1966; Mailer, 1973; Reisner, 1971; Powers, 1999, et al.). The number of important literary studies scholars who have troubled over the interesting discrepancies between modern versus historically situated views of the practice of wall-writing (Fleming, 2001; Plesh, 2002; Gordon, 2002) bears witness to the persistence and significance of this kind of problem; and the issue of how (if at all) the archaeologist might discern the intentions of Classical ‘graffiti’ writers continues to provoke animated debate (Baird & Taylor, 2011). If future research should reveal that a certain inscription, once considered as graffiti, in fact played a central and formally harmonic role in the adornment of a publicly visible surface, then we would happily agree we no longer have an instance of dyscription at hand. If compelling arguments oblige us to constrain the historical reach of dyscription to the beginning of the 20th century, then what remains is an indisputable, cross-culturally and geographically ubiquitous, corpus of human inscriptive activity. I hardly think our research will contribute to resolving these orders of research problem; however, I do think our synthetic characterization of graffiti, drawn from the shared conventions of what can broadly be called ‘graffiti studies’, accounts comfortably for the phenomenon’s emblematic instances, and provides a strong enough foundation for the pursuit of our own research objectives: the identification and characterization of dyscription in the digital environment.

Conclusion: View from the Bridge

The syntagmatic characterization of graffiti practice and products provides a strong yet flexible foundation for analyzing potentially dyscriptive acts, in any medium or context. By discerning the factors governing the variable intensities of the underlying components of dyscription, we have also established key categories for a first-order taxonomy of dyscriptive phenomena in general, including consideration of problematic aspects of the traditional form, which allows us not merely to analyze, classify and compare the most commonplace types of traditional graffiti that have been produced over the course of human history, but to identify and analyze emergent forms.

Given the generalized engagement of humanity in what has been called the ‘digital environment’, and the tenacity of graffiti production in a wide variety of historical, material and cultural contexts, as noted in Chapter 1, we might expect to see a migration of this act into the virtual world, and so the appearance of what might be termed ‘virtual graffiti’.

With the synthetic understanding of traditional dyscription in place, we are ready to search for and track the emergence of a digital-born homologue to graffiti in the radically new digital environment. It remains, then, to gain a broad synoptic understanding of the *environment* in which we are to search for this homologue, and then to identify such a homologue and characterize *this* in terms of the traditional syntagma we have developed.

Chapter 3: Distinguishing the Virtual Homologue

In Chapter 3, I provide a working sketch of the most pertinent features of the ‘digital environment’ and ‘virtual world’, with an eye to any graffiti-like praxis observable there; taking note of what now might be called the dyscriptive potentialities inherent in the structure of this environment (e.g., the nature of its walls, or of property), and of current scholarly research on seemingly dyscriptive activity, such as ‘hackers’ and ‘hacktivists’; in an attempt to tease out the most graffiti-like homologue to traditional graffiti praxis.

Even the most cursory survey of the literature confirms that the substantial body of scholarly research on both hacking and hacking culture provides a suggestive starting point in the search for a virtual homologue to the traditional phenomenon of graffiti. The principal affinities are found in the technological, sociological and criminal dynamics animating the transgressive ‘acts’ of hacking, as these topics have oriented contemporary research. However, virtually no attention has been paid to the ‘products’ arising from hacking activity, such as the burgeoning corpus of website defacements which have been marginalized or simply ignored as ‘by-products’ of such activity. As a result, the most promising locus for the emergence and development of virtual graffiti praxis has been left generally unexplored.

In the real world, traditional graffiti has, for graffiti scholars, arisen in many disparate and varied contexts and environments over the course of human history. Most scholarly studies of graffiti (see Chapter 1) focus on the ‘urban environment’, making reference to

specific cities usually at specific time periods: Pompeii in first century (Tanzer, 1939), London and Paris in the late-nineteenth century (Brassaï, 1964), New York and Denver in the late-twentieth century (Castleman, 1982, Ferrell, 1993). The ‘urban environment’ and the ‘city’ are useful abstractions that bring together elements of population density, physical architecture and infrastructure; however, our experience of ‘the city’ and of traditional graffiti is always realized in a *specific* city at a specific moment in time.

Virtual graffiti arises in ‘the digital environment’, and ‘virtual’ is the term we use to characterize our experience of that environment, and so limit our sense of a ‘virtual world’. The virtual world is very loosely analogous to traditional description’s ‘city’, but our experience of ‘the virtual world’ and virtual graffiti will always arise in a *specific* ‘virtual world’, just as our experience of the traditional counterpart.

Although most of us are familiar enough with the physical and architectural features of the urban environment as they are manifest in specific cities, neighbourhoods, infrastructures and their various surfaces, this is not so obviously the case for the digital environment and its virtual worlds. Thus, in Chapter 3 we first take a closer look at what constitutes ‘the digital environment’ and its ‘virtual worlds’, in order to help specify where exactly, in what ‘city’ or ‘neighbourhood’, we typically encounter virtual description, and then we identify the best digital-borne homologue to graffiti praxis in the virtual world. I introduce the novel praxis of website defacement, and explore the affinities of this practice with traditional description, especially regarding the stylistic qualities of the *products* of website defacement, and especially the more *monologic* aspects of these products; which products have typically been treated as the *cacoethes*

scribendi of the virtual world. I also introduce Zone-h, the surprising and surprisingly vast archive of such materials currently present on the web.

The Digital Environment

The ‘digital environment’ refers to the architected material infrastructure of computers and networks whose operation permits the exchange of binary data between computational nodes linked throughout those networks. The digital environment makes up what are called the ‘low’ layers of a multilayered hierarchy of services and protocols that together serve as a platform for a set of higher or ‘top’ level application networks which create the ‘virtual worlds’ we experience.⁶⁶

The digital environment comprises a growing number of discrete networks (telephone, cellphone, local area, satellite, etc.) implemented over various mediums (copper wire, radio waves, coaxial cable, fibre optics) and the many ‘meta-networks’ that are hybrids of some or all of the others; all of which can be either privately or publicly accessible. The largest meta-network, or network of networks, is called the Internet, which uses a series of common data organization formats (Transmission control protocol [TCP] and Internet protocol [IP] commonly abbreviated as TCP/IP) to ensure the reliable routing and exchange of binary data packets between properly configured devices, across any kind of physical network with appropriately architected and implemented adapters. The Internet provides a standardized architected platform that allows devices and networks to be connected and ‘high’ level services or ‘application networks’ to be designed and

⁶⁶ If we considered only an old-fashioned, plain telephone service, then the ‘environment’ provided by the ‘low-level’ services would be everything needed to provide you with ‘dial tone’ on a receiver you hold in your hand (poles/wires/switching equipment/basic analog conversion and transmission etc.. The high level services (virtual world) would be the languages that are spoken across the network.

implemented for the interchange of formatted (human readable) binary data ‘on top’ of this platform. Each of these application networks constitutes what can be considered a ‘virtual world’(Wegenstein, “Body” in Hansen & Mitchell, 2010), and these too can be both private and publicly accessible.

Virtual World: Application Networks

There are many specific application networks, with their own specific application protocols, for information exchange across the Internet, although all will use the ‘low level’ TCP/IP suite of data transmission standards to ensure inter-network and inter-application compatibility. Among the most typical application networks are those we use to exchange email (private and public email services via SMTP and POP); the various Internet chat (IRC) and instant messaging services; the bulletin board and gaming networks (MUDs and MMORGs); the voice-over IP services for internet telephony (Skype). But the most popular public application network is the HTTP service (hypertext transfer protocol), which constitutes the ‘backbone’ of what is called the World Wide Web (Web) or now simply ‘the Web’: the network of publicly accessible web pages on websites accessible through a web browser (Chrome, Internet Explorer, Firefox, etc.). Of course, many of the other application networks interact with and through the Web network services (for example we reach our email server or our Everquest server through the Web), but once we commence sending and reading mail, or playing a game or ‘chatting’ over the internet, we are using a different application network (no longer the Web)—we are walking in another ‘city’.

When we look for dyscription in the virtual world, the specific world or ‘city’ we are looking at is the World Wide Web. It is the closest analogue to an inhabited ‘city’ in the

digital environment, and one where we should expect to find the first attempts at dyscriptive activity. The Web is loosely analogous to our New York City, Paris or Pompeii, with their various neighbourhoods, buildings, surfaces, and ‘citizens’; and we may now take a closer look at this ‘virtual world’ and its characteristic surfaces, and begin the search for its native dyscriptors.

World Wide Web

The World Wide Web is the popular name for an application network based upon the Hypertext Transfer protocol or HTTP. HTTP implements what is commonly called ‘Hypermedia’⁶⁷ relations between documents (webpages) on websites written in the scripting (coding) language HTML (HyperText Markup Language), which enables web browsers to use, interpret and compose text, images and other material into visual or audible web pages⁶⁸. Hypertext ‘resources’ (what we would call ‘webpages’) all have ‘addresses’ (URLs: Universal Resource Locators) enabling them to be located and accessed by anyone with a web browser attached to the Web network. Usually an organization or an individual combines a number of webpages into one entity that is called a website. Although each individual website typically has only one IP (Internet Protocol) address on the Internet, all of the webpages hosted at the website (that are publicly accessible) will have their own URL. The ‘root’ page or ‘homepage’ of a website is the page that serves as an index to the other webpages on the website, and is usually the one we see first we navigate to a website. It typically has a simple address

⁶⁷ Hypermedia is typically experienced as the ability to click on a ‘link’ in a text document and be brought to another ‘page’ that may be located on the same website or else on any other site on the Web.

⁶⁸ The basic HTML is now supplemented (for Web 2.0 services) with a wide range of embedded ‘scripts’ written in high function languages like JavaScript and webserver programming languages like PHP and Java that allow the web user to interact with the webpage.

(www.insitutionname.com); however, if we wanted to access a particular webpage within that website, we might find the address is more detailed (www.institutionname.com/document name).

There is a wide range of detailed scholarly research and documentation on the inception, growth and institutionalization of both the Internet and the World Wide Web (HTTP and HTML, web servers and browsers). The scholarly consensus traces the inception of the Web standards back to the work of Tim Berners-Lee at the CERN Institute in Geneva, who proposed, in a 1989 paper, an ‘application suite’ that would facilitate the exchange of scientific papers between scientists. In 1993, CERN announced that the Web would be free to use for anyone. Current surveys (November 2014) put the number of websites at over 300 million active sites⁶⁹, hosting over 20 billion indexed (publicly accessible) pages⁷⁰. Indexable pages are those pages that can be located and viewed with a simple query in a search engine (Google, Bing, etc.), and they make up what is called the ‘Surface’ or the ‘Visible’ Web. There are many webpages that are not indexed and which make up what is called the ‘Deep’ Web. These are either webpages dynamically generated by user queries or protected by password access (for example a database query on the JSTOR website that can access a ‘protected’ special query page or particular document). There is also a “Dark Web” (Bergman) made up of an uncounted set of websites that are intentionally hidden from indexing processes (webcrawlers) and conventional access means (ordinary browsers), which typically deal with the purchase and exchange of illegal services and underground political organizations (for example,

⁶⁹ Web Server Survey | Netcraft. News.netcraft.com. Retrieved on 2013-06-15.

⁷⁰ <http://www.worldwidewebsize.com/>

the *.onion* sites, which require a ‘TOR’ browser that navigates to sites identified only by a frequently changing, 16-digit hexadecimal web address).

The ‘city’ we are exploring to locate examples of dyscriptive praxis is the publicly accessible, indexed Web, regularly consulted by over two billion users (NetCraft Survey⁷¹). Although there may well be activities that could qualify as emblematic virtual graffiti, occurring in other application networks (in other ‘cities’), some of which are potentially quite exotic and ‘far away’, following our ‘emblematic’ approach we shall explore the most commonplace and widely shared virtual world in our digital environment, the Web described above.

What are the surfaces of the Web?

All ‘buildings’ or ‘structures’ in the Web are websites, and all websites have a fascinating *Janusian*⁷² character which reflects, on a small scale, the tight, multilayered hierarchical relationship that holds between the digital environment and the virtual world. Our website consists of a complex configuration of hardware and software that instantiates a surface, or ‘wall’, that is intrinsically dual: a ‘code-wall’ which is typically imperceptible to us (*muris codicis*) and a virtual wall (*muris perceptus*) which we perceive on our computer display. Any native virtual graffiti is constituted by an act of access to a code wall and the product arising from this act: a pixelated image perceived by someone on a computer screen.⁷³

⁷¹ <http://news.netcraft.com/archives/2014/04/02/april-2014-web-server-survey.html>

⁷² In ancient Roman religion, Janus is a figure depicted as having one head with two faces pointing in opposite directions. Here we use the ‘two-faced’ aspect of Janus to denote the two ‘faces’ or two walls of the webserver: the invisible code wall and the visible screen surface (wall).

⁷³ We will treat these features in some detail in Chapter 4, where we analyze both the emblematic and dynamics features of virtual dyscription.

There are many kinds of websites or ‘structural contexts’ within the Web. An initial and very simple classification of websites may be made according to their regulated top-level domain labels, which differentiate between commercial sites (.com), educational sites (.edu), non-profit organizations (.org), pornographic sites (.xxx), government agencies in the USA (.gov), international organizations (.int), by country codes (.ca, .cn, .us), and others open to less-regulated user-defined purposes (.net, .coop,).

Graffiti-like Praxis: Hacking, Hackers and Hacktivists

Before the advent and popularization of the Web application network, and even prior to the emergence of the Internet, the word ‘hacking’ was used to designate the activity of looking for clever solutions to problems in computer system engineering (Levy, 1984). The verb ‘to hack’ originally denoted the act of cutting with a heavy blow and, in its figurative sense, “to mangle (words) in utterance” (OED Shorter, 1983, 3rd ed.). In popular English usage, we also use the phrase ‘hacking around’ to connote a series of unplanned, casual activities. In the realm of computer programming, the notion of ‘hacking’ arose first in the context of examining what were often prototypes of functional programs, with an eye to making the programs work better, testing and fixing potential problem areas, and learning the relevant design principles (Levy, 1984; Taylor, 1999).

In the early days of the Internet and the Web, most of the users were relatively skilled computer programmers (compared to the common person), and many spent time ‘trying out’ and exploring the new environment as it emerged (Jordan & Taylor, 1998). They were effectively ‘hacking around’ in the new, sparsely populated, virtual world. In the mid- to late-nineties, as the Web became a more and more popular destination for casual users, the popular media took up the term ‘hacker’ to designate someone who accesses

other people's computers illegally, and this definition has now been added to most contemporary dictionaries. From this perspective, we might plausibly infer that all virtual graffiti could be classified as a species of hacking, because virtual graffiti cannot occur without first gaining (unauthorized) access to the code-wall, however, we would consider it a mistake to say that all traditional graffiti is simply break and enter or vandalism, because first you need unauthorized access to a surface, etc.

Just as Craig Castleman's pioneering *Getting' Up: Subway Graffiti in New York* (1982) provided the first scholarly description and classification of the NYC graffiti phenomenon, Paul Taylor's *Hackers: Crime in the Digital Sublime* (1999), based on interviews conducted from 1989 to 1993 with computer scientists and hackers, and drawing heavily on S. Levy's popular *Hackers: Heroes of the Computer Revolution* (1984), provides the first scholarly analyses of what Dorothy Denning in the mid-90s called "the hacking phenomenon that has swept the world". Both Levy and Taylor talked to hackers about the practicalities, objectives and wider implications of what they do, and together generate a revealing and seminal account of the debates surrounding this controversial and hitherto understudied phenomenon.

Taylor summarized the main characteristics of the hack as: "(1) Simplicity: the act has to be simple but impressive. (2) Mastery: the act involves sophisticated technical knowledge. (3) Illicitness: the act is 'against the rules'" (Taylor, 1999, p. 15). From the outset, we can see how the 'hack' is act-oriented while the 'product' of such an act, in contrast to traditional graffiti writing, is something far more vague.

Levy's early work summarized the now oft-cited tenets of the hacker ethos in the following five points: "(1) All information should be free. (2) Mistrust Authority—Promote Decentralization. (3) Hackers should be judged by their hacking, not by bogus criteria such as degrees, age, race, or position. (4) You can create art and beauty on the computer. (5) Computers can change your life for the better" (Levy, 1984, pp. 40-5).

Tenent number four "You can create art and beauty on the computer" is especially notable for our purposes here: though most of the items in this famous list are either self-explanatory or would be thoroughly explored in coming research, the fourth, even though serving as a kind of aesthetic 'mantra', and clearly pointing toward the product, would be largely neglected by scholars.⁷⁴

The hacker community has been studied in much detail (Jordan & Taylor, 1998; Levy, 1984; Samuel, 2004; Taylor, 1999; Vegh, 2003); however, we can broadly characterize its members as agents primarily focussed on the *act* of access to the code-wall, not on producing perceptible *products* on the virtual surface or *muris perceptus*. If hacking displays stylistic intensity, it arises principally from the feat of access: How did they pick the most complex lock? Having opened the gate, they most often simply notify the owner of the property and warn the proprietor to fix the problem. They may offer their own services as security consultants to remedy the vulnerability. The community of hackers differentiates between "White Hat", "Grey Hat" and "Black Hat" hackers, with the 'White' referring to those who now work for the IT departments of corporations or

⁷⁴ David Berry's *The Philosophy of Software: Code and Mediation in the Digital Age* (2011) proposes a phenomenology of computation where computer code (read, written and running) is approached from an aesthetic perspective. The only issue I take with his approach is that it focuses on highly self-conscious 'artists'. He does, however, make the critical observation that "the web itself, beyond its screenic representation presented by the browser, offers secret depth to the intrepid researcher that dares to use the menu function 'view source' on the View menu" (p. 118).

security consulting firms, ‘Grey’ to those working on their own or for hire on projects respecting tacit legal boundaries, and the ‘Black’ to those engaging in explicitly illegal activities (Jordan & Taylor, 1998).

Among the Black Hats are a group of hackers called ‘crackers’, who use their skills not only to access computers but to steal data (corporate, financial, personal data, credit card information etc.) directly or implement ‘malware’ for unauthorized criminal purposes (Levy, 1984).

Although there are exceptions, generally speaking contemporary hackers (White, Grey and Black Hat) do their work without leaving a publicly viewable trace. The hacker ethos is one of exploration and problem solving, and typically if the targeted program or website learns of their unauthorized presence, it is a sign that their exploit has failed. In the case of the crackers, because of the highly illegal nature of their activities, and the likelihood of national and international police pursuit, these groups attempt to operate with as much secrecy and invisibility as possible. This quality is compounded by the fact that the typical corporate target of a successful ‘crack’ does not usually want to make the breach publicly known, and may even be in a situation of paying a ransom for the return what they have lost (Yar, 2006).

If we consider the activities of the hackers and crackers we would say that their *acts* typically display high degrees of both dialogic and monologic intensity (concern with the difficulty of the exploit and the quality of execution); however, they typically leave no visible product on, make no visible defacement of, the *muris perceptus*—in fact the opposite is at work: stealth and concealment. Their code, inscribed in the *muris codicis*,

is their product, or the productive aspect of their work; but this code is, as I have noted, virtually always invisible, or if visible at all only legible to other specialists working at the code-wall.

In the real world, graffiti are often considered as acts of vandalism, accepted as legitimate artwork, or can be easily (and increasingly) confused with professional advertising. As I have argued, the intensity of ‘style’, in both the act and product of dyscription, is one factor that differentiates dyscription from mere vandalism or simple burglary. Another is the instrumental quality of the ‘exploit’. The typical contemporary hacker accomplishes the act of access for an instrumental purpose; there is something substantial to be gained from gaining unauthorized access: money, employment or promotion. We would expect a typical virtual dyscriptor to display a far lower degree of instrumentality. Our virtual dyscriptor would arrive at the code-wall just like a hacker does, but then gain very little if anything by this act. What would matter more to the virtual dyscriptor is what he or she does *next*. Thus, we do not consider the *typical* activities of hackers and crackers to be virtual dyscription in the pure sense of the term, as their work, among other things, lacks the significant stylistic charge we would expect the typical virtual dyscriptor to incorporate into their dyscriptive products.

The ethos of hacker culture shares many affinities with that of the New York signature-based graffiti-writing culture, and, when we present the emergent ethos of the virtual graffiti writing culture in Chapter 6, we will confirm some of these striking similarities. However, unlike earlier sociological research into New York-style graffiti, contemporary research into hacking focuses mainly on group dynamics and motivations—or the acts of the hackers—and rarely touches on the composition and appearance of the products left

behind by hacking activities, the potential analogues to the tags and ‘throw ups’ of the traditional world (Castleman, 1982); nor is any attention paid to how such virtual marks might be evaluated from an aesthetic or stylistic perspective. There is no doubt that the criteria for the evaluation ‘good code’ or a ‘beautiful hack’ are perhaps immanent or even sometimes explicit, for example in the cultivation of simplicity and skilful coding technique (Berry, 2011; Levy, 1984), but the publically visible, human-readable manifestations of hacking activities are otherwise treated as generic, ‘epiphenomenal’ by-products. However, one such by-product, which would appear to meet the criteria for a graffiti-like product, with all the historical and aesthetic implications of such an ascription, is *website defacement*—the predominant production of a group of hackers who have come to be called hacktivists.

Hactivists

The term ‘hactivism’, introduced into the scholarly lexicon by the influential work of Dorothy Denning, denotes the marriage of hacking and political activism: “it covers operations that use hacking techniques against a target’s Internet site with the intent of disrupting normal operations but not causing serious damage” (Denning, 1999). Since Denning’s early work, some of it for the USA’s Infrastructure Protection Centre (2001), research into hactivism has produced some key studies; among them, Tim Jordan’s early *Activism!: Direct Action, Hactivism and the Future of Society* (2002), and his notable follow-up, co-written with Paul Taylor, *Hactivism: Informational Politics for Informational Times* (2004). These works are complemented by a number of PhD dissertations on the topic of hactivist activity, including Sandor Vegh’s *Hacking for Democracy: A Study of the Internet as a Political Force and Its Representation in the*

Mainstream Media (2003) and A.W. Samuel's *Hactivism and the Future of Political Participation* (2004), the latter of which provides an excellent empirical study and synthetic taxonomy of the phenomenon of hacktivism.

The work of Jordan and Taylor constitutes the most substantial investigation into hacktivism, conceiving it as a form of resistance to neo-liberal globalization.⁷⁵ In *Hactivism* (2004) the authors distinguish “mass action” hacktivism from “digitally correct” hacktivism, with the former adopting forms of protest that are analogous to ‘offline’ mass protest and civil disobedience, and the latter focussing on the “human right to secure access to information,” which the authors describe as a “second political order, serving the ‘first order’ rights to health, welfare and full-citizenship” (Jordan & Taylor, 2004). Their representative research is focussed on the analysis of hacktivist acts with reference to questions concerning collective political action and how the Internet can foster new, deliberative forms of political participation. The ‘products’ of hacktivist activity do come prominently into view, as forms of “electronic mischief” (Samuel, 2004, p. 7), notably information theft and distribution, special software development, website parodies, virtual ‘sit-ins’, and specifically website defacements; but only those defacements with political messages are considered in any further detail, and then only from the perspective of their message content. Although the curious status of “humorous” defacements is noted, as well as the existence of mirror archives, the clear affinity between these activities and traditional graffiti-writing, especially what we may broadly

⁷⁵ Gabriella Coleman's *Coding Freedom: The Ethics and Aesthetics of Hacking* (2012) is a recent and important addition to hacking studies, advancing our understanding of the aesthetic aspects of *the acts* of the hacker communities. In some ways, my work formally brushes up with Coleman's but focusses on *the products* of a subset of similar ‘actors’ (i.e., virtual dyscriptors).

term ‘protest’ work, is never explored. Nonetheless, a comprehensive and valuable analysis of the subcultures active in the hacktivist community is performed.

A.W. Samuel’s (2004) empirical research into hacktivist communities and motivations is the first to pay attention to the aesthetic aspects of hacktivist productions. Following Jordan, Taylor and Vegh’s work on these new modes of Internet-enabled political participation, she develops and extends their research by producing a detailed taxonomy of hacktivist activity based on origins and orientations. Samuel introduces the category of “performative hacktivism” to distinguish the hacktivist engagements of “artist-activists” from what she calls “political coders”. Acts of performative hacktivism are “legally ambiguous hacktions, undertaken by hacktivists with artist-activist backgrounds. [They] draw heavily on the tradition of political theatre... Many performative hacktivists come from theater or art backgrounds, and see hacktivism as a new form of political art” (p. 71). Samuel’s research shows that these practitioners are members of the “post-modern left” (p. 39), emphasizing how “the worldview of these artists and activists is self-consciously shaped by the theoretical works of postmodern and critical theorists such as Baudrillard, Virilio, Foucault and Guattari” (p. 46).⁷⁶ These self-identified artist-activists may display a transgressive orientation, but as Samuel notes:

While it might seem theoretically possible for artist-activists to engage in outlaw forms of hacktivism, it is easy to see why such

⁷⁶ At the time of Samuel’s writing (2004), the most visible of these groups of performative hacktivists were the Electric Disturbance Theater, RTMMark, and the “electrohippies”. The EDT is a group of four U.S. based activists who banded together in 1998 to create a digital protest with the Zapatistas; RTMark is a U.S. based activist ‘mutual fund’ that sponsors acts of ‘anti-corporate sabotage’ such as virtual sit-ins. More recently (2006-2014) we would include Evan Roth’s “Graffiti Research Lab”, which serves as a development hub for software and hardware enabling graffiti-like production (laser tagging) in sanctioned real and digital contexts.

hacktivism has yet to emerge. The outlaw orientation...the assumption of legal risk and the not-unrelated effort at avoiding accountability...all run counter to some pretty central principles of postmodern left activism. Artist-activists tend to value mass, accountable action as more democratically legitimate, and eschew transnational conflict due to a more pacifist orientation. (p. 36)

Samuel's research tends to focus on the character and qualities of self-conscious, politically active, "hacktions" (Samuel). Although one of the first scholars to note the aesthetic aspects of hacktivist activities, she focusses solely on the productions of professional and pseudo-transgressive 'artist-activists', effectively marginalizing the predominance of *a-political* website "mischief", the blatantly illegal and fully transgressive praxis of the typical website defacer, whose images and tags, though blossoming across the World Wide Web and filling the mirror archives, are sometimes remarked upon but otherwise studiously ignored.

Although much solid scholarly research has been done on the activities of this type of hacktivist activity, as Samuels shows, the research objectives of political science orient the disciplinary focus, usually asking how the Internet can foster new, deliberative forms of political participation (Samuel, 2004, p. 7); and otherwise dwelling on what we would call the purely dialogic aspects of the dyscriptive product, with little or no interest in the stylistic qualities of the product in and of itself (i.e., monologic intensity).⁷⁷

⁷⁷ Although I generally agree with Samuel's typology of the hacktivist community operating in the Web in the early 2000s, I believe that (a) it forms only a subset of the total community of *digital dyscriptors* operating in the virtual world, and (b) political activism is only the most obvious of several intentions of the

If we look to the real world analogue, this would be similar to spending time in New York City in the early eighties, paying attention only to graffiti that had explicit political content. The scholarly research would be relevant and interesting, but may overlook everything that was appearing on and in the subway cars, and even classify it as merely ‘apolitical’ or ‘pornographic’ or ‘infantile’. This is precisely the phenomenon that we noted in Tanzer’s work on the Pompeiian graffiti, which focused on the “decorus” and put the “indecorus” aside as partaking of the long tradition of *cacoethes scribendi* (Tanzer, 1939). My research is premised upon the identification of emblematic examples of dyscription in the virtual world, and website defacement, as we will shortly see, meets all the necessary criteria. Although hacktivists undoubtedly produce website defacements, as we will see in the next section, the overwhelming proportion of website defacements, like their traditional counterpart, are not produced for specific political ends. And further, given the body of website defacements that clearly do display signs of political activism, much of what is most interesting about such defacements is overlooked if we only concentrate on the dialogic aspects of the product.⁷⁸

“Hacker Taggers”

In 2010 Matthew Warren and Shona Leitch published the short paper in the *Journal for Information Systems Frontiers* called “Hacker Taggers: A New Type of Hacker,” treating of what they identified as a new kind of hacker subgroup, the “hacker taggers”.

Reviewing the literature on hackers and hacking, they note how the work of previous scholars (Levy, 1984; Sterling, 1993; Taylor, 1999; Jordan, 2008) has generally failed to

‘hacktivist’, some of whom, as we will see, also appear to be very interested, even preoccupied, with the stylistic aspects of their defacement page (e.g., see ‘ApriliGhost’ in Chapter 6).

⁷⁸ This observation is supported by the work on traditional graffiti by Baudrillard (1976) in *Kool Killer: The Insurrection of Signs*, and by Meike Bal (1996) in *The Practice Of Cultural Analysis*.

pursue research into the multiplicity of “hacker subgroups”, focussing instead on “hacker capability” in the context of Internet security and law enforcement. They point to the existence of a hitherto unexamined yet prevalent group of “hacker taggers”, borrowing the term ‘tagger’ from the vocabulary of graffiti studies (without any further reference to the work accomplished in that field), to denote hackers who deface websites with “the sole intention of leaving a ‘Hacker Tag’ or ‘calling card’ behind” (p. 428). Their research thus results in a simple ‘profile’ of such hacker-taggers⁷⁹ and the suggestion that it might be of some use to law enforcement agencies or forensic investigation teams in identifying and understanding the rationale of such actors. They conclude, somewhat cryptically, that “the long-term issue posed by hacker-taggers is still unknown, but, in the short term we have seen that this group will have a global impact, only time will demonstrate how severe this impact will be” (p. 430). Warren and Leitch notice the locus of virtual graffiti and provided a tentative ‘sighting’ of the practitioners. Although they do not pursue the phenomenon any further, their insights go some ways to confirming the intuition that in the practice of website defacement we are getting close to the locus of something like virtual graffiti.

The Limited Stylistic Range of Hacking Studies

If we now use the same schema (p. 57) to comparatively situate the discourses developed in scholarly studies on the broad phenomenon of hacking, which shows the most promising set of affinities to the praxis of traditional graffiti, we can see that the current

⁷⁹ Their profile identifies six features of hacker-taggers: “Are very competitive, e.g., based upon Zone-h reports; Have a strong desire to succeed; Exchange information amongst themselves, e.g., the successful defacements (4) Cause minimal damage to websites or no damage to websites; Rely upon media reports to cause political damage or embarrassment. Could be an individual or a number of hackers.” (Warren & Leitch, 2010, pp. 430-431)

approaches are typically not attentive to stylistic features of the *products* of what is called hacking (including hacktivist productions), and particularly those aspects of the phenomenon that we have called ‘monologic’. Whether this is because hacking studies would first need to reframe hacking as acts of ‘*digital dyscription*’⁸⁰, or because virtual dyscription has simply not been recognized as a subset of hacking activity, is an open question.

<i>Locus of emphasis</i>	<i>Dialogic</i>	<i>‘Monologic’ (Formal)</i>
<i>ACT</i>	The implicit (but given the logical nature of code, in a sense also the explicit) dialogue between the hacker and the site he/she is attacking (What the act implies) <i>Hacking/Cracking (hacking for criminal profit)</i>	The nature and structure of the target site independent of the specific hacker AND The nature and characteristic style of the hacker, independent of the specific site and act (Degree of difficulty: How hard was it to do? How ‘good’ at it is the hacker?) <i>Computer Security/Hacking</i>
<i>PRODUCT</i>	The often implicit (but sometimes explicit) dialogue between the hacktivist product and its now defaced site (What the inscription ‘says’ to its target) <i>Hacktivism</i>	What can be said about the product independently of the dialogue between product and the defaced site (The inherent and repeated formal ‘style’ of the visible defacement) image?) ?

Figure 2 – Schema of the style dynamics of digital dyscription (scholarly emphases)

⁸⁰ I will use *digital dyscription* is the *genus* that classifies *all* unauthorized, human stylistic inscriptive defacements of property occurring at the *muris codicis* (hacking, hacktivism, cracking, etc.) in the digital environment, while *virtual dyscription* is a *species* of digital dyscription focussed on the resultant production of visible marks (products) on *the muris perceptus*. I shall use the term ‘virtual dyscription’ interchangeably with ‘virtual graffiti’.

The act-oriented approach of ‘hacking studies’ and the specifically dialogic focus of hacktivist studies explains how the recognition of activities and productions homologous to traditional graffiti has not been an orientation of these research programmes to date. Of course, it may simply be the case that the monologic aspects of the products (imagery, composition, etc.) are simply not of any pressing interest, compared with the fascinating and novel ‘acts’ of computer hackers. Nevertheless, as we shall see below, it is clear these products are being produced, if only as side-effects, on a vast scale, and our ‘fourth quadrant’ remains largely unexplored. We will have another opportunity to revisit this schema once we have gathered the results of our first empirical investigation of the phenomenon (Chapter 4, p.119; Chapter 6, p. 227).

Website Defacement as Homologic Focus

The overview of hacking and hacktivism and their scholarly treatment allows us to roughly situate these in our schema, revealing that although these activities display strong affinities to graffiti praxis in three of the four quadrants, neither the hackers or hacktivists, nor the scholarly approaches to their productions, are typically interested in the aspects highlighted in the ‘fourth’ quadrant, where intensities in the monologic aspects of the products of dyscriptive activity are predominant. In this regard, those activities (and the treatments of them) are not closely homologous with traditional graffiti or its scholarly treatment, where the monologic intensities of the products of graffiti (the formal features of the ‘marks’ themselves) are a dominant aspect both of graffiti praxis and of scholarly attention.

We now consider another group of ‘actors’, pejoratively called ‘script-kiddies’ (Lemos, 2000), whose primary activity seems to be the production of *website defacement*, the

unauthorized access to and (typically) replacement of a website's homepage with a page of their own. We ask the question: what if some script-kiddies were more adept or interested in creating defacement pages than others? What if some seemed to focus more on the visible results of their exploits than others, not simply satisfied by proving they can access a site (although this is a necessary component), but looking more for an opportunity to 'express' themselves in a public place? What if some of their website defacement products displayed the characteristic stylistic cues we have come to expect when we use the word 'graffiti' to denote something in the 'real' world? From what we now understand of the traditional syntagma and the nature of the digital environment, if we could find that dyscriptor, one who is producing stylistically interesting defacement pages, someone perhaps classified as an apparently 'purposeless' script-kiddie, then we would have located something that looks a lot like 'virtual graffiti' praxis.

The Script Kiddies

The bulk of website defacements are performed by what hackers, hacktivists, security specialists and the specialized media call "script-kiddies" (Lemos, 2000). This is a term derived from the access method these dyscriptors use to get to their code-walls. Instead of writing their own code (like hackers and crackers), or targeting very particular specific sites (like hacktivists), they simply borrow prewritten 'scripts' (computer code) that can be easily located in the web and mastered (via Youtube demonstrations), and then 'tag up' in whatever sites this code happens to allow them to access. These dyscriptors are typically considered to be young adolescents, and although they may form groups along ethnic, religious or nationalistic lines (which might make us think of them as 'hacktivists'), they are typically defacing websites 'for fun' (see table with percentages

below). These are the virtual world analogues of the traditional graffiti-writers we imagine with ‘hoodies and spray-paint cans’, who roam the city leaving their often cryptic marks on any available surfaces. If there is any instrumentality in their acts at all, it is simply to ‘get their name up’, exactly like the subway youngsters of New York City explained to Norman Mailer in *The Faith of Graffiti* in the early seventies. Some of their defacements are extremely banal, some are complex, some are on websites nobody has or ever will hear of, some deface very busy government and commercial sites. Although the acts or exploits of these dyscriptors may occasionally gain some media attention, depending on the status of the property they have defaced, their products have gone unexamined, following the traditional treatment of most *cacoethes scribendi*.

Website Defacement

If we consider websites as buildings that present a perceptible surface (webpages) to the public, and a simple website as something like a typical house⁸¹ with a front gate that can either be locked or unlocked, then website defacement would appear to be the clear homologue, in the virtual world of the Web, to what we experience as graffiti in the ‘real’ world. Whereas a traditional dyscriptor intent on leaving a few simple tags goes out into the city with a black marker and leaves his marks where opportunity arises, the virtual dyscriptor sits at his computer searching for websites with vulnerabilities he can exploit to gain unauthorized access to the code wall of a webserver instantiating that website on the Web. They are looking for the virtual-world equivalent of open or unlocked gates, or gates they can open with ‘skeleton keys’, or locks they can ‘pick’, depending on their

⁸¹ The house analogy is explicitly used by many virtual dyscriptors.

skills and inclinations.⁸² For all intents and purposes, the ‘houses’ behind these gates are uninhabited; and thus, once someone gets through the gate, both the outside and *inside* of the house are ‘open’ for to him to explore and dyscribe. If we follow this analogy one step further, we can imagine the homeowner as someone who lives ‘elsewhere’ but who drives by their home once a day, noting if anything is amiss. If our virtual dyscriptor leaves the gate open and a mark on the front of the house, then the passing owner stops, removes the mark, locks the gate, and then (often) checks all the rooms inside the house just in case anyone is still there. If someone has entered but closed the gate and not left a visible mark on the outside, they may remain ‘hidden’ inside the house looking for valuables, and the owner might not even notice when he drives by.

A necessary skill required of any virtual dyscriptor is mastery of access methods. This is the fundamental act of getting to the code that instantiates the website (*what I call the murus codicis*). Like a real city, the virtual world of the Web is populated with a startling and changing array of websites, some of which are highly secured with custom ‘locks’ and contain valuable data, others which have standard locks or only require that the gate handle be pushed down in order to enter. Regardless, what the dyscriptor *does* once he has accessed the code-wall is what primarily distinguishes him from hackers, crackers or hacktivists.

Given the highly evanescent quality of both the acts and the product of website defacement; the speed and ease with which the products can be removed from public view without a trace; the vast locative topography of the WWW; and the fact that we

⁸² The metaphor of ‘burglary’ is also a common trope, one that has been recently criticized as a “failed metaphor” in the context of hacker studies by Tim Jordan (2013).

cannot simply go ‘outside’, as in a city, and walk about looking for inscriptive defacements in the general landscape (bricks, alleys, floors, walls, overpasses, etc.), but instead must specifically select a single website, out of hundreds of millions, to discretely view; an important question for the researcher is *how will I ever encounter a website defacement?* After all, the typical computer user has probably never seen one.

Fortunately, there exists a web-hosted private mirror archive (Zone-h) containing over four million images of verified website defacement, collected over the last 12 years. Zone-h is relatively unknown, and certainly understudied by scholars, yet would appear to be replete with clear virtual homologues to traditional graffiti.

Case Study: Bill’s Berry Farm

Before we start the work of homologic analysis, I would like to present a brief case study to address an asymmetry in the typical reader’s experience of graffiti. Most of us can easily bring to mind the visual qualities and contexts of production and reception at play in acts and products of traditional graffiti, as we encounter them, in one form or another, on an almost daily basis. However, this is very likely not the case for the phenomenon of website defacement.

Most readers can recall some kind of graffiti: scribbled in a washroom stall, carved into a picnic table, high up on the buttress of a highway overpass, carefully spray-painted on the wall of an inner-city low-rise. We have all probably viewed, in one form or another, the widely circulated images of the New York City subway system of the 70s, and have or seen or heard of the highly mediatized and aestheticized praxis of graffiti-artists such as Banksy and others working within the contemporary context of the self-conscious

performance arts. We have already formed or can easily form judgements on the acts resulting in, and the products resulting from, the praxis of graffiti. We can imagine how someone selects a target, acquires the inscriptive tools, comes to the location unseen, makes their mark (perhaps looking over their shoulder) or conceals a pen when someone unexpectedly comes into the washroom; we imagine the quickly scrawled witticism, the daring placement of a three letter ‘tag’, the impressive display of spray-painting technique, the reckless defacement of the public utility.

In the case of ‘website defacement’, however, most have very little to go on other than the term, the common notion of a website, and the general sense of what it might mean to deface something. Most of us would have no way to envisage the contexts of production of website defacement, or how the act is accomplished, and we probably have little or no store of prior experience to draw upon in commencing a comparative assessment of the visual qualities of the products of website defacement. We may well try to imagine something graffiti-like visible on a computer terminal, but what exactly? Few of us have ever seen such a thing *in vivo*.

Let us briefly consider a sample of the empirical material to come in Chapter 5: the case-study of a typical act of *virtual* graffiti.

Bill’s Berry Farm website

Bill’s Berry Farm is a family run orchard and farming operation in Washington State, USA. They have been in commercial operation since 1994. They set up their first website sometime after 2005, and it has since become a valuable asset both for marketing their products and services and for communicating with their modest customer base. The

website does not support any commercial electronic transactions (e-commerce) and is not a repository of personal or financial information (e.g., credit-card numbers). It is powered by an open-source content management system called ‘Joomla’, which allows the quick and easy construction (through the use of standard templates and extensions) of functional websites. This is how the Bill’s Berry Farm website homepage looked on April 9th, 2014 (www.billsberryfarm.com):

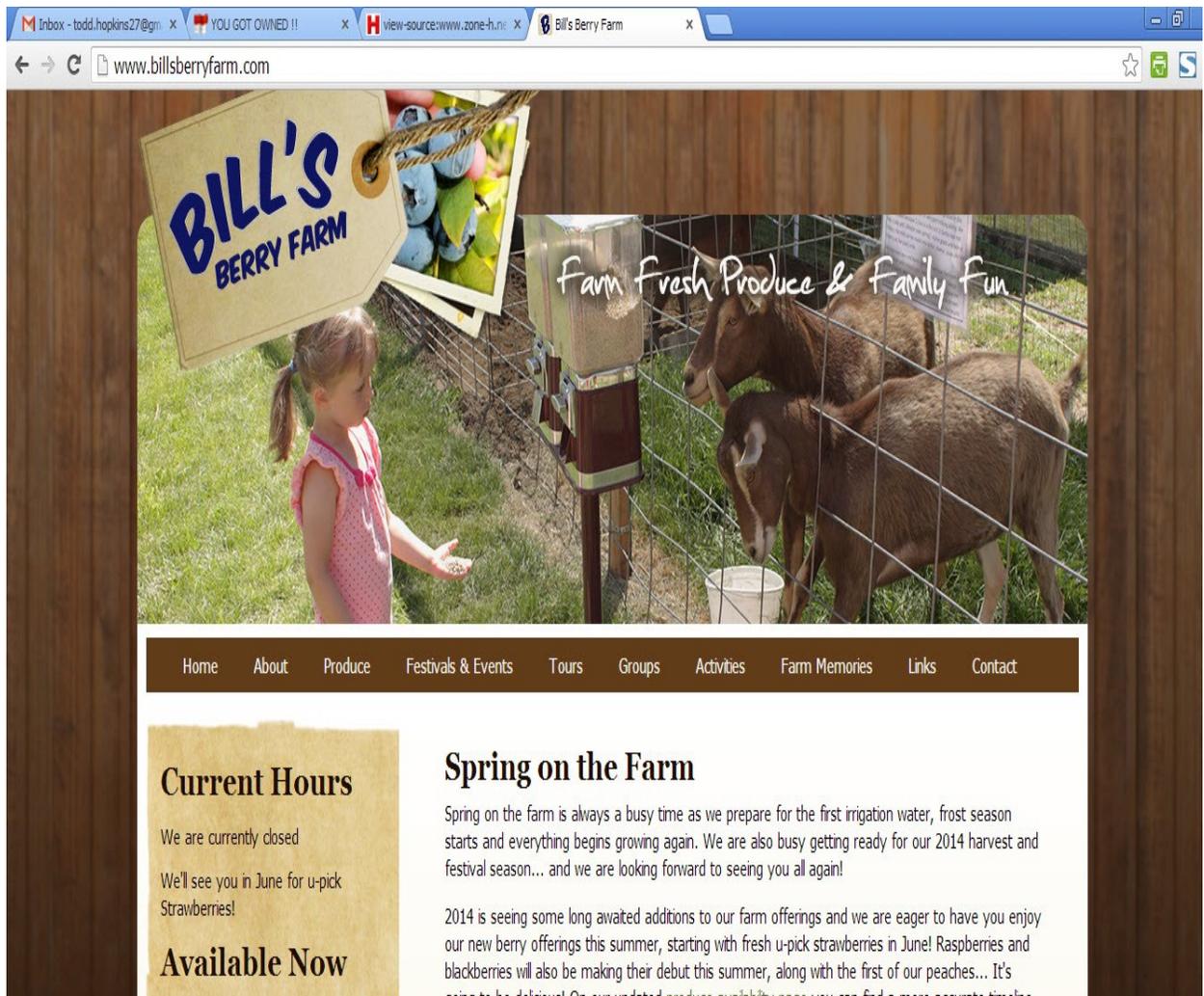


Figure 3– Website homepage of Bill’s Berry Farm on April 9th, 2014

Sometime on April 10th, the website's homepage was replaced, without the authorization of the owners, by this one:



Figure 4 – Website defacement of www.billsberryfarm.com by “Synchronizer” (Zone-h 22183576)

The video capture “BillsBerryFarm” on the CD-ROM (Annex C, XXX) shows the animated background and other interactive features of this defacement product. Note that the screen ‘tab’ now displays a small (Indonesian) flag and the phrase, “YOU GOT OWNED!!” The textual features of the composition are in English, and the typical Bob’s Berry Farm website visitor may or may not know that Krakatau is an island in the Indonesian archipelago, or what a “cyber team” might be. The “Special thanks to my baby:*” does not feel like it is addressing anyone in Washington state or at Bill’s farm, but feels more like a call-out to the defacer’s friends or family. And who is the girl?

If anyone (typically the site administrator) uses their mouse to examine the unexpected inscriptive defacement more closely (e.g., by right clicking their mouse and choosing ‘reveal source’), they will discover that another image appears informing the user that their ‘right click’ has been disabled; and if we look at the video capture, we can see that a small white ‘help’ box appears, stating “click to dissmiss this massage [sic]”.

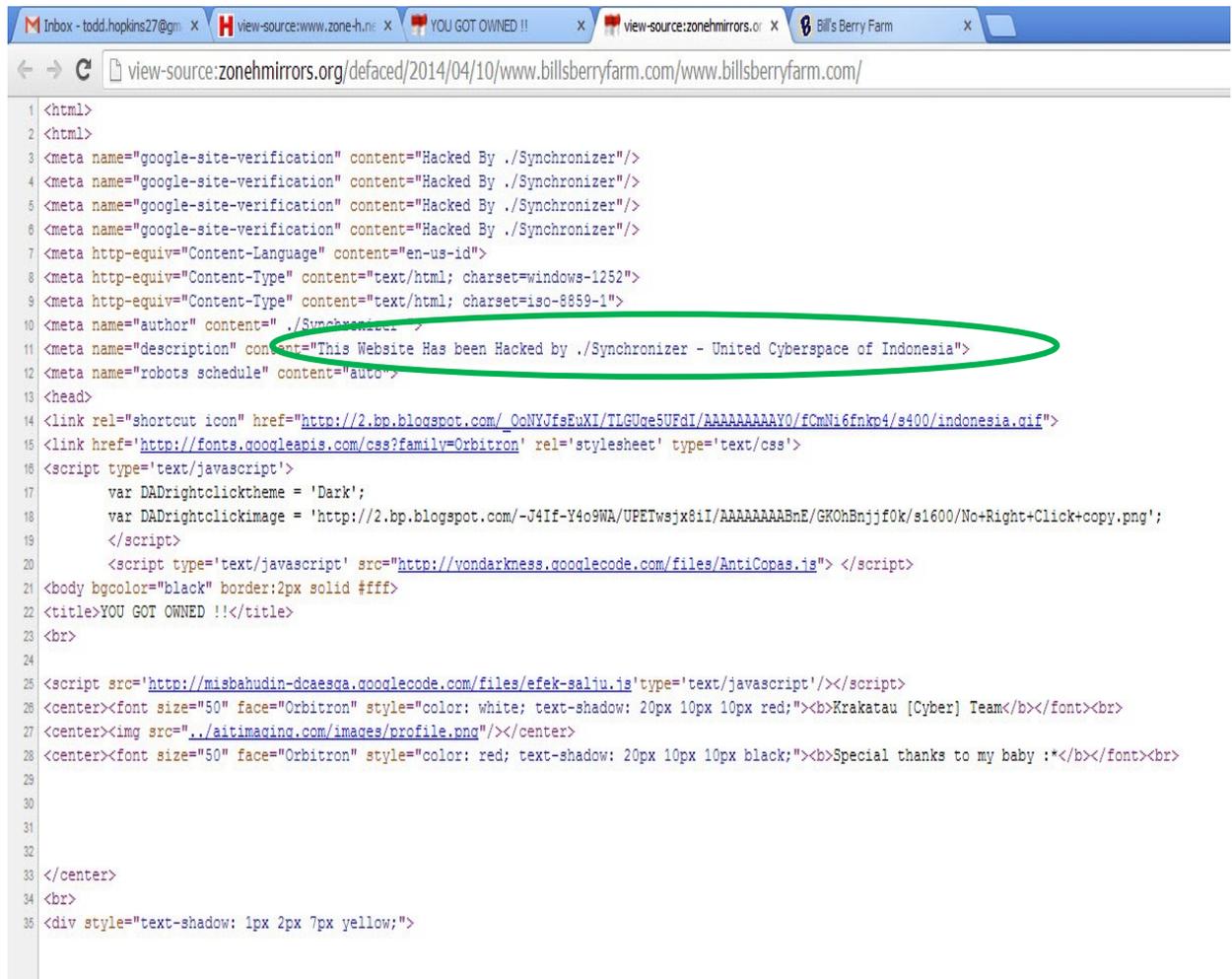


Figure 5 – Defacement image changes if viewer attempt to right click (i.e., to view source code).

This website has been subjected to an act of what I shall call virtual graffiti. These acts have been occurring since the inception of the World Wide Web (WWW), and over 1.3 million were verified and archived in 2013 alone, not taking into account the untold number of defacements that occur without any formal notification to an archive site. In this case, as in most—and as in the case of traditional real-world graffiti—the defacer has done nothing malicious to the inner structure of the owner’s site, here *website* (e.g., erased or stolen data or files), and in this case, as in most cases of *virtual* graffiti, the

defacement image is easily removed. However, if the owner does not properly secure the website, it will typically be re-defaced, either by the same actor(s) or by someone else.

If the website administrator, in the course of repairing the site, looks more carefully into the source code of the HTML file producing the visible defacement page, they will, as in most cases, be able to discover further contextual information about the act and actor, buried in the code as ‘hidden’ messages. Here, on lines 1-6 (leftmost column), the defacer identifies him/herself as “./Synchronizer”; and, on line 11 adds, “This Website Has Been Hacked by ./Synchronizer – United Cyberspace of Indonesia”.



```
1 <html>
2 <html>
3 <meta name="google-site-verification" content="Hacked By ./Synchronizer"/>
4 <meta name="google-site-verification" content="Hacked By ./Synchronizer"/>
5 <meta name="google-site-verification" content="Hacked By ./Synchronizer"/>
6 <meta name="google-site-verification" content="Hacked By ./Synchronizer"/>
7 <meta http-equiv="Content-Language" content="en-us-id">
8 <meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
9 <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
10 <meta name="author" content="./Synchronizer">
11 <meta name="description" content="This Website Has Been Hacked by ./Synchronizer - United Cyberspace of Indonesia">
12 <meta name="robots schedule" content="auto">
13 <head>
14 <link rel="shortcut icon" href="http://2.bp.blogspot.com/_OoNYJfsEwXI/TLGUGE5UFGI/AAAAAAAAAYO/fCmNi6fnkp4/s400/indonesia.gif">
15 <link href="http://fonts.googleapis.com/css?family=Orbitron" rel="stylesheet" type="text/css">
16 <script type="text/javascript">
17     var DADrightclicktheme = 'Dark';
18     var DADrightclickimage = 'http://2.bp.blogspot.com/-J4If-Y4o9WA/UPETwsjx8iI/AAAAAAAAABnE/GK0hBnjf0k/s1600/No+Right+Click+copy.png';
19 </script>
20 <script type="text/javascript" src="http://vondarkness.googlecode.com/files/AntiCopas.is"> </script>
21 <body bgcolor="black" border:2px solid #fff>
22 <title>YOU GOT OWNED !!</title>
23 <br>
24
25 <script src="http://misbahudin-dcaesga.googlecode.com/files/efek-saiju.is" type="text/javascript"/></script>
26 <center><font size="50" face="Orbitron" style="color: white; text-shadow: 20px 10px 10px red;"><b>Kerakatau [Cyber] Team</b></font><br>
27 <center></center>
28 <center><font size="50" face="Orbitron" style="color: red; text-shadow: 20px 10px 10px black;"><b>Special thanks to my baby :*</b></font><br>
29
30
31
32
33 </center>
34 <br>
35 <div style="text-shadow: 1px 2px 7px yellow;">
```

Figure 6 – HTML source code file replacing Bill’s Berry Farm original index (homepage) file.

Someone from Indonesia, probably the Island of Krakatau, has located a flaw in the programming of the Joomla webserver, exploited the flaw to gain unauthorized access to the Bill's Berry Farm website, and once 'inside', replaced the file that instantiates the homepage with one of their own (the source code above).

Like his/her traditional counterpart, moving quietly and often beneath the very 'noses' of their targets, someone in the *digital* environment has approached the 'property' of Bill's Berry Farm, 'broken the gate' or found it left open, 'entered', and inscribed a perceptible mark on the 'wall' of the site, here the website—in this case, as in most, directly on top of the 'front' wall, the website's homepage. Bill will now have to decide how best to remove this defacement, and to make sure it does not happen again.

We can rapidly discern a host of suggestive affinities between this digital work of './Synchronizer' and a 70s 'graffiti artist' spray-painting images and text on the front wall of our local diner in the darkness of night; but we can also, even in this single case, sense some critical and systemic differences. The task of the following chapters is to test and explore the key formal dynamics of the new phenomenon of *virtual graffiti*.

The Mirror Archive

One of the novel and essential features of the virtual world of the Web is evanescence (Chapter 4 Section 5.1), compounded by the highly discrete (non-continuous) or 'quantum' character of our experience of websites: we can only visit one at a time. Given the current volume of active, indexed websites (somewhere in the neighbourhood of 250 million), combined with the ease and speed with which any defaced webpage can be

removed (especially on a site with any kind of popularity or ‘visibility’), our chances of encountering a ‘live’ defacement are close to nil.

Evanescence also characterizes many of the most public acts of traditional graffiti; a typical defacement of a commercial bank or government building will remain visible for only a few hours, leaving behind perhaps a ‘stain’ or what dyscriptors call a “buff”, which may remind viewers of what had been there. If we visit the subway system of New York in 2013, we do not see any graffiti on the outside of the subway cars, although most people, many of whom have never been to that city, have seen pictures on television, in movies or books, of the spectacular paintings on the cars. Virtual graffiti, when it is noticed at all, is noticed in the ‘secondary’ media—as an image in a news item; but even then, where did the image come from? Who took the picture? Often the dyscriptors publicize their exploits to social media, but how do we know the exploit is ‘real’; that is, how do we know they really got into the webserver and replaced the homepage when they could simply be posting a mock up? The extreme evanescence of dyscription in the virtual world has, in fact, posed a critical problem for dyscriptors since the beginning of website defacement; and the solution to the problem arose in the form of what is called a ‘Mirror Archive’, an application program that makes a screen capture of a defaced website and stores its ‘mirror’ image in a web-accessible database.

If not the first, certainly the first serious mirror archive to be established was at an American website called *attrition.org*, which began actively mirroring defaced websites in January 1999, and contained defacements from as early as 1995. The site was established to understand the evolving area of security in the web application network, and to serve as a kind of early warning system for website administrators and emerging

digital security specialists. The site owners were themselves classic hackers or computer security specialists, and their objectives were to bear witness to and understand a phenomenon emerging in the new virtual world of the Web called website defacement. When a dyscriptor would notify them (via email or internet chat) of a defacement, a computer application ‘robot’⁸³ would examine the defaced site, mirror the defacement (take a copy and put it in a database), verify the site’s credentials (site address and registered domain name), check to see if the site had already been defaced, check for hidden comments or malware in the client-side code (the HTML/Javascript in the defacement source), and then send out a series of notifications to the site owner (to let them know what happened) and other interested third parties⁸⁴. *Attrition.org* would then publish the specific defacement information in a ‘live’ list on their website, including a link to the mirror image of the defacement, the dyscriptor’s screen name, the date, and a link to the defaced website. They also maintained various important statistics concerning the kind of sites that were defaced, the number of defacements by group or individual, the operating systems and webserver software of the target website, the type of access method used, and the reason why the dyscriptor did it. Brian Martin (aka ‘Jericho’), one of the founders of *attrition.org* also wrote a number of popular, insightful articles on the phenomenon for the computer security and ‘hacker’ audience, and was perhaps the first person to call website defacement “digital graffiti”, noting that “hacktivism” was simply a convenient excuse (Martin, 2000). One of the key tasks of the small staff at the mirror

⁸³ I find it somewhat ironic that it is a ‘robot’ that first ‘sees’ and records virtual dyscription, especially given my inclination to classify virtual dyscription with the archaic rupestral expressions of our Neolithic ancestors and the fact that a small dog named ‘Robot’ discovered the cave at Lascaux—see “The Symbol of the Archaic” in Guy Davenport’s *The Geography of the Imagination* (2002).

⁸⁴ In the late 90s these were CERT: Computer Emergency Response Team (at Carnegie Mellon University), NIPC: National Infrastructure Protection Centre (now Homeland Security), NIC: Network Information Centre (now ICANN: Internet Corporation for Assigned Names and Numbers), and their international counterparts as the WWW and defacement exploits expanded beyond Europe and the USA.

archive was to manually verify that each defacement was in fact authentic, a task that has yet (2013) to be properly automated. In the first six months for which comprehensive statistics are available (January 1999 – December 2000), *attrition.org* registered 3,600 defacements. The total amount of reports received over the same time period was much higher (approximately 5,300), however, 33% of the notifications were false. Over the same time period, two other defacement mirror archives also began to operate: *Alldas.de*, a website established in Germany, and a rather eclectic operation called *Safemode.org*. Co-founder Brian Martin explains, in an overview of the early years of their operation (1997-1999), *attrition.org* was considered to be a Black Hat hacker project, encouraging and cultivating website defacements, and treated with extreme skepticism and often legal threats by website owners and legal authorities whom *attrition.org* would inform about a verified defacement (Martin, B. *Attrition.org*. 2000). Martin and his team, through their public efforts at security conferences, managed to change the perception of the mirror archive into an invaluable source for early warning of new threat vectors, and for the forensic analysis of web security threats. *Attrition.org* ceased operations at the end of 2000 due to financial constraints and the career trajectories of the owners. Although the site received many offers for private investment, due to the ethos of open and free access, the owners preferred to wind down operations and would eventually donate the archive to one *Zone-h*, a new mirror archive that commenced operation in 2002.

Zone-h.org

In 2002, a new defacement mirror was established in Estonia, called *Zone-h.org*. *Attrition.org* and *Alldas.de*, both of which had since closed their operations, donated their archives to *Zone-h*, which has continued, until the present day, to serve as the longest

running and most credible mirror archive of website defacement in the world. The statistics from Zone-h show an explosive growth in verified defacements, tracking the growth of the Web itself:

2001: 18,000

2002: 66,000

2003: 251,000

2004: 370,000

2005: 493,840

2006: 752,361

2007: 480,905 (37% drop attributed to improved security and shift to criminal activities)

2008: 522,000

2009: 525,000

2010: 1,419,203

2011: 1,622,977

2012: 1,287,483

2013: 1,604,451

2014: *est.* 1.8 million

(from statistics compiled by Zone-h)

The numbers recorded above are of verified (not merely reported) and archived website defacements. Accounting for (at times) a large part of the total are what are called “mass defacements”, which occur when one individual or group gains access to a webserver that hosts a number, sometimes thousands, of distinct ‘websites’. This allows the dyscriptor to deface many sites at the same time with one dyscriptive act. For example, in 2012 one

dyscriptor named *Iskorpitx* executed a mass defacement of over 70,000 websites; and over the course of his career (since 2000) he alone has defaced almost 500,000 sites.

An analysis of Zone-h's statistics from the years 2007-2012, a period that accounts for a total of over five million defacements, suggests the basic motivations of the defacement community. Zone-h asks the dyscriptor (or group) to fill out a short form with their submissions, providing, among other things, information regarding the reason for their activity. The cumulative results over the time period spanning 2007-2012 show this pattern:

Heh...just for fun! – 55%

No reason - 10%

I just want to be the best defacer – 4%

Political reasons – 2.5%

Patriotism - 2.6%

Revenge against website - 2%

As a challenge - 2%

(from statistics compiled by Zone-h)

Of the over 200 million active websites on the Web, at least (only according to the statistics gathered at Zone-h) .5% will have been defaced at the end of 2013. It may come as a surprise to the average web navigator to know that 1 out of every 200 websites was defaced in 2013; and of course, we are only counting the defacements that come to the attention of one mirror archive. There are many other small archives that arise and

typically disappear after a few months, some set up by small groups sharing the same language or country of origin. Moreover, some defacements will be simply broadcast over social media without any archival verification whatsoever. Many of these will be real defacements, and many of them fakes; no one truly knows except the site owners and Web users who happen to visit the site when the defacement was visible. Thanks to the efforts of Zone-h, however, we possess a fairly comprehensive, reliable and credible record of verified defacement activities over the last ten years. In something like way that Vesuvian lava preserved the otherwise ephemeral marks on the stucco walls of Pompeii in 2 AD, such that we could experience these even 2,000 years later, Zone-h preserves for us the early and hyper-ephemeral stylistic activities of humanity's earliest inscriptive forays into the virtual world.

Who is attracted to Zone-h?

From their inception, mirror archives for defacements have been accused of promoting the activities of 'script-kiddies', mainly because such archives provide the latter with a kind of 'scoreboard' for their competition in 'tagging' the most sites. The operators of Zone-h are aware of the criticism; however, they contend that this potential problem is counterbalanced by the services the archive provides to security analysts. Since the site is tracking defacements in close to real-time, any trends related to new access methods, or new weaknesses in web servers, are picked up quickly, and the site provides an excellent resource for forensic analysis. Nevertheless, the mirror archive clearly attracts many dyscriptors for the purposes of competing with one another to score the highest number of defacements of top quality websites. The Zone-h site is unique in containing defacements produced since the late 1990s, almost 15 years of samples; and thus reflects

the birth of this new and thriving cultural practice, allowing new dyscriptors to see what others are doing and what others have done, to permanently ‘frame’ accomplishments that otherwise would vanish after the exchange of a few tweets or Facebook postings, and preserve such artefacts for study and posterity.

Conclusion: Virtual Dyscription

The archive hosted at Zone-h provides a record of the products inscribed on the *murus perceptus* of the virtual world by dyscriptors who have first found their way to the respective code walls (*murus codicis*). Like any hacker, the virtual dyscriptor is initially focussed on the act or the ‘exploit’: they need to gain access to the code wall. However, the work done by the virtual dyscriptor once she has accessed the wall will typically have no instrumental value. The cracker steals data; the hacker simply looks around and fixes the lock before leaving; the hacktivist accesses specific sites, often with great skill, with the specific objective of promoting some order of political discourse; but the most commonplace and typical virtual dyscriptor comes to the wall principally to leave a visible mark on the *murus perceptus*, showing themselves to the world..

As discussed above, both traditional and virtual dyscription are intrinsically defined by both act and product. The stylistic charge carried by all dyscription arises from both, but in the virtual world the emphasis falls more clearly on the act of access. Often the performative act of being where you are not expected (inside the computer server) is sufficiently intense to effectively constitute the ‘product’ as well. This can also be the case with traditional graffiti, where we see the simplest unauthorized mark in a place that seems inaccessible, either due to high security (on a police headquarters) or difficulty of access (a tag on the buttress of the Jacques Cartier Bridge). Given the relative difficulty

of accessing any wall in the virtual world of the Web (compared, for example, with the real world analogue of simply going outside when it is dark) and the potential criminal consequences of access, commentators (journalists and scholars alike) typically put almost all the emphasis on the *act* of virtual dyscription; and this leads to the easy conflation of virtual dyscriptors with hactivists, hackers and crackers, and the related reduction of these actors' respective 'products' into one generic kind: illegal access for some kind of financial gain. This is akin to treating all traditional dyscriptors as vandals, burglars, or break-and-enter specialists, without discriminating between the activities of a youngster carving a fish into the brick of a Parisian alleyway, a hoodlum keying a car door, a team of youngsters painting the entire surface of a subway car, and a sophisticated bank robbery. Scholars of traditional graffiti have implicitly understood how the stylistic elements have differentiated some unauthorized inscriptive activities from vandalism (and art), and I have explicitly formalized this dynamic in the synthetic characterization of dyscription. If we now apply this dyscriptive perspective not only to the acts of our dyscriptors in accessing the code wall (*muris codicis*) but also to the *products* some of them inscribe on the *muris perceptus*, as they are preserved in the mirror archive, we may witness the re-invention of the traditional notion of style itself as it is played out by the virtual dyscriptor, for whom the non-instrumental elements of the exploit have become so predominant that they incorporate what would otherwise be simply hacking or hactivism into a wide-ranging combination of craft and multimedia performance.

As we noted earlier, when virtual dyscription first arose in the digital environment, in the form of website defacement, it was treated as hacking, which put the emphasis firmly on the act of access. Given the many varieties of 'hacking' occurring, and the nascent and

experimental character or ‘ethos’ of the digital environment and its virtual worlds, acts of hacking were already classified into ‘good’ and ‘bad’ depending first upon the quality of the coded access method and second upon the productive *value* of the exploit (Taylor, 1999). The hacker and, later, hacktivists came to be defined as those who produced good access code for good instrumental results (some legal, some illegal), and this drew attention away from the predominant and growing phenomenon of non-instrumental website defacement. The script-kiddies, producing what has been estimated as over 70% of the archived defacements (Zone-h administrator estimates), become the code-writing *cacoethes codiendi*⁸⁵ of the digital world, barely able to wield their access tools at all, and if at all successfully, only due to stealing or buying the code of a real ‘Black Hat’ hacker. There is little or no attention paid to their products, since they typically produce what are considered to be puerile, infantile, sometimes lewd and often banal website defacements for no apparent gain at all. Their work was (and still is) considered as ‘indecorous’, mainly because of the emphasis on access method as the criteria for good versus bad (uninteresting) inscriptive defacement. This emphasis obscures the clear line of descent of the traditional graffiti ethos in the acts but *especially* in the products of virtual dyscriptors, who, like their traditional counterparts, carry into the new, virtual world nascent modes of stylistic production, derived from the new materialities of the digital environment.

⁸⁵ I have taken some philological license here in coining this Latin neologism, to focus on the key digital distinction at play in virtual dyscription, while preserving the other important affinities with the *cacoethes scribendi* explored above.

Chapter 4: Characterizing Virtual Dyscription

In Chapter 3, we turned to the most commonplace, uncontroversial and accessible of the virtual worlds, the World Wide Web (Web), and identified what appears to be the locus of virtual graffiti praxis. As we have seen, the most emblematic homologue would appear to be what is commonly and unsurprisingly known as an act of *website defacement*.

In this chapter, I continue the work of delineating the virtual homologues of traditional graffiti practice and product (dyscription), characterizing the new dyscriptive phenomenon against the backdrop of these traditional homologues (and cultural context), with consideration of the further problematization of the traditional notion—and specifically of its constitutive elements—in its new and more complex digital form.

We now consider more closely the case of website defacement, and ‘test’ it, again employing synthetic exemplars, based upon my study of the archival material, as models for analysis; asking if and how it displays each of the six components of our syntagma and thus qualifies as what we may call *virtual graffiti*. This will not only establish the *emblematic* presence of dyscription in the digital environment, but illustrate, in this context, the new material and phenomenological modalities of that environment. The characterization of virtual graffiti will involve a critical distinction, unseen in traditional graffiti, between the *murus codicis* and *murus perceptus*, between the ‘code wall’ that essentially defines the webserver/website and the ‘wall’ that we perceive on our computer monitor.

Following the pattern established in Chapter 2, with reference to the emblematic center we have established, I then extend and nuance the characterization of *virtual graffiti* to include dynamic factors governing the intensity of the six constitutive elements, again manipulating our model to assess the effect of varying intensities in the six syntagmatic elements, and again considering problematic cases, based on this conceptual exploration. This draws special attention to the ‘style’ of virtual dyscription and the sometimes radical mutations of traditional dyscription appearing in virtual dyscription’s mode and manner of production; among them, the potential for multi-media products, hyper-evanescence, quantum randomness, radical superficiality, and complex modes of access.

The Emblematic Case

Can we characterize a typical act of virtual graffiti; a simple, uncontroversial example of the act; one that we would expect most typical Web users would experience and identify as graffiti?

A woman is working on a laptop computer, studying and typing text into a series of long and complex strings of computer code. After some time, she strikes the ‘Enter’ key. At that moment, in an office complex across town, a man navigates to the Google homepage and sees the phrase “Capitalist Pigs”, in a large green bubble font, splashed across the page. Startled, he tries reloading the page, then re-typing the URL in his web browser, but the same image reappears each time.

Again, as if we were anthropologists observing this virtual event take place, let us consider whether each of the six defining elements of dyscription is manifested in this

act, and in the order most conducive to determining whether we have indeed experienced a bona fide act of dyscription.

i. Property

In our original narrative of an act of traditional graffiti, there was no question of what constituted the property upon which our dyscriptor had left her mark: she inscribed it on a privately owned, marble wall forming the exterior façade of a bank building. In the case of traditional graffiti, it is comparatively easy to locate the ‘site’ where an act of dyscription has been fulfilled: we can literally put our finger on it. In the case of virtual dyscription, however, this locative moment is far from clear: although, in our exemplar, the words “Capitalist Pig” now appear on a proprietorial website, visible to us on a computer screen, if we touch the computer screen we would agree that we are not touching the graffiti. Where is the property? What surface is being written on? What constitutes the critical ‘wall’ in the virtual environment? This order of questioning will resonate deeply, not only in our understanding of property, but throughout the syntagmatic analysis below.

What we may be sure of in our virtual narrative is that a corporate website⁸⁶ has been defaced; but what kind of *site* is a website?

⁸⁶ Seen from an administrative perspective, a website is a complex construct of legal licenses, physical objects and contracted services, including a collection of software applications operating on a computer system accessing the Internet. In the case of Google, the company has written a set of proprietary computer programs to implement a webserver (computer hardware plus the active programs) which displays a website on the World Wide Web network, accessed publicly by any computer equipped with a web browser at the web address: www.google.com. (Not unlike a property deed, this is registered, owned and paid for by the Google Corporation, as are all such addresses on the web). From a legal perspective, a website is now considered much like real property and any unauthorized access to or usage of the data (stored programs and data files) residing on the webserver is treated under the criminal provisions for property crime.

Essentially, in the very concept of a ‘website’, we have two intimately related components, one of which is *technically* prior, what we may refer to as ‘digital’ (basically, the proprietary code, here Google’s); and the other which is *experientially* prior, what we may refer to as ‘virtual’ (the visible website on our screen). Thus, we have, even in this relatively simple context of property, discovered a critical and inherent difference between virtual graffiti and its environment, and the act/product and environment of traditional dyscription, not one but *two* walls: one unseen by the public viewer (the ‘wall’ of code or *muris codicis*), which corresponds to the *material* face of the traditional wall; and the other seen by us (the ‘wall’ of our computer screen or *muris perceptus*) which corresponds to the *perceptual* face in the traditional case. Strictly, it is that first, *invisible* wall which is the rightful property of Google, and which is defaced by our dyscriptor here; but in a world where, increasingly, *esse est percipi*, what ultimately matters most is the *muris perceptus*—the wall we *see*.⁸⁷

Thus, though for our heuristic purposes these two walls will and must be distinguished, possessing, as they do, profoundly different characteristics and implications, both for virtual graffiti *per se* and the emerging hybrid world of digital/virtual reality in general, their relationship is so intimate that we may conceive of them here, at least in the emblematic case, as two (very different) faces of the same, Janusian wall; since, all things being equal, the precise lineaments of one will always correspond isomorphically with those of the other, pixel to code, and any change in one will be similarly reflected in the other.

⁸⁷ Even this has its traditional analogue, however, since in the real world, unperceived graffiti is effectively an oxymoron.

Though this Janusian isomorphism will be thoroughly problematized in its turn, our passage from real to virtual dyscription, and our initial emblematic grasp of the latter, will be enhanced by holding to this single, Janusian wall of 'the website' for as long as it will serve.

From this point forward, then, when we use the word 'website' we mean an inherently and irreducibly Janusian 'wall', with two faces, one material and one perceptual.

In our emblematic case, the woman has initiated a series of computer mediated events that have resulted in illegal access to Google's webserver and the modification of computer programs responsible for rendering the homepage, which can be understood as the virtual surface of the website. Just as in the case of our real-world bank, the owner of the site, in this case a large IT corporation, will typically do its best both to erase the mark from the code wall (*murus codicis*), and to have the woman apprehended and prosecuted.

The computer program that instantiates the Google homepage is not the property of the woman who has marked it. If she had altered her own website on her own webserver to display the balloon lettered text on her homepage, then the result would be an act of decoration and not an act of virtual graffiti; again a perfect homologue to the real world.

With regard to the concept of property, it is difficult to imagine cases where the access to and recoding of someone else's website could escape being considered as improper access and usage of someone's property.

The virtual world, at the time of writing, is overwhelmingly composed of privately and publically (civic/government) owned websites. Only recently have websites with the

characteristics of a 'public commons' emerged, and the notion of an 'electronic wilderness' while latent is not yet a matter of fact. The historical tendency over the last 15 years, inasmuch as one can be clearly discerned, shows an increase in sites 'owned' by a vaguely organized 'commons' (like Wikipedia sites, the Open Source Initiative's projects, the online game spaces such as Everquest, Second Life etc.); and lately, the stirrings of new orders of 'digital wilderness' produced by viral potentialities and quasi-'feral' logic of interacting self-replicating programmes articulate new 'open' spaces beyond the typical application networks. Thus, though there may not at first appear to be any truly 'wild' or radically 'public' places on the Web, due to the rapid, almost organic evolution of the inherently artificial digital environment, such (strangely) traditional, even 'archaic' orders of property are emergent.

For the present moment, any ambiguities concerning property status, should they arise, are more rightfully viewed as cases of perhaps atypical but nevertheless authorized usages of that property, for example in the unlikely case of a website allowing its users to modify its source code.

In all the cases we typically encounter navigating in the virtual world, and certainly in our emblematic case, it is perfectly clear that the 'wall', though here Janusian, belongs *to* someone, and thus that defacement of that wall is emblematically, like its real-world counterpart, an act affecting someone else's *property*.

ii. Unauthorized

Just as in the case of traditional graffiti, a definitive element shaping our emblematic notion, here of virtual graffiti, intimately related to that of property and defacement, is

our certain assumption the Google corporation has not authorized the act that has resulted in “Capitalist Pigs” appearing on its homepage. This assumption would typically be reinforced by the speed with which the offending ‘tag’ is removed from the website and, if this were an actual case, the efforts subsequently taken by the company to reassure users that the flaw in their system security has been remedied and that their data is secure.

Access to the *murus codicis* of a website, which, as noted above, constitutes the rightful property of the owners, is usually highly regulated. In our emblematic case, the dyscriptor has found a way to circumvent the measures Google has in place to prevent access; and, at the risk of serious legal consequences, she has proceeded to deface the proprietorial code wall by making a series of marks in it that are not permitted by the owners. Both her access to the property and the actions she has taken once ‘there’ are thoroughly unauthorized.⁸⁸

However, the intangible notion of authority operates in much the same fashion in the virtual world as we have noted in the traditional case. If Google Corp., or the owner of any other website, made a public invitation on their homepage (*murus perceptus*) or elsewhere inviting users to access and modify the source code (*murus codicis*), then the results of such activities would simply not be categorized as virtual graffiti. In the same

⁸⁸ The question of authority does not arise in the same way at the virtual wall, the ‘*murus perceptus*’, our computer screen, where we experience the act of virtual graffiti. By publishing their website, the owners grant their explicit permission for anyone, anytime, to access the virtual wall of the website. Unlike our experience in the traditional world, when coming to the virtual wall, we *cannot* do anything other than what is permitted: in the case of our Google site, this amounts to entering text in a query box. The question of permission does not arise in the same way as it does with real physical property: Should I be here? Can I take my pen and write on the tiles? At the virtual wall, you cannot touch the surface of what you experience. Obviously, we could take a Sharpie and write something on the *murus perceptus* (i.e., Google’s homepage as it appears on our computer screen); but if we were so foolish as to do so, the result would not be virtual graffiti. On the other hand, if we were standing in the foyer of a bank building, using the ATM at two a.m., the same opportunity arises except the result would be traditional graffiti.

way, and following the same logic we outlined when tracing the emblematic case of traditional graffiti, it is ultimately only *unauthorized* stylistic human inscriptive defacement of property that is emblematic of virtual graffiti.

iii. Defacement

Most typical users of the World Wide Web have encountered the Google homepage on a regular basis, and have a very good idea of what it is supposed to look like, how it operates, and also what if any changes would be treated as part of the normal course of authorized events. On the day that we encounter the bubble lettered ‘tag’ “Capitalist Pigs” on the virtual wall of the website, we experience the perceptual event as a defacement of the site, just as we would a mark made on any ordinary or ‘traditional’ material surface not meant to receive it. And likewise, no matter how much skill or imagination has been employed to create the mark, it is perfectly clear that this website homepage was not meant to bear it.

In our narrative example, when the woman types up and enters a string of computer code, the result of her actions is the defacement of a website which she has surreptitiously accessed. Though, as in the case of ‘property’, the wall she defaces is intrinsically Janusian, her defacement (typically understood as both act and product) only *strictly* applies to the *muris codicis*, the inscriptive defacement that occurred in the computer code. On the *muris perceptus* of our computer screen, we perceive something else: the result of the act, a (virtual) epiphenomenon related to but also strangely distinct from the ‘traditional’ defacement that actually occurred at the wall of *code*.

We can imagine many cases on the Web where website owners may have emblazoned their homepages with what looks like graffiti; however, in our emblematic case of virtual graffiti, it will always be clear, through the actions of the owners and the reactions of the majority of the website users, that the surfaces on display have been defaced. In any other instance, for example if the woman had been authorized by Google's design team to access and customize their homepage for the celebration of May Day, although the result may *look* like virtual graffiti, it will not be, but would instead be properly considered as advertising or web design.

iv. Inscriptive

In the discussion of traditional graffiti, I characterized the inscriptive act as the pivotal moment in the syntagmatic definition of graffiti, upon which all the other elements depend for their articulation. I then characterized the various modalities of the act, inscribed in the etymology of 'graffiti' itself, reflecting the changing tools men have used to make marks on plastic surfaces—engraving, scratching, carving, painting, typing, and other verbal nouns which capture the fusion of act and product embodied in the traditional act of inscription. In the digital environment, we find the terms 'input' and 'output' used frequently to denote the 'inscriptive' activities of both people and computing devices.

In our analysis of the emblematic act of virtual graffiti, when we come to the moment of inscription, we encounter a feature of the digital/virtual environment that pressures the otherwise Janusian unity of our 'website'. When our unauthorized property dyscriptor pushes the "Enter" key on her keyboard, the string of code she has composed is inscribed on the proprietary code wall (*murus codicis*), which becomes the site of what we can call

a *primary* inscription, an inscription that *in itself* (that particular string of code) is imperceptible to someone looking at the virtual surface on their computer screen.⁸⁹ The primary inscription is ‘read’ by a machine-agent which, in turn, provokes a *secondary* act of inscription: the pixelated image on the perceptible surface of the website (*murus perceptus*). The primary act of inscription, the writing on the coded surface, is our emblematic center, most homologous with the real-world or traditional act of inscription. However, the secondary act, which makes the mark we perceive on the computer screen, requires further analysis. This dual aspect of the inscriptive act in the virtual world begins to pry apart the Janusian unity of material and perceptual faces, suggesting an interesting and problematic quality of the inscriptive dynamics of dyscriptive acts.

If we focus on the emblematic, primary inscription that occurred on the *murus codicis* of our defaced website, we can observe that the traditional interactive dynamics of surface/inscription (first noted in relation to graffiti by Brassai) are also present, except now it is a surface of grammatical code that shapes and is shaped by the stylistic modalities of the inscriptive act. The complex string of code she has written interacts with the writing that has syntactically structured the code wall.

We cannot at this time easily imagine any case where virtual graffiti could arise, even through viral agency, without something like a primordial inscriptive act.⁹⁰ In all the

⁸⁹ Of course, the word used for this act of inscription, in the digital context, is ‘input’; and what we are calling the ‘primary’ act of inscription is itself made up of a large number of discrete, transformative (but finally isomorphic) inscriptions (keypad to I/O bus, bus to processor, processor to communications processor, comm. to network adapter etc.), until the string of code reappears, as we would see it on our defacers screen, except now in the programming code of the webserver.

⁹⁰ However, we can easily imagine acts of primary inscription that, on their own, would be treated as something like graffiti from the perspective of small groups of programmers, for example software security specialists, who must read over the ‘code wall’ in preventative or remedial attempts to locate and erase the primary inscription; although their efforts may have first needed to have been provoked by someone’s

cases of website defacement we encounter in the virtual world, and certainly in our emblematic case, virtual graffiti can only arise from an act of unauthorized *inscription* on someone's property.

To characterize the inscriptive act in the digital environment, even emblematically, we have been obliged to explore some of the deeper ramifications of the phenomenological structure of the virtual world, a structure that will insist on complicating what, up until now, we might expect to be the most obvious and emblematic elements of both traditional and virtual graffiti: the stylistic and the human.

v. Stylistic

If we consider our emblematic act/product of virtual graffiti, the large green bubble-font “Capitalist Pig” found unexpectedly scrawled over Google's homepage, it is clear we are in the presence of a stylistic inscriptive act. An ordinary viewer would quickly recognize that the English phrase we see displayed in colourful alphabetic script on the computer screen was purposively composed. The particular characteristics of virtual inscriptions may present new modalities of style that need to be taken into consideration—our dyscriptor may be able to include sound, video and even haptic or “ergodic” (Aarseth) elements, for example—but in the case of the emblematic act, our traditional expectations for style are clearly satisfied.

However, when we take into account the phenomenal architecture of the digital environment and its virtual worlds, specifically the two faces of the website and the two

experience of a secondary inscription on the virtual surface—otherwise why would they be looking? (See also Chapter 6, part 3: Future Research Paths.)

tightly coupled inscriptive acts that mark in turn each of those faces, we should not be surprised to find that there are also now two distinct stylistic moments to consider.

Strictly speaking, the style that we experience on the computer screen arises from the product of what I have called secondary inscription, and here we find our closest homologue to the style we witness in a traditional act of graffiti. But what of the primary act, where our dyscriptor has inscribed a string of code into the coded 'wall'? What kind of style, if any, does it display and to whom? This bifurcation of the stylistic inscription into the 'public' perceptible screen-surface and the 'private' imperceptible code-surface is a critical and inherent difference between the traditional and virtual acts of dyscription, which will be further explored in considering the problematic aspects of virtual dyscription in Chapter 4.

With regard to our emblematic experience of virtual graffiti, it is perfectly clear that at the virtual face of the website, the act of unauthorized, human inscriptive defacement of property is emblematically, like its traditional counterpart, a stylistic act.

And just as in the case of traditional dyscription, what we have called the *style*, the manner and mode of dyscriptive production, is now realized in both the act and product of virtual dyscription. Although the context within which both act and product arise now gravitates toward a more uniform and purely *super-ficial* character, we can still distinguish both dialogic and monologic aspects informing the overall contribution of style to the stylistic intensity of virtual dyscription. Though such dyscription is typically observed solely on the virtual surface of our computer monitor, the inherent Janusian qualities of websites, both as imperceptible code walls (*muris codicis*) and perceptible

surfaces (*muris perceptus*), now shape the dialogic and monologic intensities in virtual dyscription. *Prima facie*, the ‘act’ of virtual graffiti is an act of accessing the code-wall, and the ‘product’ is what we experience on the monitor, and both of these activities can be distinguished at the level of inscription in the digital environment (above). However, act and product are united in contributing to the overall style generated by any particular instance of virtual dyscription.⁹¹

If we consider, for example, the “Capitalist Pig” scrawled on Google’s homepage, we can isolate the features of the act itself as they relate to the particular site selection and access method used to arrive at the *muris codicis*. The act will have both dialogic and monologic aspects. The dialogic aspect arises from a consideration of how well the specific exploit was produced and what discussion is provoked by the dyscriptive product: Google represents both a difficult and very popular commercial site, and any marks appearing on its site will engage in a relatively intense dialogue with both the Google corporation and its wide user community. All things being equal, even the simplest, most rudimentary dyscriptive inscription appearing on a commercial bank’s website would produce an even higher level of dialogic intensity, given the sensitivity of the data contained therein. We can assess the monologic intensity of virtual dyscription by focusing on the site itself: How well secured was it? How popular is it? What is in it? Who got in? How quickly did they do it? How efficiently did they cover their tracks? These are the monologic aspects of the act; and if our dyscriptor arrived at the *muris*

⁹¹ Keeping in mind that the code-wall is a kind of writing pad, and that ‘output’ to the virtual surface is also an act, if we were to thoroughly analyze the phenomenon of virtual dyscription, then, strictly speaking, both the primary and secondary inscriptions could be considered independently as ‘dual’ phenomenon, each displaying *both* ‘act’ and ‘product’ modalities. Here we are putting aside the pure ‘product’ quality of primary inscription to the code-wall (*muris codicis*), and the pure ‘act’ quality of the secondary inscription to the virtual surface, to focus on the (primary) act that generates the code and the (secondary) product generated on the computer terminal.

codicis with their ‘signature’ complex custom-coded exploit, targeting the most well-secured of commercial sites, the monologic intensity would be greater than if the dyscriptor simply used a well-known access script and got lucky.

In our emblematic example, both the act and product display high levels of both dialogic and monologic intensity. These four aspects all contribute to the intensity of dyscriptive style. In the next chapter, as we work through the dynamic stylistic range of virtual dyscription, we will revisit our schema (Figure 7, p. 120) to show that virtual dyscription shares a remarkably similar dynamic stylistic range as its traditional homologue.

vi. Human

As we sit at our computer screen, gazing at what is clearly an unauthorized, stylistic inscriptive defacement of property, we may now raise the question of human agency: How do we know the mark was made by a human being? When we consider the homologous emblematic act of graffiti in the real world, although we might not be able to discern in every case whether a human or animal made a specific mark, in the emblematic case there is a simple *binary* determination to be made: either it was produced by a human being or by something else; and, if not of human provenance, it is not an act of graffiti.⁹² In the case of our virtual homologue, even the emblematic case is not so simple.

Just as the concepts of inscription and style tended to be bifurcated in the digital environment, the concept of human agency too comes under pressure because, in every instance of virtual graffiti, a machine agent is necessarily involved⁹³. The act of virtual

⁹² Of course there are many *problematic* exceptions that come to mind (a man holding a dog, a woman setting in motion a prosthetic device, etc.), but in our *emblematic* cases it is a clear binary decision.

⁹³ We cannot imagine an act of virtual graffiti that would only involve human agency. The pure human agent stops once the “Enter” key is pushed—any graffiti possible prior to that order of inscription would be

graffiti is an essentially hybrid activity. Although we may still be certain we are looking at an unauthorized, stylistic inscriptive defacement of property on our screen, we are no longer faced with the comfortable ‘either/or’ binary (Is this a result of human agency or not?); instead, in what is a hybrid act performed by both human and machine agents, we can only ask: Which agent played the *main* role (in this unauthorized, stylistic inscriptive defacement of property)? In emblematic cases of virtual graffiti, defined by homologic inference, it is clear that a human agent has played the main role—typically ascertained through some subjective evaluation of the quotient of style and (un)authorization.

It is difficult to imagine an unauthorized, stylistic inscriptive defacement of property that would be generated *only* through machine agency. We might be tempted to think of the wide variety of computer generated error messages, but (though perhaps unexpected) these are not *unauthorized* in anything like the manner of traditional defacement. We might imagine various sorts of hardware failure resulting in spurious marks on our monitor, but these would not be emblematically ‘stylish’. On the other hand, we are now clearly facing a continuum ranging from ‘purely’ human to ‘purely’ machine; and at the machine end of the continuum, we may expect to find new hyper-hybrid phenomena such as cybernetic ‘bot-nets’, self-replicating viruses, or digital ‘worms’, all potentially capable of unauthorized, stylistic inscriptive defacement of property, but none properly even part-human. In addition we have the highly and provocatively problematic evolution of what it means to be human at all, where the notion of what has been termed posthuman agency arises, and which I hope to explore further in coming chapters.

traditional graffiti—if someone picked off the keys to leave the word ‘JERK’. Once text appears on the computer screen, another agent is involved.

Investigating the Dynamics

Like its real-world counterpart, virtual graffiti will involve some form of unauthorized, human stylistic inscriptive defacement of property; but as in the real world, though all six components are necessarily present, not all may be present to the same degree. Even if we are not as familiar with acts of virtual graffiti as we are with acts of dyscription in the real world, we can easily imagine that some virtual graffiti is more unauthorized than others, some displaying less style than others, and so on. Thus, we must attempt to determine the factors governing the intensities of the six components in the digital/virtual environment, considering the extent to which they are homologous to or different from those of traditional graffiti, and whether there are any entirely new factors to account for. In so doing, as before, we shall take each syntagmatic element in turn, while holding the other five emblematically ‘stable’ (that is, taking the other five conditions as fulfilled; remembering, when analyzing the intensity of property transgression for example, that it is the transgressive intensity generated by unauthorized, human stylistic inscriptive defacement, and not simply any kind inscription or defacement, etc.).

1. Property

If instead of navigating to the Google homepage, in our emblematic case above, we mistyped the address and landed on the site “Gpoogle”, one which we have never seen or heard of before, and found the green-lettered “Capitalist Pig” slogan splashed across the homepage, we would probably not react in the same way as we would upon viewing the mark on the Google site. If we navigate to the website of a small tourist bureau that has no apparent signs of activity for years, outdated information, and ‘broken’ links to

photographs or to other websites, and one day we find it has been defaced, we probably would not be surprised at all.

When we seek the factors governing the intensity with which property transgression is experienced in the digital/virtual environment, we must distinguish between the two fundamentally distinct and proprietorial ‘walls’ of the website: the first, which is manifest in the ownership of the materials (code, data and equipment) that sustain the *murus codicis*; and the second, which defines our experience of the virtual surface (*murus perceptus*). Nevertheless, the same two factors governing the intensity of impropriety in the real-world are also active in our experience of the digital/virtual environment, though here they begin to show some mutative pressure.

1.1 Ownership

When we encounter a website on the Web, we can almost always be sure that it has an owner. Navigating the Web, we may encounter sites that seem inactive or ‘abandoned’, however, usually they continue to function. The real-world equivalent of broken pieces of brick or collapsed walls does not arise in the same way, since a truly broken site will not render anything at all other than an error message. At a point in the ownership spectrum much earlier than in the real-world, the virtual property effectively vanishes without a trace from the network (although the computer materials may still be there). These are still two fundamental differences in the notion of ownership as it applies to what we have called the material face, or the *murus codicis* of our typical website.⁹⁴ Although the notions of a ‘public commons’ and ‘wilderness’ are certainly now emergent (e.g.,

⁹⁴ In as much as we ever could encounter a code-wall immediately, it is a machine successfully performing a programmed function (presenting the *murus perceptus* of the website), and we would always encounter it, perhaps minimally maintained, as someone’s or some organization’s private property.

Wikipedias and Dark Webs) in our quotidian virtual experience in 2013, we do not typically encounter the equivalent of an ‘open’ or ‘wild’ space, or anything like a ‘frontier’, where the territory we encounter has not already been legally constituted and allocated.⁹⁵

Nevertheless, much like our experience of graffiti on private property in the real world, at the *murus perceptus*, where we experience the property network of the web, we can recognize and identify the owners of some sites more clearly than others. This clarity arises from familiarity, a quality created either by our frequent use of a particular website or else something similar to ‘brand-name’ recognition. In either case (and they often overlap), if we are familiar with the ownership of the website now bearing an inscriptive defacement, then the potential intensity of impropriety is higher than if we are unfamiliar with the owner. When one of websites we most frequently visit (Google, for example) is defaced, the proprietorial intensity is far greater than what we would experience if we inadvertently landed on the “Gpoogle” site, which we have never heard of, and to which we will probably never return to. Likewise, the sense of impropriety will intensify if the website in question is one ‘closer’ to us, like the website of our child’s school, just as it would in the real-world.

The factor of ownership is still active in governing the intensity of impropriety; however, now it has mutated towards our *familiarity* with the private owner, measured as the degree of recognition the site meets with, either through frequency of use or simple brand

⁹⁵ There have been strong arguments made to keep the entire digital infrastructure itself like an unregulated ‘frontier’, and not to privatize any aspects of its use and function (both early in the history of its implementation and even to this date), but the WWW and the websites that instantiate its virtual face are typically all part of a large private regulated network infrastructure. Of course, that ‘network’ itself has been characterized as displaying signs of rapid “punctuated” evolution (Gould, 2007), with new digital species of self-replicating code moving in what can only be described as virtual wildernesses.

recognition. It is no longer directly a question of “Is it owned by someone or not?”, but more properly a question of “Are we familiar with the owner?”⁹⁶

1.2 Maintenance Standards

All website code and equipment requires a certain level of maintenance and care to continue in the material role (*murus codicis*) of creating and sustaining a visible website on the virtual surface we perceive on our computer monitor (*murus perceptus*). One of the principle aspects of site maintenance is precisely security against the unwanted intrusion of people like our dyscriptor, who can be imagined as travelling around the internet searching for vulnerabilities—open doors and windows—which she can exploit to access the code-wall of a website. This kind of maintenance is applied and managed at the *murus codicis*; and, for the average user, it is typically difficult to discern the security status of a site by simply looking at it. However, there are other signs of ‘maintenance’, easily visible on the virtual surface, which help us to draw conclusions concerning the standard of care taken by the owners with respect to the overall web property. Have there been any signs of recent user activity? Is the information on the site outdated? by months or years? Do we typically encounter ‘broken’ links, either to other sites or to documents and pictures on the site? Is the site frequently inaccessible or displaying an error message? Does it appear to be a ‘one-man’ shop? And, of course, has it been defaced before? We encounter sites displaying these characteristics rather as we might an empty lot, a demolition or a future building site in the real world, with the broken links and

⁹⁶ ‘Familiarity’ on the web accrues from frequency of usage, simple brand recognition, or national affiliation. This latter mode of familiarity accounts for the sensation (of a Canadian) that a Canadian website is ‘more defaced’ than a Namibian site, etc. Any site that situates itself virtually close to your real home and real activities increases the familiarity factor: even if you never do online banking, if you learn of a defacement of your bank’s website, it would generate a ‘high’ level of proprietorial intensity, etc.

strange messages acting as shards of plaster or broken walls of something that once was ‘there’. Any sites displaying these signs of disrepair or lack of care, which at some extreme we would consider to be ‘abandoned’ by their owners, will generate a far lower degree of proprietorial intensity than sites that display the opposite.

1.3 Proprietary Data

The relative presence of (personal) proprietary data serves as a distinct new factor governing the intensity of impropriety provoked by an unauthorized inscriptive defacement.

In the digital/virtual world, we leave bits of proprietary data scattered across numerous organizations: at financial institutions, schools, government bureaus, police, license registries etc. In the real world, this data is not literally stored in and as part of the same material making up the walls and surfaces of the institution. In the digital environment, in the case of our website, however, this is precisely the case: the coded programs that make up the code-wall are made of exactly the same stuff and secured in the same ‘format’ as the data files; data and code are simply different views of the same material: digital bits. When we see graffiti sprayed on the outside of a bank building, we do not infer that the dyscriptors have also had access to the inside of the bank safe. But if we learn that the Best Buy or Amazon website has been defaced, it is also safe to infer that the dyscriptors may have also accessed any information we might have provided to that organization through our activities on that website. This can also be true of very small and otherwise insignificant ‘properties’ on the Web, depending on what individual users may have provided to them.

2. Unauthorized

In parallel with dyscription in the real world, our emblematic case of virtual graffiti on the Google website would become highly problematic if we learned that the company had allowed public access to their proprietary source code for the purposes of defacing their homepage.⁹⁷ If we put this exception aside, when we consider an act of human stylistic inscriptive defacement of a web property, and focus on our experience of the mark encountered on the virtual surface (*murus perceptus*) while navigating in the virtual world, we encounter factors governing authorization in much the same way as in our traditional experience of dyscription, with some interesting and provocative mutations.

2.1 Visibility

An act of virtual graffiti must be potentially visible to someone. Although our dyscriptor may leave an invisible mark in the code-wall (*murus codicis*), if it does not result in a *perceptible* mark on the homepage (*murus perceptus*), then the issue of dyscription and our degree of disapproval does not arise at all.⁹⁸

However, given the presence of some visible inscriptive defacement on the homepage, does some factor of relative visibility still govern the degree of disapproval?

Although we ‘enter’ the Web in the context of our desk and computer screen, we typically treat the virtual space as one through which we ‘move’ (or navigate) from place

⁹⁷ The likelihood of this scenario arising in the digital environment is farfetched compared to its real-world homologue, where a home owner might actually allow (tacitly or explicitly) the defacement of their front door, because the typical defacement of the code-wall/homepage usually impedes the basic *functionality* of the site, or ‘closes’ it to any activity other than viewing the defacement.

⁹⁸ Of course, we can imagine that the string of code inscribed in the source is noticed by a system administrator (either through their own activity in code-writing or when brought to their attention by an automated scanning tool, etc.); at which point we would have to ask, technically, if here, in the code, we do not have a ‘complete’ act of graffiti. Regardless, if either is not noticed and so remains ‘invisible’, then clearly no question of graffiti arises in either case, etc.

to place, with some places ‘closer’ or further than others (in our mind), some more familiar, some more visible, etc. Millions of web users will typically ‘pass by’ the Google site more than once a day, and our various news sources, mail-services and social networking sites serve as virtual buildings and walls ‘on the way’ to whatever activity we may be aimed at when we sign on. When we experience the virtual world in this fashion, most of the real-world factors accounting for visibility (the number of people who can potentially see the mark and the number who actually see it) find direct, experiential homologues in the virtual world.

All virtual graffiti is potentially visible, but some has more potential than others. Any kind of inscriptive defacement on the Google site will be far more ‘visible’, all things being equal, than the same defacement on a site hardly visited; and the intensity of disapproval will increase with the public visibility of the site. More private locations, websites that serve small communities of users, ‘back alleys’ (pornographic sites, ‘hockey fight’ sites, etc.), or sites which are ‘abandoned’ (as above)—all typified by lower levels of visibility—will typically provoke a much lower intensity of perceived disapproval. And, as in the real world, the actual time a defacement remains in place increases potential visibility, but also, at some point, indicates a tacit approval of the act on the part of the owner.

Although real-world graffiti on the front of a downtown commercial bank will certainly be removed quickly, it may take days to properly remove it, and faint traces or obvious signs of its having been removed will likely remain. In the virtual world, however, the most visible sites will typically remove virtual graffiti completely in minutes, without leaving a trace; the more potentially visible an act of virtual graffiti, the more evanescent

it is. This shrinking time factor is mitigated somewhat by the sheer ‘spatial’ volume of a popular site (e.g., when measured in viewers per minute), along with the ‘second order’ visibility often generated in social media (by the dyscriptor and/or the news media) when a highly visible site is defaced.

If “Capitalist Pig” were to be scrawled on the homepage of Google, even if removed after one minute, all else being equal, the defacement would possess an exceedingly high degree of tacit disapproval; however, with every passing hour that Google failed to remove the dyscription, our (in this case perhaps incredulous) sense of tacit approval would increase, and with this the intensity of dyscriptive defacement would naturally diminish.

2.2 Structural Context

Like traditional graffiti, virtual graffiti requires a visible surface, and thus an objective setting in which to present (and encounter) an act of inscriptive defacement. And, as in the real world, the intensity of disapproval will typically vary with the perceived quality of (here) the *virtual* structural context. All other factors being equal, dyscription encountered on the website of the Notre-Dame cathedral would typically provoke a far more intense assumption of disapproval than the same work on the personal blog of local political pundit, for example.

Although all the sites we ‘visit’ on the Web are merely virtual, our virtual *experience* of these sites typically maps closely onto our experience of structural contexts in the real world. These real-world distinctions may be imposed on the virtual world in a vestigial manner (this site ‘feels’ like a back alley of the Web), or reflect straightforward

homologues (bank sites, government sites, pornographic sites, ‘abandoned’ sites, etc.). Increasingly, widely experienced structural contexts which we would not typically experience in the real world are appearing in the virtual world (Wikipedia-type ‘group’ encyclopedia projects, Twitter- or Facebook-type radically open social messaging sites); yet even here, we quickly come to ‘read’ such contexts and differentiate them from (or associate them with) others with which we are more familiar.

All other factors being equal, the “Capitalist Pig” on the front of the highly utilized home page of the Royal Bank would typically be charged with a relatively high degree of disapproval; more than if the same inscription were to appear on a specialized and poorly maintained commercial site selling computer parts, but less than if it appeared on the widely used and quasi-public service most of us experience at the Google website.

2.3 Status

Status is the degree of respect conferred on particular instances of the same structural context. Among the various structural contexts that we encounter, we would typically treat the commercial website of BestBuy differently than the commercial website of a local computer reseller. We would typically treat the site of the Notre-Dame cathedral in France differently than the site of a small church in Ohio. For the typical web navigator, an inscriptive defacement encountered on the former will typically be thought of as more highly disapproved of, and thus more unauthorized, than the same inscription on the latter.

Status is a highly nuanced and finely discriminated factor governing the intensity of disapproval on the Web, where the similarities of structural context can manifest

themselves in the prevalence and popularity of commercial sites. It is generally safe to say that in the relatively short time the Web has been active, certain websites in specific contexts have become more highly respected than others. The sites making up the ‘high’ and the ‘low’ ends of any given context’s spectrum are not absolute, but can usually be broadly identified and grouped. Given the relative newness of the Web, and our experience of it, the media and the dynamics of brand awareness typically play a much stronger role in what are more fickle hierarchies than those emergent from more traditional and engrained cultural norms. Justin Beiber’s commercial website, on any given day, may have a higher status than U2’s; the USA’s National Security Agency (NSA) higher than the Federal Tax Authority. However, the higher the status ascribed to a given site, the more likely an act of virtual graffiti in that space will be experienced as unauthorized, and the more intensely we will experience the dyscriptive act.

2.4 Novelty

Whether or not this is the first time we have ever seen a mark of this variety on this site continues to be a variable determining the relative intensity of disapproval. If we frequently visit a site that we believe to be well maintained, and one day encounter an inscriptive defacement, we will be surprised and even shocked. If the small site we visit to talk about our favorite author is frequently the subject of malfunctions and defacements, the intensity of our sense disapproval will tend to diminish. One curious aspect of our experience of website defacement, given the typical consequence of functional impairment, is that when it happens a *second* time we may even now have learned to expect specific consequences, and so register an even higher degree of

disapproval. Our first experience of website defacement might benefit from a naive or ‘novelty’ effect.

2.5 Cleanliness

How do we assess ‘cleanliness’ of a website, the degree to which the website is free of matter foreign to its proper state? This is relatively easy to do in the case of real-world sites, where general cleanliness will typically inflect our experience and sense of the intensity of disapproval conferred upon an act of graffiti in the given setting. This factor is still present, but plays a ‘muted’ role, if any, in the case of virtual graffiti, because it closely parallels simple property maintenance (as noted in 1.2 above). In the real world, a men’s washroom can be perfectly functional but poorly maintained; in the case of a website, however, these two states are more tightly fused here because anything poorly maintained usually does not function properly.

Problems on the Margins of (Un)Authorization

A locus of controversy for potentially problematic instances of classification maps closely to the cases of authorized ‘faux-graffiti’ noted in Chapter 2 (see *Unauthorized*). Whereas the civic spaces of the real world are in our towns and cities, in the virtual world we can encounter popular public websites that facilitate social interaction, most prominent among these being social media platforms such as Facebook and Twitter, but also millions of interactive bulletin boards. All of these sites typically have terms of service (TOS), which set out the rules of engagement for users. When I have asked people if there is graffiti in the virtual world, the typical response is ‘Yes’, followed by the case of some user who insulted, in a written ‘post’, someone or some user community

at one of these popular interactive websites. From our perspective, these instances are not virtual dyscription because the ‘transgressive’ user is authorized and the usage is tacitly authorized (although there are exceptions). The site administrator has approved the user, their IP address is logged, along with their real name and email address, and they can be immediately banned if the administrator chooses to do so. In many respects, the situation is analogous to that of an authorized graffiti wall in a city, most of whose activity, including marginal cases, is broadly sanctioned by the authorities; in the case of these virtual commercial properties, funded by advertising and user profiling, the site owners typically benefit from generating user activity, regardless of its origin. We may easily imagine breaches of propriety (bad grammar, swearing, racist remarks), but rarely do these activities meaningfully transgress the boundaries of the authorized ‘sandbox’; and if they should, the offender is typically banned.⁹⁹

3. Defacement

If instead of navigating to the Google site with the emblematically dyscriptive “Capitalist Pigs”, we clicked over to a website maintained by the “Occupy Ottawa” organization, and found the slogan “Anonymous supports Ottawa”, with a ‘Guy Fawkes’ image on an otherwise perfectly functional website, would we consider this an act of virtual graffiti?

We would clearly be in the presence of unauthorized, human stylistic inscription on property, but it may be difficult to agree that the website has actually been *defaced*, since, in all likelihood, to have attracted the attention and support of such a group would be

⁹⁹ In the event that the quasi-transgressive communicative behaviour in social media contexts results in clearly illegal outcomes (e.g., bullying), we would not see a dyscriptive moment as the inscriptions themselves would not deface any property.

treated as a ‘badge of honor’—and the site’s functionality, in this rare case, has not been affected.

Likewise, if we navigated to the homepage commercial website of a toy retailer where we were used to making online purchases, and happened to notice a new little logo perfectly incorporated into the bottom corner of the homepage, telling us that the site was “Powered by LeetBoys”, what would we make of this? How would our impression change if we later found out that “LeetBoys” was a notorious hacker group? The first impression may be indifference, due to the clear stylistic integration of the “Powered by Leetboys” element into the figurative harmony (of style and content) of the website. A later impression, however, might react with extreme negativity to the very subtle yet powerful disfiguration of the website.

For an unauthorized inscription to be virtual graffiti, the inscription must somehow deface the surface, and the more it defaces the surface, all other things being equal, the more intense our dyscriptive experience. Generally, the intensity of defacement is governed by the degree of harmony displayed by the unauthorized production within its figurative context. To evaluate the intensity of disfiguration provoked by virtual dyscription, we may begin by considering the same governing factors that apply to the traditional homologue.

3.1 Functional harmony

Functional harmony is the most dominant factor in disrupting the figurative context of a website. This is particularly the case because, unlike many real-world sites, all websites have a clear and distinct *function*, especially homepages, and webpage replacement

typically leaves no margin for partial or marginally impaired function, or for simply ignoring the inscription—like a mark on a window might do in the real-world. It is as if the door to a building no longer worked. On the other hand, most dyscriptors do not intentionally render the site completely dysfunctional (out of service), since they want their mark to be seen by as many viewers as possible.¹⁰⁰

The typical website homepage is designed to allow users to access information or services nested on other pages of the website. If the virtual graffiti replaces the homepage with one constructed by the dyscriptor, and thus disables any usual navigation within the website by a user, then this defaces the functional surface with greater intensity than if the graffiti only appears *on* a webpage (without impeding functionality), and the former would produce a much higher level of disfigurative or dyscriptive intensity than the latter. The bulk of website defacement (see Chapter 5) is accomplished by the replacement of the target website's homepage with one constructed by the dyscriptor, resulting in a high if not complete functional disfiguration, without much margin for the possibility of simply ignoring the mark.

3.2 Content harmony

This is the case of our Guy Fawkes figure on the Occupy Ottawa website. The virtual surface in question is the homepage of a group that shares the same ethos as the dyscriptor who made the mark, and the mark does not functionally impair the site. The

¹⁰⁰ Note the same logic as in the real world: most dyscriptors do not want to break the window because that does not leave their mark, and etching will last a lot longer and be seen by more people. A virtual dyscriptor will 'break' the homepage and replace it with one of their own, to display their mark; this too will be quickly removed, but it will be noticed/remarked by a lot more people than if the mark is within the site. The biggest visible 'bang for your buck' is hitting the homepage. Sometimes a defacer decides that inserting a 'hidden' defacement within an important site, where it might stay longer (than a visible mark on the homepage), will eventually result in more views and perhaps more notoriety.

image is somewhat integrated into the site, being semi-transparent, and we can safely assume that it fits with the iconography we typically see on protest websites. If someone had defaced the same site with the dollar sign or the logo of an investment bank, or the phrase “Capitalist Pig” this incongruous content would spoil the harmony of the website, thereby contributing to a disruption of the figurative context and increasing the overall intensity of disfiguration.

3.3 Formal harmony

We can envisage this factor in the digital environment by first imagining a homepage that has been defaced by virtual graffiti which does not impede the functioning of the website and whose content aligns with the overall ethos of the site owners and users. Even if this were the case, if the selected font or other sensible features of the dyscription (harsh music, animations) were not in harmony with the formal context, the inscription would produce intense disfiguration. Although this factor typically intersects with that of site content, it may nevertheless be distinguished. If we arrived at the Occupy Ottawa site and saw the Guy Fawkes overlay with the “Anonymous Supports Ottawa”, but the font used was juvenile or comic, the average user would typically infer a greater sense of tacit disapproval. As for our “Powered by Leetboys” case, the average user, at least at first, would probably not experience the inscription as disfigurative at all.

4. Inscription

Dyscription in the digital/virtual world comprises what I have called a primary inscription on the code-wall (*murus codicis*) and a corresponding secondary inscription on the virtual surface (the ‘web page’) appearing on our computer monitor (*murus perceptus*)—that is,

the actual *virtual graffiti*. The inscriptive modality of our experience of the virtual surface is always standardized, although the intermediating technologies may be different, and although all inscriptive effects (inscription ‘in’, ‘on’ and ‘on top of’) can be emulated, the final translation of binary bits to pixelated images is materially homologous. In this respect, there is strictly only one inscriptive mode at the level of secondary inscription: we cannot differentiate between etching and scratching and painting and writing in the same way, although font types may create the illusion. The material surface of our monitor can only be defaced by taking a nail and scratching the glass. All we see ‘in’ the virtual world are pixelated images designed to appear on the monitor, acting as simulacra of real-world inscriptive effects.

Nevertheless, in our experience of virtual graffiti on a website, some inscriptive defacements appear to be more tenacious or harder to remove than others, and some appear to damage the functioning of the website more than others; further, in our virtual experience we may not only see but often hear and even ‘feel’ the effects of multimedia markings that dyscribe a surface without necessarily leaving a visual mark.

If we focus on the primary inscriptive act, the striking of the ‘Enter’ key whereby a string of code is written into the code-wall (*murus codicis*) that sustains the virtual appearance (*murus perceptus*) of our website, we can discern different inscriptive modalities by considering the set of ‘prostheses’, or machine-agencies, that our dyscriptor has marshalled to successfully accomplish the primary inscriptive performance. These prostheses are the equivalents of her spray-paint, etching tool or pencil, and although they all result in the same type of primary inscription (code in code, data in data) on a code-wall, different digital prostheses permit access to different kinds of websites. This is not

the case in the real-world, where the act of access and the act of making a mark are separate; once the dyscriptor has accessed the subway tunnel, she can use spray paint, markers, acid, or an iron rebar to make her mark, but does not need spray-paint to *access* the tunnel. In the case of primary virtual dyscription, however, the access tools are also the inscription tools, and the two events are tightly wedded; the dyscriptor must ‘code’ her way in, if she wants to leave a mark at all. The emphasis in the digital world now falls strongly on the organization and choreography of specialized code-access tools; and thus the dyscriptive *method* must itself be taken into account as a differential factor governing inscriptive intensity.

4.1 Access Modes

When we say ‘inscribed on’, what do we mean? For the inscription to ‘take’—to be ‘inscribed at all in the digital context—it must first ‘cut through’ a series of security features and various impediments put in place precisely to deny this order of inscription. In this way, the access method used by the virtual dyscriptor may be more properly seen as constituting part of her inscriptive apparatus. Some access methods leave ‘heavier’ or ‘deeper’ marks than others, which accounts for the time it may take to permanently remove them or impede their recurrence, or the level of activity generated by the appearance of any sort of mark at all on highly secured sights.

(Although accessibility is also an aspect of traditional sites, we would not typically consider the access method to be part of the inscriptive apparatus of a traditional dyscriptor.)

We may safely say that in the real world some modes of inscription are more permanent than others—etching on a window vs. using a magic marker. In the case of virtual graffiti, ‘light’ methods are used for ‘light’ surfaces (websites that are easy to access), ‘heavy’ methods are used for ‘heavy’ targets (highly secured sites). The heaviest of marks may only last for 10 minutes on an important, highly secured site. The simple fact that it appears at all, however, is a testimony to its inscriptive intensity. It got through. The lightest mark, using the most trivial and easy to remove access method, may remain for weeks, because the site owners do not care or do not know how to remove it. However, the inscriptive charge of this latter virtual dyscription would be very low.

There are a number of access methods that can be used to deface a website, and they can arrayed from heavy to light, typically related to the dyscriptor’s level of expertise and the kind of surface they hope to leave a mark on. The act of inscription in the digital/virtual world engages with and incorporates code-access methods that are now integral features or modalities of the inscriptive act as such; and, as such, access mode serves as a factor governing the intensity of inscription and the ‘potency’ of dyscription in the virtual world.

If our virtual dyscriptor’s access method/strings of code are too heavy (or not skillfully used) then the code-wall is broken and the website no longer functions at all, like an etched inscription in glass that breaks the window. If the access method is too ‘light’, it does not provide access at all; the inscriptive act is neutralized, the enter key is pushed and no mark appears. This would be rather like coming up to a wall with a depressurized spray can; we are in the realm of pantomime. In the middle ground we find a host of access methods, ranging from complex, custom coded exploits to publicly available

standard ‘scripts’, all of which generate various degrees of inscriptive intensity when they are employed.

4.2 Range of aesthetic affect

Traditional graffiti is centred on visual perception, and (all other things being equal) the less we can see an unauthorized, human inscriptive defacement of property, the lower its dyscriptive character. When we encounter the “Capitalist Pig” inscribed on the Google website, we theoretically *could* see not only static text/images on our monitor, but text/images that change as we move our mouse across the surface of the site, some triggering windows with videos, and all accompanied by loud, heavy metal music playing on our speakers. If we happened to have a properly equipped mouse, we might even find that our mouse vibrated in the classic S.O.S pattern (three short, three long, three short).

In the world of virtual graffiti, multi-media dyscriptive events are common, with animated text and/or images replacing or accompanying the homepage, we are often met with a multi-media experience active in multiple aesthetic registers.¹⁰¹ If we try and focus on strictly the inscriptive intensity generated by the multiple registers of inscriptive affect (aural, visual, haptic), including the multiple modalities now operative within the register (visual: static, animated, video), then the experience of inscriptive intensity is now governed by the number of aesthetic registers that are sensible to the user. Those defacements using all multiple registers we experience as more inscriptively intense than those using only one. Those using only one modality of one mode (only static images) are less intense than those using multiple modalities (static, animated and video etc.) At this

¹⁰¹ These experiences require the appropriate equipment at the user end (speakers, haptic ‘mouse’, etc.), most of which are now standard features.

level of inscriptive analysis, we are not taking into account the stylistic use of registers (which we treat below), simply the presence of the aesthetic affects to our senses.

Problems on the Margins of Virtual Inscription

Perhaps the single most problematic and fascinating controversy arising from our definition concerns the status of what I have called the ‘primary inscription’, on the *murus codicis*. Should this typically invisible surface of inscription, where unauthorized computer code is prosthetically added to a code-wall, be treated as the primary site of stylized human inscriptive defacement, and therefore the ‘true’ site of digital dyscription? What kind of inscriptive process are we dealing with and who can actually see the ‘marks’? Research has been done on the aesthetics of computer coding, and styles have been discerned in both the craft of computer programming, and operational code has been used as a medium for performance art (Berry, 2011; Hayles 2002). It is likely that ‘transgressive’ acts of coding, for the purposes of website defacement, could be evaluated by specialized security analysts able to ‘see’ the act and coded product from something like an aesthetic perspective, and we would treat these as instances of primary dyscription. Perhaps in the hypothetical cases of such aesthetically sensitive ‘producer-viewers’ (i.e., the hackers, security specialists or other programmers), as researchers we would be faced with the need for a categorically new order of aesthetic appreciation, where the ‘sensibilities’ of computer software and human user is best understood as hybridized. Indeed, there is a growing body of scholars working on phenomenologically ‘new’ orders of analysis, often under the aegis of post-humanism (Badminton, 2004; Haraway, 1991; Hayles, 1999; Wolfe, 2010), where the agencies of man and machine merge into something new, with new sensibilities. Our own empirical research supports

the tentative inclusion of phenomena such as self-replicating viruses, autotelic computer ‘worms’, error messages, and other such machine-created inscriptive products, including the writing of code into code, as potential sources of new modalities in dyscriptive activity meriting future research. This is not unlike the situation of ‘post-graffiti’ studies relative to its signature-graffiti precursors. However, before moving with any confidence into the realm of a post-human post-virtual graffiti, we need to complete the first-order analysis of what are clearly human produced and perceived homologues in the virtual world, if only to serve as a foundation upon which further explorations can be successfully pursued.

5. Style

What governs the stylistic intensity of an act of virtual graffiti? If we try and isolate the stylistic aspects of an otherwise fulfilled act of unauthorized, human inscriptive defacement of property (in this case a website), can we discern any formal, external, positive, empirical features of inscriptive production that govern the stylistic intensity of what we experience? For, as with our experience of real-world graffiti, some inscriptions seem to have more style than others. We are focussing on evident stylistic characteristics, not with the hope of exhausting every possible modality, but first to see if the factors noted for traditional graffiti continue to be relevant (and if so, to the same degree), and second to see if any new significant factors emerge in the virtual context.

As we noted in our introduction to the concept of virtual style in Chapter 3, what orients most profoundly our evaluation the stylistic intensity of virtual dyscription is the manner or mode of production realized in the critical gesture of inscriptive defacement: the

impression of a mark on a surface with a medium, as a stylus leaves marks in a wax tablet.

In the case of virtual graffiti, the context (*where* dyscription occurs) is highly constrained compared to its real world homologue. In one sense, virtual graffiti only arises on websites (*murus codicis*) and is only perceptible on webpages displayed on computer monitors (*murus perceptus*). From this perspective, there is only one kind of wall and it always arises in exactly the same kind of *super-ficial* context. Compared to its traditional counterpart, this narrower range of motion makes the context of virtual graffiti matter much more to understanding the development of its style. In the virtual world, the strictly superficial and primarily spatial characteristics of our virtual experience of the website define the new context for virtual graffiti's style, and the characteristics of this new, virtual surface display a series of different and even incommensurate features that now factor in the elaboration of virtual dyscription's mode and manner of production. Before turning to our anatomy of virtual style, we should briefly review some of these.¹⁰²

i. Hyper-evanescence

Graffiti in the real world often does not last long before it is cleaned up; this is especially true of the most sensitive locations. If someone managed to deface the front of the Parliament buildings, the mark would probably be removed within an hour, and all that might remain is a 'buff' square suggesting something had been there and then been removed. On the other hand, much graffiti, due to its placement in public and often highly visible locations that may be difficult to access (e.g., on a bridge pylon), or where

¹⁰² Each of the following five elements simplify and assimilate the detailed scholarship already accomplished into the medial qualities of the "New Media"; see especially Hansen, Hayles (1999, 2012) and Manovich.

ownership and/or maintenance responsibilities are ambiguous (infrastructure, abandoned buildings), can remain for months or years. In the digital environment, there are only highly discrete surfaces, which we experience one at a time. The more publicly visible they are, the more highly secured they typically are. We cannot see any 'infrastructure' or anything beyond the specific, typically proprietary surface we encounter. From the perspective of our dyscriptor, the more successful she is at accessing and marking a popular and highly visible website, the more quickly that mark will vanish completely and without a trace. Virtual graffiti has thus rapidly entered a stage of hyper-evanescence: even the average website will remove a defacement in a matter of minutes, a major commercially or publicly active site like Best Buy or Google in a matter of seconds. The millions and millions of poorly managed or maintained sites that do inadvertently host defacements for longer periods of time are often almost invisible to anyone not specifically directed to visit them. This is a particular quality of the context within which virtual dyscription takes place, and it has provoked a number of mutations, such as the incorporation of automated mirror archiving and graffiti-related social networking, to ensure the defacement is noticed at all.

ii. Quantum (not fluid) movement

When we go outside in the 'real world' we can move around in many different modes and there is a fundamental fluidity to our experience. We may be walking to work, but we might gaze up at the walls of buildings, or down at the sidewalk, or take a short-cut down an alleyway, all of which might bring us into visual contact with dyscriptive acts, depending on where our attention falls. The virtual world is also highly random, in fact even more so if we consider that we can move from one city to another or one country to

another all in the space of a few minutes at our terminal. On the other hand, our virtual experience is quantum and not fluid, we move from one discrete spot to another, without anything 'in between'. We 'pop up' in places, but do not really arrive there, and we always pop up at the same kind of surface. Although we might almost always 'pass by' the Google site on our way to wherever we are going, we cannot experience seeing it from a distance. The 'quantum' character of our displacements in the virtual world also intensifies the *super-ficial* context within which virtual dyscription develops its style, which factors in to both how we experience virtual graffiti (if we ever experience it first-hand at all) and how the virtual dyscriptor thinks about what to do next: who to deface and how to do it.

iii. Radical Superficiality

Hyper-evanescence and quantum movement are themselves both aspects of the radical super-ficiality ('upon-the-face'-ness) of the context in which dyscriptive style emerges in the virtual world. Regardless of what kind of property we are dealing with, no matter how professional or how amateur, we are always greeted by precisely the same superficial surface for our dyscriptive act. With respect to the virtual context *per se*, the only visible difference between the Bank of Montreal's website and the website of our neighbour is the logo, but that superficial difference now makes all the difference in the world when it comes to assessing the stylistic intensity of virtual dyscription.

iv. Access

Although access to suitable and interesting surfaces is an aspect of the style of traditional graffiti, there are many suitable surfaces in the 'real world' and most do not demand any

special skills or equipment to gain access. In the virtual world, the coded surface of the website is always secured in some way, and even the simplest or most poorly secured site requires a relatively specialized set of tools and skills to gain access to the code-wall. In the case of websites that actually generate significant public visibility, the skillset required to access that surface is exponentially greater. If we consider virtual graffiti as both act and product, a very high degree of emphasis is put on the act of access, and, in most cases, it suffices to simply access an important webserver, regardless of what kind of mark you leave there, to generate a highly charged moment of dyscription. On the other hand, unlike her traditional counterpart, since all of the access work is done at a relatively safe distance, the dyscriptor has theoretically all the time she desires, to conceive and execute the specific defacement she intends to leave behind. She is not constrained to operate quickly, while ‘looking over her shoulder’, to produce her visible marks.

These four features shape the new context within which virtual graffiti develops its particular style or manner and mode of production. Once we have considered the complex and comprehensive dimension of style, we can investigate the contributions of Provenance (Who did it?) and Purpose (Why was it done?).

5.1 Style

Style is realized in both the act and product of virtual dyscription, and we can analyze the dialogic and monologic properties of each, keeping firmly in mind the new features of the

virtual environment. When combined, the varying degrees of intensity displayed in each area inform the overall contribution to the stylistic intensity of virtual dyscription.¹⁰³

The Act

When we focus specifically on *the act* of production manifest in virtual dyscription, we are primarily considering styles of access to the code-wall (*murus codicis*) and the style embodied in choosing which code-wall to exploit. Without access to the code, there can be no dyscription. There are many different modes of access and many different kinds of site to choose from; and ‘style’ emerges from both target selection and method of access. We can consider both as they play out in the dialogic and monologic intensities of the act of our dyscriptor.

Dialogic intensity of the act

The dialogic quality of the act arises from the implicit (but given the nature of code and code-interactions, in a sense now also the *explicit*) dialogue between the dyscriptor and the website he or she is attacking. It reflects on the implicit dialogue engaged upon from the first moments of site selection, the choice and design of access method, the manner in which the ‘hack’ is implemented—the overall dialogue implicit in the successful execution of this attack, in this manner, in this place. For example, should the website of a well-known vendor of anti-malware products (e.g., AVG or Symantec) be defaced by any kind of mark at all, a very intense dialogue is created between the act of successful access (represented by the mark) and the website. There is, for example, an implicit and

¹⁰³ Much of the empirical detail in the sections below is drawn from my analysis of the virtual graffiti archive and interviews in Chapters 5 and 6. Here I have selected only the most salient elements necessary to advance the theoretical exposition.

immediate dialogue begun with, for example, the quality of the company's products and employees, related to the sophistication of the dyscriptors: the site should be hard to access, the staff should be vigilant, their products should be effective; it is a dialogue illustrating how the dyscriptors are better than the security experts, how the company's products are bogus. An implicit conversation is invoked, whose intensity varies depending on the site selected for defacement and the particular performance of the dyscriptor ('how well the dive is performed'). At the current time (2014) any kind of dyscriptive act originating in Iran and exploiting US government websites, regardless of the US site's degree of maintenance and security, probably displays a high level of dialogic charge: the sheer fact of Iranian presence says not only "We are here!" in a place where 'they' are not supposed to be, but "We can get you when we want! When you least expect it? What can you do about it? Nothing!" If exactly the same access method was used to leave a mark on a poorly maintained and apparently abandoned site, the dialogic charge would be very low. Not unlike much of the traditional graffiti we see covering the alleyways and streetscapes of downtown neighbourhoods in most major cities, the dialogic intensity of the *act* of much virtual graffiti is relatively low: the websites are non-descript, abandoned, frequently defaced and otherwise hardly noticed by anyone but the dyscriptor; the act engages in hardly any discernible dialogue with the surface context. This, however, does not mean that they have no stylistic intensity at all. These latter cases (in both the real and the virtual worlds) will often rely on some other aspect of style to account for their stylistic charge, which we will consider below.

From the perspective of the act, our emblematic "Capitalist Pig" on the Google website would display high dialogic intensity. The site selection itself, due to its structural context

(a very public, visible and well-secured site) and its status (highly respected for its social and technical acumen) provides a context for intense implicit dialogue (without even considering the specific mark that has been left on the site).

Monologic intensity of the act

The monologic quality of an act arises first from the nature and structure of the specific site, independent of the specific dyscriptor and the dyscriptive act. Is this a 'Mount Everest' or little hill to be climbed? How hard is its security known to be, how severely do they prosecute dyscriptors? How often has the site been tried and how often have dyscriptors failed or succeeded? (What we have called 'the degree of difficulty of this dive'). But monologic intensity also arises from the nature and native 'style' of the dyscriptor, independent of that specific site and act. How daring was she? How impressive were her skills? How economically was it coded? How quickly did she do it compared to some else doing the same thing? How much code was she able to recall 'by heart', or invent? What was the level of fluidity or 'grace' with which she applied it? As in the case of real-world dyscriptors, much of this kind of information is invisible to anyone outside the community of practitioners, and may involve a special vocabulary to account for the monologic demonstrations of pure skilfulness. We might learn that the defacement of an otherwise typical blog (Wordpress) was accomplished by the sophisticated, custom-coded exploitation of a hitherto unknown bug in standard programming languages. If two dyscriptors went to the same kind of site (same dialogic intensity) and did the same thing, but one took 5 minutes to do it and the other 30, the former would be typically accorded a much higher degree of monologic intensity.

An act that displays a high degree of both dialogic and monologic intensity would be a carefully constructed, innovative and smoothly successful attack on a highly secured website. Both aspects of the *act* would then contribute to the overall stylistic intensity of dyscription. The defacement of an unknown or rarely visited site, using easily available, pre-coded ‘tools’ that can be deployed successfully by almost anyone would generate very low intensity, and the act would contribute very little to the potential stylistic intensity of the dyscription. Of course, in both of these cases we have yet to take into consideration the contribution of the *product* of dyscription.

If we look at virtual dyscription only from the perspective of the act, we are mainly focused on access to the *murus codicis*; our interest in the *murus perceptus* extends only to whether it is changed *in some way*, not to what it has changed *into*. If we are interested solely in the act, we would be limited to an exploration of the stylistic realm of the hacker; whereas, the style of virtual dyscription flows as much or more from its product as its act.

The Product

When we focus specifically on *the product* of virtual dyscription, we are primarily considering the formal aesthetic qualities of what we perceive on the virtual surface (*murus perceptus*), or the style realized in the multi-figural object as we experience it on our computer screen. We are looking at the displayed object in and of itself, and no longer asking how it got there. Like the act, the product of dyscription will also display both dialogic and monologic aspects, each with their own intensities. We can now consider both of these aspects as they contribute to the overall stylistic intensity of the dyscription.

Multimedia

All products of virtual dyscription are potentially multimedia, and this feature of the new virtual world may contribute to both the dialogic and monologic styles. As was briefly mentioned under the rubric of inscription (4.2), the inscriptive modalities available to our virtual dyscriptors include not only the visual, but the aural and haptic. Of course, in the traditional world there are many forms of multimedia phenomena. The graffiti of the late twentieth century is deeply associated with Hip Hop music and the life-style and ethos of Hip Hop culture¹⁰⁴. The difference in the digital environment is that all the sensory modalities are seamless. All of these distinct aesthetic or sensory experiences can be woven into one dyscriptive event in the virtual world, and in one *super-ficial* context that can process and render, at the same time, all of these inscriptive modalities. When we consider the product of dyscription, we need to take all of these modes into account to analyze the stylistic tactics available to virtual dyscriptors; and must recognize the synaesthetic potential that can be exploited for stylistic ends.

Dialogic intensity of the product

Just as the *act* of virtual dyscription engaged in a dialogue with a website through the feat of access and site selection, now we focus purely on the *product*, the mark, the legible features of the defacement left behind. There are potentially many different kinds of literacy at work (cultural, political, linguistic) in at least two inscriptive registers (visual and aural), and the intensity of dialogue generated by the dyscriptive figure(s) arises from the interpretation of meaning or content in the context provided by the target surface. Our

¹⁰⁴ See Hager, Steven. *Hip Hop: The Illustrated History of Break Dancing, Rap Music, and Graffiti*. St. Martin's Press, 1984.

consideration of the dialogic product arises from the sometimes implicit but typically explicit dialogue between the dyscriptive product (visible on the *murus perceptus*) and the now defaced website.

If we found an orthodox Muslim website homepage had been defaced by a collage of Hindi music, Kashmiri political tracts, and a video loop of war casualties in Kashmir, we could clearly see, with no consideration of how well-edited the images may be or how well-crafted the text, that the product engages in an intense dialogue with the surface upon which appears. If the same defacement appeared on the homepage of the website of a local Canadian marketing firm, the dialogic intensity would probably be lower. The average user would not understand Kashmiri, perhaps not be familiar with the regional conflict, nor be able to identify the music (although a meaningful degree of dialogic intensity would arise from the simple act of a ‘foreign’ dyscriptor accessing and leaving a mark on a ‘local’ commerce website, etc.).

Another significant dialogic vector exploited by many virtual dyscriptors is the insertion of live email addresses, Facebook pages and Twitter ‘handles’ into the body of their defacements. Often these can be accompanied by an explicit invitation to the victim to contact the dyscriptor to learn how to fix their ‘security problem’. This is a second order of *potential* dialogic intensity, which depends on the actions of the viewer to be realized (Do they click on the hyperlink?), and the intensity arises not in relation to the specific site that is targeted, but from an engagement in potentially a series of ‘quantum steps’ taking the viewer away from one virtual surface (the defaced website) and ultimately bringing them into (‘popping up’) in the virtual world of the dyscriptor, as if she had always been sitting beside us.

What have been termed “ergodic” effects (Aarseth), which we treat in some detail below (Chapter 5), rely upon some or all of the aesthetic mediums to create what might simply be called ‘narrative’ effects, which stimulate what can be broadly considered the haptic register of “affect” (Massumi). The ergodic engagement is highly dialogic (in the manner that a game player is in a dialogue with the game and/or game master), and the effects have been actualized, with varying degrees of sophistication, in virtual dyscription since its earliest days. Some of contemporary instances possess high degrees of stylistic intensity (see Chapter 5 – ‘*Ergodic*’).

Monologic intensity of the product

The monologic intensity of the product of dyscription arises from a consideration of the formal aesthetic features of the product in and of itself. This is a type of analysis that follows what are usually considered to be more traditional aesthetic categories.

Effectively, we now try and take the defacement and its surface context as one thing, which can be treated like a ‘picture’, and for the purposes of analysis attempt to abstract this picture from its wider context to consider how its formal features contribute to the overall stylistic intensity of the dyscription.

The monologic aspects of the product of dyscription can be further explored by anatomizing the product into its specific medial features, with a particular focus on the visual modality, as it remains the predominant sensory mode.

The Haptic and monologic intensity

Haptic effects are those that arise from the creation of touch (tactile) sensation and control in the interaction with computer applications. If the web user has what are

currently considered specialized input/output devices (joysticks, data gloves), they are able to receive feedback from websites in the form of felt sensations in the hand or other parts of the body. Although very few web users are typically equipped to interpret haptic file types (MPEG-4 [BFIS-binary format for scenes]), the technology will one day be considered standard equipment. What our dyscriptor can do is include instructions, for example to make the user's mouse vibrate in the classic S.O.S pattern, or else corrupt the sensory harmony intended in video content (games, filmed entertainment). There are few if any virtual dyscriptive events that have engaged with the haptic register (or, perhaps not enough suitably equipped viewers to notice). When they do, as we can expect they will, it will most probably be in coordination with both the visual and aural registers, lending a tactile and personal immediacy to virtual graffiti, as if you could smell the paint as it was being sprayed on the wall of your house. For the moment, these are *potential* sources of new aesthetic effects.

The Aural and monologic intensity

Almost all ordinary computers and web access devices (phones/tablets) have the ability to process and render audio files. The Web is replete with sites where digitally recorded music of every genre is available for easy download to any suitably equipped web user. There is an incredible amount of audio material available to the dyscriptor for integration into their dyscriptive products, and virtual certainty that any viewer will also be able to hear what the dyscriptor has created. The creative use of this audio material has a wide spectrum, ranging from straightforward inclusion of a popular song to the custom sampling and careful construction of original audio-figural soundscapes.

Most virtual graffiti has an audio element, which might include varieties of music, narrative voice-overs or sound effects. Typically the dyscriptor will include some form of music into their product. The music is usually pre-recorded and typically widely available, and we can classify it according to the usual genres and sub-genres (Death Metal, East Coast Rap, Techno, Folk, etc.). The dyscriptor can compose and record original music, either in the traditional manner (composition and performance) or through the creative process of sampling (original collage). When we consider its monologic features, we are typically dealing with the way aural settings or moods are created, for the reception of the images which accompany the sound. The monologic intensity of the audiofigural aspect of dyscription arises from the careful coupling of sound and image/text, so that the viewer experiences them almost synaesthetically.

The use of voice-over narration (not including song) is also a feature of some dyscriptive products, and the content of the narration can range from specific political tracts (e.g., famous speeches) to the personal commentaries of the dyscriptors, which can range from maniacal laughter to purposive discourse.

We can also on occasion encounter ‘noises’ that are used as sound effects: broken glass, feet running away, an explosion, sirens approaching, etc. These effects are used much less frequently than either music or narrative; however, they are often effectively integrated into the overall product and can generate an appreciable monologic intensity in these cases.

Overall, the audio capabilities of virtual dyscription are usually exploited to simply add a pre-recorded soundtrack which plays as long as the defacement is visible. There are many

interesting variations, including the possibility of a virtual dyscription that is only aural, with no visible component at all. This latter kind of dyscriptive event would display, regardless of the specific character of the audio-figure, a high degree of aural monologic intensity.

The Visual and monologic intensity

Visual perception is the dominant vector for assessing the monologic intensity of the product of dyscription. The formal qualities of what we see are deceptively similar to our experience of graffiti in the real world, although the sheer super-ficial nature of the virtual context does not offer the same first order material distinctions (cement, stucco, glass, wood) that play such an important part in assessing the aesthetic character of the traditional graffiti product. Of course, the virtual surface can emulate these material modalities, but they arise as simulacra, playing perhaps an ironic role, but not providing any real material contribution to the elaboration of the product. However, the virtual world offers a number of new ‘material’ *super-ficial* features of its own, which inform the genesis of an emergent monologic visual style

The virtual world is full of images, all of them easily available with a simple ‘cut and paste’ to anyone browsing through, for example, Google images, or uploading from a digital camera. In addition to static images, there is also an incredible amount of video footage available in the same way (e.g., YouTube, personal digital video). In addition to the wide variety of easily accessible sources for imagery, the average dyscriptor also has software tools to facilitate digital image manipulation (Photoshop, video editors, etc.) as well as common word and image processing software to easily generate font-styles, animated text and the like, to rapidly generate a wide variety of image/text objects

ranging from the simplest font to the most complex combinations of image and text. These tools are now all ‘givens’ for even the most commonplace and rudimentary computer user.

When we come to assess the monologic intensity displayed by visual aspects of the products of virtual dyscription, we are, effectively, looking at a picture. This picture is native to the digital environment, but its intensity can be evaluated in the same way we might a real world drawing or painting. Given the material characteristics of the virtual world, we can broadly distinguish two modes of visual ‘style’: collage, and what we will call native or traditional drawing and painting.

Collage

Many of the visual products of virtual dyscription are created through the use of collage. Various visual components (static/animated, image/text) are assembled into a composition that is encountered as ‘one’ picture. We can evaluate the monologic intensity of the picture by considering the care with which the collage was put together, which might even include the awareness of, for example, viewing width and length (Is the composition ‘broken’ into parts by the requirement to page down or ‘move’ sideways?). We can also assess the collage from the perspective of traditional aesthetic categories, considering the degree to which it displays a high or a low degree of, for example, originality, economy, insight and formal resonance.

Traditional Drawing and Painting

The dyscriptor can also paint or draw a picture, photograph it, and upload this as her dyscriptive product. The image can fill the entire ‘screen’ or be assembled in a collagist

fashion; however, it is original (art)work. One of the difficulties when viewing website defacement lies in ascertaining the origin of the drawings/paintings rendered as images, and this question can often only be answered by asking the dyscriptor themselves. Given an original drawing or painting, we can assess its monologic intensity in exactly the same way we might a drawing in the real world, or at least a photograph of a drawing in the real-world. Such traditional aesthetic factors as originality, economy, insight and formal resonance can be evaluated to determine the overall monologic intensity of the product.

5.2 Provenance (Who did it?)

The often considerable status that currently accrues to some well-known traditional dyscriptors in the general public forum has not yet emerged in the case of their virtual graffiti counterparts.

There are a number of groups who practice website defacement for political ends, and when a group of fundamentalist Muslims deface the site of a Hindu company or personality, the stylistic intensity is significantly higher than if an unknown dyscriptor left their mark. However, at some extreme, typically reached very quickly in the case of political and religious dyscriptors, these marks move us out of the realm of what we would call virtual dyscription, and into the realm of simple hate crime.

Among the virtual dyscriptors themselves, there is competition for notoriety based upon the number and quality of websites defaced. Much of this competition is fostered by the existence of websites that serve as archives for their accomplishments, where statistics are kept for number of sites defaced, quality of the target, and a mirror image of the defacement. The mirror is a key feature, since the typical website owner will remove the

defacement quickly after it has been applied, and this is especially true of the more popular or important target sites. The mirror archive also serves as a reference link for ‘publishing’ their exploit via social media (Facebook, Twitter), and also for news media to access for the purposes of reporting on a successful defacement of a popular or important site.

Nevertheless, to the general public who might experience the defacement, the provenance of the act is of little relevance (with exception to the religious and political cases noted above) to the stylistic intensity. In many respects, the simple fact that a ‘hacker’ accessed the system at all, and not the particular name or reputation of the dyscriptor, serves as a stylistic ‘constant’ in acts of virtual dyscription.

5.3 The Stylistic Range of Virtual Dyscription

We can now revisit our schema and confirm the dynamic stylistic range embodied in a fulfilled instance of virtual graffiti.

<i>Locus of emphasis</i>	<i>Dialogic</i>	<i>‘Monologic’ (Formal)</i>
<i>ACT</i>	The implicit (but given the logical nature of code, in a sense also explicit) dialogue between the dyscriptor and the site he/she is attacking	The nature and structure of the target site independent of the specific dyscriptor and dyscriptive act AND The nature and characteristic style of the dyscriptor, independent of the specific site and act

<i>PRODUCT</i>	The often implicit (but sometimes explicit) dialogue between the graffiti product and its now defaced site	What can be said about the product independently of the dialogue between product and the defaced site (e.g., the inherent and repeated formal style of the dyscriptor's tag)
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Figure 7 – Schema of the stylistic range of virtual dyscription

In our exploration and preliminary encounter with the artifacts of virtual dyscription in Chapter 5, we will discuss, in some detail, each of these aspects of style as they are manifest in real examples.

6. Human

Can we imagine a purely human act of virtual dyscription?

First in the case of traditional (Chapter 2) and here in the case of virtual dyscription, we have looked for the dynamic qualities of the six syntagmatic elements and the factors governing their intensity. The ‘human’ dynamics of traditional dyscription were constrained by the simple fact that all traditional dyscription is fundamentally human, with allowance for the role played by technical mediation. Even in the extreme case of technically mediated dyscription in the traditional world, where we imagine someone ‘programming’ a mechanical robot, through the twisting of wires and springs, to dyscribe a public statue (by painting a symbol on it), only a short and unambiguous chain of causation connects the dyscriptor to the robotic paint brush; even in this apparently ‘pure’ case of robot agency, human involvement is still prominent, the person who

programmed the robot is clearly responsible for the dyscription. Only if the ‘programmed paintbrush’ could learn could we begin to speak meaningfully of real machine agency.

If we consider the human dynamics of virtual dyscription, there is no longer any ‘pure human’ on the spectrum at all. Virtual dyscription is never a purely human event but always involves an invisible set of ‘machinations’. As of the present, all the observable virtual dyscription is unquestionably of human origin and displays a clear and traceable chain of isomorphic¹⁰⁵ causality, identical to the case of our programmed robotic paintbrush. In this regard, our syntagmatic definition still holds, even though almost all of what we would usually consider the human aspects of dyscription in the *real* world are now inherently invisible machinations in the *virtual* one. Humans now practice virtual dyscription but do not actually produce it anymore: unseen, we produce and alter *code*, and only do so with and *through* the machine, working in concert with and conforming to the stylistic potentialities of the machine. What appears on the computer monitor is typically the result of a long and highly complex series of computer mediations.

Probing deeper into the human dynamics of virtual dyscription may reveal how the now hybrid human ‘element’ learns (or re-learns) to inscribe anything at all meaningful, faced with what is an inanimate, inarticulate digital code-wall (*murus codicis*), fundamentally recalcitrant to human forms of production.

It would appear that, to any given act of virtual graffiti, we may ascribe what we could call a human ‘inception’ or ‘origin’, followed by an inscriptive ‘epigenesis’; that is, the inscription of the dyscriptor’s program triggers a series of autonomous events that

¹⁰⁵ By this is I mean that each human datum is reflected in a unique and identifiable machine datum, on both faces of the dyscriptive ‘wall’ (*codicis* and *perceptus*, digit and pixel).

represent the unfolding of the coded instructions. At some stages along this process, typically when the virtual experience has been presented to potential users, the program may even call for user/viewer input to serve as instructions for the next ‘step’; the program may even be acting now like a self-organizing system, finding and exploiting resources to ensure its propagation, even evolving to meet the demands of various operating environments and security systems (anti-virus programs)—all the while spawning unauthorized, stylistic inscriptive defacements of property as it moves through the digital/virtual ecology.¹⁰⁶

Although we certainly consider these phenomena as originated by human agents, in the later (sometimes *much* later) stages of their life-cycle, it is not clear who or what is the primary agent. Such cases would now represent instances where the intensity of human agency would be ranked quite low, and the resulting stylistic inscriptions would be more accurately identified as a virus or ‘spam’.

Carrying us even further away from emblematic virtual graffiti, would be the nascence of a pure machine agent; one which, if equipped with the proper digital tools (through something akin to ‘learning’) would be capable of leaving its own products and even dyscriptive marks on the ‘floors and walls’ of the digital environment. The identification (if even conceivable) and the characterization of this order of ‘expressivity’ has already arisen in the context of the infancy both of the human being and of the human race (phylogenetic), when studying the marks made on the cave walls; and it seems an unextraordinary leap to ask if the incomprehensible ‘markings’ of computer systems

¹⁰⁶ See “*Bots Are Responsible for over 60 Percent of All Website Traffic*” (2013). This report shows that the majority of website traffic is not done by actual humans but rather website or server hijacks and website defacement and content deletion.

within computer systems, especially in the context of viral propagation and similar orders of interaction, are not waiting for the appropriate sensibility to arise, which will recognize them for what they might be: the stirrings of something new.

Conclusion: *Esse Est Bipercipi*

Our testing of website defacement against the syntagma (the synthetic characterization of dyscription) suggests that this phenomenon is effectively homologous with traditional graffiti praxis and well-deserving of the term, *virtual graffiti*; and this would suggest an active, interesting and significant transition of traditional, real-world graffiti praxis into the digital environment and virtual world. Our preliminary assessment of virtual dyscription, however, highlights some interesting adaptations and mutations arising from this transition; one critical, structural difference being the presence of not one but *two* ‘walls’ in the production of any fulfilled act of virtual dyscription: one unseen by the public viewer (the ‘wall’ of code, or *murus codicis*), which corresponds to the material face of the traditional wall; and the other seen by us (the ‘wall’ of our computer screen, or *murus perceptus*), which corresponds to the perceptual face in the traditional case. This phenomenological characteristic will resonate in each of the six constitutive concepts of virtual dyscription, most strikingly in the act of inscription, where we now encounter a *primary* act of inscription on the code wall (*murus codicis*), and a corresponding, *secondary* inscription on the virtual surface (*murus perceptus*); and it is here, on the *murus perceptus*, where we have identified the clearest homologue—that is, *virtual graffiti*, the new (old) phenomenon. In this new environment, then, ‘to be’ is, in a sense, ‘to be *doubly* perceived’: first, as ‘readable’ code inscribed on the primary surface or code wall (*murus codicis*); and second, as visible image on the secondary surface or

computer screen (*murus perceptus*). And these two ‘walls’ form the respective focusses of the two aspects inherent in the notion of graffiti itself: the *act* of virtual dyscription is typically concerned with the primary, material surface, and the *product* with the secondary, visible one. In the world of traditional graffiti, the dyscriptor makes what she (we) sees; whereas, in the world of virtual dyscription, a fundamentally dualistic context, the dyscriptors are at one wall and the (human) perceivers at another, and questions concerning the possibility of ‘seeing’ and evaluating the (code) product inscribed on the *murus codicis* inexorably force us out of the traditional realm of human aesthetics, into the complex, emergent realm of posthuman aesthesis.

Fully articulated, a working taxonomy of dyscriptive praxis, based on our syntagma and encompassing both traditional and digital environments, would include at least 240 categories (excluding the dialogic/monologic division);¹⁰⁷ however, given the limited compass and aims of the present work, we shall focus only on those elements related to the ‘secondary inscription’, on the *murus perceptus*—what the ordinary viewer can perceive (hear, feel) on the computer screen. There is an equally large, corresponding corpus of dyscription on the *murus codicis*, of course, most of which is invisible to the human eye or the traditional human aesthetic experience, but which, given the rapidly co-evolving emergence of new hybrid man-machine sensibilities, may yet prove even more interesting and important.

¹⁰⁷ We have two species (real-world/traditional and digital/virtual dyscription); two modalities of each (act and product), two ‘walls’ (code/*codicis* and screen/*perceptus*); six elements (unauthorized, human, inscriptive, stylistic, defacement, property), and five mediations (visual, aural, audio-visual, haptic, ergodic), which account for 240 (2x2x2x6x5) distinct categories. In Chapter 5, treating of virtual dyscription on the *murus perceptus* (virtual graffiti), we effectively encounter only 24: 1 (virtual) x 2 (act/product) x 1 (screen/*perceptus*) x 6 (elements) x 4 (no haptic yet) = 24 possible categories, etc.

With this more nuanced characterization of both the emblematic and problematic features of virtual graffiti, the conceptual ‘bridge’ in the notion of graffiti praxis, from the real to the virtual world, and with it the specific propaedeutical work of the study is complete. We are now equipped to proceed with some novel, preliminary, *empirical* encounters with the unexamined dyscriptive artifacts stored in the Zone-h archive.

Chapter 5: The Acts and Artifacts of Virtual Praxis

Here I present the results of two years of fieldwork anchored in the observation of over 5,000 random samples of website defacement from over the entire 14-year history of the Zone-h archive. The mirror archive, dedicated as it is to website defacement, has already effectively pre-screened the samples, according to a number of the binomial variables synthesized in my working definition of graffiti, providing a full dataset (four million records) that may be considered to display a low order of variance. This ensures that my research is based upon a satisfactory sampling to enable the qualitative observation of notable characteristics among the group, and to support the empirical validity of the virtual graffiti syntagma, but is in no way meant to support a quantitative statistical analysis or conclusions. With this authority, I followed a two-step procedure that first (Chapter 4) sought the *emblematic* features of website defacement, establishing the essential elements and contours homologous to traditional graffiti; and then employed this heuristic foundation to perform a preliminary exploration of the intrinsic *qualitative* and even *problematic* aspects of this new and hitherto unexplored phenomenon.

On this foundation and within this framework we will now explore in empirical detail the *virtual* dyscriptive syntagma, concept by concept, paying special attention to the category of style and the emergence of the monologic aspects of the products of virtual dyscription.

Before proceeding with a formal exploration of the contents of the Zone-h archive, I will present an overview of the archive itself, how the samples constituting the archive came

to be there, and the terminology customarily used to describe to the various stages and components of what I term the ‘defacement cycle’.

The Generic Dyscriptive Cycle: Act and Product

What does the typical dyscriptor need to do to accomplish an act of virtual graffiti? Based upon my interviews with operators, website hosts, and the dyscriptors themselves, which we review in Chapter 6, we can outline the general approach. At the most general level of analysis, she must gain access to a webserver as an unauthorized user with administrative privileges, allowing her to access the files making up the website (typically the directory files). She must gain access to the code-wall. There are five generic steps that all dyscriptors must take in order to gain such access.

1. *Identify a vulnerability in one of the many different programs used to instantiate websites on the Web.* Typically a website is made up of an operating system (Windows, Unix, Linux) working with what is called a webserver application (Apache, Microsoft IIS, nginx, Google Webserver). The website owner can then use more specific applications or website building tools to design and implement the various features we come to expect at a typical website (bulletin boards, blogs, real-time interactive databases, financial transactions, file transfers, etc.). Because of the complexity and rapidly evolving market dynamics that make it important to get products ‘out the door’ quickly, most of the popular software applications have ‘bugs’ or coding flaws that need to be ‘patched’ or repaired on an ongoing basis. These ‘bugs’ are widely publicized, to ensure that users apply such patches, but this also allows the dyscriptors to identify and search for potential weaknesses. The typical defacement cycle commences with the

identification of a bug in a software program, and then the search for a website where that flaw has not been patched.

2. *Locate a specific website using the vulnerable code.* Many small ‘mom and pop’ website owners rely upon the safety-in-numbers approach: there are over 200 million active websites, how is anyone going to find mine? Sizable and visible defacement targets (large commercial firms, high-traffic sites) have entire departments overseeing web security, but often the simple complexity of their operations and the high overhead of keeping up with ongoing maintenance issues (on multiple software platforms) allows for small windows of opportunity. In either case, the dyscriptor can make use of publicly available automated programs to scan the Web, searching for websites that run the specific software packages containing vulnerabilities. These automated programs are called ‘sniffers’, and our dyscriptor sets them up and waits, sometimes for hours or days, until a list of vulnerable web addresses are identified. She then narrows down the field to the most likely candidates, and begins to apply her coded access packages to see if she can get in.

3. *Gain access and acquire administrative user privileges to the website by exploiting the vulnerability either with a pre-built scripted program or custom coding.* Once a vulnerable site has been identified, our dyscriptor will typically customize pre-coded ‘packages’ (sets of standard instructions) to exploit the vulnerability and gain access to the site. Once she is ‘in’, she will escalate her user privileges (using more pre-coded ‘scripts’) to become the site’s administrator. At this point, the dyscriptor may control the website and, depending on what she is planning to do, may spend some time ‘cleaning up’ to ensure the real site administrator cannot discover she is inside. She may install

malicious code that uses the compromised website to send spam emails, or else set up ‘recorders’ to capture valuable information (passwords, financial transactions) occurring on the site (e.g., credit card info.). However, the dyscriptors we are interested in typically have no interest in stealing or corrupting anything; they want to move to Step 4.

4. Locate the website’s file directory and replace the file that creates and presents the homepage with a file of one’s own. Our dyscriptors have prepared a coded HTML file of their own, their ‘defacement page’; now, having gained access to the website as an administrator, they use their administrative privileges to replace or ‘adjust’ the site owner’s homepage file (i.e., the index.html file).

5. Report the exploit to Zone-h. Once our dyscriptor has inserted her file into the site, she notifies Zone-h that the site has been defaced (this notification can be coded into the replacement file). Zone-h then activates a program that goes to the defaced site, takes a mirror image of the defacement and registers the information in a list of defacements to be verified. Zone-h’s technical staff then verify ‘by hand’ that the defacement is in fact authentic and not simply a mock up, deactivate any malicious code that might be in the dyscriptor’s HTML producing the defacement image, and add the now verified defacement to the archive. There may be a delay of a few days before the defacement appears as verified.

Steps 1, 2 and 3 are all activities related to what we have called the ‘act’ of dyscription. Step 4 treats of the ‘product’, and the Zone-h mirror archive is an archive of the verified products of virtual dyscription.

The Basic Modalities of Website Defacement

i. Home Page Replacement

In Step 4 (above) I indicated that the dyscriptor would typically replace the homepage file with a file of her own. This is called a 'homepage replacement'. The dyscriptor has defaced the site by 're-facing' it with a new 'wall' that includes an inscription of her own. We can no longer see the original site at all. It is as if a traditional dyscriptor had come up to a house, built a wall in front of it, and then marked that wall, instead of making a mark on the house. The house is probably still there, behind the wall, except the owner (or visitors) can no longer get to it. **Figure 8** is an example of a website before it was defaced with a homepage replacement; **Figure 9** shows the site after the homepage replacement. We can note here that the dyscriptors have differentiated between the act of access ("Hack perpetrated by: SiD and mR. bIsOn") and the creator of the page defacement ("Page Deface By: mR. bIsOn").



Figure 8 - Homepage before defacement (Zone-h 625001)

WE OWNED YOU!

Bug found by: nR_b1s0n
Hack Perpetrated by: ^s1d^ & nR_b1s0n
Page deface by: nR_b1s0n

nR_b1s0n Gr3t2 to: Mr_Skull,
smartmouse, irtan, lost, Rensid,
brnocrist & the other friends;
Pallino, Francesco Metal &
the other FUCKING friends.

^s1d^ dedicate the hack to
his best friend: toxina.

FUCK2 to:
Italian State Police

Remember: B1SON IS BACK!

E ora veniteci a prendere...



Figure 9 - Website homepage after homepage replacement (Zone-h 625001)

ii. Homepage Modification

Instead of replacing the homepage, the dyscriptor can make gross or subtle modifications to the homepage file itself, or other easily accessible pages within the site. The site typically remains functional, but some subsection of the site has been replaced or modified. **Figure 10** is an example of a simple home page modification. Note that the two dyscriptors (Evil Elisabeth and Evil Daniella) have not only inscribed text into the light blue header, but also inscribed sarcastic comments throughout the document (“Who should read this bulletin: Dummies and Stupid systems administrators...”, etc.).

iii. Covert File Inclusion

In this case, the dyscriptor has not changed or replaced any files that result in a visible change to the website, but instead she has inserted a file somewhere in the file directory (typically inaccessible to average public users), proving (to accomplices, friends and viewers of the archive) that she has gained administrative access to the site and that she can add, modify or delete files. The site owner probably does not know that the dyscriptor has been inside, but the dyscriptor can provide a link to her page, which is posted in Zone-h, as proof of her success. These defacements look the same, although they are often simply ‘tags’, or small graphic files, serving as placeholders. Typically, the dyscriptor is planning to either ‘give’ the compromised website to someone else or else come back at a later date and do a more public defacement.

Evil Elisabeth and Evil Daniella were here | Smacks Administrator and read it :-)
Contact us: evildb@inferno.com | Sorry but
<http://www.buckingham.k12.va.us> owned :-)

Microsoft Insecurity Bulletin MS01-026

Superfluous Decoding Operation Could Allow Command Execution via IIS

Originally posted: May 14, 2001

Summary

- **Who should read this bulletin:** Dummies and Stupid system administrators using Microsoft® Internet Expensive Server 4.0 or Internet Expensive Services 5.0
- **Impact of vulnerability:** Many vulnerabilities but we know only three: Code execution; denial of service classic, information disclosure.
- **Recommendation:** Dummies and Stupid System administrators should apply the patch to all machines running IIS 4.0 or 5.0 immediately if you not try download the patch, your system was hacked by Prime Suspectz with niscat.c or Poison B0x with unicodeexecute3.pl

Affected Software:

- Microsoft Expensive Information Server 4.0
- Microsoft Expensive Information Services 5.0

Other information:

Acknowledgments

Microsoft **thanks**, the following people for working and hackers of hackweiser with us to protect customers:

- NSfocus (<http://www.nsfocus.com>) for reporting the vulnerability affecting IIS and my mother, my dog and my wife
- **Lukasz Luzar** of Developers of PL and Aiden O'Rawe for reporting the FTP denial of service and Telnet Overflow
- Kevin Kotas of eSecurityOnline (<http://www.esecurityonline.com>) for reporting the problem in the fixes that were provided in MS00-060, MS01-014 and MS01-016. He has a big ass and all of Microsoft® Company eat him

Support:

- Microsoft Knowledge Base articles Q293826, Q295534, Q294370 and Q288855 discuss this issue and will be available approximately 24 hours after the release of this bulletin. Knowledge Base articles can be found on the [Microsoft Online Support](#) web site.
- Technical support is available from [Microsoft Product Support Services](#). There is no charge for support calls associated with security patches.

Security Resources: The [Microsoft TechNet Security](#) Web Site provides additional information about security in Microsoft products.

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Revisions:

- V1.0 (May 14, 2001): Bulletin Created.
- V1.1 (May 15, 2001): 280 websites was hacked after it, exploits and programs coded.
- V1.2 (May 31, 2001): All h4t0rs groups uses unicodeexecute.pl, unicode.exe, iishack.exe, niscat.exe and many other exploits.

Clients Opinions:

- **South Park:** Oh my god ! Hacked my website ! Bastards !
- **Poison B0x:** Poison B0x wuz here
- **Pinky and Brain:** With exploit is the best. I will try take over the world
- **Bill Gates:** Ah ?
- **IBM:** Os2/Warp don't have bugs and haven't programs and drives
- **Apple:** Mac Forever
- **Linus Towalds:** "Uses Linux: 9 of 10 h4t0rs recommends"
- **Power Puff Girls:** The power puff girl system was patched of babulous and us haven't afraid.
- **Briney Spears:** Ooops... Hacked my site, your administration is crazy ! One moment ! My site running Solanis ! Oops I didn't again :P

Greetz: Aildas.de , Safemod.org , Hackzone.ru , Microsoft.com and All Bastards Administrators Support us and our mother Evil Angelica

Figure 10 - See the modifications to the top as well as within the body of the document. This is a sample of homepage modification, not a replacement. (Zone-h 8030)

iv. Single Defacement

Usually a simple website has one IP address, and when one gains access to the website one is able to deface that site alone. In this case, the dyscription is referred to as a single defacement.

v. Mass Defacement

Sometimes one large webserver hosts many sites and sub-domains, each of which presents itself to web users as an individual website. A good example of this is the typical university website, which will have a ‘main’ website as well as numerous ‘sub-sites’, for example departmental websites and research project websites ‘nested’ under the university’s main domain name. In many cases, if a dyscriptor is able to access the main site and gain administrative privileges, those privileges will extend to all the sub-sites, and she can substitute one file (her ‘product’) for all the sub-sites nested underneath the main site address. Thus, the university’s homepage will be defaced along with the homepages of all the departments and research groups; or else selected sites beneath the main site will be defaced, but the main site remain untouched. In the case where a large webserver is hosting many different organizations, one act of access and one file replacement can deface thousands of sites simultaneously. These are called ‘mass defacements’. **Figure 11** shows a list of sites defaced by access to the University of British Columbia webserver over the course of 2012-2013, indicating that UBC site has been subjected to both mass defacements and redefacements (see below).

vi. Redefacement

When a site is defaced, typically the website operator will erase the unauthorized file and restore the original homepage. If they do not ‘patch’ the vulnerability that allowed the dyscriptor to get in, however, the dyscriptor may return and do it again. This ‘cycle’ can continue for weeks or months, with the dyscriptor typically taunting the target to improve its security capability.

The Zone-h Mirror Archive Structure

In the archive, each defacement is listed as one entry, which includes: the date when Zone-h was notified that the defacement occurred; the name of the notifier (the dyscriptor; whether or not the defacement is a homepage replacement (H), a mass defacement (M), or a redefacement (R); the country hosting the website (indicated by a flag icon); the domain name of the target site (the Universal Resource Locator or URL); the operating system supporting the webserver; and a live link to the mirror image of the defacement.

zone-h
unrestricted information

Home News Events Archive Archive Onhold Notify Stats Register Login

search...

NOTIFIER [] DOMAIN ubc.ca

Special defacements only Fulltext/Wildcard Onhold (Unpublished) only

Date: ALL Apply filter

Total notifications: 58 of which 21 single ip and 37 mass defacements

Legend:
H - Homepage defacement
M - Mass defacement (click to view all defacements of this IP)
R - Redefacement (click to view all defacements of this site)
L - IP address location
★ - Special defacement (special defacements are important websites)

Date	Notifier	H	M	R	L	★ Domain	OS	View
2013/08/22	Dbuzz		M			ubcfarm.ubc.ca/x.txt	Linux	mirror
2013/08/22	Dbuzz					www.landfood.ubc.ca/x.txt	Linux	mirror
2013/08/22	Dbuzz		M			reachout.landfood.ubc.ca/x.txt	Linux	mirror
2013/08/15	aLLiGaToR					www.parkinsons.ubc.ca/images/a...	Linux	mirror
2013/07/30	j0ck3r					www.ethics.ubc.ca/io.php	Linux	mirror
2013/04/11	Fatal Error	H		R		www.m1.cust.educ.ubc.ca	Unknown	mirror
2013/03/06	Over-X	H				nexushomecare.arts.ubc.ca	Win 2003	mirror
2013/01/04	KILLerMIND		M			access.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			axisoflevi.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			bcmarinetrails.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			bcmetis.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			borealforest.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			devel.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			foodscu.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			frankbeaton.s22.ok.ubc.ca/root...	Linux	mirror
2013/01/04	KILLerMIND		M			geoservices.s22.ok.ubc.ca/root...	Linux	mirror
2013/01/04	KILLerMIND		M			hbcbio.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			healthdetermine.ok.ubc.ca/root...	Linux	mirror
2013/01/04	KILLerMIND		M			intergen.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			kawartha.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			liveslivedvest.s22.ok.ubc.ca/r...	Linux	mirror
2013/01/04	KILLerMIND		M			manystockdale.s22.ok.ubc.ca/ro...	Linux	mirror
2013/01/04	KILLerMIND		M			okfood.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			ors.s22.ok.ubc.ca/root.htm	Linux	mirror
2013/01/04	KILLerMIND		M			ozfood.s22.ok.ubc.ca/root.htm	Linux	mirror

1 2 3

DISCLAIMER: all the information contained in Zone-H's cybercrime archive were either collected online from public sources or directly notified **anonymously** to us. Zone-H is neither responsible for the reported computer crimes nor it is directly or indirectly involved with them. You might find some offensive contents in the mirrored defacements. Zone-H didn't produce them so we cannot be responsible for such contents. [Read more](#)

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Figure 11 – List of the mass defacement of the University of British Columbia (ubc.ca) domain. This list was produced by Zone-h on 20013/11/21.

The Two Sides of the Same Product: Source Code and Defacement

In a striking contrast to the study of traditional dyscription, if we view the captured mirror image of a virtual dyscription in the archive, we can see *both* the dyscription as it appeared on the *murus perceptus*, which can sometimes be several pages long, *and* the ‘source code’ that our dyscriptor created in order to produce the defacement. This ‘source code’ is not to be confused either with the ‘access code’ used to gain access (see Steps 1, 2 and 3 above) to the code-wall of the website, or the pre-existing ‘fixed code’ on the website’s *muris codicis*.



Figure 12 - Homepage Defacement (of www.websitedesigners.co.uk) by Evil Angelica (Zone-h 8011)

```
view-source:zonehmirrors.org/defaced/alldas/2000/12/11/thewebsitedesigners.co.uk/
1 <HTML>
2 <HEAD>
3 <TITLE>EVIL ANGELICA REDESIGNS WEBSITE DESIGNERS</TITLE>
4 <!-- I NEED A BIG FAT COCK IN MY PUSSY -->
5 </HEAD>
6 <BODY TEXT="#FFFFFF" BGCOLOR="#000000">
7 <CENTER><IMG SRC="death.jpg" WIDTH=460 HEIGHT=590 ALIGN=bottom</CENTER>
8
9 <P><FONT SIZE="+1">I AM THE GRIM REAPER, AND I HAVE COME FOR THE ONE
10 THEY CALL " ADMIN " </FONT></P>
11
12 <P></P>
13 </BODY>
14 </HTML>
15
16 <!-- Mirror of this Defacement provided by http://defaced.alldas.de -->
17
```

Figure 13 - Source code for Figure 11 (Note: Evil Angelica's lewd comments in green letters)

What we see is the HTML-code file that our dyscriptor has used to replace the original homepage file; but we may consider this source code to be part of what I have termed the dyscriptive *product*. Indeed, often the dyscriptor will leave comments in the source code that will not immediately appear on the visible defacement, and these can contribute significantly to the stylistic charge of the overall dyscription. **Figures 12 and 13** above illustrate the various elements here. **Figure 12** is an example of the defacement of the homepage of the website www.websitedesigners.co.uk. **Figure 13** displays the HTML source code read by our web browser to produce the visible webpage (**Figure 12**). This source code is easily accessed simply by right-clicking the mouse on the archive entry, and selecting “View page source”. The dyscriptor knows that any website administrator, and many curious web users, will view the source code in an attempt to find out what has happened to the website (in the first case) or simply to see ‘inside’ the *murus perceptus* (in the second). We can see that the dyscriptor Evil Angelica has left a very lewd message for the source code reader.

This ‘extra layer’ of dyscriptive product further complicates and enriches the aesthetic, and more specifically stylistic character and potential of virtual (vs. real-world) dyscription.

We now have, I hope, a working understanding of the context and technical phenomenon of website defacement, the terminology commonly used to characterize the defacement cycle, and the standard components of the dyscriptive products, particularly as they are archived and available to us in the Zone-h mirror archive. If so, we are sufficiently equipped to ‘take the field’, as it were, for a first-ever qualitative analysis of the past and present state of virtual graffiti.

Virtual Dyscription: A Qualitative Encounter

With this general sense of the structure and content of the Zone-h mirror archive, and some requisite terminology for categorizing the contents, we here commence the first qualitative analysis of the content of the archive, according to the syntagmatic and dynamic, characteristic features of virtual dyscription reviewed in Chapter 4.

In each of the cases below, we are dealing with actual examples of virtual dyscription, in which key elements of the six syntagmatic concepts are prominently illustrated; and, where possible, noting qualitative characteristics, tendencies and trends observable in the overall body of this work.

1. Property

Familiarity, Maintenance Standards, and Proprietary Information are the key dynamic factors influencing the intensity of the ‘impropriety’ generated by an unauthorized stylistic inscriptive defacement of website property (Chapter 4).

The completely artificial nature of the virtual world has a profound effect on the concept of property. In the real world, we clearly distinguish between legally owned individual and corporate private property, public property (in the sense of both civic property but also the socially negotiated and often vague property belonging to the commons such ‘the park bench’ or ‘the environment’), and then something else we might denote as ‘wilderness’. These three modes of property are complicated, of course, by many often subtle gradations, and human history shows a clear progression from the predominance of wilderness toward sharply defined privately owned ‘property’. Traditional graffiti can appear anywhere, but has typically thrived in the grey areas which emerge and dissolve

over the continuum of these major property modes. There are homologues to each of the three in the virtual world, but what is most striking is the lack of gradations both between and within the modes. The virtual world, at the time of writing, is overwhelmingly composed of privately owned websites or websites with a civic function (government, education); but very recently websites with emergent characteristics of the traditional ‘public commons’ have begun to appear, while the notion of an ‘electronic wilderness’, though latent and theoretically conceivable, is not yet a matter of fact. The ‘historical’ tendency of website evolution, inasmuch as one can be clearly discerned over the 15 years of the archive’s existence, shows a movement toward looser, more vaguely organized ‘commons’ (e.g., Wiki sites, open-source projects, virtual game spaces such as Everquest, etc.). The stirrings of new orders of digital ‘wilderness’, hinted at in viral potentialities and the almost ‘feral’ logic of interacting self-replicating programmes, emerge in spaces outside the typical application networks (e.g., in the Dark Webs and vast new ‘cloud’ storage networks). Virtual graffiti, like its traditional counterpart, is influenced by the property relations framing and protecting the surfaces upon which virtual dyscriptors seek to make their marks. Over the two years that I have been studying and logging the activities of virtual dyscriptors, I have witnessed the unexpected *opening up* of what, at first, appeared to be a tightly closed network of privately held properties, reminiscent of the observation famously made by Lenin that quantity, at some point, takes on a quality all its own.

However, the legal and personal sense of property still informs our relations with the typical website, and these relations are intensified by the medial characteristics of the digital world, especially since many websites, for the time being, continue to carelessly

store our valuable personal data, and unauthorized access to the code wall of the website is often indistinguishable from access to everything else the webserver may contain.

Thus, there is little margin to cultivate a sense of ‘vague’ impropriety when it comes to virtual dyscription, unlike in cases of real-world graffiti, where a viewer might not be troubled by seeing an inscriptive defacement of the outside wall of their bank. Every case of virtual dyscription can be interpreted, in real-world terms, in the same way as finding an unauthorized mark on the mirror of one’s bathroom; none are simply in ‘the alley’ on the ‘outside’ wall.

Another distinctive empirical feature of virtual dyscription is that virtual graffiti practitioners do not recognize any ‘no go’ zones. In the virtual world, every surface is a ‘proper’ target. In the case of traditional graffiti, on the other hand, it is well-documented (Castleman, 1982; Ferrell, 1993) that dyscriptors worldwide generally agree to treat people’s personal (non-commercial) vehicles and domestic pets as ‘out of bounds’.

Familiarity

Figures 14 and 15 show the defacement of Carleton University’s Computer Science Society website in 2005. For the university’s computer science community familiar with this web property, the intensity or ‘charge’ of impropriety would typically be much higher than for someone coming to the site by accident or from outside that community. Our familiarity with a website contributes to the degree and intensity of impropriety that is generated when we see the defacement. This is directly analogous to our experience of impropriety in the real world, when our reaction to graffiti on a property in our own neighborhood, for example in our child’s schoolyard, is proportionally stronger than if we

were to see the same kind of inscriptive defacements on a building in another part of the city.

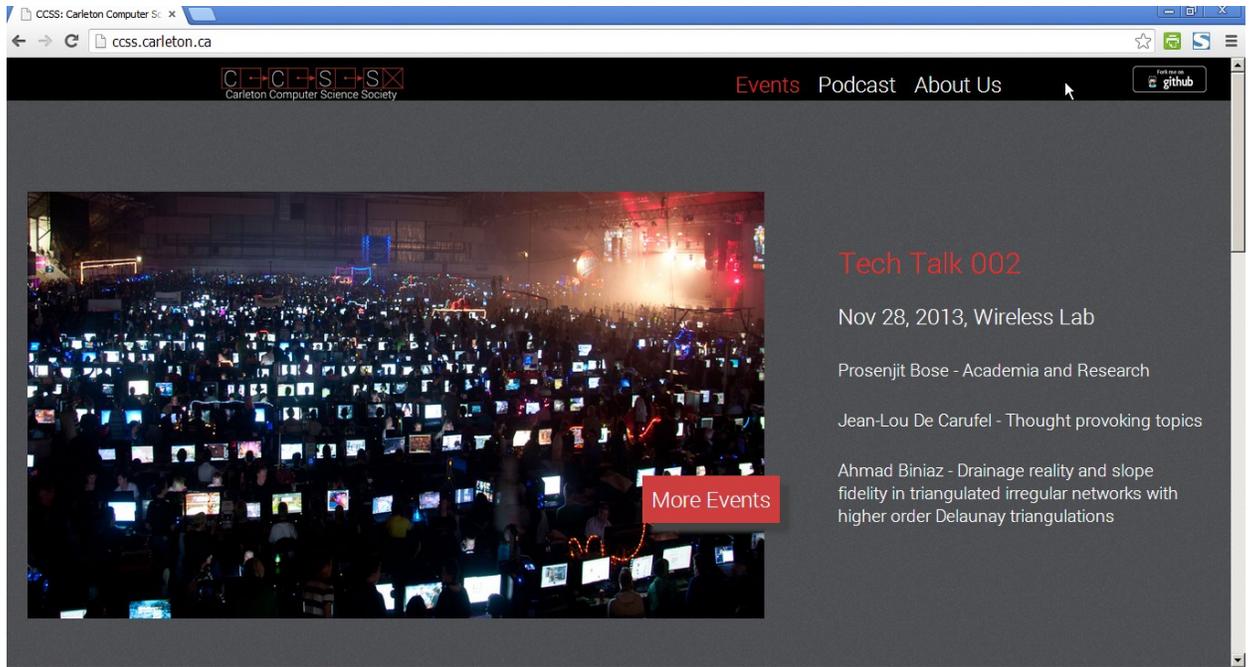


Figure 14 - Carleton Computer Science Society Homepage (2013) - Relatively high familiarity (Zone-h 2326008)

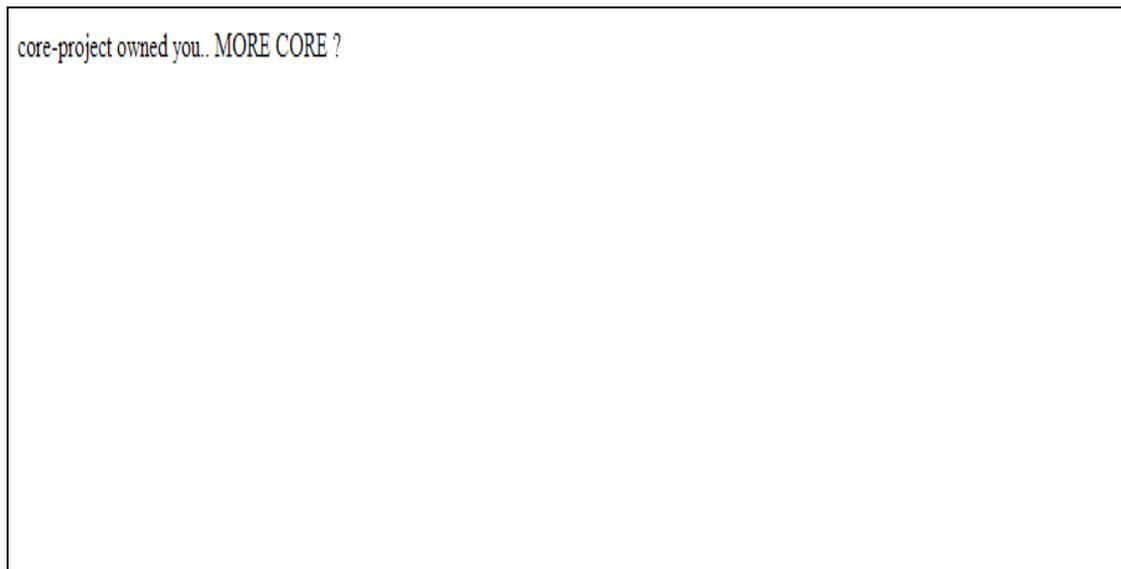


Figure 15 - Defacement of Carleton site. June 1st, 2005. (Zone-h 2326008)

Maintenance Standards

Figures 16 and 17 show the defacement of an active website that appears to be unused or at least not well maintained (“Under Construction”). Many of the links on the site are broken and the information displayed is outdated. We can also tell, from looking at the record on the Zone-h database, that this is a redefacement, which means the site has been accessed before and the owner has not done anything to keep such intruders out. Among the over 250 million websites on the Web, millions of inactive and soon-to-be inactive sites are frequently the target of defacement due to ‘aging’ appearance and dated security measures. These sites are effectively the ‘abandoned buildings’ of the Web.

Proprietary Data

Many sites now permit their users to engage in transactions that allow the site to gather important personal data (credit card information, name, address, etc.). If we have ever used a site to make a financial transaction and then later noticed that this site has been defaced, the intensity of the impropriety generated by the defacement will be very high.

Figure 18 is an Australian commercial website site where people can purchase computer games and toys. If we look carefully in the bottom right corner of the website, we can see that the ‘Leetboy’ dyscriptors have accessed the website. The Leetboys are practicing the dyscriptive modality (*ii* above) called ‘homepage modification’ (not replacement), and this instance is a relatively rare example of an almost ‘invisible’ modification being made—a large percentage of users would probably fail to notice the ‘tag’. However, this kind of subtle modification has a longer life-span (likelihood of remaining visible) than the more typical defacements and, I suggest, creates a powerful moment of recognition when it is noticed, especially by anyone who has used the site to make a transaction.

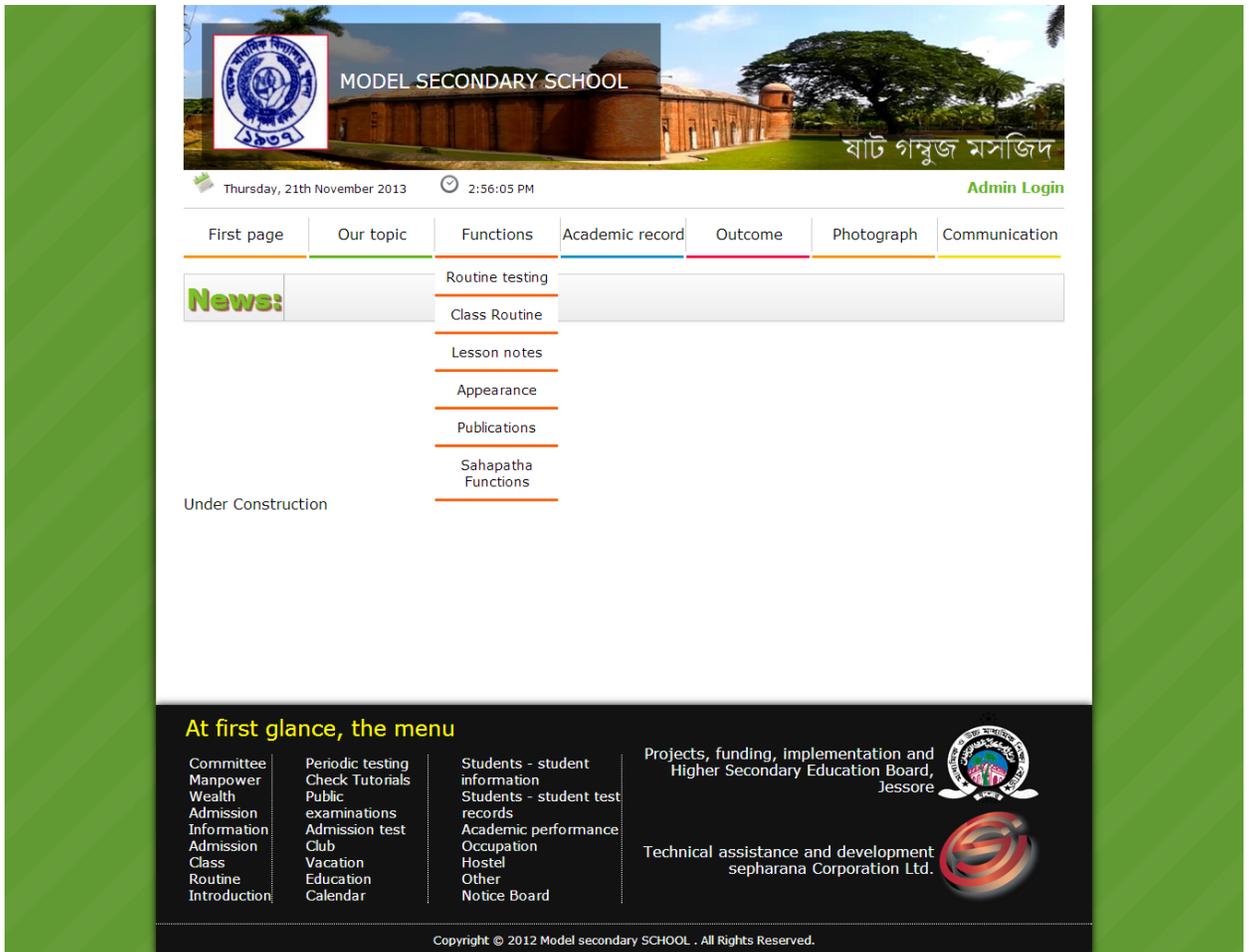


Figure 16 (above) - Website under construction: No links are active, there is no news in the banner.



MODEL SECONDARY SCHOOL

2:57:42 PM Thursday, 21th November 2013

[First page](#) |
 [Our topic](#) |
 [Functions](#) |
 [Academic record](#) |
 [Outcome](#) |
 [Photograph](#) |
 [Communication](#)

[Result Sheet](#)

[HSC Result-2013](#)

[OEMS](#)

[Student Management](#)

[OAF](#)

[OTP](#)

[e-SIF](#)

[e-ES](#)

News: (-) Hacked By Iman_Taktaz (-) | * | Asl

[Appearance](#) |
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- [About Web Site And How to log-in](#)
- [Website manual-1](#)

Important Links

- [Bangladesh Portal](#)
- [Ministry of Education](#)
- [NCTB](#)
- [Public Library](#)




At first glance, the menu

Committee Manpower Wealth Admission Information Admission Class Routine Introduction	Periodic testing Check Tutorials Public examinations Admission test Club Vacation Education Calendar	Students - student information Students - student test records Academic performance Occupation Hostel Other Notice Board	Projects, funding, implementation and Higher Secondary Education Board, Jessore Technical assistance and development sepharana Corporation Ltd.
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Figure 17 – ‘News’ banner carries dyscription. The message continues on to scroll saying the teachers should do more website maintenance. (Zone-h 20417614)

Latest



Airfix 1:72
Messerschmitt
Bf109E-4

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Airfix 1:72 Douglas
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Modern Masters
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Wan's Jedi Starfighter

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Starter Set

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\$79.10

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Dungeon Command:
Heart Of Cormyr

\$72.00

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The Future Delorian
DMC12

\$58.40

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Kyosho Sandmaster
1:10 scale

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Set

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Skyfall Set C1294

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Robo 1 Police Car

~~\$36.00~~ \$25.00

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- [Site Map](#)

Extras

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My Account

- [My Account](#)
- [Order History](#)
- [Wish List](#)
- [Newsletter](#)

Figure 18 - Bottom right: LeeTBoY Team is 'in' the website. (Zone-h 20959003)

2. Unauthorized

When we consider the concept of authorization, we are asking what governs the intensity of our sense of tacit disapproval when we (here) encounter an instance of virtual inscriptive defacement of property. I have suggested that this intensity is typically governed by five factors: visibility, structural context, status, novelty, and cleanliness.

In the early days of virtual dyscription, the sheer novelty of the exploit overshadowed the latent criminal possibilities of the act of access. The dyscriptors themselves appear to be simply having fun and the victims to be laughing along with them (see trends in *Style* below). As public and commercial consciousness of the *potential* vulnerability (data corruption, theft) increases, the level of public disapproval increases, along with more thorough policing and prosecution¹⁰⁸. This raised the risk associated with dyscribing ‘for fun’, and had the unexpected effect of convincing many dyscriptors to steal something to justify the risk, according to the logic that when the severity of punishment for simple unauthorized access is the same whether you steal anything or not, you might as well steal something. The intense legal status of the property relations (see above) and the medial character of the digital environment leave few relatively ‘safe’ and visible places to ‘tag up’.

Visibility

Figure 19 is exemplary of a highly visible site: the Google site serving Pakistan and the surrounding region. Google is an extremely high value target because of the media

¹⁰⁸ Consider the case of the police crackdown on Brazilian defacers in 2005-6; but the decrease in defacements the following year (2007) was paralleled by a surprising increase in criminal hack attacks. Preatoni, R. *Web defacements 2007 in sharp decrease (-37%)—Is it good news or bad news?* www.zone-h.org/news/id/4689. Accessed 27/12/2013.

coverage that any defacement receives and the notoriety that accrues to the dyscriptor in the defacement community. Thus, the exceptionally high visibility of this website contributes a much higher degree of intensity to the defacement than if the same inscriptive defacement appeared on an obscure site. The dyscriptor here is named Eboz, but also known as KriptekS. He is Turkish (the text appearing in the defacement has been translated from Turkish) and has accomplished a number of high visibility exploits over the last five years.

In two years of sustained observation, I have myself never encountered a 'live' defacement, but only seen records of them in the mirror archive or as part of online news articles (where the image is often taken from the archive). Unlike traditional graffiti, virtual graffiti's visibility is almost always remediated (in the media, on the archive); the average web user will rarely see live instances because of the medium's fundamental evanescence. If there were no mirror archive, we would rarely know the typical defacement even happened.

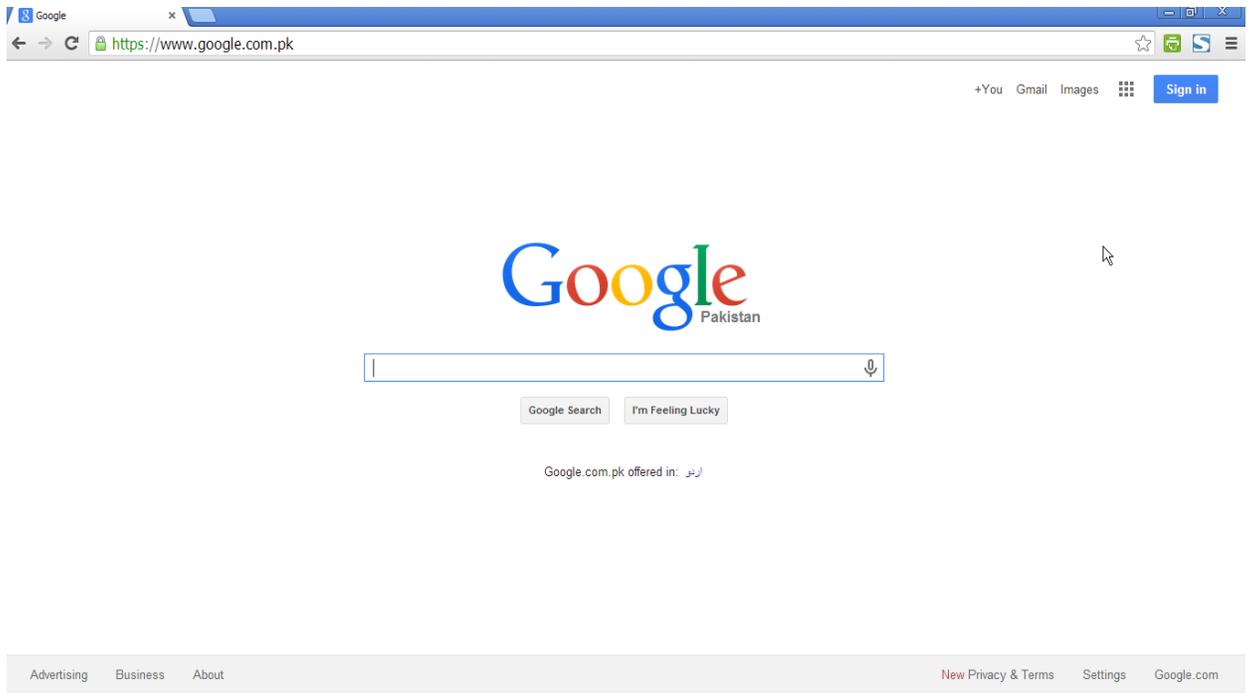


Figure 19 - High visibility commercial website

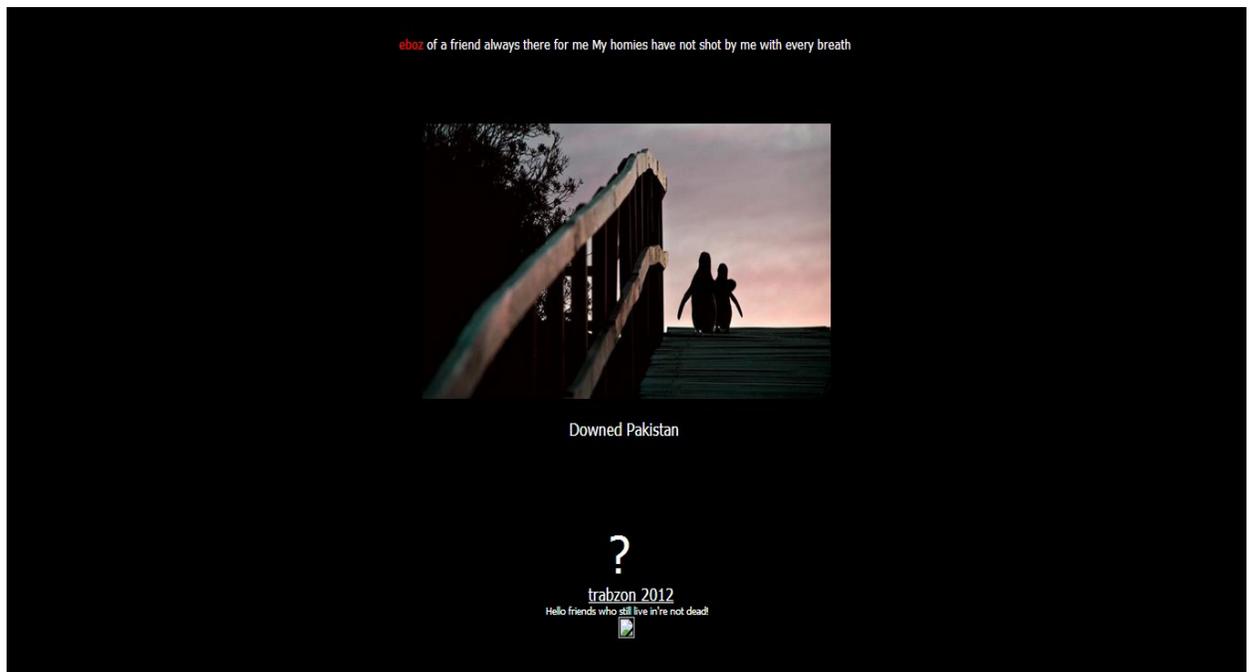


Figure 20 – Eboz (KriptekS) dyscribes the Google Pakistan website with a homepage replacement (DNS redirect). (Zone-h 18638930)

Structural Context

Figures 21, 22-23, 24-25 provide emblematic examples of three typical structural contexts targeted by dyscriptors in the Web, each with an obvious homologue in the real world: the site of a casual social gathering place, the site of a local municipal building (a police station), and the site of a commercial fast food company.

Figure 21 is a simple casual Hip Hop-themed Bulletin Board (a website where users can propose topics or ‘threads’ and engage in written exchanges or ‘posts’ about the various topics). It is a Web gathering place for people to interact, and our dyscriptors have peppered the homepage with in-text commentary (in Leet-speak¹⁰⁹ and Portuguese). The functionality of the site has not been compromised; if we could page down we would see that all of the bulletin board topics are still available to users for browsing and posting. When the average person sees dyscription on a somewhat obscure and marginal site, our general level of disapproval is relatively low; we may even think the defacements are part of the site’s style, or at least condoned by the community of regular users.

¹⁰⁹ *Leet* (or "1337"), also known as *eleet* or *leetspeak*, is an alternative [alphabet](#) for the [English language](#) that is used primarily on the [Internet](#). It uses various combinations of [ASCII](#) characters to replace [Latin](#) letters. For example, leet spellings of the word *leet* include *1337* and *l33t*; *eleet* may be spelled *31337* or *3l33t* (*Wikipedia*).

Affix ownz u phpbb - _EviL_
affix ownz u # phpbb - _EviL_

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[Search](#)
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[Register](#)
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Current Date and Time: Mon November 4, 2002 23:03
[affix ownz u # phpbb - _EviL_ Overview Board?](#)

Unanswered Posts? [Show ge](#)

Forum	Topics	Posts? Ge	Last Post
# Affix ownz u phpbb - _EviL_ # Affix ownz u phpbb - _EviL_ Affix Department Ownz You _EviL_ `Was Here Irc- Brasnet irc.brasnet.org - / join # affix Contact- 4ffix@linuxmail.org "Antes de nos criticar patentes nos superar" - _EviL_ - N3rd - B1u3_Scr33n_Of_d34th - _TW3_ - Sabot4d0r; Greeatz- Crash_Overraide - B1n4ry_c0d3 - Incubus666 - Cris - ALaL_sC - # silver lords - # isotk;	13	16	Tue July 23 2002 10:02 chaser*0D

Figure 21 - Structural context – ‘alleyway’ type, in-text defacement by “Affix” and friends. (Zone-h 100000)

The screenshot shows the official website of the Woodstock Police Service. The page includes a navigation menu with links for Home, About Us, Community Relations, Programs, News, Contact Us, and Photo Gallery. A search bar is located in the top right. The main content area features a 'Welcome to the Woodstock Police Service' message, a 'Business Plan 2013-2015' graphic, and a 'Safe Communities' logo. On the right side, there is a 'QUICK LINKS' section with various service links. A defacement is visible on the right edge of the page, appearing as a vertical strip of text or graphics that has been added to the original site design.

Figure 22 - Structural context - local police station (for defacement, see Figure 23 below)

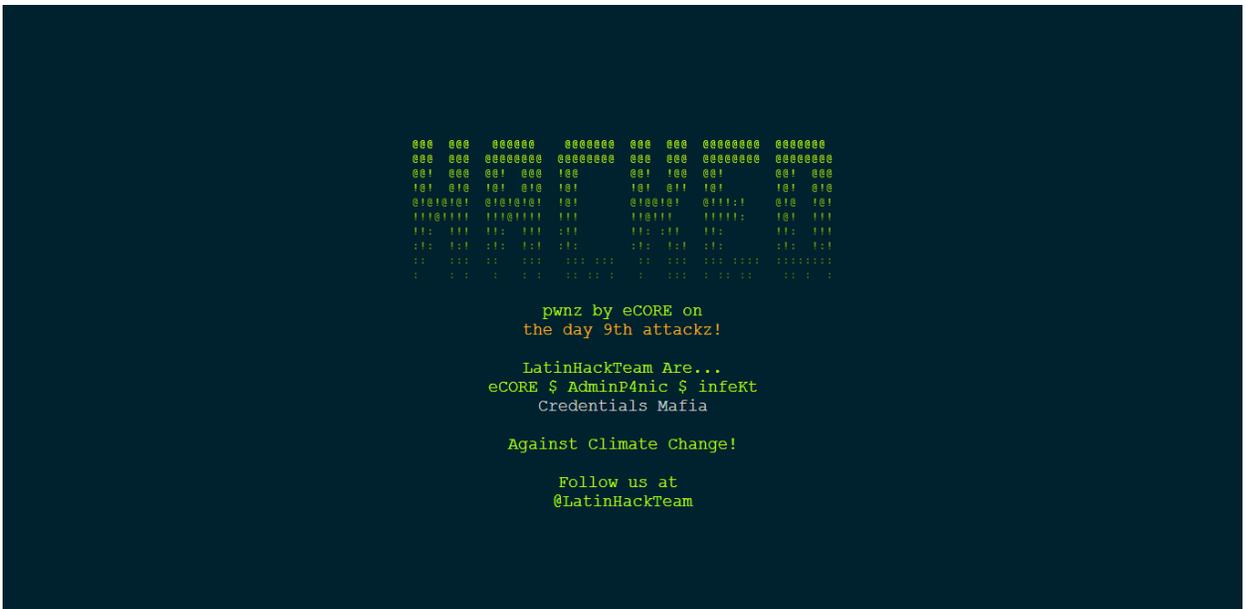


Figure 23 - LatinHack Team homepage replacement of Woodstock Police website (Zone-h 15570860)

Figures 22 and 23 (above) exemplify dyscription of a classic municipal target, both in the real and virtual worlds: the local police station. Here, the Woodstock Police Station (Ontario, Canada) website has been defaced with a full homepage replacement by the Latin Hack Team. The dyscription of municipal structures, especially those that represent law and order, would generate a relatively higher degree of disapproval among average viewers than the same dyscription on an obscure or marginal site.

Figure 24 and 25 (below) The intensity of disapproval generated by the defacement of the website of a typical fast food outlet, or any type of local popular commercial service site, would fall somewhere in between the a casual ‘Bulletin Board’ gathering place and a municipal entity like the police station. Any number of factors related to the *status* of a particular structural context will reorder the hierarchy of disapproval (the Woodstock Police website compared with the Toronto Police website, or either of these two in comparison with a police website in, for example, Bolivia).



Figure 24 - Structural context: local commercial fast food website (see below [Figure 18] for dyscription).

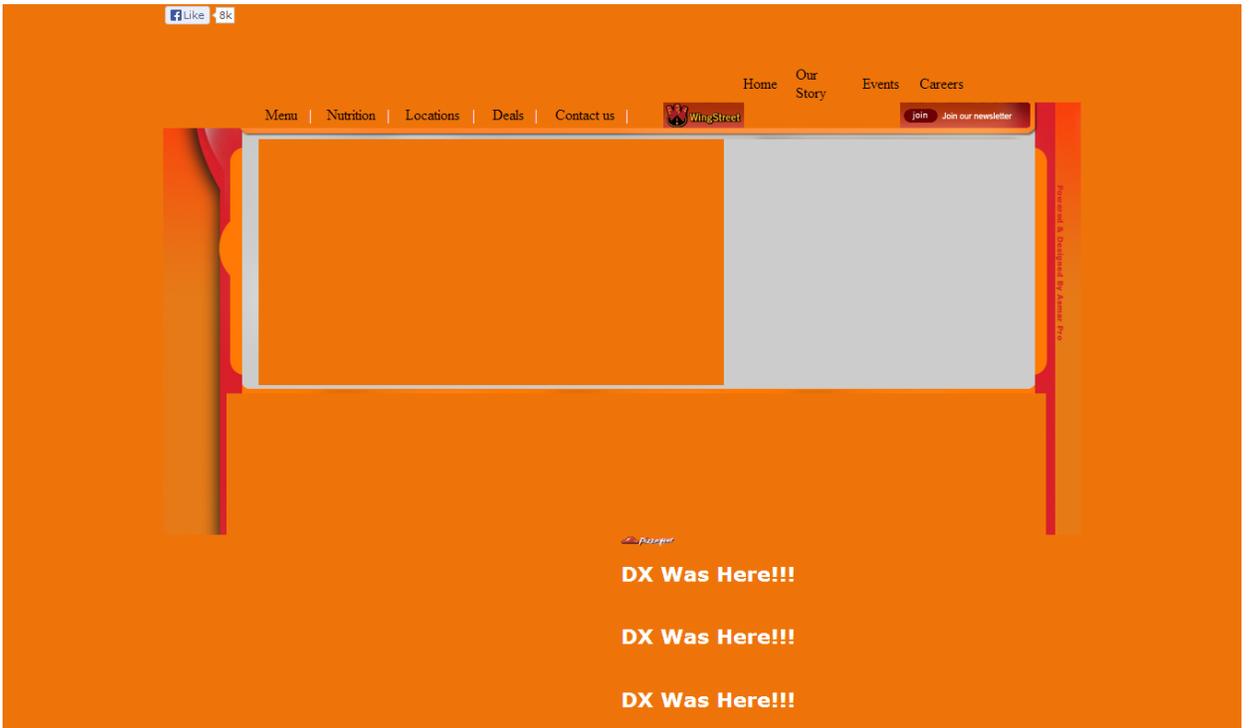


Figure 25 - Dyscribed with a homepage modification and partial corruption of the website's style and functionality by "DX". (Zone-h 18683991)

Beyond these clear analogues to real world structural contexts, the Web provides a unique opportunity to select websites by their country code (the top level domains, the www.police.ca for Canada, www.cityhall.pk for Pakistan, www.factory.cn for China, etc.) and then go there. This creates a new and broad structural context of ‘a country’, and I have observed that many dyscriptors, regardless of the apparent ‘first order’ structural context of the site, consider the important structure to be the country reflected by the country code (this also sets the stage for a dialogue as I discuss below in ‘*The product as dialogue*’). The importance of these ‘structural contexts’ can be noted particularly when periodical ‘cyberwars’ appear to break out between nations or ethnic groups¹¹⁰.

Status

In **Figures 26-27 and 28-29** (below) we can compare the status of two sites which exemplify the same structural context; in this case, highly secured corporate websites of commercial software vendors. The international commercial computer software vendor AVG (specializing in malware detection) has significantly higher status than the relatively small computer software company Zend Computer; and thus, though both exemplify the same structural context, the defacement of their respective websites generates different intensities of disapproval due to the different status ascribed to the companies by the typical public viewer. However, once again, the factor of ‘status’ and

¹¹⁰ It is apparent that geopolitical strife orients the activities of many groups of dyscriptors. For example, tensions between India and Pakistan will be reflected in an escalation of Indian dyscriptors targeting Pakistani websites (e.g., with the www.website.pk top level domain) and vice-versa. What matters most is the country identifier (.pk), and then, within this structural context, higher status would be conferred on military or government subdomains.

‘structural context’ are clearly closely related in any consideration of the overall intensity of disapproval generated in both real and virtual instances of dyscription.

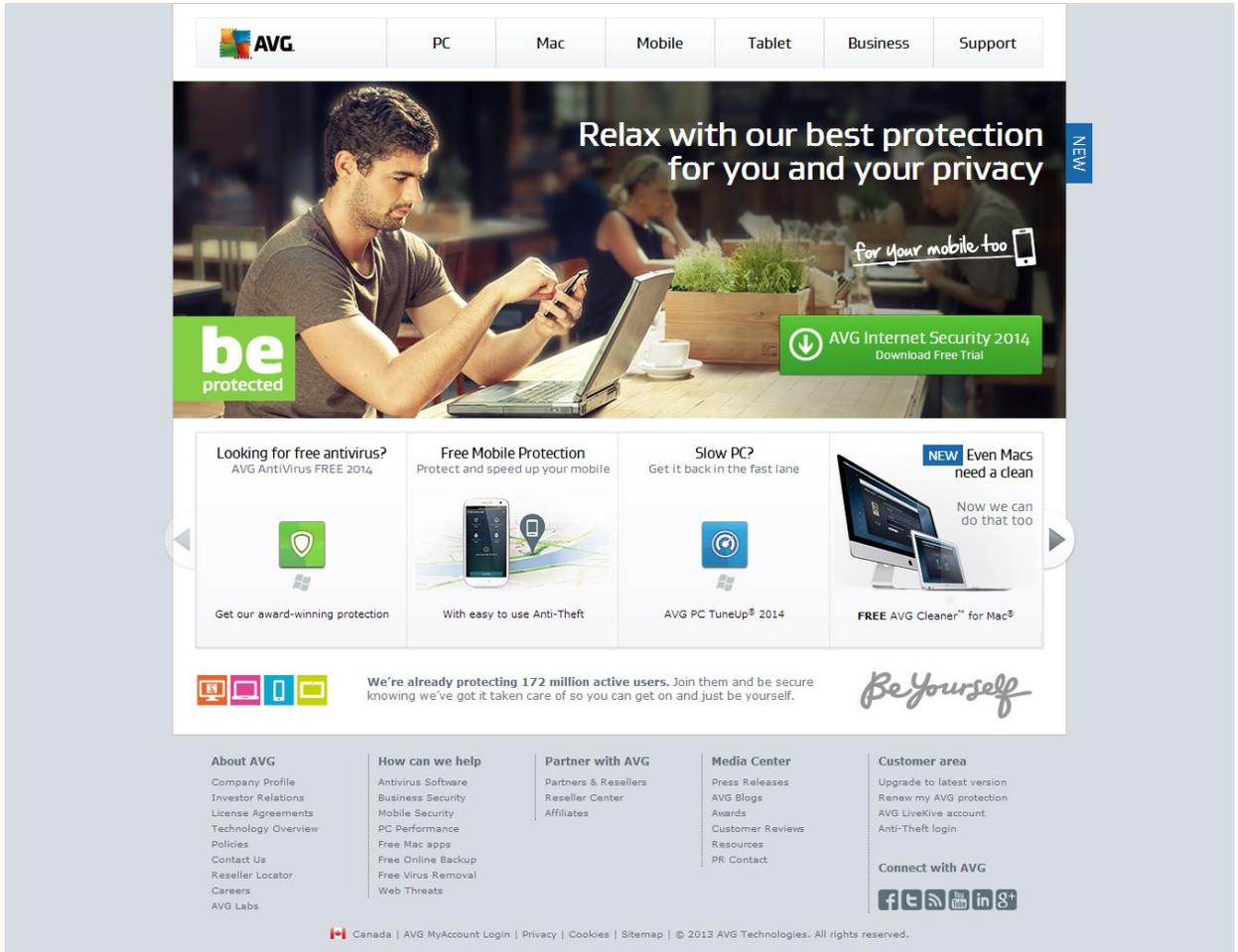


Figure 26 (above) – Structural context: a high status commercial software company site (AVG.com)



Figure 27 – Structural context: the dyscription of AVG's website by DNS redirect (Zone-h 20949089)

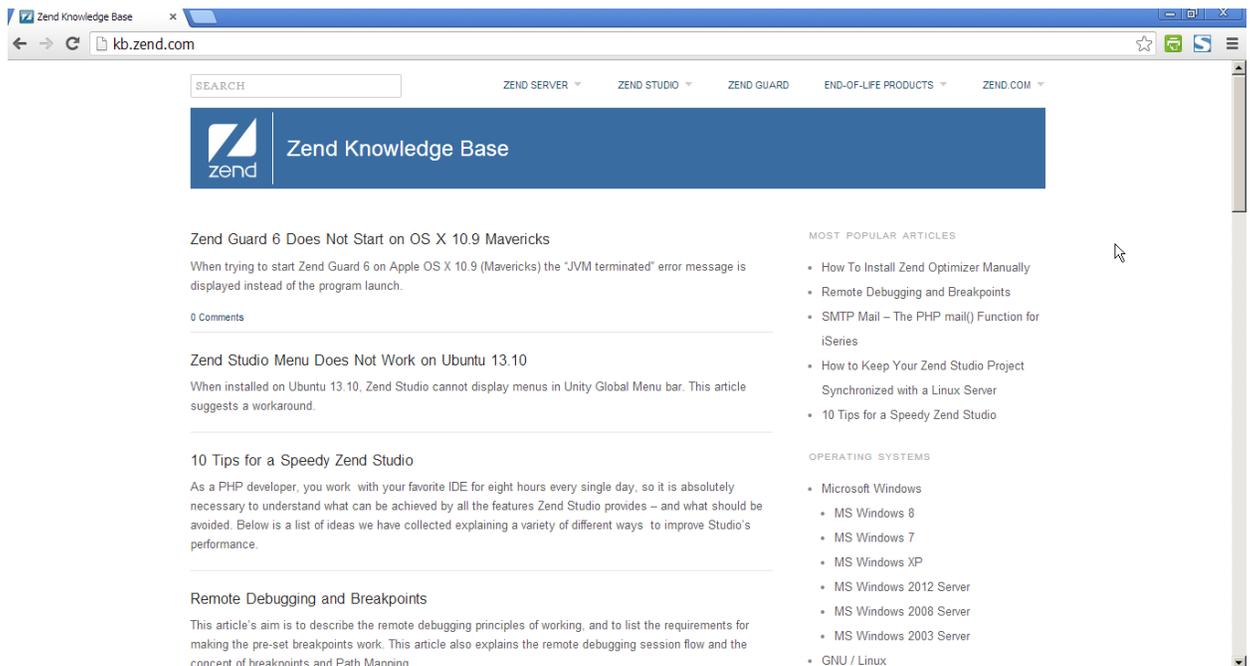


Figure 28 – Status: a commercial software site with lower status than AVG.com (Figure 26)

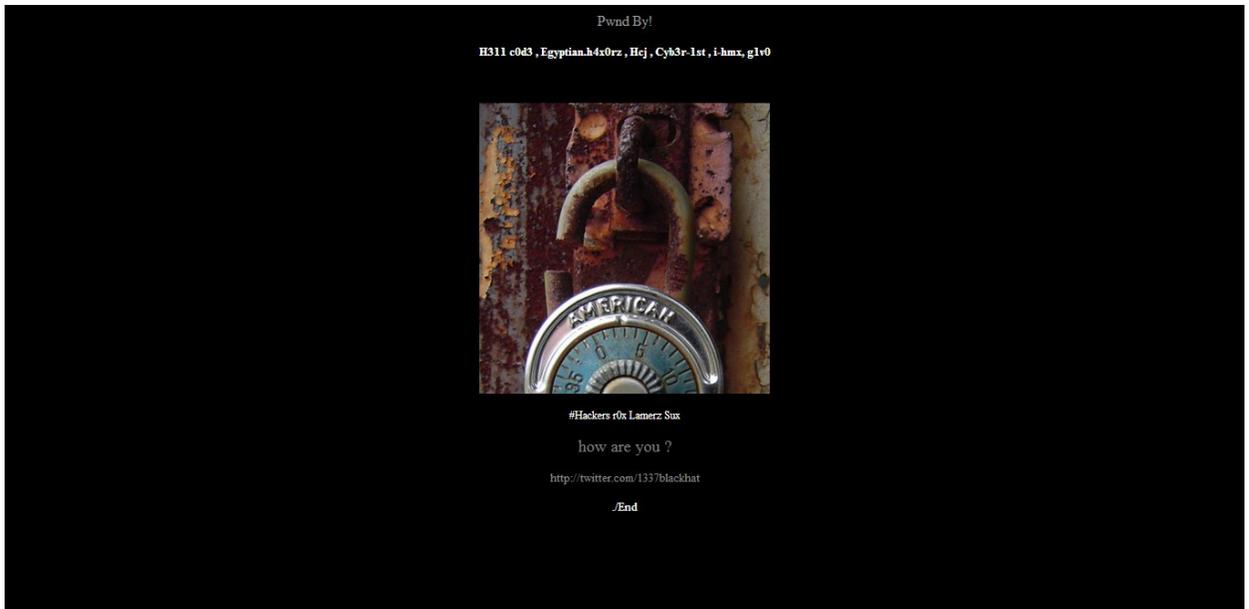


Figure 29 – Homepage replacement of Zend Software (Zone-h 20374745)

Novelty and Cleanliness

These two categories are still relevant in the virtual world, but more difficult to illustrate.

In the case of novelty, many of the websites in the archive are listed as ‘redefacements’ (see Part 1 above), and if the site is regularly visited, we can assume that viewers would tend to attribute a lower quotient of ‘novelty’ to the second or third instances of dyscription. Nonetheless, we cannot discern from the defacement image itself whether or not it is a redefacement or a first instance; therefore, if the site is well-maintained, we would need some ‘external’ narrative understanding to supply the information necessary for such judgments. Over the roughly 15-year history of recorded website defacement, most popular and highly visible websites (for example Google and Microsoft) have in fact been defaced, and redefaced, although only for very short periods of time. Most contemporary web users would, however, consider it a novelty if they were to find the Google site defaced when they came to it.

In the case of cleanliness, if a web user frequently visits a relatively obscure corner of the Web (downloading illicit software or accessing illegal services), or else manages their own amateur or ‘experimental’ webserver, they will typically find evidence of another’s or their own careless maintenance, reflected in some form of uncleanliness, as they offer relatively easy targets for dyscriptive activity, and thereby possess a relatively low threshold of unauthorization for the viewer. When I say they are not ‘clean’, I mean that it is considered almost normal if the site is not functioning properly or if it is often the target of dyscriptors. I have not presented any particular examples; however, the two factors should, if possible, be taken into account when considering the intensity of disapproval experienced by someone encountering dyscription in the virtual world.

It is also worth noting that in early years of the Web, when the idea of using a web-equipped browser to access a website was itself a novelty, all website defacements met with a high degree of both fascination and disapproval. Many of the dyscriptions from these early years, and even to this day, acquire much of their transgressive charge from the simple novelty of actually encountering one at all.

3. Defacement

This category is perhaps the most difficult to exemplify beyond the emblematic act of disfiguring a website by either replacing its homepage or leaving marks ‘in’ the homepage. The simple act of unauthorized access to a web property typically classifies any marks made there, regardless of their style, as undesirable and testimony to the presence of an unwanted visitor who may have perpetrated other ‘invisible’ malicious acts such as data theft. Nevertheless, we can still identify three factors governing the

intensity of disfiguration displayed by an unauthorized stylistic inscription on someone's web property: functional harmony, content harmony and formal harmony.

Although there are exceptions, the overwhelming number of virtual dyscriptions will impede the functioning of the target website, either because they have replaced the homepage or, in the cases where they have not replaced the page but simply marked upon it, the uncertainty created by the intrusion will immediately result in the site's being taken offline.

A new and unique modality notable in virtual dyscription is 'website emulation', where a webuser is redirected (through what is actually a hack into the DNS register) to a website that simulates exactly the one they believe they have accessed¹¹¹. In some cases all the functional aspects of the site are intact and the style/content is clearly unaffected, leading us to ask what precisely has been *defaced*? These cases are, however, interesting exceptions and primarily exploited for criminal intent, taking them out of the realm of virtual dyscription.

Functional harmony

If a defacement replaces the homepage (see **Figures 12, 20, 23** [above] for example), then the homepage is no longer functional at all, creating the highest degree of functional disharmony. In the case of a defacement *within* the homepage, the effect on the site's functionality can either be negligible or significant. **Figure 18** is an example of a homepage defacement that does not technically affect the functionality of the website at

¹¹¹ If the site requires the web user to enter their name, password or credit card number, they would actually be providing the information to the dyscriptor, thus the technique is typically though not exclusively associated with criminal intent.

all, while **Figure 25** provides an example of a defacement that has corrupted the homepage, but allows for some normal function. The former case displays greater functional harmony than the latter.

Formal harmony

This factor evaluates the degree to which the formal aspects of the defacement contributes to spoiling the website or generating intense disfigurative intensity. A simple ‘integrated’ message like the LeetBoys inscribe in bottom right corner of the functional webpage (**Figure 18**) will also display a very high degree of formal harmony because the message fits in with the general professional rhetoric used at the site. In this case the image appears, at first glance, to be an acknowledgement of copyright, something that we often see on professional webpages. It is very rare to encounter instances of virtual dyscription with high degrees of stylistic integration. The overwhelming tendency is to do the opposite and make it very clear you were there.

Content harmony

This factor evaluates the degree to which the content of the defacement clashes with the content of the target website. In **Figures 30 and 31**, we have an Israeli professional commercial site that has had its homepage replaced with a flamboyant, hateful anti-Israel message. Both the style and content of the defacement display high disfigurative intensity. I have never encountered a defacement that is both unauthorized and displays a *high* degree of content harmony. This is probably because the transgressive dialogic character of the act of access seems to naturally contradict (or negatively inflect)

whatever content the dyscriptor might produce on the site, however harmonious it might seem to be.



Figure 30 – Israeli professional-commercial website (see Figure 24 below for defacement)

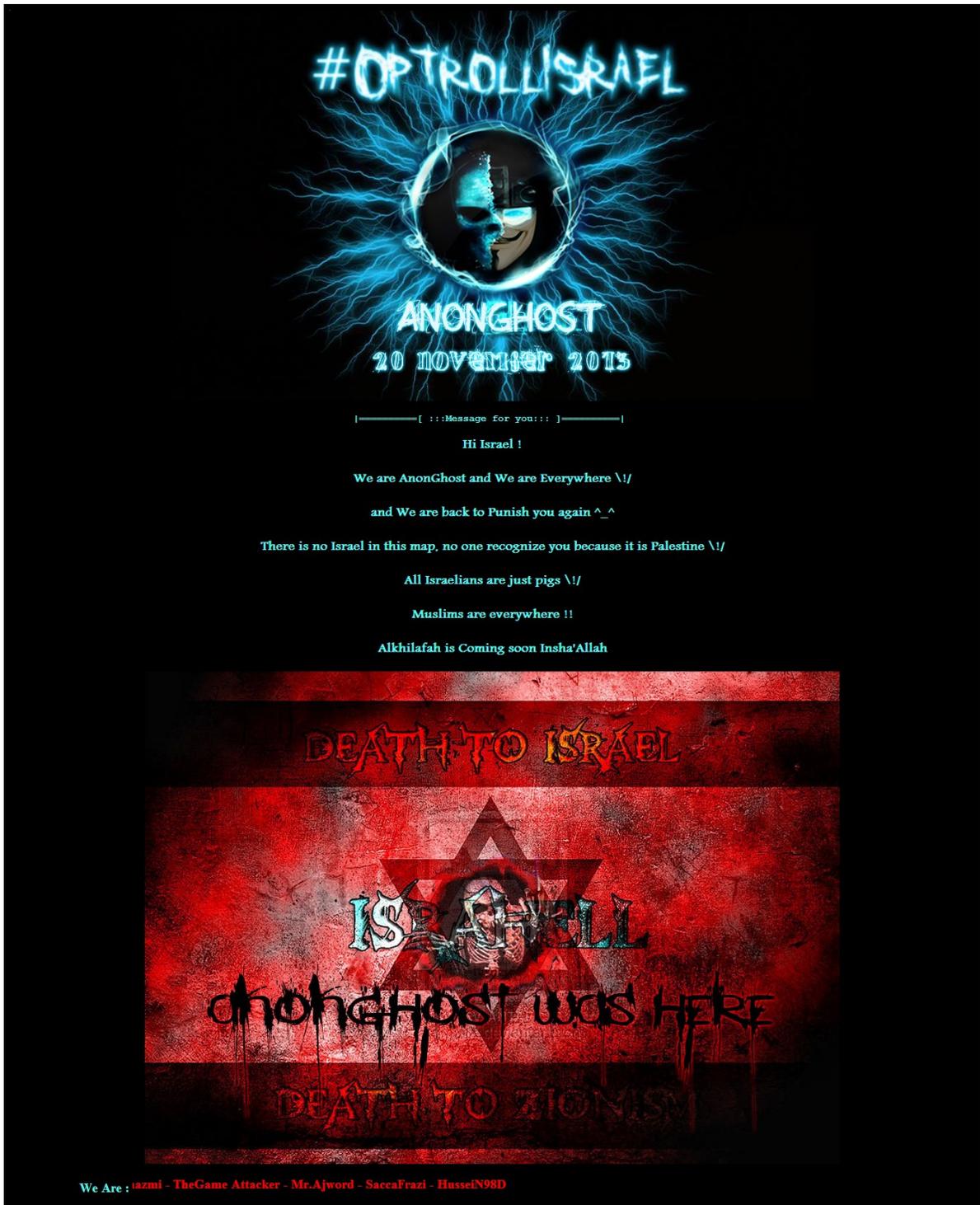


Figure 31 – Defacement displaying high stylistic and content-based disfigurative intensity. (Zone-h 21227724)

4. Inscriptive

In the virtual world, inscription is accomplished at the code wall (*murus codicis*) and visible on our monitors (*murus perceptus*).

Access Mode

The typical viewer cannot ‘see’ the specific ‘access mode’ used by the dyscriptor, although the web administrators or security professionals will perform forensic analysis to determine the method used. The dyscriptors themselves will usually inform the Zone-h site how they accessed the defaced website. In the defacement community, some methods are considered more sophisticated than others. In order of increasing sophistication, the most notable modalities (accompanied by examples of where the technique was used) are File Inclusion (**Figure 9**), Password Sniffing, SQL Injection (**Figure 25**), DNS Redirection (**Figure 20**), and Cross-Site Scripting. However, a viewer cannot discern on the *murus perceptus* how the dyscriptor gained access, as these machinations are invisible.

In the early days of virtual dyscription, the predominant methods employed were easy to learn and execute, and only surprising because of the relative novelty of the Web itself and the lack of familiarity with (education) the technology (software and hardware). Contemporary virtual dyscription (2013) requires a relatively high degree of competence, both to set up and execute the act of access (even if one is using a pre-written script or package), and then to construct an interesting inscriptive defacement (monologic product). There is a strong trend towards the use of the technique called ‘DNS redirecting’, especially for the dyscription of high visibility (and typically highly secured) websites. This is, effectively, a ‘hack’ of the server maintained by internet network provider to resolve website addresses, and not of the target site itself. A DNS redirect

results when a web user types in the name of the target for example `www.google.com`, and the network provider used by Google ‘resolves’ the address to one surreptitiously provided (in the provider’s name register) by the dyscriptor, which takes the web user to the dyscriptor’s webpage. This phenomenon has no equivalent in the real world. It would be as if the graffiti writer had tricked a victim into thinking they were on the Carleton campus while actually they were facing a wall under a bridge where the dyscriptor had made an inscriptive defacement. Through careless media coverage, this type of virtual inscription (DNS redirect) is often understood as illegal access to the targeted site. Not unlike the case of emulation noted above (which is based on the same kind of DNS exploit), the status of these types of virtual dyscription is curious: was the target website *inscriptively* defaced? The network provider’s DNS server certainly was, but not the purported target—although the dyscriptive *product* will typically suggest so (to whoever is looking at it).

Aesthetic Range

Regardless of the access mode utilized by the dyscriptor, the end result is the substitution or modification of an authorized webpage (typically the homepage) with one constructed by the dyscriptor. This webpage is ‘written’ in HTML and may include javascript or other ‘client-side’ scripts to implement interactive features (see the Multimedia/Animations sections below). The factor ‘aesthetic range’ is meant to capture the virtual dyscriptor’s ability to incorporate not only inscriptions resulting in visual effects (images, text), but also sound and other sensory aesthetic effects. All other things being equal, an inscription incorporating both image and sound will be more intense than one incorporating only images. A unique instance or moment of inscription, available and

exploited by a small but statistically stable number of virtual dyscriptors (by my estimation approximately 15%), involves inscribing directly into the source code, which produces a perceptible dyscriptive product on the monitor. Although there are cases of real-world artists using the backs of their canvases or picture frames for creative purposes, the ‘back’ side of the dyscriptive product (the source code), which is visible with a simple right-click, is an important locus of potential style in virtual dyscription.

5. Style

In these still-early years of virtual dyscription, given the much greater and rapidly evolving technical demands of virtual graffiti in comparison with traditional graffiti, style is often of secondary importance to the virtual dyscriptor, whose primary preoccupation is acquiring the skills required to gain access to the wall, and whose public fame (visibility) or notoriety is typically centered on the successful act. However, even though the technical demands are ever increasing, there is great potential for the medium to also act as a privileged natural outlet for a categorically new mode of stylistic production, one native to the constraints and potential of this new environment, and the evolving skills of indigenous virtual dyscriptors. Thus, it is no surprise that all of the dyscriptors I have met (informally and formally in my interviews) have emphasized they are *learners*, learning how to operate and pursue their practice in the digital environment. In many respects, our virtual dyscriptors live and move about in the virtual world with a new and complex computational prosthesis; and in the act of virtual dyscription, we can make out the nascent steps of a kind of prosthetic dance, wherein the dyscriptor is learning to inscribe not simply as a person, but as hybrid thing, half-human and half-machine. It may be that we are witnessing, in the praxis of virtual dyscription, the sometimes monotonous

gestures of a new kind of infancy, the rudimentary stages of a cumulative process that will unfold over many generations. My experience in observing thousands of instances of virtual dyscription has provided both moments of repetitive banality and startling intensity; however, overall I have had the impression of a new order of productive engagement with the materialities and potentialities of a new world.

(Note: for the purposes of exploring the dynamics of dyscription, I will incorporate some static images of website defacements in the body of the text for reference, but many of the examples will now include animated and multimedia features requiring the reader to consult the CD-ROM included as Appendix C.

Style is realized in both the act and product of virtual dyscription, and below I have selected salient instances where the dialogic and monologic properties should be clearly discernable; however, it should be kept in mind that these properties do not ‘stand alone’, but are always woven into the complex multifaceted expressive context of a fulfilled moment of virtual dyscription.

5.1 Act

The ‘act’ of virtual dyscription is constituted by the combination of activities related to gaining unauthorized access to a website’s *murus codicis*, upon which something supplemental will then be inscribed (for example an HTML file), which will then be perceived by a typical website visitor. What the website visitor perceives is properly the *product* of dyscription. We do not typically perceive the *act*, but can infer a sense of the contribution it makes to the overall expressive intensity of virtual dyscription by

considering its dialogical and monological properties, and deepen this appreciation through discussion with actual dyscriptors (see Chapter 6).¹¹²

The act as dialogue

We can easily sense the stylistic power of the act *per se* when we consider our own reactions to seeing unauthorized marks in highly private, dangerous, or otherwise very difficult locations to access: on the inside of a bank vault, on a high bridge (see **Figure 32**), or in what we imagined were very private locations (our own home's bathroom mirror). In such cases, much of the stylistic charge arises from the *dialogic* character of the act of access itself, the implicit or imagined 'dialogue' between the dyscriptor and the target location, constituted by the sheer act of accessing that place. In **Figures 26-27**, the virtual dyscriptor has accessed and defaced the commercial website of a well-known and highly respected antivirus/anti-malware vendor (AVG). This act 'says something', regardless of the nature and quality of the actual mark left behind by the dyscriptor. The dialogic charge would be less if the same act occurred on a commercial site selling toys, for example. Further, the intense dialogic charge of the act can energize even the simplest mark with a relatively high degree of expressivity. In the earliest years of website defacement, when the very idea of surreptitiously accessing a website was a mysterious novelty, most acts carried a relatively high dialogic charge. But even in recent years, the proliferation of both extremely popular and highly secure structural contexts (e.g., government agency, financial institution, electronic commerce (Ebay, Amazon), and

¹¹² We can learn what the act 'looked like' when it occurred through forensic analysis, or else we can find out because the dyscriptor tells someone, for example the Zone-h archive. Otherwise, just like its real world counterpart, an *act* of dyscription is typically ephemeral and only visible to the person who is acting or someone who happens to be watching at the moment of that act.

social media sites) has continued to provide many attractive and dialogically intense target sites; however, the level of skill required to access such sites has risen accordingly.



Figure 32 – The analogous situation in the virtual world of the WWW is gaining access to what is considered to be an ‘impossible to access’ website such as a government (.gc).

The act as monologue

The monologic aspect of the act of virtual dyscription is related first to the specific nature and structure of the website itself, independent of the specific dyscriptor and their specific act of access. How well (or poorly) secured is the site? How difficult is it to access? Has anyone done it before? These qualities inform one aspect of the act as monologue; the other aspect is related to the native ‘style’ of the dyscriptor, independent of any specific site or act. How well coded are their exploits? How innovative are their exploit designs? How quickly is their code known to execute? Where the dialogic quality of the act emerges from considerations related to *how* and even *why* the dyscriptor chose to deface a specific site (how well that specific dive is performed), the monologic

‘charge’ results precisely from how *well* the dyscriptor constructs and performs their exploits in general, and then the nature and structure of the sites they select (degree of difficulty). The most popular and visible sites are typically the most difficult to access, so in many cases the dialogic and monologic intensity of an act arise together: it takes good code to get into good places. On the other hand, many sophisticated dyscriptors take pride in writing their own skillful exploits to use in situations that generate little or no dialogic intensity, they want to be ‘visible’ among the community of dyscriptors where they attempt to establish or maintain their position in a kind of community hierarchy, not unlike those that arise in many subaltern graffiti writing communities (Hebdige, 1979; Craig Castleman, 1982; Jeff Ferrell, 1993)¹¹³. The monologic aspects of the act are not easily visible to the typical viewer of virtual dyscription; as such we can only make reference to particular individuals who have established a reputation of being the ‘best’ dyscriptors. Often, less skilled or experienced dyscriptors pay homage to this hierarchy by naming them in their defacements (see dialogic-monologic *product* properties).

5.2 Product

When we treat of the product of dyscription, we are inquiring into the formal qualities of what we can perceive on the *murus perceptus*. As previously noted, the style possessed by the products of virtual dyscription reveals both dialogic and monologic properties.

The product as dialogue

¹¹³ Almost all scholarly research on website defacement is focussed on the monologic aspects of the act and the study of computer coding, access security, and the community dynamics of hackers/crackers. Although the act (both dialogic and monologic) is critical to virtual dyscription, it is only one aspect of the dyscriptive moment.

Whereas the dialogic intensity of the *act* arose from the dialogue created by a dyscriptor's access to a particular target site, regardless of what visible marks were left behind, the dialogic intensity of the *product* arises from our consideration of the meaning of the legible marks in relation to the site upon which they now appear. What kind of dialogue does the dyscriptive product that we can actually see initiate with the content of the website? Where the dialogic intensity of the product is very high, we are typically in the realm of the hacktivist, where defacement is used as a form of explicit and targeted protest. Most hacktivist dyscriptions involve inscribing a politically motivated tract on the website of an organization holding opposing views or sensibilities.

- See **Figure V1** on CD-ROM (all Figures with a 'V' prefix are video captures stored on the CD-ROM: Appendix C)

NOTE: Before watching the video, let me explain the general sequence of screens that you will see in most of the videos. When you open the file (MP4 video file), Windows Media Player (or the equivalent) will present you with a 'live' screen capture of the author (Todd Hopkins) showing you how the target website looks (in this case, a Venezuelan government site-- now "Under Construction" as it recovers from the exploit), then you will see the author's pointer captured while moving to the defacement image in the mirror archive. Sometimes I will show the source code, and even connect to items hidden in the source code. The general pattern, however, is simply to show the target site (where possible) and the verified defacement as it is mirrored at Zone-h.

In the case of **Figure V1**, we can see that a Venezuelan dyscriptor group called ‘Liber0’ has defaced a Venezuelan government site with a message (in Spanish) that is clearly targeted at the populist-leftist government of that country. The dyscriptors have also left their twitter addresses and included a latino-rap protest song. This kind of quasi-hackivist activity (like many of the dyscriptors who self-identify with the ‘Anonymous’ collective) generates much of its stylistic intensity through the operation of the *dialogic product*, from the implicit dialogue between the Venezuelan dyscriptors and the Venezuelan government.

Although, on the one hand, there has been a general increase in the amount of website defacement that appears to be ‘hackivist’ in nature, it is often dialogically conflated with a call for the administrator to contact the dyscriptor for help, or pay more attention to security matters; or the targeted website has little or no association with the political concerns of the ‘hackivist’; or the Western music and fetishized imagery presented by the dyscriptor seems to contradict the denunciations of Western Capitalism, etc. Further, the ‘AntiSec’¹¹⁴ movement (Anonymous Group, LulzSec, etc.) now seems to operate more as a self-organizing franchise with an internationally recognized brand, with almost every dyscriptor claiming some sort of affiliation (while, somewhat ironically, often criticizing their ‘victims’ for poor security!). Over the course of my multiple interviews with active dyscriptors, journalists, and the mirror archive administrators (Chapter 6), I

¹¹⁴ ‘AntiSec’ for Anti-Security – the name given to those groups whose activist objectives are related to ensuring the ‘freedom’ of access to information and against the commercialization of the internet and WWW. Their activities often quickly take on more specific ‘activist’ characteristics depending on the information they ‘free’ from the websites they gain access too. ‘Anonymous’ is perhaps the largest and most well-known ‘franchise’.

confirmed that the ‘hactivist’ label is more of an excuse or portmanteau, although there are clearly some notable exceptions.

The relative anonymity of both the electronic mail systems and website hosting servers has cultivated the emergence of a distinctive dialogic feature in virtual dyscription. Often the dyscriptor will leave contact information and an invitation to viewers (particularly the site administrators) to contact them at an email address or else visit a website (see **Figure 33**). This invitation to dialogue has only become more prominent with the advent of social media, and most defacements now include a Facebook page or Twitter ‘handle’ where the dyscriptors can be followed or contacted. Since the inception of virtual graffiti, and closely imitating the ethos of the urban dyscriptors of the 70s and 80s, many defacements will include “Greetz” and/or “Fuckz” (see **Figures 34 and 35**), the former extending greetings or respects to others in the defacement community, the latter insulting a rival.

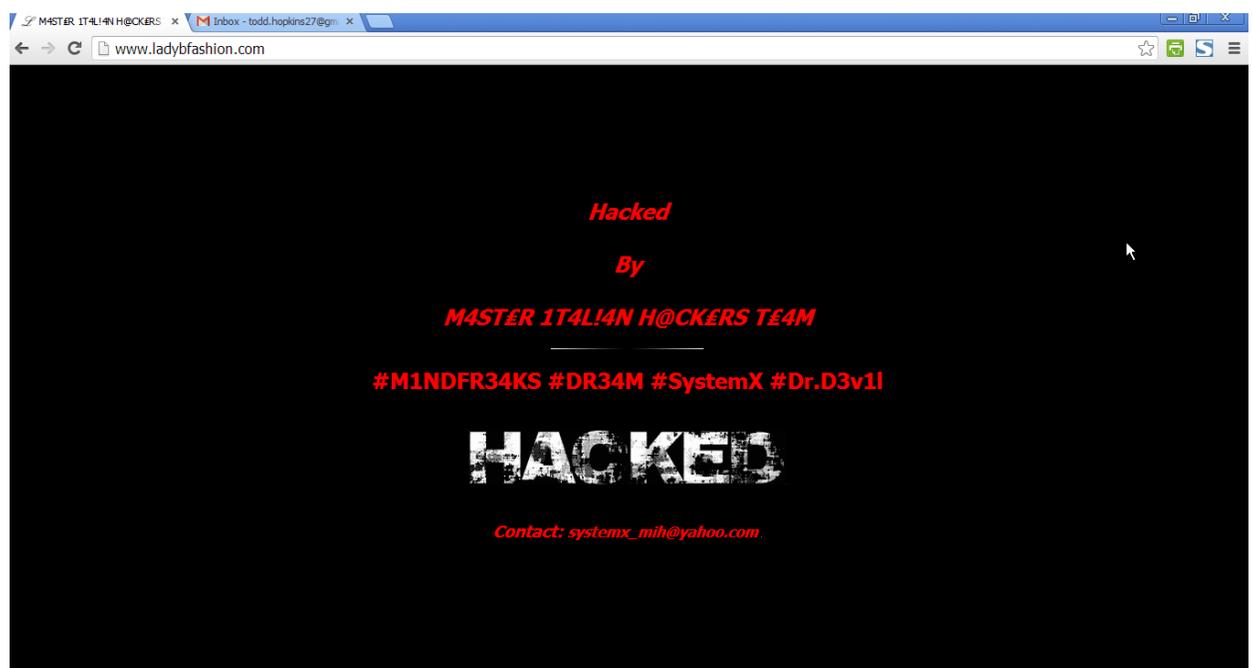


Figure 33 – The dyscriptor has left their email coordinates. There are many examples of these sorts of proposals. (Zone-h 21237293)



Figure 34 – Note the “Greetz” to the community and the contact information, a potential dialogic feature of the act of dyscription, intensifying the overall expressivity (Zone-h 20704997)



Figure 35 – Another simpler “Greetz” from the year 2002 (Zone-h 127227)

The product as monologue

The monologic properties of the product of dyscription are those associated with the formal aesthetic features of what we perceive on the virtual surface, independent of which site the defacement appears on, how that site was accessed, or the dialogue engaged with the target site. Here we consider the pure features of the product in and of itself, as if it were a picture hanging on the wall (and the wall were somehow free of dialogical context). As far as I am aware, the stylistic characteristics of the monologic product of virtual dyscription have yet to be the subject of serious study, as most of the scholarly attention brought to bear upon the phenomenon of website defacement has been focused either on the act of access (hacking, cracking) in the context of network security and computer crime, or (and to a far lesser degree) on the *dialogic* product (hacktivism) in the context of political science and the evolution of political activism. When we consider the monologic qualities of the product of virtual dyscription, we are inquiring into the aesthetic features of a new, unselfconscious and purely “digital borne” (Hayles, K. 2003) stylistic activity in the virtual world. We are perhaps closest here to the situation of New York City graffiti in the years prior to its coming into public consciousness and its later aestheticization, when the inscriptive defacements of the insides and outsides of the subway cars were seen as transgressive signs of criminal intent, and not (yet) as harbingers of a new stylistic modality.

As we explore the monologic products of virtual dyscription, I will emphasize the prominence of specific features, but we must not forget that all the components of fulfilled dyscription are present and working together as a whole here, and that both act

and product are contributing, to various degrees, to the overall expressive intensity of fulfilled dyscription.

As I noted in Chapter 4, the monologic properties of the product of dyscription can be broadly analysed into four areas, following the contours of the predominant sensory registers: visual, aural, multimedia/animation, and others (haptic and ergodic).

Visual

Text If we consider the totality of defacements produced since the beginning of the archive, the most statistically prominent style of defacement is the simple use of text. In its simplest form, this type of defacement most closely echoes the real-world graffiti ‘tag’: a dyscriptor ‘hits’ a site with either a homepage replacement (or an insertion) that simply reads something like ‘Kl33t 0wnZ’. Working forward from this simple tag, we can observe in the body of the archive all the imaginable points on the textual continuum, from a phrase to a sentence (such as ‘explicatory’ statements, as in **Figures 38 and 39**, see below), a joke or dialogue, through to a poem (**Figure 37**, below) or multiple-page manifesto. **Figure 36** (below) shows an early exploitation of simple word processing tools such as cut-and-paste. However, as one might expect, some of the most sophisticated and intensely transgressive *acts* of contemporary virtual dyscription make use of the simplest tags.

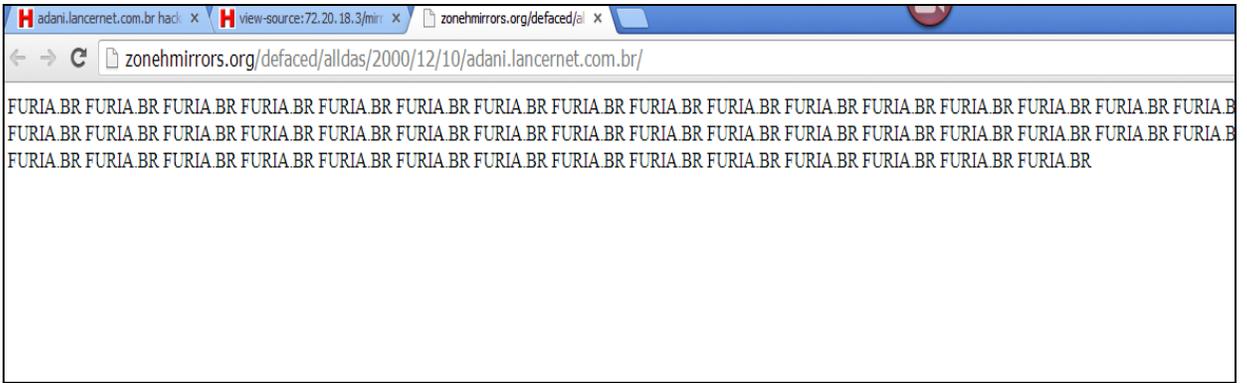


Figure 36 – (2000) Use of multiple copy/paste (Zone-h 8441)



Figure 37 – (2000) – Example of poem and more complex graphics (Zone-h 26665)

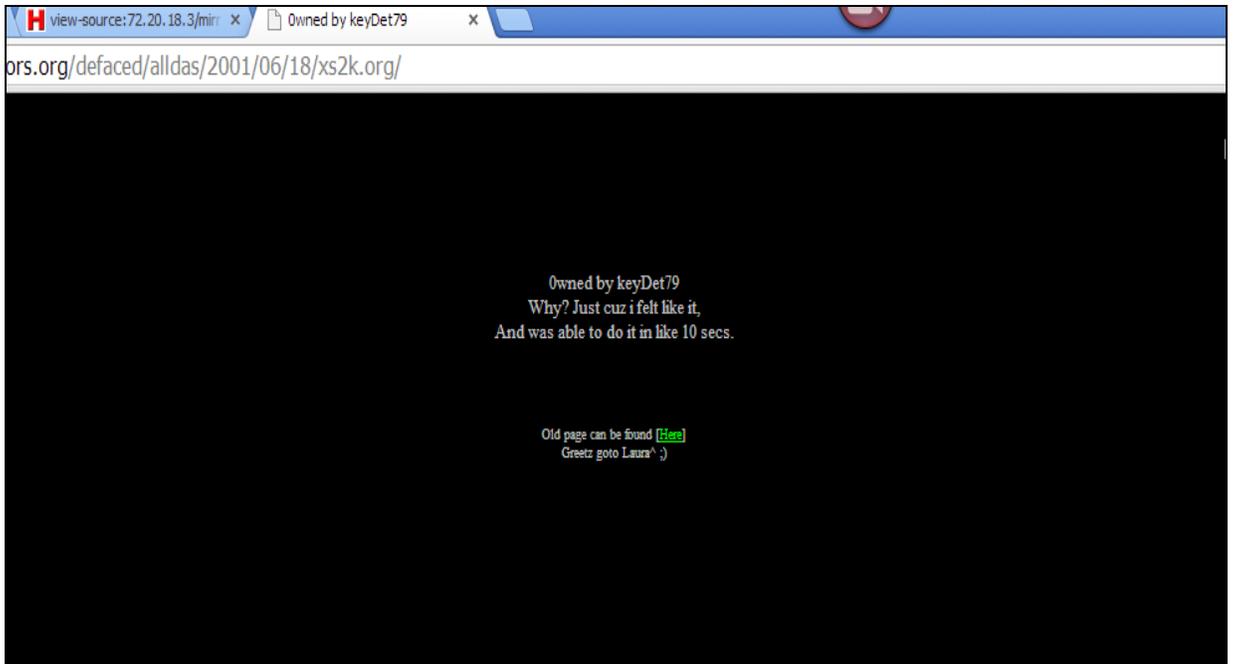


Figure 38 – (2001) Example of simple text purpose statement (Zone-h 12843)

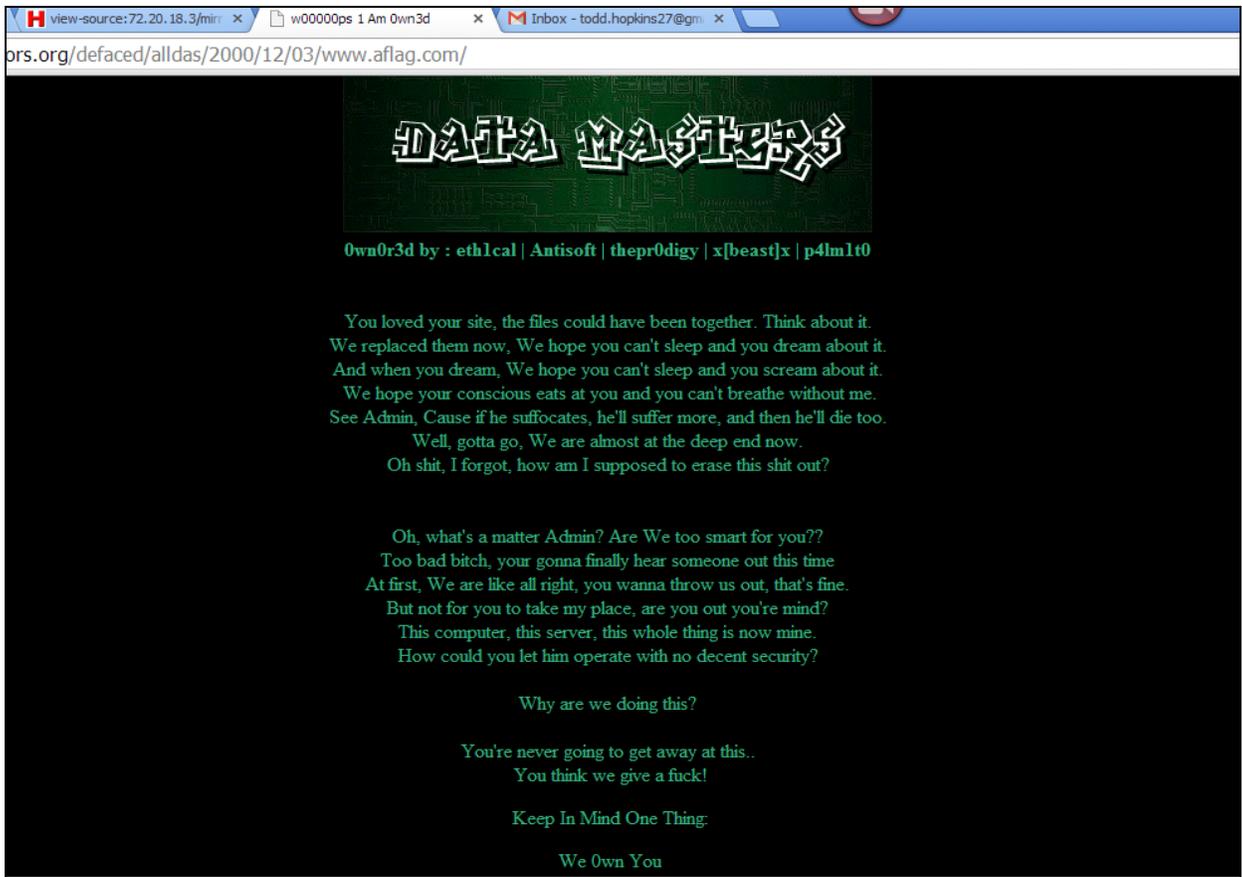


Figure 39 – Example of a ‘purpose statement’ and use of simple graphics (Zone-h 5878)

Figures 40, 41, 42 (below) show various simple text tags of the sort which, in the early years, dominated defacements which had any text at all, and formed a large part of the entire body of website defacements altogether; whereas, in recent years the trend has shifted markedly toward more complex textual components—a homologous development to that of traditional dyscription. However, even today, the spelling conventions typically follow the principles of ‘LeetSpeak’ (see footnote) in the formulation of words and names.

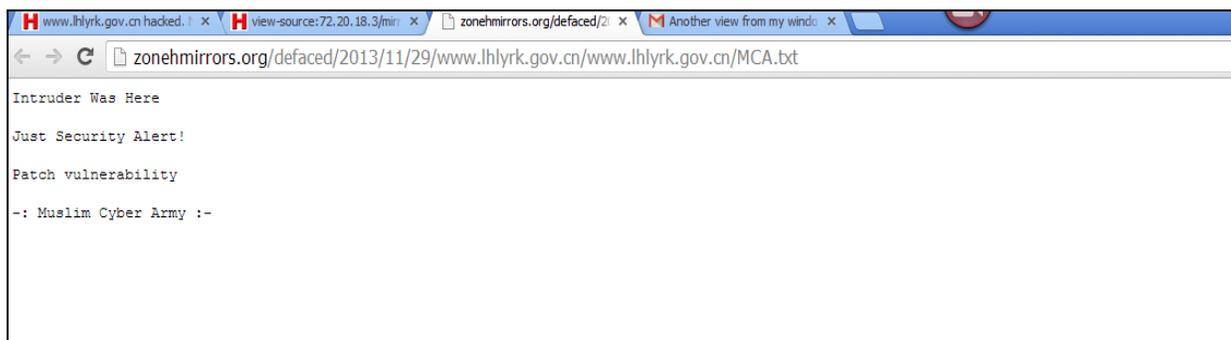


Figure 40 - Homepage replacement with simple text string (Zone-h 21289789)

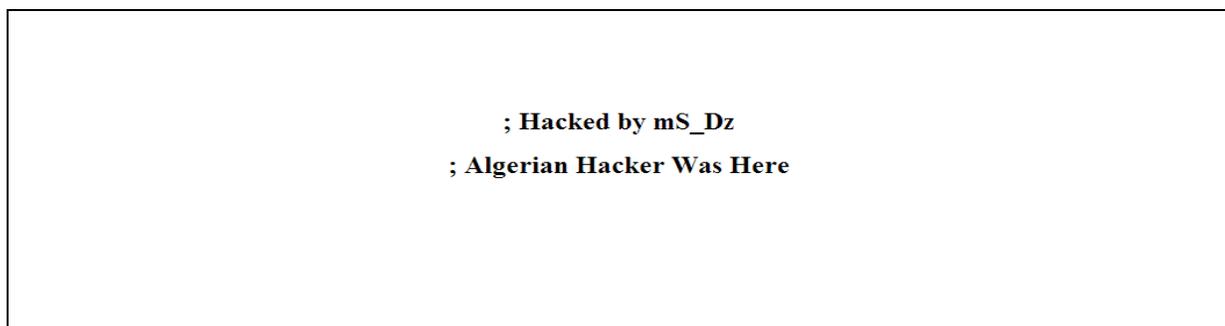


Figure 41 – Homepage replacement with text string using minimal features (Zone-h 17512971)

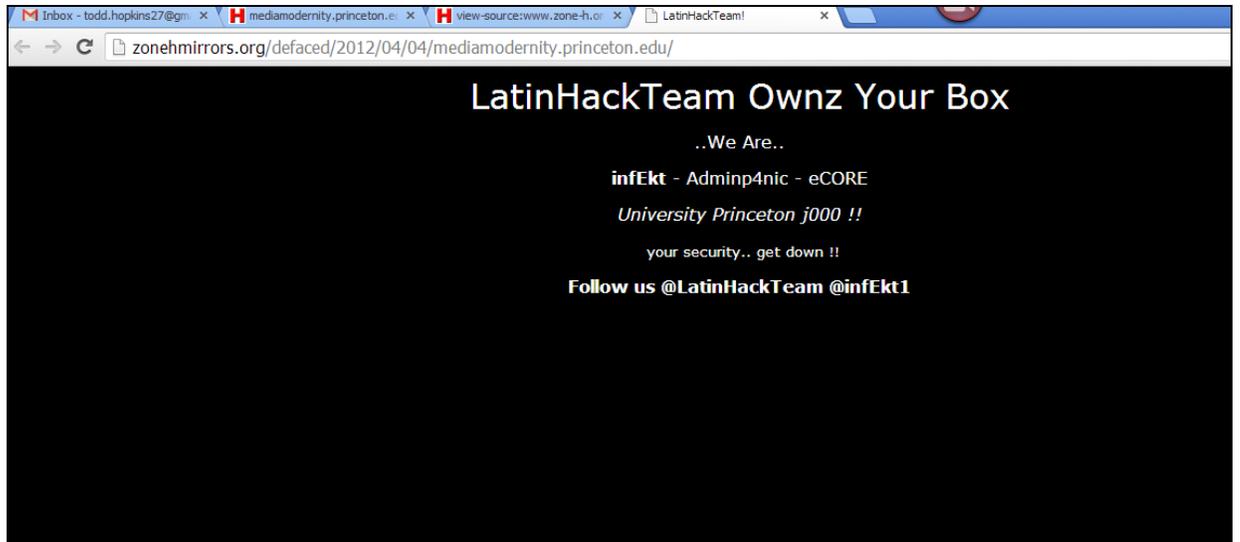


Figure 42 – Year 2012 – Homepage replacement with colour background and email callout (Zone-h 17363897)

Figures 43 and 44 (below) show the use of ‘text strings’ to make original pictures (note: ‘Kilroy Was Here’ visual reference, i.e., a human face peering over a wall in fig. 43) while video **Figure V2** exemplifies a more sophisticated, animated example of text strings. This mode of digital figuration has become less popular, although a few dyscriptors (DieAuch, see fig. 44) use it as their signature style, incorporating it into all of their defacement imagery (note: Spanish text [fig.44] states: “I am not a hacker, only someone with curiosity and this time I have touched your Web[page]...”).



Figure 43 – Simple use of text characters for image construction (Zone-h 17378731)

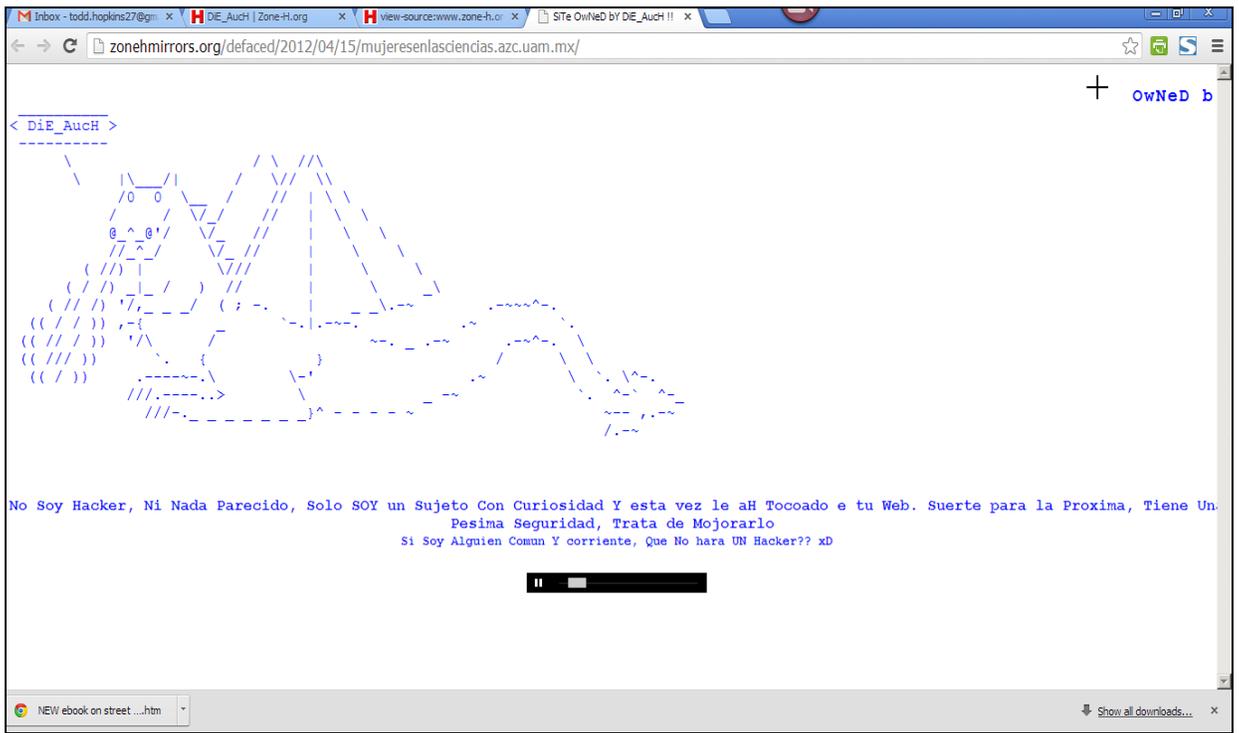


Figure 44 – Use of text for complex image (Zone-h 17437936)

Images Imagery in the early years of website defacement is characterized by imported photos of real-world drawings on real-world material such as paper. This would appear to represent the first ‘hybrid’ stages of our stylistic activity in the world of virtual graffiti (McLuhan’s [1964] logic of the old medium acting as content of the new media, or the logic of re-mediation [Bolter and Grusin 2000]), where our dyscriptor takes what they have made in the real world and tries to incorporate it into the new, digital context. Of course, in the early years, there were far fewer images publicly available, and the software (at the system and application level) for digital image capture and manipulation was not yet widespread. This early propensity for ‘homemade’ images quickly gives way, however, to purely digital creative activity, typically manifest in cut-and-paste collages of pre-existing images; though it is difficult to determine, based solely on the received product, to what extent the dyscriptor has generated original material. **Figures 45 and 46** (below) illustrate the incorporation of real-world drawings and collage into virtual dyscriptions, including photoshopped imagery (fig. 46).

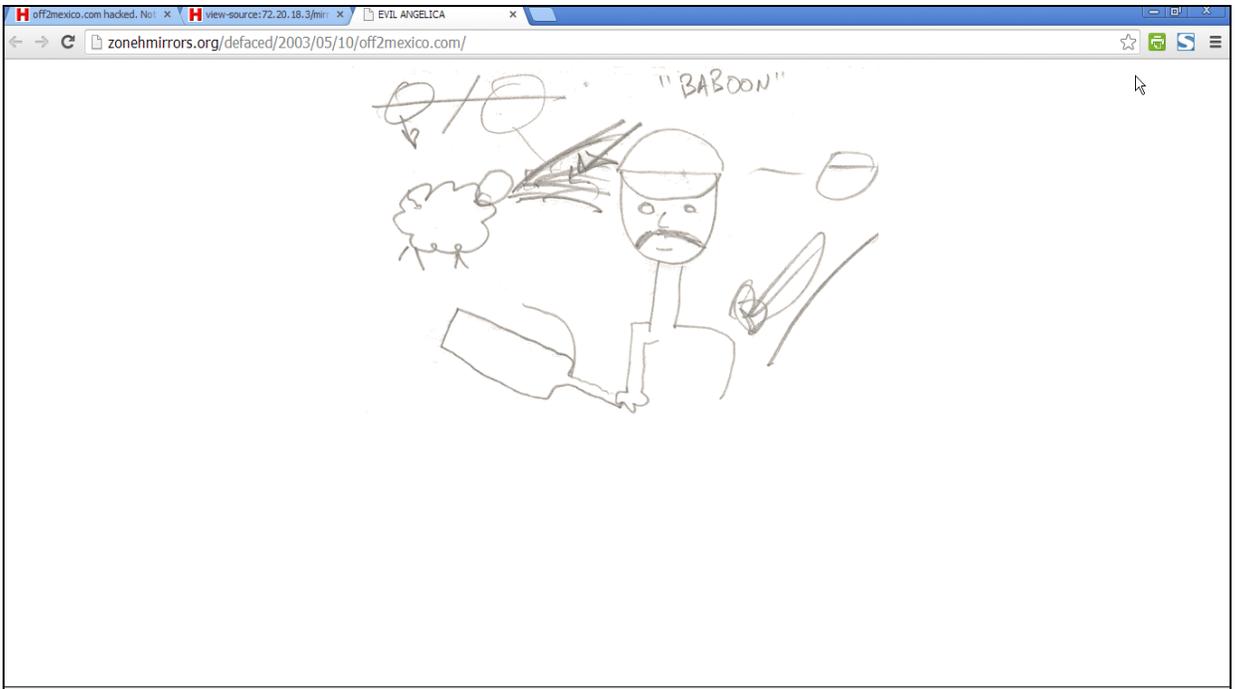


Figure 45 - Traditional drawing by Evil Angelica (Zone-h 265141)

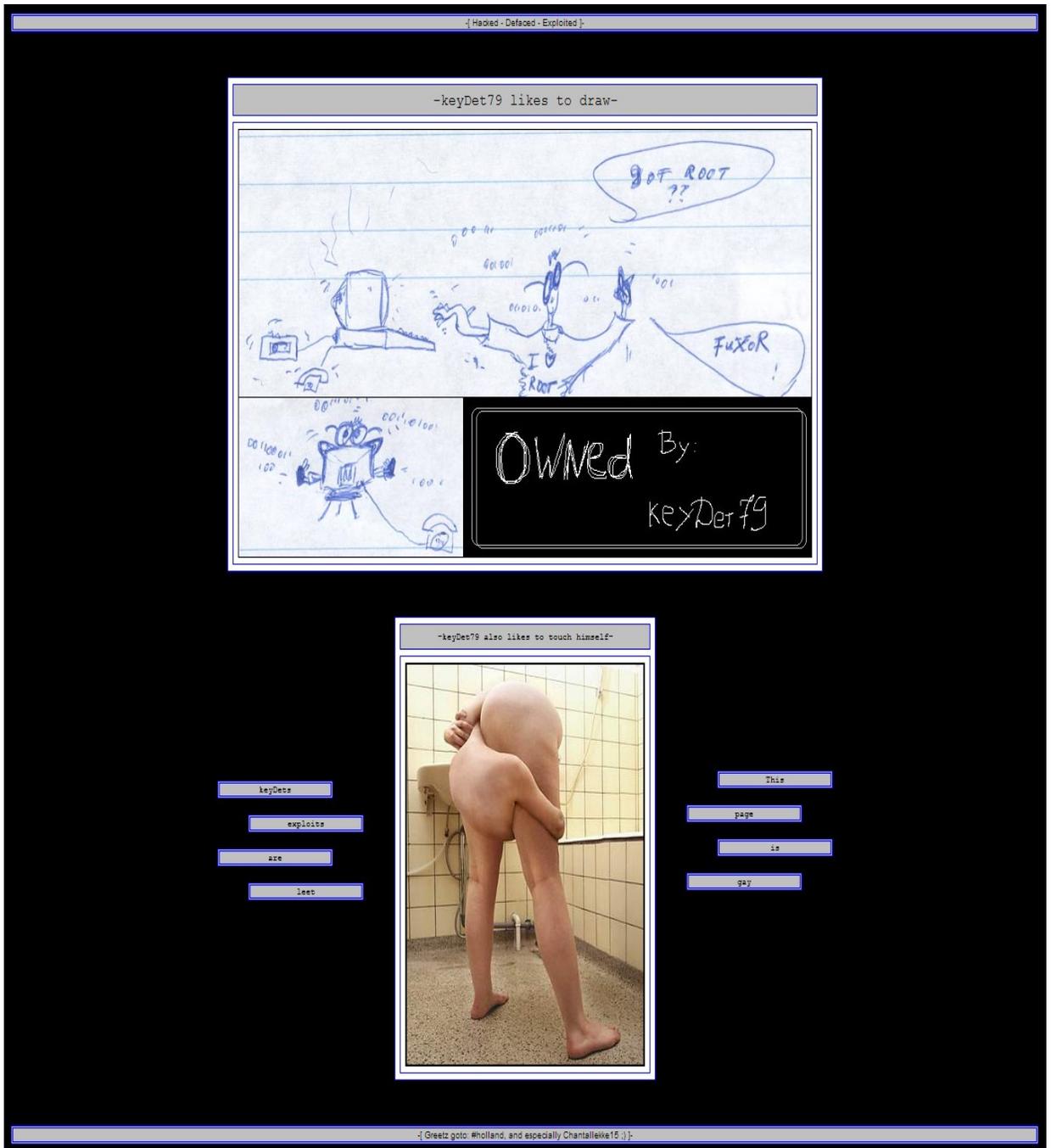


Figure 46 – Homepage replacement with drawing and Photoshop work (Zone-h 12851)

Collage One of the most prominent and widespread stylistic features of virtual dyscription is ‘collage’. Facilitated by the software tools available to the most common

users of computers, the widespread availability of images, text-styles and animations (as well as music and video object), and the basic cut-and-paste ethos of the virtual world, as well as the sheer difficulty of utilizing traditional free-hand composition in the digital environment, the virtual dyscription 'playing field' is naturally tilted toward collage. In the early days, the typical components of such collage were real-world drawings created by the dyscriptors and then incorporated as picture files into the homepage replacement file. By the early 2000s, however, this kind of 'traditional' element had already begun to give way to digital-borne 'drawings' and photoshopped pictures copied from publicly accessible image banks or clipped from web sources (**Figures 47, 48 and 49, below**) are good examples, but collagist elements are very common among website defacements incorporating text and imagery, as my collection of samples confirms).



Figure 47 – Example of simple collage (cut and paste) technique with drawing/painting/text



Figure 48 – Example of cut and paste collage

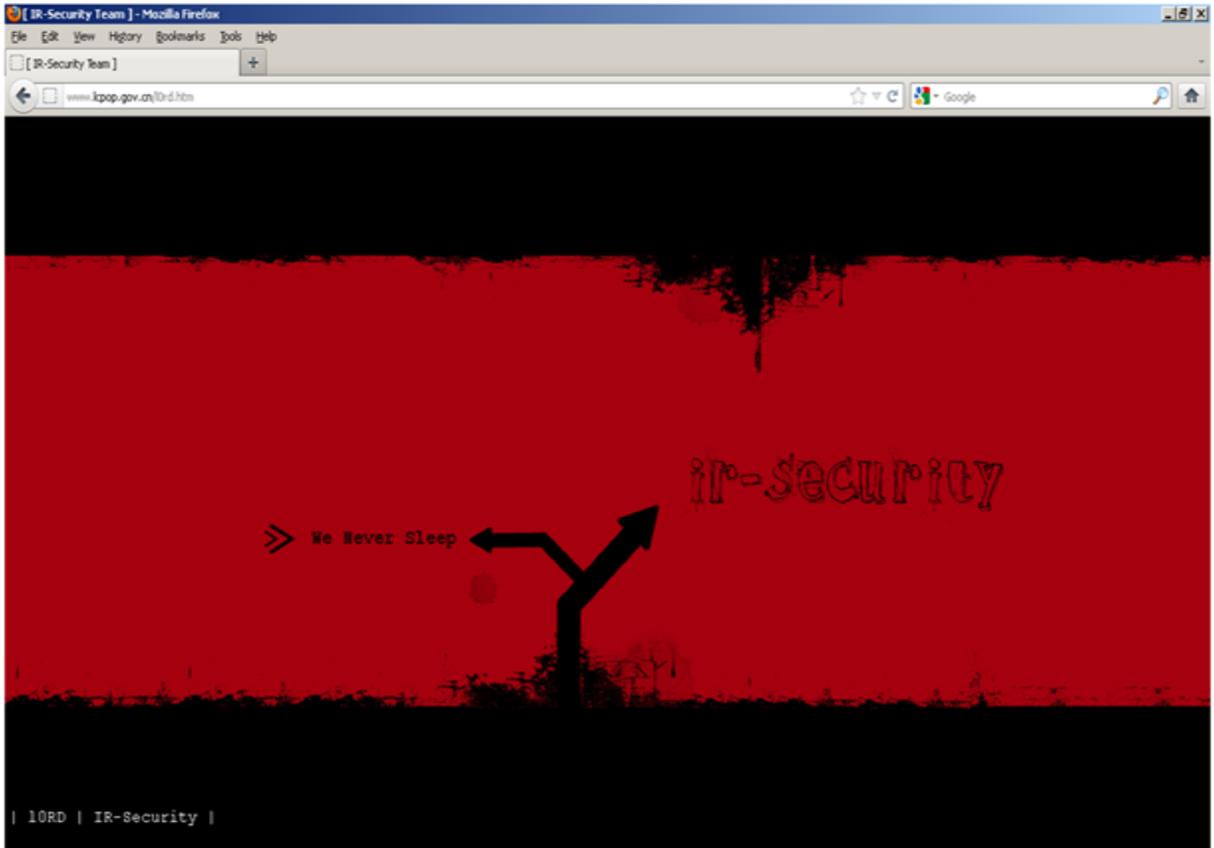


Figure 49 – Drawing and mixed techniques (no archive reference available)

Animation Once the basic HTML coding language was able to include animated text/images (with scripting languages and supported by the evolution of the web browser), many dyscriptors availed themselves of the seemingly limitless possibilities for stylistic use of animation. Almost all of the defacements captured here in video format (the figures Appendix C, CD-ROM) incorporate multiple modes of animation (for example, **Figures V2 and V3**; **Figure V4** shows strobe effects). Another, more recent development, requiring either more sophisticated coding skills or the ‘borrowing’ of a code module from another dyscriptor, is to animate the mouse device of the viewer of the dyscription. Though this can be disconcerting, as it suggests that the dyscriptor has somehow gained access to one’s computer, it is actually produced by a simple and harmless set of scripting commands that factor the mouse’s position into a set of

equations which generate special visual effects. We can see ‘active-animated’ mouse effects in some of the multimedia defacements below, which combine almost all of the monologic features thus far discussed, with varying degrees of effectiveness.

Aural

The possibility of incorporating sound files (initially, Shockwave Flash [.swf], and later others) into virtual dyscriptions arose with the co-evolution of HTML, specialized sound recording software, and the advent of second generation web-browsers able to work interactively with webpages. The earliest instances of sound files incorporated into website defacements appear in 2001-2002, by which time the incorporated music is predominantly in the ‘rap’ or ‘hiphop’ style. This style of music is the mainstay of most aurally active dyscriptions, regardless of their cultural background; though its dominance has been periodically challenged, first by ‘heavy metal’ (in its various guises), and more recently by the Arabic folk-pop music popular in the growing community of quasi-secular Muslim dyscriptors (from Iran, North Africa, Pakistan, Indonesia and Turkey) over the last five years.¹¹⁵

Beyond the relatively straight-forward incorporation of pre-recorded music, one of the most prominent recent defacements of the oft-targeted NASA website featured the use of what would typically be termed sound effects, with the classic ‘Warning! Warning!’ voice heard over a ringing alarm bell. Observable also is the occasional use of what appear to be aural collages, with a voice (the dyscriptor’s?) speaking on top of or as an introduction to music. Some of the tracks featured in such dyscriptions are of the electro-

¹¹⁵ Note the apparent and interesting irony of apparently devout Muslim dyscriptors using rap music or any “Americanized” music at all, etc.

pop variety, and may even be original compositions. It is very difficult to confirm without asking the dyscriptor in person, and the answer can rarely be verified. Interestingly, I found not one instance, in 5,000 samples of website defacement, of purely aural dyscription, suggesting that the oculo-centrism of traditional graffiti continues to dominate the praxis, even though the medium is intrinsically more free.

Here are a series of defacements using various sound effects, including such things as music, voices, sirens, and countless other, more exotic and less identifiable sounds.

Figure V5 shows first the target website before defacement, and then the defacement itself (as stored in the mirror archive), which includes what may be an original photo, as well as lyrical Arabic ‘pop’ music, and a series of dialogic invitations for contact.

Figure V6 begins with an image of the targeted website (which has its own audio component), and then cuts to the defacement (as saved in the mirror archive), with a voice-over edited into an Arabic ‘pop-rap’ song.

Figure V7 follows the typical defacement cycle described above (target site and then mirror defacement), except here the included audio track is a song by the American performance artist Tom Waits, called “I Don’t Want to Grow Up”—an unusual choice, as the American music typically heard in virtual dyscriptions is influenced by rap or heavy metal. **Figure V8** is an example of a sound effect (warning siren) being used as a sound track to accompany the defacement. Here, I have only captured the defacement within the framework of the Zone-h archive, because the mirror copy (showing how it actually appeared on the defaced website) was not available.

Finally, in the striking **Figure V9**, the dyscriptor NoFace, who has already created a large body of interesting work, provides us with a long dramatic monologue in a digitally adjusted voice, accompanied by a soundtrack. This particular dyscription, along with its prolific author (30 of whose works I have studied, and hundreds of which are recorded in the archive), provides a vivid example of the still almost completely unexplored aesthetic potential of virtual dyscription as a new form of human (and post-human) activity, as both the digital medium and the dialogical context in and through which it is produced become ever more complex and compelling. Though a fuller discussion of the proto-artistic possibilities latent in such work must wait until Chapter 7, we can see here, albeit dimly, the same kind of exploration of all four potential quadrants of stylistic intensity (act and product, dialogic and monologic).

(In **Figure V9**, I first show a list of all the dyscriptions by Noface, and then the specific target website which is dyscribed, that of the Italian Furrier ‘Pellicceria Magnani’).

Multimedia

Multimedia effects start to come to prominence in virtual dyscription after 2004 (in 2013 over 60% of samples), and all of the CD-ROM figures are illustrative in this respect.

Below we can view two recent examples displaying the full spectrum of multimedia effects, including video, sound, text, image, collage and animation.

Figure V10 is a complex animation with music. We first see the targeted site and then the defacement as it was mirrored in the archive. This dyscription requires the viewer to ‘select’ or click on the large green ‘power on’ button to open the inner dialogue box (I have done so for the viewer).

Figures V11 and V12 show two simple video animations using short video loops apparently clipped from video content easily accessed on the Web. **Figure V11** shows a somewhat gruesome figure (without sound), while **Figure V12** deploys romantic imagery (sound and image).

Figures V13 and V14 are examples of complex multimedia defacements in the Hactivist mode (high dialogic intensity of both product and act). **Figure V13** is the defacement of the Honduran National Police by a group affiliated with Anonymous, including a highly animated mouse, text, a folk song, and the incorporation of a YouTube video. **Figure V14** is a long and complex dyscription, created by what appears to be a Chinese hack-team, on a Vietnamese municipal website (the City of Hue). The work shows a high level of dialogic intensity, indicative of the hacktivist ethos, but like many hacktivist works, the stylistic constitution of the dyscription itself is far more interesting than the dialogical complaint produced in the work. Both of these dyscriptions are unusually long, and that of **Figure V13** does not have to be watched until the end; however, that of **Figure V14** narrates a story, in sound and image, right until the end.

Ergodic and Other (including potentialities such as haptic dyscription)

I have observed two other categories of aesthetic experience which contribute to the stylistic dynamics of virtual dyscription. The first category I will call haptic, and for the second I will borrow the term ‘ergodic’ (Aarseth, 1997).

Haptic Haptic effects are those arising from the creation of touch (tactile) sensation and control in the interaction with a computer application, in our case interaction with a product of virtual dyscription. If the web user has what are currently

considered specialized input/output devices (joysticks, datagloves, custom mouse-pointer), they are able to receive feedback from webpages in the form of felt sensations in the hand or other parts of the body. Once such end-user equipment has become standardized in the web-user community, and there is no reason to believe it would not (following the trajectory of the mouse-pointer, acoustic microphones-speakers and the video camera), I expect the potential of haptic stylistic effects will be to that of other stylistic factors being discussed here. For example, our dyscriptor would be able to make the viewer's mouse vibrate in an 'S-O-S' (Morse code) fashion, or else create a sensation of hot or cold in an unexpected context. Although I have not been able to locate an actual instance of virtual dyscription displaying haptic effects of this order, some of my informants in the dyscriptor community say a "cool script" for controlling a vibrating mouse is already circulating in the community, awaiting an encounter with a suitably equipped viewer.

Ergodic In his seminal text *Cybertext—Perspectives on Ergodic Literature* (1997), Espen Aarseth coined the term 'ergodic', which combines the Greek *ergon* (work) with *hodos* (path), to name "a work of art that in a material sense includes the rules for its own use, a work that has certain requirements built in that automatically distinguish between successful and unsuccessful users"(179). Works of this sort require a nontrivial effort (beyond the moving of the eyes over the page) to participate actively in the construction of a narrative (or other complex work). Although Aarseth's conception of the ergodic is often used to characterize works of "cyberfiction"¹¹⁶, it is not medium-specific, and he

¹¹⁶ Cyberfiction or cybertext is the name given to the creation of stories using, for example, hypertext markup language (HTML) to allow the reader to jump from section to section or interactively engage with the outcome of the narrative.

notes many textual examples including the Chinese *I Ching* and most interestingly the inscriptions on the temple walls of Ancient Egypt, which are connected from wall to wall in a three dimensional spatial context (“Ergodic Literature” in Wikipedia *retrieved 11/07/2013*).

I think perhaps the most fascinating and categorically new stylistic modality to emerge from my research is what might be broadly termed *ergodic* dyscription. This type of dyscription is characterized by the presentation of something like a riddle or a ‘provocation’ that draws the viewer into some deeper exploration of the dyscriptive product. The *act* of unauthorized access to a website may serve as the principle vector provoking a dialogue, in other words the dyscriptor knows beforehand that the website administrator of the targeted site will look into the dyscriptive product to try and solve the riddle of the dyscriptor’s identity, but this may start the administrator ‘down the rabbit hole’. However, given the growing familiarity of average website users with both the ‘snakes and ladders’ rhetoric of computer gaming and the basic functionality of their web browser, the sophisticated dyscriptor can use the dyscriptive *product* to provoke a dialogue by insinuating ‘hints’ in the dyscriptive product tempting a typical web user to engage actively with the virtual dyscription; for example, by simply right-clicking their mouse and selecting ‘View page source’ to find the origin of an interesting picture or video making up the defacement. We have already seen how dyscriptors often leave comments for the viewer in the source code (see **Figure 13**); here however, the dyscriptor is hoping the viewer might click on some of the links ‘hidden’ in plain view. Clearly the ‘signs’ signalling the possibility of ergodic engagement, along with the viewer’s ability to *recognize* them as signs, is a complex emergent aptitude; however, the stylistic intensity

generated by the recognition and engagement with an ergodically active instance of virtual dyscription can be quite intense, and the aesthetic potential of this feature of virtual dyscription would appear to be great.

Figures V15 and **V16** provide a vivid and provocative illustration of ergodic dyscription. In this case, the dyscriptor Noface has defaced what appears to be a nondescript website with a dyscriptive product displaying sound and multimedia features. The music used is untypical, the animated mouse-pointer movements suggest the work of a sophisticated dyscriptor, and the text Noface presents has a somewhat ludic character. When we begin to casually explore the anatomy of the defacement, some suggestive anomalies arise, which serve, I think, as a kind of invitation or signal for game-type play or further exploration.

I have highlighted, below, what seem key movements within the broad ergodic framework of the work. I use two videos (**V15 and V16**), to trace a possible chronological path of a viewer recognizing the ergodic character of the dyscription and following the ‘clues’ prompting further exploration.

When the video window opens, we can see the elapsed time of the playback in the bottom left of the viewer. I have used this to index the steps I take when tracing (‘clicking through’) the dyscriptive event. I make an unusual number of steps for the purposes of drawing the viewer’s attention to the elements in the ergodic framework. It is probably worthwhile to read through them first, and then simply watch the two videos in sequence.

In **Figure V15**, acting as an engaged user, we take the following steps:

00:00—00:12 We see that Noface has a verified defacement

registered in Zone-h, on November 22, 2013. We note peculiar mouse-pointer effects (snow-light) and music.

00:13—00:17 Via the source code window, I cut to the defacement image as it appears in the archive. This allows us to see the dyscription ‘outside’ of the archive presentation, as a user would encounter it.

00:18—00:40 Interesting effects on the defacement, except now it is viewed as a user of the defaced website would experience it.

00:40—00:46 I shut the source code window and defacement window, and return to the Archive view. We want to see the targeted site as it looks now.

00:47 I click on the target website (www.windows9.name) to see what the target looks like ‘now’: Is the defacement still live? If not, what did the original site look like? Since the site has an unusual name, we suspect it may be a site maintained by the dyscriptor themself. This is perhaps a ‘clue’.

00:47 – to end We see that the target site has not been repaired, and still shows a dyscription; but we note that it is no longer exactly the same as the one we saw in the mirror archive: the music is different and there are no animated pointer effects; in addition, the text now reads “NOFACE?” This suggests that site is under the control of the dyscriptor Noface, and he is playing a game with us. I return to the archive site and consider how to ‘play’.

I decide to take look at the source code (written by Noface) for the still active defacement at the curious www.Windows9.name website. We may be curious about the imagery, or some other specific feature, like the origin of the vocal music, and there might be some

traces in the source code to locate its origin. **Figure V16** shows what we find upon locating the (easily located) video file from which the voice/music is streaming. Here is the step by step breakdown of how we may fall down NoFace's 'rabbit hole':

- 00:00—00:12 We are back at the currently defaced target site and still curious about Noface's active defacement of the site (www.Windows9.name). I suspect it is Noface's 'trick' site.
- 00:12—00:28 We see the HTML source code that is producing the defacement (accessed by a double-click on 'Developer Tools', as Noface has disabled the usual right-click 'View Source' function). In the source code we see an embedded link to a YouTube video, and click on the link.
- 00:33-end We view an intriguing video with animated lyrics to the haunting Indonesian 'theme' song, interspersed with occasional photos of a young couple on a beach. There is something uncanny about the overall mood of the video, which is confirmed if we watch it to the end, where there is a surprise. After the surprise appears a typical YouTube follow-up gallery of video links, which may (or may not) add to the work we have witnessed.

We may judge for ourselves the level of stylistic intensity generated the ergodic aspects of Noface's complex virtual dyscription; however, I think it is clear that working in tandem with the other aesthetic registers (visual, aural, multimedia, animation) ergodic

dyscription creatively exploits the new human and material factors of the virtual world to produce a dyscriptive style native to that place.

6. Human

All of the virtual dyscription collected in the Zone-h archive is the result of both human and machine agency. The steady accretion of cumulative ‘layers’ of machine agency required to enact even the most primitive dyscription in the virtual world, and the evolution of our human habits and attitudes as we become accustomed to new modes of communicative interaction in that world, suggest the opening of liminal zones where new ‘hybrid’ forms of what some have called posthuman forms of interaction and subjectivity, thinking with and finally *as* a machine, can be conceptualized (Hayles, 2012; Wolfe, 2010). The fundamental question of how ‘we’, with our feet firmly planted in the real world, would even recognize the stirrings of such a categorically new state of affairs cannot be answered here; however, if historical precedent is of any help, it would appear to suggest the first inklings of a pressure felt and produced in proto-artistic gestures, which similarly mark a boundary between what was not and what would become human. Likewise, there may already be categorically new kinds of marks on the coded cave-walls of the digital world, harbingers of the “*futur anterior*” (Lyotard, 1988), or what will have been perceptible already and only to what will have come.

In Chapter 6, we will meet the dyscriptors, archivists, administrators and regular users of sites targeted by virtual dyscription, and discover some intriguing details concerning the genesis of this emerging phenomenon.

Conclusion: Virtual New York

These preliminary observations of examples of actual website defacement archived at Zone-h, would suggest a strong homology between traditional graffiti and such website defacement.

If we now look, with a comparative eye, back at the first scholarly encounter with the New York signature style of graffiti writing, Craig Castleman's (1982) pioneering work *Getting Up: Subway Graffiti in New York*, we can note that the development of the 'writing styles' of the virtual dyscriptor, over the course of the last fourteen years, show some strong affinities with the emergence of the traditional New York style.

It is important to remember that even the early scholarship on the New York signature style (Castleman, 1982; Chalfant, 1982), and certainly the most prominent later scholarship (Austin, 2001; Ferrell, 1993; MacDonald, 2001), comes to the phenomenon of graffiti writing as a well-developed, artistically validated, and (by the 80s and 90s) highly self-conscious cultural praxis (Waclawek, 2009). Perhaps only Norman Mailer's (1973) early, widely publicized article for the Atlantic Monthly "The Faith of Graffiti", can be considered as providing a first 'glimpse' at the still 'natural', emergent and unselfconscious activity of graffiti writing, on the cusp of coming to wide public attention.

When we encounter virtual dyscription, as I argue that we do in these instances of website defacement, we are very much in the position of Norman Mailer (1973), except here in relation to virtual graffiti. The emergence and development of virtual graffiti, as a recognized and potentially rich aesthetic performance, is very much 'in front' of us, and

not ‘behind us’, as the traditional New York style was to its first scholarly researcher (Castleman, 1982). The research into traditional dyscription (Austin, 2001; Ferrell, 1993; MacDonald, 2001) worked back from what was already a controversial but widely acknowledged artistic phenomenon (Waclawek, 2009), to understand the development of style and ethos through ethnographic studies with self-identified practitioners. In our case we are very much at the ‘start’ or what may be a cusp: we can now recognize the practices and products (website defacements) of some ‘script-kiddies’ as virtual homologues to the practices and products of those New York City traditional graffiti writers, however, we are situated in a moment prior to any scholarly or general public recognition of that virtual praxis.

Keeping this key difference in mind, we can now benefit from the insights of the substantial research into the development of the traditional practice to note some interesting affinities with what we have seen.

As Castleman (1982) explains in his analysis of the praxis of graffiti-writing in the New York subway system (see esp. Chapter 3, “A Brief History of Writing”), there was a notable formal evolution of writing style in New York City, dating back to the 1960s, which allows Castleman to document an evolution from what he calls the “*hit*, the early term for tags” (p. 55) to “tags”, which made their name and neighbourhood stand out by combining a short moniker plus the street number (e.g., ‘Freddy 123’). As more writers¹¹⁷ began ‘tagging up’, as Castleman reports, a new emphasis on style began to emerge (p. 55). This emphasis affected the size, shape colours and pictorial dimensions (2D, 3D) of

¹¹⁷ I use the term ‘writers’ and ‘graffiti writing’ in this section (not dyscriptors) per the now standard convention in graffiti studies, following the preferences of the practitioners themselves, who call themselves ‘writers’ (Austin, 2001; Castleman, 1982; Mailer, 1973; Stewart, 1991).

the ‘tags’, their placement on the surfaces of the trains (inside/outside) and the related emergence of new writing tools (wide-tip markers, spray paints, special nozzles for the spray cans, stencils, etc.). The ‘styles’ resulting from these innovations acquired standard, subcultural names: ‘throw-ups’, ‘fill-ins’, ‘burners’, ‘Wildstyle’, ‘half-’ or ‘whole-car’ (related to the size on the subway car), ‘pieces’ (for masterpieces), etc. The new, more stylized graffiti did not replace the older ‘styles’; it simply joined in the ongoing production of graffiti in general, but had a greater chance of standing out and thereby increasing the visibility, reputation and fame of the writer (Waclawek, 2009, pp. 60-67). This fame was at first (early 70s) confined to within the groups of writers (Castleman, p. 57), but later, with mediatization in the press and on TV, would enter into a positive feedback loop with the public in general, and the arts community in particular (Castleman, 1982; Waclawek, 2009), eventually resulting in “Style Wars” (Waclawek, p.66) and popular celebrity (Chalfant, 1984).

If we survey the sample of work presented here, drawn from a period of almost 14 years (2000-2013), we can note a similar development in the ‘writing’ styles of the virtual dyscriptors. Like the traditional homologue, the development tracks to developments in ‘writing’ technology, in this case the emergence of web browsing technology to support simple ASCII text strings, images, photographs; the shift from static to animated HTML, which facilitated the animation of webpages; the adoption of standard audio formats and sources; video formats and sources; and, finally, the interactive, multimedia modern browsers. Just as in the traditional New York setting, the dyscriptors continue to use all the various ‘tools’ and ‘techniques’, but the opportunity to ‘stand out’ by composing one’s defacement image with stylistic elements (technologically determined, to be sure)

seems to be following roughly the same dynamic as witnessed in the world of traditional graffiti. We can make out simple ‘tags’ (Figure 40, above), more complex static compositions with images (Figure 45, above), animated collages (Figure V10), and multimedia collages (Figure V14). There are even numerous and sometimes misleading parallels to ‘trains’ and ‘websites’, with some virtual dyscriptors writing ‘in’ the site (within pages) and some writing ‘outside’ (on the homepage). We will see, in the next section, that there is definitely an analogous group dynamic at work in the virtual dyscription community; however, what is missing, as yet, from the dynamic of virtual dyscription is any ‘outside’ attention (media or scholarly) to these sometimes highly stylized instances of dyscription.

In my view, we are witnessing the emergence of a new and distinctive form of *virtual graffiti*, prior to its public recognition as either ‘graffiti’ or anything of aesthetic interest; and this presents us, as researchers, with an interesting and potentially rich environment for studying how such aesthetic practices emerge, how the practitioners literally create the new dyscriptive engagement in the virtual world. Like the young writers Norman Mailer went to see in in 1973, as we will see in the next section, our virtual dyscriptors are only partially aware of the potential aesthetic import of their activities.

One of the interesting differences in the development of popular media dynamics is curiously paradoxical: since the aestheticization of the New York signature-style graffiti-writing in the late 1980s (Linker, 1984), and its ‘descendants’ in Street Art and Outsider Art (Waclawek, 2009), one major concern of graffiti scholars has been the preservation the now ‘famous’ New York signature styles of traditional graffiti in their original context in the subway cars and walls of New York City’s neighbourhoods (see the recent

controversy about the demolition of the 5 Points neighbourhood in 2014). All of the now indexical New York ‘masterpieces’ are long erased, and the graffiti of the 70s and 80s mostly exists in the form of a few, perhaps only a few hundred photographs, thanks to the early work of some prescient photographers (Jon Naar, 1973; Martha Cooper, 1984; et al.). The recorded archive of traditional graffiti is thus relatively small compared to its importance as a subject of academic and popular interest. The case of virtual dyscription is reversed. The phenomenon of virtual graffiti has received little scholarly or popular attention, yet over four million (verified) potential instances, over the course of the last 14 years, have been archived for public reference in the WWW. This archival ‘asymmetry’ is striking and suggests that should virtual graffiti come under the scholarly eye of art and cultural historians, sociologists and even the popular media, the object of attention will, at least, be virtually at hand.

Chapter 6: Toward an Ethnography of Virtual Dyscription

Now that we have explored the virtual dyscriptive syntagma, concept by concept, paying special attention to the complex dialogic and monologic aspects of style displayed in the practice of virtual dyscription (Chapter 5), we can supplement this exploration of the *artifacts* of virtual graffiti, with a number of anecdotal interviews with the *artisans*, framed and discussed in terms of what I call the ‘defacement cycle’, which generates the bulk of virtual graffiti: the dyscriptor him/herself, the website owner/administrator, the archive administrator, and the media; providing what I hope are some suggestive preliminary notes toward an ethnography of virtual graffiti, again, firmly contextualized by comparison to scholarly work on traditional graffiti writers. Throughout our synthesis of the interview material, we can test, enhance and nuance our comparative investigation of traditional and virtual dyscription.

With this homologic hypothesis in mind, then, and equipped with the working theoretical framework generated over the course of the previous chapters, let us now briefly explore the world of virtual graffiti practice, paying attention to affinities between the virtual dyscriptors and their traditional homologues.

The Dyscriptive Cycle

Earlier (Chapter 5.1) we reviewed the five generic steps involved in producing virtual graffiti. Characterized from the perspective of a typical dyscriptor, they accounted for the sequence of obligatory activities undertaken to gain access to a webserver, produce a

dyscriptive product, and register the successful exploit at the mirror archive. The procedural steps have their obvious analogues in traditional dyscription: locate a publically visible surface, gain unobstructed access, make an unauthorized inscription, and then hope someone notices.

These time-sequential linear steps can also display the characteristics of a cycle, or a circular chain of causes and effects, where feedback (both negative and positive) at different points in the cycle can be seen to play an active role modulating the intensity of the dyscriptive event, and even shaping the perception of a purpose or *telos*. If dyscription is considered not only from the singular perspective of the dyscriptor, but also taking into account the other active agents involved in that dyscriptive event's reception, circulation and 'publication', then we can speak meaningfully of a dyscription *cycle*.

Who are the other actors?

In the fictionalized exemplars we developed for characterizing both traditional dyscription (our hoodie clad woman and our early morning jogger) and the virtual homologues (our virtual dyscriptor working at her laptop computer and later on the surprised website user), we can make out the other actors in the dyscription cycle: along with our dyscriptors ('producers') there are also 'viewers' (including what we can call 'preventers' 'removers', other dyscriptors,) and the archivists, and the media (popular and social media, including the 'commentators'). These roles may overlap, for example each dyscriptor is also an archive user/viewer and a remediator (via social media), but each role can be linked into a causal circuit that displays feedback characteristics.

Virtual Dyscriptors (Producers)

The primary actors in the dyscriptive cycle, they are responsible for the acts and products of dyscription as defined in the previous chapters. Generically, they call themselves variously attackers, hackers, [members of] hack or security teams, defacers, and even pirates. Each specific individual or group typically uses a pseudonym, often following the conventions established in the traditional graffiti world (e.g., letters and numbers, e.g., “Taki27”) or else something inventive (“Evil Angelika”, “PhantomGhost”, “CyberDeath”). Although there are famous dyscriptors who work alone (Iscorpix, Tiger-M@te, Eboz), the average dyscriptor (much like their traditional homologues) are usually part of a group or a ‘team’, which will have a name.

One of the conventions of the virtual dyscriptor community is the widespread use of the “leet” (standing for ‘elite’) alphabetic (and terminological) convention to spell out individual and group names. The *leet* alphabet substitutes the ASCII character set for the corresponding English spelling (often phonetic) of a word, introducing a new kind of terminological slang to name the typical activities of the hacker community. So, for example, a virtual dyscriptor going by the name of ‘Elite Hacker’ might appear as “1337Haxor” (i.e., ‘Haxor’ being the leetspeak for the English ‘Hacker’ etc.).

Target Sites (Webmasters: viewers, removers, preventers)

The most common web properties accessed for dyscriptive activity are relatively simple commercial websites typically operated by small-medium sized businesses (10-50 employees). The business activities of the targets range across the full spectrum of commercial practices. In this grouping I would also include small government and para-governmental (sometimes departmental) websites operated by small countries (e.g., Bolivian Department of Mines, Venezuelan Teachers’ Union, Burmese Embassy in

Vietnam, Pakistani Wheat Board etc.). A peculiarity of the digital environment is the proliferation of small webhosting companies (with 10-20 employees) that host and maintain hundreds and sometimes thousands of small websites. These types of important commercial sites (webhosting services/servers) are also very desirable targets for dyscriptors as one successful exploit can give unauthorized access to all the hosted sites, permitting what is called a mass-defacement. The University of British Columbia's Computer Services Department, for example, provides webhosting services not only to almost all UBC departments, but also to outside commercial partners. Once a dyscriptor accesses the webhosting service, all the hosted sites become vulnerable to exploitation (e.g., departments of Chemistry, English, Philosophy, Student Union, Catering Services, the Centre for Aboriginal Affairs, etc.)

Based upon my interviews with webmasters (below) and my informal discussions over the course of this study, a first and most typical viewer of everyday 'live' website defacement is an internal user of a commercial website, the employee of a small staffing company, for example, who while at work regularly sees the company home page on their office computer. Usually one of the members of the staff is acting as the webmaster or system administrator ('sysadmin', 'admin') responsible for the maintenance and performance of the web server; often the person responsible is a consultant/contractor (a web specialist) and not a full time employee. In a typical case, the website defacement will often appear and remain visible on the website for a relatively long period of time (hours), if only because of the limited skill set (or authority) of the contractor and/or the logistics of contacting and interacting with a webhosting service to request maintenance services. Frequently, these sites are subject to 'redefacement' after they have been

repaired because the employee responsible for the repairs has not been able to fully diagnose or patch the breach in the compromised webserver. It is relatively easy to get the contact information for these site administrators/users and to contact them directly; however, it is difficult to get them to talk about their experience.¹¹⁸

On the other hand, the second most popular kind of website defacement occurs on much more visible and typically better secured (or managed) websites: the ‘Googles’, ‘Royal Banks’, ‘Taylor Swifts’ and ‘NASA’ type sites of the virtual world. These sites are highly prized by dyscriptors for their ‘visibility’ (both to their many users and through the probable mediatization of the exploit), and they are frequently the target of successful dyscriptive activities. In these latter cases, it is very difficult to make formal or informal contact with either a typical user who may have witnessed the ‘live’ defacement or the staff affected by the exploit. Because of the professional management of these sites, any dyscriptive marking is almost immediately removed (although it may have been viewed, as is the case with Google, by millions of casual users), and the employees are instructed to refer any outside/media queries to the public relations department (who typically offer no comment or deny the event occurred). The only exception to this ‘rule’ is in the case of a clearly documented ‘crack’ (where, for example, thousands of credit card numbers are stolen and police are involved) where the PR departments will note the event occurred and outline preventative measures which have been taken. Almost all significant dyscriptions will be mirrored in the defacement archive, and, with links to the mirror archive, the dyscriptors circulate images of their exploits to interested media outlets, on

¹¹⁸ A common problem I faced is a general fear, on the part of the potential subject, that the interviewer is part of a more elaborate kind of ruse by a dyscriptor (a strategy now widely referred to as social engineering) to elicit more useful information about the website security policies. I experienced frequent breakdowns of trust as a result of this fear.

YouTube, and in the social networks linking the dyscriptor communities. More and more this publicity obliges the ‘big’ targets to acknowledge, at least, that something may have happened; however, based upon my own experience, it is corporate communications which handle any inquiries.

Archivists

These are the people who administer the defacement archive. There is only one independent and trusted defacement archive on the WWW: Zone-h.org. We have reviewed the site’s history and policies in Chapter 5. Although many other small archives (Dark-h.org, H@ckMirror Zone, and Th3Mirror, Hack DB) continue to arise (and disappear), they are typically set up by specific groups of defacers (often sharing ethnic or nationalistic agendas) and cannot be considered to be acting as neutral archives. These latter types of ‘archives’ have, more recently, began to use dedicated Facebook pages (and now Twitter feeds) as their preferred ‘platform’; de-emphasizing the value of the easily retrievable, verified historical ‘record’, to favour something like “Show-Off” zones.

The archivists play a pivotal role in the dyscriptive ecology. As we have noted, if there is no database to mirror the defacements, then virtual dyscription is simply evanescent. The mirror site may also stimulate the practice of dyscription by provoking a kind of competition between teams. It also serves as a locus for interested parties (removers, preventers, media, viewers) to watch the evolving phenomenon with an eye to anticipating trends in access methods and national/ethnic tensions (incipient ‘cyberwars’). Along with the community of dyscriptors who include links to Zone-h in their social media communications, all media outlets rely upon the Zone-h database to find, link to,

or copy defacement images. The archive rarely makes the news, and frequently the mirror images used in the media are unattributed.

In the traditional graffiti cycle, the role of the archivist falls to the photographers and film makers (news and documentary) who have preserved the images of traditional graffiti. Of course, with the advent of the digital environment, there have been a number of websites dedicated to collecting pictures of traditional graffiti from around the world, submitted (in much the same way as the images at Zone-h) by the traditional dyscriptors to document and ‘show off’ their work. These kinds of ‘galleries’ have been misleadingly called ‘virtual’ or ‘digital’ graffiti galleries – mistaking the method of storage (digital) for the characteristic of the dyscriptive act itself (traditional).

Media

The mainstream print, television and electronic media report indirectly on instances of website defacement when it is a by-product of cracking or hacktivist activity (e.g., Anonymous, LulzSec) displaying what is (or what is feared to be) criminal intent: the theft and/or publication (in the case of hacktivists) of personal or classified information (financial, personal, military, etc.). The everyday, mundane activities of the typical virtual dyscriptor are rarely if ever met with any mainstream press coverage. Media coverage is typically provoked by the intensity of what we have called the *dialogic* aspects of both the dyscriptive *act* and *product*: How did they get in? Is my data (money, identity) safe? Who are they? Are they coming back? This is typically the realm of what

are commonly called crackers and hackers.¹¹⁹ The former usually do not seek any publicity at all, but rather hope to profit ‘quietly’ from their criminal operation if at all possible; the latter actively seek media attention with flagrant and provocative exploits (although sometimes publicizing confidential government documents, but rarely stealing data).

There are a large body of media outlets, most in the form of dedicated websites, focussed on what is broadly considered to be computer security. These web-publications range from well-respected industry standards (see Softpedia, Computer Security News) employing recognized journalists, all the way through to the latest “Grey Hat” e-zine published by anonymous ‘security specialists’ operating on the borderline separating the ‘prevention’ from the ‘promotion’ of security exploits. In addition to these, and sometimes overlapping, there are numerous website-publications on what can be called ‘the hacking culture’¹²⁰ which gather and report on the ‘news of the day’ in the hacking world. Not unlike their mainstream analogues, they too are drawn to the most ‘visible’ security exploits which typically arise in cases of data theft of sensitive political contexts (dialogic act/product). However, unlike the mainstream media, these publications also focussed on what we have called the *monologic* aspects of the dyscriptive *act*: the nature and structure of various security implementations (at specific sites, against specific exploits), and an appreciation of the general ‘styles’ and skills perfected by the ‘top’ dyscriptors.

¹¹⁹ E.g., see USA Today for typical storyline: www.usatoday.com/story/cybertruth/2013/10/23/department-of-state-webpages-defaced/3170277/ ; or ZDnet typical storyline: www.zdnet.com/ebay-and-paypal-uk-domains-hacked-by-syrian-electronic-army-7000025854/, etc.

¹²⁰ E.g., the Hacker News; Hacking News; HackRead; BadIdeas; BlackHat; Green Hat Hackers; meethackers.in; and many others.

In all of these cases the website defacement images are displayed (typically recovered from Zone-h) and circulated as the signs of the dyscriptive exploit. Some imagery has even become iconic (the Anonymous mask and slogan). Rarely are the monologic aspects of product of dyscription considered to be of any interest outside of the role as a sign or icon – or what the traditional graffiti commentators (e.g., Norman Mailer) would call a ‘name’.

Research Ethics

My research was conducted in accordance with and approved by Carleton University’s Research Ethics Board policies and procedures as established in the “*Tri-council Policy Statement: Ethical Conduct for Research Involving Humans, 2nd edition.*”, which guarantees the anonymity of my research subjects, the confidentiality of all information gathered, and provisions for the secure storage of all tape recordings and transcripts of such recordings over the course of my research project, and then for a period of five years following its completion (December 2014), after which all original data is scheduled to be destroyed (December, 2019). I have included a sample copy of my Research Ethics approval form and a sample copy of the informed consent forms that were sent to research participants in Appendix E.

1. Virtual Dyscriptors

I encountered and recruited my interview subjects by using information included in their defacement images archived at Zone-h. I searched through daily defacement image-records looking for contact information, typically in the form of an email address or a

Facebook page. If an email contact was provided (Appendix B – Figure 1)¹²¹, then I sent a short message explaining I was writing a book on website defacement and asking if we could talk. I set up a Facebook account (Virtual.Graffiti.Project) to manage Facebook interactions. Although many dyscriptors provide contact information, the success rate of my initial contact emails was very low. Only eleven of the first 100 emails prompted any reply at all and then only eight of the eleven pursued any further correspondence, with four of these last eight finally agreeing to do an interview. Of the forty or more Facebook friend requests made (with introductory message), fifteen approved my friend request, and although I could now participate passively in their Facebook activities, my active attempts to chat/interview within Facebook also met with limited success.

I also was able to have an invitation placed on the home page of Zone-h.org inviting dyscriptors to participate in the study (see Appendix B - Figure 2).

In all cases one of the constraining factors was language. Although most dyscriptors have rudimentary English skills, often it is a very highly specialized computer-related jargon, and the dyscriptors cannot communicate effectively in English in interview situations (written or oral). I focused on locating subjects that appeared to have stronger English skills and, in the cases where I had a willing non-English speaking participant; I also made use of translators (Spanish, Indonesian).

Each respondent interview is roughly organized by their responses to the following questions: Who are they? What are they doing? Why do they do it? What are the important qualities of their work?

¹²¹ Note: All static figures referred to in Chapter 6 are located in Appendix B (See Appendix C [CD-ROM] for multimedia figures, prefixed with a 'V' -- e.g., Vx).

*Affinities: The Development of a Graffiti-Writing Culture*¹²²

Looking back over the period 1960-1980, the scholarship on New York signature style graffiti writing has led to a general consensus concerning what Joe Austin (1991) calls “the formation and structure of the writing culture,” (p. 39) in New York City in that period. As Austin reports, supported by the mid-80s scholarship (Castleman, 1982; Chalfant & Cooper, 1984; Stewart. J., 1989), the New York city graffiti writers themselves describe their own origins “at no earlier than the late 1960s” (p. 42), and we can see, as Mailer and Naar’s (1973) photojournalistic essay for *Esquire* reveals, that the New York City ‘style’ was certainly recognizable and well-formed by the early 70s, although only on the cusp of widespread public and media attention.

As Austin (1991) explains, “by the summer of 1971, the practice of ‘getting up’ was well established as the core activity of writing culture. The community of writers had grown large enough that their names had been declared a ‘problem’ by the transit authority and other guardians of the public walls” (p. 50). The public perception of the writing was still in a liminal phase, just before what Austin calls the “new [graffiti] writing” would begin to be seen as something aesthetically different from what had preceded it:

Encountering ‘un-author-ized’ writings on the public walls of major US cities was hardly an uncommon experience in the late 1960s, when the new [graffiti] writing first began to appear... unauthorized public handwritings are categorically referred

¹²² We encounter another problem with word use, especially in the work of Austin (1991), who uses the word ‘writing’ to denote legible writing in general but also and specifically the historically continuous act of ‘making a mark on a wall’ (e.g., figures, letters, etc.), the latter of which are technically speaking *graffiti* to archaeologists. Austin ‘saves’ the contemporary word ‘graffiti’, in the context of his book, to specifically denote aesthetically recognized (by 1991) wall-writing praxis of New York City subway writers that emerged in the early ’70s; but then often just calls what these practitioners do ‘writing’ or the ‘new’ writing (i.e., New York style graffiti).

to as if they were all equivalent: they are all ‘graffiti’...for these reasons, [graffiti] writing was not immediately recognizable as a new and developing aesthetic practice to anyone except the writers and their peers. The names appeared to most people to be more of the same. In this way, writing, which would later emerge as an unmistakably aesthetic undertaking, was initially recognized as ‘graffiti,’ the generic category of handwritten scripts in public space. (p. 79-80)

Following Castleman’s (1982) ethnographic research into the NYC-style of graffiti, we can document key ‘phases’ in the development of this dyscriptive praxis, from an early, first phase, situated in Austin’s pre-aesthetic moment of the late 60s and early 70s, through to the full-fledged emergence of graffiti writing as a broadly recognized and aesthetically appreciated phenomenon, on to the cusp of what would later be called the Post-Graffiti moment (Waclawek, 2009) in the mid-80s. Waclawek calls this “a movement from subculture to pop culture” (p. 159), a trajectory we may now hypothesize begins to emerge in the praxis of virtual graffiti.

Disenfranchised youth As most graffiti scholars recount (Austin, 1991; Castleman, 1982; Stewart, J., 1989), a ‘new’ kind of graffiti writing emerges among the disenfranchised youth of the suburban ghettos (Brooklyn, the Bronx) of New York City in the late 60s, the symbolic ‘centre’ of the late-capitalist 20th century, and a city in a widely mediatized situation of decline (Austin, 1991). Groups of mainly African American and Latino youths began self-consciously “getting up” their names on the publicly visible walls of their neighbourhoods, including in the subway stations, on the subway cars left overnight in the train yards, which were often coincidentally located in those neighbourhoods (Castleman, 1982). As Austin (1991) notes, this is a pre-aesthetic

phase in the eyes of the public, and one with emergent and partially realized proto-aesthetic potential amongst the wide variety of ‘writers’: youthful vandals, gang members, and what would soon be called graffiti writers. These different ‘groups’ of writers are perhaps not so clearly distinguished by the participants themselves at first (Mailer, 1973), and often emerge from the accounts of participants in retrospect and from the perspective of a now full-fledged and highly self-conscious praxis (Castleman, 1982; Austin, 2001).

Fighting Gangs The ethnographic interviews on the early phases of the New York phenomenon (Castleman, 1982) suggests that graffiti writing was associated with the prevalence of powerful and violent street gangs, sometimes organized along ethnic lines, in the suburban ghettos of New York City. Castleman’s research clearly shows how the gang situation in the Bronx and Brooklyn shaped the formation of small, neighbourhood youth gangs, both for protection and in emulation of the serious gangs; and that one of the activities practiced by these small youth gangs was writing up gang symbols, either to attract attention, signal ‘territory’, enhance prestige, or otherwise emulate the ethos of the more ‘mature’ and more violent criminal gangs (Castleman, 1982, pp. 92-97). Most of these youth gangs aspired to be “fighting gangs” (p. 95), with members hoping to be recruited into the big fighting gangs, however, some of the youth gangs seemed more focussed on ‘writing’.

Writing Gangs Castleman marks the formation of “writing gangs” (p. 95) to the early 70s, and explains that they attempted to differentiate themselves from the “fighting gangs” by focussing on graffiti writing, while benefiting from the protection that gang affiliation (clubhouse, jackets, logos, specific neighbourhoods, etc.) provided to the

young ‘writers’, who would sometimes fight between themselves for access to the spots (street corners, local subway stations, etc.) offering the best potential visibility (Castleman, p. 96). As numerous scholars have noted (Austin, 2001; Castleman, 1982; Ferrell, 1993), affiliation with these ‘writing gangs’ was also simply a means of identity formation or ‘feeling like somebody’ for adolescents. These writing gangs worked with a consciousness of writing style, but related to accessing the good locations and visible, legible ‘writing’ (in what came to be called the name/address ‘tag’ format), as well as the mutual defense from members from both other youthful writing and fighting gangs, with whom they were often confused (Castleman, 1982).

Writing Groups From within the contours of this writing-gang praxis would emerge what Castleman calls “Writing Groups” (p. 107). These writing groups were among those encountered and publicized by Mailer and Naar in 1973, and displayed only a very loosely structured membership (no logos, no clubhouse, no hierarchy), without any ‘defensive’ roles. Their writers would later be recognized as the first ‘graffiti writers’ (once the term came to denote the emergent aesthetic praxis), and were the primary subject of scholarly study (Castleman, 1982 et al.). These writing groups engaged in what were called the “style wars” (Castleman, 1982; Chalfant, 1984) that played out on the surfaces of the subway trains of New York, and the conscious cultivation of a quickly developing, highly controversial, highly visible, proto-aesthetic art form.

Post-Graffiti Writing As Waclawek has pointed out, the mediatization and public attention (both popular and scholarly) to graffiti writing in the early ’80s stimulated the migration of graffiti writing from unauthorized public surfaces to authorized public

spaces such as the canvas surfaces hung in the art gallery.¹²³ This is either a late phase of traditional graffiti or the first phase of a new graffiti-like art form. Now indexical of this moment are the recognized artists like Keith Haring and Basquiat, both of whom never practiced unauthorized writing (Waclawek, 2009) and whose works are now appreciated as pioneering examples of a valuable ‘graffiti art’.

As we work through our first encounters with the dyscriptors below, we will see how the community and ‘writing culture’ of virtual dyscriptors seems to display close homologies with the early developmental stages of the New York phenomenon.

*1.1 Donzay Stone (LeetBoys)*¹²⁴

I first sent an email invitation to ‘Donzay Stone’ in the Spring of 2013. He was a member of a team called the ‘LeetBoys’. The team had only recently become active at Zone-h, and had yet to register a “Special” defacement (a defacement of a recognized ‘important’ site). Their dyscriptive activities were complex and interesting, and they seemed to be regularly changing the imagery/music used for their defacement pages over the course of the spring of 2013, while attacking relatively obscure websites. See **Figures 3 to 7**

¹²³ As Castleman (1982) notes, this process began as early as 1972, with the work of the United Graffiti Artists (pp. 117-131), who attempted to ‘domesticate’ the illegal activities of the writing gangs by opening an informal school to channel the creative activities of the graffiti-writers onto legal surfaces and towards public exhibitions. Some early successes met with some positive press recognition, especially in the fine arts communities (p. 119), and certainly the stage was set for the ‘uptake’, in the early ‘80s, of graffiti writing into the art world.

¹²⁴ All of this information is received over the course of four interviews (chat and voice) with a person calling himself ‘Donzay Stone’. Given the context of the interview (over Gmail), the fluidity of personal identity and ease of deception, and with no tangible proof of any of the information provided by the informant, all of ‘Donzay’s’ personal history is potentially fabricated. On the other hand, there is a direct and explicit connection between this person I am talking to (email address and pseudonym) and the defacement activities archived at Zone-h. Although ‘Donzay’ initially agreed to a Gmail voice interview, when we first made contact over chat, he was reluctant to go to the voice channel. We chatted over Google for an hour on two separate occasions (Donzay Stone- Chat 1-June 13th, 2013; Donzay Stone – Chat 2 – June 17th, 2013) and then he agreed to a set of voice interviews (Donzay Stone – Voice Interview 1- June 26th; Donzay Stone – Voice Interview 2 - June 27th) of approximately one hour each.

(Appendix B) for static screen shots, and also see the sample video recording **Figure V17** (CD-ROM, Appendix 3) to get a sense of the relative complexity of their work.

Donzay Stone is the pseudonym of a young man (early twenties) who may live in western province of India. When I asked him to tell me how he first came to use a computer, he said he first saw one when he was about nine years old (2000) at his public school, shortly after his father died: “Someone tell me ‘this is a computer’ and this is something *new*....Something new, it is *my* life!”. He did not have enough money to own a computer, but a friend of his had one, and he would visit his house to see it. He decided he would buy one, and he worked as a servant to earn enough money to do so. He was finally able to purchase a computer and began to learn “everything about it and how to use it”. Once he was able to access the internet and Google, he says “Everything was there! How to make security, how to use it and to search for information.” (Note: the leitmotif of ‘security’ would colour most of his responses)

He tells me that when he was younger, using Google, he noticed information about hackers and decided his “second target” (after buying his computer) was to become a hacker. He claims this occurred when he was 11 (2002). He explains that sometime afterwards (2005?) he began attending a private school/college specialized in computer training and, sometime after that, he makes contact with “a famous Indian hacker, who was part of Anonymous” (it may have been the now well-known ‘Tiger-M@te’¹²⁵ as he mentions this mentor elsewhere in our conversations). This mentor-hacker teaches him “everything... he is a teacher and a God also!”, and with his help Donzay finished the

¹²⁵ Tiger-M@te became famous for accessing the InMotion webhosting service and defacing 700,000 websites: <http://news.softpedia.com/news/700-000-InMotion-Websites-Hacked-by-TiGER-M-TE-223607.shtml>.

computer college training which allowed him, Donzay continues, to eventually join a small Indian software company. The chronology of these events is very muddled.

Nevertheless, it is while working at this company that he formed the group called “Leetboys” and began recruiting other young people with computer skills to join up. The objective of the group is to teach young people hacking for free, with the hopes they might later find employment with these skills. When I first make contact with him, the Leetboys group is made up of ten to fifteen members.

Why does he do it?

Like the other dyscriptors I interviewed, Donzay Stone is not sure at first how to respond to my questions concerning the purpose of his defacement activities. For him it is a hobby, “it’s what I like, knowledge about cybersecurity...I love my life,” and then laughing “what do I [interviewer] expect? I love to crack security!” When I push on this point, and ask him what he likes about hacking, he is quick to correct me: “It is not hacking that interests me, it is *security*, especially when it’s really hard, then I try my best to attack,” he then adds “we [LeetBoys] do not use knowledge in a bad way, we just want to learn....it is for learning.” When I probe about the importance of learning, he is very eloquent about the importance of learning to him and “my people”. I ask him if he remembers the first time he successfully defaced a site? “Yes. An Indian government site.” How did you feel? “The first time I felt amazing and cool.”

He does not do it for money (either the exploits or the teaching he provides to the “kids”). He emphasizes he does not want any money from anyone (except the company he works for), and he explains it to me with an anecdote: “The most important thing about hacking is security: so it’s the target...I will give you an example: if I give you a knife, there are

two ways to use it – one for killing people and the other for chopping vegetables—there is a good way and a bad way—it’s how you use the knife—and so it’s what I do either to secure you or to destroy you.”¹²⁶

When I ask him what kind of hack he would feel the best about? He explains that if he could hack NASA (National Aeronautical and Space Association) “I would feel like I was the best hacker in the world!” I ask him why, and he responds “because they have best security in the world,” Has anyone ever got in? “No one.” I ask him if he means the NSA (the American National Security Agency), and he is emphatic that he means NASA.¹²⁷

I ask him if it is getting harder to do defacements, and he says “nothing is impossible in this world, it is just a question of security”. He is not interested nor will he respond to any technical questions on how he accomplishes his dyscriptive access, other than to say “standard sql injection and, you know, file inclusion! It is just security problems and only takes a minute!!” He goes on to tell me that he can teach me to do it too “if people want to learn, they can come for free [he provides me with his new website address], you can hack and crack, if I teach you how to destroy then you know how to save...”, adding “...without any certificates or college!” He then reflects that his defacement activities are akin to advertisements for services. I ask him what he is hoping for in the future and he types (on chat) to me “so there are no poor people in the world”.

¹²⁶ After making this declaration, Donzay asks me if I trust him, I say that I do and he asks me to go to the CIA website (www.cia.gov). He helps me navigate to their main telephone number for reporting threats and asks me to note the number down. He then asks me to give him my phone number (which I do) and shortly my phone rings and my call display is showing that it is the CIA calling (their telephone number). With the success of this trick, he then tells me “not to worry” and then he brags that he can remove data for the CIA/FBI server, but insists “we are not using knowledge for bad!”.

¹²⁷ A few months after our conversation, NASA suffers a well-publicized defacement of its website by “Master Italian Hackers” (see Figure V18).

What about the defacement images?

Over the course of our two conversations, I frequently attempted to direct Donzay to talk about the imagery and text he selects for the construction of his defacement pages. This line of questioning, at first, is interpreted as a misunderstanding on my part—he thinks I’m asking about the hacking techniques, and I’m referred to his website. When I reiterate that it is the defacement page (the monologic product) that I want to ask about, he is genuinely surprised, as if he had never thought about it. This is the standard reaction I receive in my communications on this topic with dyscriptors. The construction of the defacement page is often merely a ‘second thought’ compared to the various (unspecified) activities related to target selection and access (the dialogic and monologic act). When I bring to his attention the frequently changing images and music used to construct his defacement pages, he says “this is not important to me, if I like it—I put it in...”; and when I push on his choices he brushes this line of questioning off with “I don’t know, I don’t know...”. But while we continue talking he sends me an audio file, explaining that “this is our official LeetBoys music” (it is an anthem-like electronic theme from a popular video game). Donzay explains that this should be the music for all their future defacements, but when I ask him what it is he says “it’s just music.” (Note: I have never heard it used in any of the LeetBoys later website descriptions). I ask him in particular about his group’s repeated (at that time) use of a romantic image of a couple in soft-focus (Figure 7), and he avoids the question repeatedly – reminding me the “the fun part of hacking isn’t in making up the images but in learning the security.”

Security

The theme of ‘security’ is dominant in all of our interactions on every subject. Of course, at the first level of analysis, the ‘security’ referred to is the website’s ability to protect itself from unauthorized access. But, somewhat paradoxically, from the dyscriptors’ perspective they are providing ‘security’ by proving to the targeted website’s operators that their ‘security’ is illusory. In other words, the dyscriptors create what they believe is a context for the valorization of their own activities. They become what they call ‘security testers’. Most of the sites subject to the activities of LeetBoys are very simple and typically poorly secured sites. They are managed by owner/operators, or are now moribund addresses (set up once upon a time, but no longer active—rather analogous to the ‘abandoned warehouse’ in the traditional world of graffiti). The skills required to ‘test security’ in these cases are analogous to a traditional graffiti writer’s in testing the security of a local restaurant by successfully tagging up on its front door in the middle of the night, or else in kicking down the back door of your house to prove you do not have a functional home alarm. In my view, this situation (low dialogic intensity of *the act*) provokes the intensification in the defacement images used (higher intensity arising from the *monologic aspects of the product*)—as if to compensate for the overall banality of the event: hardly anyone notices the defacement except for the site owner, who quickly removes it, or else no one notices it at all and no one roves it because the site is unused or effectively derelict. The defacement then sits as a record in the archive, not ‘starred’ (for an important site), and certainly not picked up in other traditional media. The stylistic intensity of the defacement image might receive some notice, if the image is circulated in the dyscriptor’s social media circles or if someone happens to look into the archive, someone like me for example.

Learning

Throughout the interviews, Donzay emphasized the importance and fascination with learning. The activity of dyscription is a learning activity, learning how the new digital environment works, how to work into it, and how to see the results of your activities and insights (particularly into security) reflected there. A conceit that many of the dyscriptor groups use (see below) is that of a ‘ghost’ in the digital environment. The typical website users are ‘inside’ the virtual world of the WWW and should expect to be ‘protected’, but the dyscriptor is ‘out there’, a mysterious and active presence in the digital environment, moving ‘invisibly’ through and between the perceptual walls and leaving traces to account for their passage through, and their mastery of, the new environment.

The Leetboys: from Fighting to Writing (Dyscribing)

With reference to the phases in the development of traditional writing culture noted above, Donzay and the Leetboys display signs both of a proto-‘fighting’ gang for criminal hacking and of a nascent ‘writing gang’ of website defacement. Donzay’s account of his mentorship under TigerM@te, a famous hacker (with criminal intent, or ‘cracker’), serves as an early reference point for his activity and training objectives. Donzay initially works to emulate the serious hacker and engage in criminal hacking activity in much the same way as the youth gang member wants to become a real ‘gangster’. In Donzay’s case, however, the story of his personal development as a founder of the Leetboys, a group premised on learning and ‘security’, seems to suggest a parallel with the shift noted by Castleman (1982) in the trajectory of traditional graffiti writing development from the youthful ‘fighting gang’ to the more specialized ‘writing gang’, focused only on “getting up” their names. In many respects, like the case of New

York City in the late 60s, where the parents of these ‘writing’ youths were often disenfranchised, recent immigrants to a new city and new world (Castleman, pp. 118-133), the digital environment and its WWW comes, in a sense, to play the role of the ‘new world’, one that Donzay is trying to understand, ‘secure’ and even master.

Similar to the ‘writing gang’, Donzay’s Leetboys are now primarily concerned with getting their name out, testing security, and gaining access to visible spots in the WWW. Donzay is not self-conscious about the composition of the group’s imagery, but I think it is too complex to be simply put aside as a mere afterthought. After all, a homepage replacement is remarkable to viewers even if it is only a simple small ‘tag’ (since it typically removes the original homepage). The defacement does not require graphics, animation, music or, as we see in the case of the Leetboys, frequent variations of all these features to achieve ‘visibility’. When I ask him about the imagery, he focusses on his techniques of access at first, but also notes that they have a logo (which he sends me) and official music, and otherwise reacts as we might expect a New York writing gang member to react when first approached by a journalist: proud to be noticed at all, nervous but interested in talking about their situation, excited about their acts of inscriptive defacement as transgressive acts, and curious at first why you are asking about how they decided on the colours and shape of their letters. The Leetboys are focussed primarily on ‘writing’ website defacements, not as criminal hackers (although, of course, the activity of website defacement is still a property crime), but as a digital version of the a ‘writing gang’, interested in getting their name up and around the community of small ‘gangs’ (who frequent Zone-h), ‘big’ hackers, in the media, and out to the ‘public’ connected through their virtual social network neighbourhoods.

We can see a ‘criminal’ variation of this development vector in Leetmir, our next informant, who works on his own and as part of the Leetboys.

1.2 1337Mir / LeetMir / Mir

I never learn 1137Mir’s real name. He is probably Russian and lives somewhere in Ukraine, near the Georgian border. I meet him unexpectedly when he coincidentally jumps into one of my chat sessions with Donzay. A few months after my talks with Donzay, I see he is producing defacements under his own moniker and I contact him. He tells me LeetBoys is no longer active and Donzay is preoccupied with his real-world work, but will not discuss the group any further. He refers me to his website (see Figure 8 and V19), and agrees to a chat-interview. He says he is only 16 years old at the time of our first talk. He asks me to call him “Mir”, which means ‘world’ in Russian.

Why does he do it?

Mir explains that he wants to be a good hacker, and that “hackers never deface websites, they try to earn money by scamming, botnets, malware.” He goes on to say that for him, to simply deface and post at the Zone-h mirror wastes his valuable time. The main reason he continues to post at Zone-h is “To show friends and fans that I am the boss, just to show off, and all friends and fans respect hackers...that’s what hackers want”; he goes on to add that “people trust the Zone-h mirror, and hackers also want to make archives of their activities by using the mirror archive.”

Mir has moved from defacing to a more complex, hybrid strategy (see the case of the *Metropolitan College of New York* below) to make some money from his work. He explains that now, when he “gets into the site, I just upload my defacement page, but not

to the index [i.e., not a publically visible homepage defacement, but a ‘proof’ of presence through the insertion of a ‘hidden’ file], and send them an email about the vulnerability with a link [i.e., to the ‘hidden’ file], asking them to pay me to help them secure their site.” He says that approximately 50% of the ‘victims’ respond to him, many are simply angry with him, but he claims some pay him. He explains that “people make their site with hard work and they spend lots of money, so it’s not good to destroy it without any reason...”. I ask him what he does if the site administrators do not contact him...he says “I just leave it, and if they piss me off, I destroy their site.” Mir says that he is moving towards doing more complex (XSS, Cross site scripting) exploits using no defacement pages and not requiring any contact with site administrators, counting on concealment and stealth to work at tricking users to give up passwords/account numbers and other information. XSS requires a very high degree of programming skill to accomplish successfully; most exploits are highly customized to each particular situation.

What about his defacement images?

Like Donzay, and most of the other dyscriptors I communicate with, this line of questioning is met with some initial confusion. Do I mean the techniques used for access? When I emphasize the actual ‘defacement page’, its construction and its frequent modification, I meet with the usual dismissal “good hackers don’t care about defacement page,” or “I do whatever I feel like.”

He tells me that if he is doing “a random defacement” he uses a simple defacement page (see Figure 9)—but that it also depends on the content of the targeted website (dialogic product) and his own mood. I ask him if he thinks he has a ‘style’, and he says “Yes, when I deface a site for my dream girl, I make a special defacement page,” and he links

me to one. When I look into the source code underpinning the defacement image, I find a set of romantic comments. He explains that he does the defacement then sends the link to his dream girl as a sort of present, like a flower (see Figures 10 and 11). When asked if he has been inspired by the defacements of anyone else, he refers me to Tiger-M@te (the famous Indian defacer, perhaps the tutor of Donzay Stone). I remark to Mir that Tiger-M@te's defacement pages are very simple, and he tells me "Yes, he can break very high secured website and he use very simple defacement page, I like it... defacement page cannot prove skill."

When I discuss the role of the archive with Mir, he acknowledges that in the end, the 'security' is not really visible, only the defacement page. That is, even a few years pass and we forget if a now defunct company was a 'hard' target or if their access context (the operating system, the anti-malware systems – monologic act) were sophisticated—what we do see is what was left on their 'wall'. Mir agrees, and even agrees unprompted that someday someone should be famous for the 'style' of their defacement pages. When I make reference to the popularity of contemporary Graffiti artists like Banksy, he concurs with the analogy.

I ask him about the various groups of defacers that seem to have political agendas, or what at least superficially appear to be 'hacktivist' groups, and he says that a lot of them are government sponsored, making reference to Syria, Turkey, Philippines, Russia and China. He claims that many of the defacement teams posting at Zone-h from these countries are para-governmental, or supported financially (equipment/network) by a

government agency for the training of future cyber-soldiers¹²⁸. He says he has not been approached by any governments yet, and he is not interested in pursuing this subject matter any further when I ask about the recruiting activities of the Anonymous affiliated groups (AnonSec etc.). (Note: this line of questioning has him go offline and then return but without the chat being recorded).

'Fighting' vs. 'Writing' Dyscriptors

Like the younger Donzay, Mir stands at a fork in his path as a youthful 'hacker'. If we broadly consider the 'fighting' of the dyscriptor to be those activities which result in unauthorized access that is either highly politicized or highly criminal in nature, and 'writing' as those activities focussed on producing more and more widespread, visible and even interesting defacement imagery—without criminal intent—then Mir is someone with one foot firmly in the world of the 'fighting gang' dyscriptive culture, and someone who appears to be on the cusp of becoming a full-fledged cracker, a kind of dyscriptor whose work we the public rarely 'see', unless they get caught. We can sense the dynamics of this moment in my interview with webmaster Geoff X. below, whose website was systematically attacked by Mir.

Although Mir also displays a consciousness of the creative aspects of defacement page composition (e.g., he creates one especially for a girl he is in love with), as a budding 'hacker' he de-emphasizes this nevertheless prominent aspect of his work. Mir does seem to understand the potential of defacement imagery to be of interest to someone, and certainly realizes the Zone-h archive is a valuable resource in the prestige economy.

¹²⁸ See for example this account of a defacement of the Pakistani National Portal, Cabinet Ministry, Ministry of Defense, by Indian hackers: <http://www.nation.com.pk/national/25-Apr-2014/president-calls-for-joint-efforts-in-reducing-hiv-aids-risks>.

Mir pursues criminal or ‘fighting’ hacking activities under the moniker of ‘LeetMir’ and his affiliation with the LeetBoys is perhaps strained by the LeetBoys’ evolution into something more like a writing gang of dyscriptors, happy to simply publish defacement imagery at Zone-h, with the hopes of attracting new members and otherwise learning and having fun. I believe that LeetMir hopes he might soon be contacted by one of the ‘serious’ hacking/cracking groups (perhaps even government sponsored) in the future.

Norman Mailer (1973) comments on how some of the young gang members in the emerging praxis of New York style graffiti writing were injured, killed or jailed in violent interactions linked to the activities of the ‘writing gangs’ and writing groups’ they were part of. It is not surprising to find the same social dynamics with our virtual dyscriptors; some will become serious hackers, some will stick with website defacement, and some will probably do both.

1.3 CoupdeGrace (Gantengers Crew)

Indonesia is one of the most active locations for contemporary groups of virtual dyscriptors archiving with Zone-h. Over the course of the last five years a series of prominent Indonesian individual dyscriptors have emerged (NoFace, DBuzz), and, especially in the last year or two, we can track the establishment of two umbrella ‘organizations’ (The Indonesian Cyber Army [IDCA], Indonesia Liberation Army), which have attracted the membership of many small, pre-existing groups.

Gantengers Crew is a relatively new Indonesian group (five members) who I first remarked in October 2013. I had been following a very active and ‘new’ (to Zone-h) individual dyscriptor calling himself “CoupdeGrace”. He began to occasionally post up

his defacements under this new moniker (Gantengers Crew) in mid-October 2013, and by the end of the year (2013) he always used the group name in his defacement imagery (although he also continued to register the exploits under his own name). I was finally able to make email contact with him in January 2014. He says he has been doing defacements since 2010. On Zone-h he began archiving verified defacements in September 2013 and had done 1,137 when I began talking with him (361 single IP addresses [individual sites], and 776 as part of a series of mass defacements)

Based upon my familiarity with the archive contents over the years 2012-2013, his work shows a balance of stylistic characteristics typical of what are referred to as script-kiddies (see definition in preface to Chapter 5). When I ask him, for example, how he developed his ‘hacking’ skills, he says that he uses a software learning tool called “WebApplicationExploiter” (WAppEx). This tool trains the potential hacker to identify and exploit known security flaws in the most popular web programming applications—it supports a linked community of ‘learners’ and it is constantly updated to reflect the new software vulnerabilities. It requires (relatively) little skill to use WAppEx and learn the basic ‘tricks’ to find and access old, poorly maintained or ‘low-end’ website properties; but it cannot provide the training or tools required to access highly secured and well managed properties on the WWW. It is a user-friendly tool for the community of script-kiddies. CoupdeGrace tells me that sometimes he “uses his own mind” for his exploits, and he is learning how to program from his friends, but on his own he has yet to breach any newsworthy sites. See Figures 12 – 18 (Appendix B) and video capture V20-21-22 (CD-ROM, Appendix C) for a short chronology of CoupdeGrace’s work over the course of the last half of 2013, working on his own and also with Gantengers Crew.

Surveying the body of his work archived at Zone-h, we can see that he spends some time on creating his defacement pages, and they range from simpler text-based tags, to more complex multimedia efforts. When I ask him what he likes the most about the dyscriptive activities, he responds “the thing I like it is a challenge, tension, because in this activity (I am) making myself into the spirit.” If we look at some of his early defacements, we can see that he shows a high degree of provocative dialogic engagement (product) with the viewers of his work (see Figure x and y). When I ask him about the importance of the defacement page, he laughs and says he does not care, he just puts in whatever images and text he feels like; but he adds that he usually leaves a message for the webmaster.

In response to further prompting about why he defaces websites and what he likes the most about doing it, CoupdeGrace distinguishes the things he merely does for fun, where “I just leave a message...because none of the pansy (sic), the animals or humans are hurt by this hacking...(smiley-face emoticon)”, and notes that he will sometimes even attempt to patch the website’s flaws. The things that are more “challenging” turn out to be trying to access and damage Israeli websites. This latter comment reflects a growing Islamic-activism in CoupdeGrace’s work over the course of the last months (November 2013-February 2014), in which his work evidences explicitly anti-Israeli or pro-Islamic sentiments (Figure V22). CoupdeGrace and the Gantengers Crew have never managed to deface an Israeli site, but they do participate in the annual worldwide anti-Israel hacking day organized by the loosely affiliated “AnonSec” hacker groups called OpIsrael (this year’s was on April 7th, 2014, see Figure 19). This sort of operation puts a premium on more skilled exploits, and CoupdeGrace’s Gantengers team affiliation seems to have arisen from his desire to become part of a more skilled unit. He tells me that although he

does not really know what order of damage he has ever done, he does want to destroy websites that insult the religion of Islam, and his favorite part is succeeding in accomplishing this kind of exploit. Destruction, in this case, means erasing the databases sustaining the target website.

Gantengers Crew has only been archiving verified defacements at Zone-h since the end of 2013 (Dec.20th, 2013). Of the 24 that are registered, 17 have been confirmed as “special defacements”, a status that the CoupdeGrace rarely achieved in all of the defacements he accomplished on his own (1,137).

CoupdeGrace’s individual work generates little stylistic charge from the character of the dialogic and monologic aspects of act. Most of the sites he targets are randomly selected by the software package he is running to identify vulnerabilities. However, a successful unauthorized access to an Israeli site is something that would clearly excite him and his crew. Given the typical safeguards in place on most Israeli websites, a verified hack would register as an intensely charged dyscriptive moment. Typically, this sort of act is accompanied by a highly charged dialogic product as well: some sort of anti-Jewish screed directed at viewers and users of the site. Until CoupdeGrace and his team develop the skills enabling them to penetrate Israeli websites, it is usually obscure commercial websites in other countries displaying some sort of link to the Jewish faith or to Israel which draw the attention of these groups.

Again, the creation and value of the *monologic* aspect of the dyscriptive product is not explicitly acknowledged. On the other hand, the aspects of the *dialogic* product are the locus of an important stylistic event for the dyscriptor. This dialogue can be either with

the webmaster/viewer of the target site or, in the case of the Islamic-activist, with what they hope is a much wider audience. This puts a premium on the legible modality of the message. We will see later that the most sophisticated and skilled groups (AnonSec et al.) will insist upon a standard defacement page, which becomes a brand image, something akin to a Hell's Angels crest, a guarantee of serious 'action'.

Hacktivism: the 'fighting' writers

Gantengers Crew, not unlike the Leetboys, are a 'gang' trying to consolidate their identity as either 'fighters' or 'writers'; and, in the case of CoupdeGrace, a solution that seems to resolve the tension is to 'fight' by creating defacement images that have political content, in this case anti-Israeli or pro-Palestinian messaging. The 'fighting' is engaged by the text and images he composes in his defacement pages, but not in the display of hacking skills: he uses a standard web application (WAppEx) that requires little skill and is of limited 'virulence'. CoupdeGrace spends much of his dyscriptive time working out his defacement image messaging and networking (Facebook) with other like-minded fighting 'writers', and through these activities he generates what he hopes are 'fighting' credentials, although, for all intents and purposes, he is simply tagging up random, poorly secured and often abandoned websites with clichéd political screeds. There are more sophisticated fighting-hacktivist gangs (e.g., Anonymous feeder groups) that CoupdeGrace (and Gantengers Crew) may aspire to join, but, at the time of our meeting, Gantengers Crew would be considered as a typical group of 'script-kiddies' by serious hackers. Like Donzay Stone's Leetboys, Gantengers Crew shows strong affinities to Castleman's 'writing gangs' of New York City in the late 1960s. It is from within these writing gangs, as Castleman notes, that writing *groups* would emerge, focussed

primarily on ‘writing’ and especially writing style, and later associated with the ‘explosion’ of now indexical dyscriptive production known as New York style signature graffiti. CoupdeGrace and Gangtengers Crew represent the potential for these writing gangs to be pulled towards dyscriptive ‘fighting’ styles (hacktivist production), while another Indonesian group, PhantomGhost, shows the emergence and development of the writing *group*.

1.4 PhantomGhost: Mr. WWW

Mr. WWW is a young adolescent boy (who also uses the pseudonym ‘Wira’), who allowed me to become his Facebook friend. Through him, I was introduced to Aprilighost (4prili666ho5T). Both are members of the Indonesian group that call themselves “PhantomGhost”.

Wira may be from the island of Lombok in Indonesia. He has been active on Zone-h since September 2013, making 474 defacements (95 single IP addresses, 379 as a result of mass defacements). None of his exploits have been registered as ‘special exploits’ at Zone-h. He provided me with a lot of background information about himself and his friends, including what he claims are photos of them in Lombok’s capital city, Mataram. Lombok appears prominently in many of their early defacement pages (Figure 20, Figure V23). Beginning in October, he began to register work under his own pseudonym, but as part of the new “PhantomGhost” Team, frequently using the slogans “We Are Ghost in the Cyber World (sic).” or “The Ghost are Real (sic)” (Figures 21 and 22). As well as incorporating some of his own personal concerns related to schooling in his defacement pages (Figure V24), Wira has also included original music performed and recorded by himself (vocal/instrumental, Figure V25). Although he does consort with a number of

other teams that are Muslim activists, Mr. WWW has yet to create a hacktivist-styled dyscriptive product.

Mr. WWW (Wira) was responsible for defacing the ITS-NA site of Brian (see section below and Figure V26), but when I ask him about the event, he will not comment on it, except to say that he had a lot of fun (the site was re-defaced a number of times). Wira represents the virtual dyscriptor often labelled as a script-kiddie, and for the moment he is not aligned with any hacktivist groups, nor does he have sufficient skills (or interest) to earn money from his exploits. His primary focus seems oriented towards how his defacements look, and in circulating links to his images (from Zone-h) to his friends on Facebook. Unlike the hacker or the hacktivist, his work generates a large and more self-conscious charge of stylistic intensity from aspects of what I have called the monologic product; and with this kind of dyscriptor we begin to see the emergence of a different attitude to the work of creating the imagery: a nascent phenomenon in the virtual world, but one that has, since the mid-70s in New York City, been widespread in the contemporary traditional homologue.

PhantomGhost shows the key aspects Castleman (1982) identifies as characteristic of a participant in a writing *group*. Unlike the writing gangs, the *groups* are more loosely structured, do not necessarily share a fixed logo and colours (like LeetBoys and Gangtengers Crew claim to do), and are moving away from an active 'fighting' (criminal hacking/hacktivist) agenda. They seem to be focussed primarily on the composition of their defacement imagery, and are excited and enthusiastic about sharing it with viewers. ApriliGhost, another member of the team who I was fortunate to make contact with,

seems to bring us face to face with a virtual graffiti writer closely homologous to the ones reported on by Castleman (1982) and encountered by New York City in the early 70s.

1.5 ApriliGhost (PhantomGhost Team)

PhantomGhost is a group (14 members) active for approximately three months when I met them, posting 241 defacements at Zone-h in late 2013 (Figure V27). Prior to joining the group, individual members had already been active for longer periods of time, and they continue to archive dyscriptions under their own names as well as the group name. PhantomGhost has its own FaceBook page, and most of the members also manage their own, linked, personal pages. PhantomGhost is a member the loose confederated groups calling themselves the “Indonesian Cyber Army” or IDCA, and they regularly post their exploits up at the IDCA’s “Show Off Zone”, a Facebook page serving as a kind of meeting place for Indonesian dyscriptors and which features a gallery of their ongoing exploits. I was able to become Facebook friends with two founding members of PhantomGhost (4prili666ho5T [ApriliGhost] and Mr. WWW [Wira]), each of whom I initially encountered as individual (unaffiliated) dyscriptors. They allowed me to sporadically interview them over online chat, and to follow their activities on Facebook over the course of three months. I had need of an Indonesian translator to both ask some questions and to interpret many of the Facebook postings.

Their slogan, which appears (in English) on most of their defacement pages, is “We Are Ghost in Cyber World” (sic).

ApriliGhost is perhaps the most sophisticated dyscriptor of the group, displaying both strong hacking skills as well as highly stylized defacement pages. He has been actively

recruited by the AnonSec (AnonSec.us) affiliate in the region, where he now appears to be a regular member. ApriliGhost has shown what, up to now, has been a relatively rare combination of both technical programming and traditional ‘artistic’ skill. He eventually allowed me to see his portfolio (not unlike the ‘artist’s book’ or the “Black Book” of the traditional contemporary graffiti-writers (Castleman 21), or the digital sketch pad where he develops his designs. If we look at **Figures 23-27**, we can see some ‘sketches’ that play on the basic themes that the PhantomGhost team will use for its defacement pages. As far as I can tell, none of these have actually been used as defacement images for live dyscription. If we look through **Figures 28-30**, however, we can find imagery that does find its way onto the defacement pages of the PhantomGhost crew (ApriliGhost, Mr. WWW and others). ApriliGhost also included a number of what I have called name-holders (Figures 31-34) and finally a series of sketches for his new affiliation with the AnonSec group (Figures 35-38). The stylistic intensity of his exploits arise from *both* the quality of the act (monologic and dialogic aspects) and from the artistic attention he pays to the *monologic aspects of the product* of dyscription. This has led him into trouble, as he told me that since he has been an official member of AnonSec, they have asked him to adopt their standard brand (Figure 39) for exploits carried out under their banner, or else suffer expulsion (see Figure 40 for Facebook warning). This has created some problems for ApriliGhost – and although he has reigned in his personal stylistic ‘signature’, he continues to modify the AnonSec imagery, playfully avoiding the censure of that group, so far. The ‘creation’ that almost had him expelled from AnonSec featured what for ApriliGhost was a completely new hack, where he was able to substitute a vocal track of his own construction into a video posted on a website. He told me that he had imagined

they (AnonSec) would be impressed with his interesting feat of computer hacking, but instead they thought he was showing off and compromising the more serious (AnonSec.us) reputation. These kinds of controlling relationships between gangs and street-kids in the context of the production of traditional graffiti were also widespread (Castleman, p. 92-115; Ferrell, p. 49).

Virtual Style Wars

Although ApriliGhost and the PhantomGhost Crew also have one foot in the ‘gang’ world and one in the ‘group’ world, the strong and consciously pursued tendency, at least in the case of ApriliGhost and Dr.WWW, is towards the cultivation of their personal dyscriptive ‘styles’, focussed on the monologic aspects of their defacement products. In this regard, they stand closely in relation to the youthful graffiti writers of the late 60s and early 70s, whose work on the subways and surfaces of New York City would soon come to the attention of the media, the art world and the public eye, and by the 80s be acknowledged as full-fledged aesthetic phenomena.

We can summarize the affinities in the developmental stages of ‘writing culture’ in this way:

Traditional Graffiti (consensus)	Virtual Graffiti analogue
<i>(Disenfranchised youth)</i>	<i>(Disenfranchised youth?)</i>
Youth fighting gangs	Young hacker gangs
Youth writing gangs	Script-kiddies / Hacktivist (word-‘fighting’)
Youth writing groups	Website defacement groups (‘skiddies’ too)
Graffiti writers	Emergent individual stylized writing
<i>Post-graffiti ‘artists’</i>	-----?-----

2. Target Websites (Webmasters)

Each archived defacement image at Zone-h is verified as having defaced a registered website. The archive, as noted in Chapter 5, is divided into special and ordinary defacements; the ‘specials’ are those appearing on prominent websites, as determined by Zone-h’s assessment (based on their own judgement and/or site-visit statistics compiled by various website evaluation services). The target website address is linked to each defacement image, and since (in most cases) the target website has been repaired, the mirror image is the only record of the event. I was able to make contact with six website managers of some ‘ordinary’ North American websites successfully exploited by the LeetBoys and the PhantomGhost team. Not unlike the dyscriptors, the webmasters are often reluctant to either acknowledge or respond to inquiries concerning the defacement of their ‘property’. They are typically suspicious of my motives and identity, fearing I might be a dyscriptor masquerading as a researcher to gather information for further incursions (what is called “social engineering” [Jordan and Taylor 2005]). I had success when I was able to contact two of the six webmasters in person over the telephone. Large

companies with IT departments would not talk to me ‘on the record’ without approval from their legal/public affairs departments, and I was never able to receive further cooperation once referred to these departments.

Another View of Virtual Dyscription: Art or Crime? The Perspective of The Webmaster

Joe Austin’s *Taking the Train: How Graffiti Art Became an Urban Crisis in New York City* (1991), starts from the perspective that the graffiti ‘writing’ taking place on the subway system in the late 70s and 80s is a decorative art form (see *Prologue*). His book focusses on the public reaction to the emergence of this art form, completing the original ethnographic work of Castleman (1982) with a more detailed analysis of the reception of graffiti. We can begin to see some parallels in the reception of website defacement by considering the opinions of some commercial webmasters, who encounter the virtual dyscriptor ‘first hand’, and are responsible for securing and maintaining the integrity of the property they are responsible for, in much the same way as New York’s Metropolitan Transit Authority (MTA) was responsible for the upkeep of the subway system (Austin, 1991; Castleman, 1982). What I wish to focus on here is the reception of virtual dyscription, and how our assessment of that reception helps to reinforce our hypothesis concerning developmental similarities of virtual dyscription to the now well-documented trajectory of traditional graffiti from “dirt into art” (Stewart, 1991, p. 216). The reception history of traditional graffiti was (and still is) played out largely in the news media (Austin, 1991; Waclawek, 2009), and we shall consider the link of virtual graffiti to the media in more detail in a later section (below); here I attempt to characterize the personal attitudes of two web-maintenance workers towards virtual dyscription, specifically to the productions of two dyscriptors we have already encountered, Mir and Dr. WWW.

Joe Austin's research shows that "the recognition and construction of writing as a 'problem' within the mass media did not begin in earnest until early February 1972, when a times reporter working the transportation beat focused on the difficulties the new writing was creating for subway maintenance officials" (p. 80). As Austin notes, both the MTA and the expert psychologists referenced in the article refer to graffiti found in public restroom stalls (*latrinalia*) in their explanations for the writers' motives: "an attempt by *insignificant* people to impose their identity on others" (in Austin, p. 81), even though, at that time in the early 70s, photographic records (Naar, 1973) testify to the aesthetic and stylistic sophistication of the 'new writing' (Castleman, 1982; Chalfant, 1984; Mailer, 1973). As the art historian Jack Stewart (1989) explains (using the term 'graffiti' here to denote the new New York style), "[restroom wall] writing is not graffiti, in the same way the advertising, murals, and signs are not graffiti. Although there is a family resemblance between these various types, the distinctions between them cannot be overlooked" (p. 81).¹²⁹

As the MTA was reporting (Austin, 1991), the amount of graffiti in the subway system had increased dramatically after 1970 and "threatened to overwhelm the visual order of this shared, public space—the public sphere—by exceeding the budgeted capacity of city workers to keep it 'clean'" (p. 80). What is at stake here, in the early 70s, is the aesthetic significance of the 'graffiti'—is it 'dirt' or something else? The discourse that counterbalanced that of the MTA was also present in the early 70s in both the literary

¹²⁹ This opinion anticipates Austin's unresolved attempts to formally characterize the grounds of this family resemblance and the justification for any distinctions. For most of the New York style scholars, given the spectacular formal stylistic aspects of the New York phenomenon, differentiating 'latrinalia' from 'graffiti' seems easy, but is it so easy? Is it now simply a stylistic preference? This brings us back to the problem of *definition*, or at least the requirement for a synthetic characterization of 'graffiti', if we are to have any hope of identifying a homologue in a categorically new material-inscriptive environment, where the creative potential is nascent and also operating in a categorically new material environment.

press (Mailer, 1973) and in the letters pages of the New York Times, as Austin (1991) shows:

As art—or, more pedantically, a kind of people’s concrete poetry—the sweeping organic calligraphy and the brilliant day-glo colors are pleasantly evocative of the ‘psychedelic lettering’ which middle class kinds invented for their underground newspapers” (R. Gross, New York Times, March 28, 1972, p. 46, quoted in Austin, 1991)

I must say here and now that I am higher than a hophead on subway art...Growing up in the city has given me the insights that enable me to look at the subway cars and see that they are decorated not desecrated. And I’ll be damned if I’ll sit and groan over the graffiti issue (Carol Ginsberg, New York Times, April 15, 1973,p. 4, quoted in Austin, 1991)

We can now consider the reactions of two webmasters to the phenomenon of virtual graffiti, perhaps only in its early stages of development, and certainly only in the early stages of its appreciation as anything more than virtual ‘dirt’.

2.1 Geoff X. , Webmaster, Downtown College of New York¹³⁰

The Metropolitan College of New York (DCNY), a large college with campuses in Manhattan and the Bronx, was the target of a series of attacks from March 11-15, 2014. The dyscriptor perpetrating the exploits was LeetMir (1337Mir), once a member of the LeetBoys (see Section 1.2 above).

¹³⁰ These names are pseudonyms.

Geoff is the webmaster of the DCNY site, and I interviewed him shortly after the engagement with LeetMir appeared to be over. He had been working as webmaster of the DCNY for just over a year. It was the first time he had experienced a website defacement in his professional career.

Geoff calls the dyscriptor “Mir” and understands the ‘Leet’ moniker as something more like an informal title among script-kiddies (standing for ‘Elite’), of whom he initially counts Mir as a member.

Like most computer professionals, particularly webmasters, Geoff is very familiar with what he characterizes as “basically, just the background noise of the internet,” the by-products of the various marginal denizens of the digital environment, whether they be “bots, script-kiddies, hackers...it’s just a matter of time before a site gets taken down...”. He remarks that not only the college website (DCNY) but his own personal website bear witness to hundreds of attempts every day “they’re constantly ‘trolling’ to try and pick our web forms apart—I can see in the syslogs...all the failed login attempts...”. And he reflects that it is “pretty easy to run an automated script these days...,” and that if he respects anything about the dyscriptors, “I put more value on the hacks that require ‘finesse’, if they post something interesting, more than just their name and a silly fireworks (see Figure V29)...it’s sort of trivial...”. Geoff’s computer was not equipped to play the audio component of Mir’s defacement page. When I mentioned to him that there was sound, he was surprised.

When I ask him to tell me what happened, Geoff explains that a hacker named “Mir” used the technique of SQL-injection to gain unauthorized access to the DCNY’s

webhosted database, where he (Mir) then elevated his user privileges and, effectively, became the website's administrator. Once Mir was in the system, however, he did not simply replace the homepage of DCNY's website with his own defacement page, but instead performed a series of incrementally aggressive acts over the course of a few days, in interaction with Geoff and the user community.

First, our dyscriptor (Mir) located a list of DCNY staff email addresses and sent an email with the subject heading "Website Security Warning" to introduce himself (Figure 42), explaining that the site was vulnerable and adding, "please secure your website, otherwise bad hacker damage your website data." Mir also told anyone reading not to worry, that all their data was safe, but provided 'proof' of his complete access by including a list of user accounts and passwords (email and SQL database users), suggesting that the users contact him by email to fix this security problem. Geoff did not directly receive this email; it was forwarded to him by DCNY employees. He believes that Mir erroneously accessed an old copy of their email account list, so his (Mir's) mailing went out to mainly invalid addresses, not to any newer accounts (such as Geoff's). "He could have wiped out the whole website," Geoff says, "but instead he just wanted us to contact him." With the site still perfectly functional, Geoff attempted to make some repairs to the web programming to remove Mir from the system and keep him from re-entering, and did not contact Mir.

After 24 hours, Mir was able to re-access the website and this time he redirected every page of the website, including the home page, to his blog (Figures 9 and V19). On the blog there was a 'news item' (created by Mir) showing the defacement of the college's website and showing the 'new' homepage/defacement page. This 'escalation' caused

Geoff to shut down the site and place a temporary ‘Splash page’ at the site address telling users that the site was temporarily offline and that it would be “back soon”. His superiors were very concerned about the outage, but Geoff was instructed not to contact Mir. Geoff and his team worked hard to clean the site up and reactivate it.

After another 24 hours, the DCNY website was still offline and users saw only a temporary “We’ll Be Back Soon” page. However, Mir returned a third time and implanted a hidden, malicious ‘Trojan’¹³¹ program in the temporary “Back Soon” homepage, one that infected any users accessing that page. Typically, in the case of a temporary website shutdown, the frustrated user community returns to the site every few hours or days with the hope of finding the site back online. However, in this case, whenever an DCNY user did this, they were subject to an attempt to download malicious code onto their personal computers (a Trojan javascript download of a malicious computer program). If the user did not have up to date security software, their personal computer was be infected by their visit to the DCNY’s temporary homepage. Geoff explains that this situation forced the complete shutdown of the website and generated further problems in the user community, including among the senior staff and executives. The site remained completely shut down for over a week; however, Geoff says the event had some ‘good’ side-effects, as it provoked the release of significant funding for an otherwise languishing project to redo the website, and accelerated the allocation of both new staff and increased powers to the webmaster.

¹³¹ A ‘Trojan’ is a non-self-replicating type of malicious software (mal-ware) typically containing malicious code that is controlled and executed by the person ‘sending’ it. The term is derived from the famous hollow, enemy-filled wooden horse sent by the Achaeans to (and accepted by) the defenders of Troy.

This series of events offers, in a microcosm, a condensed version of what would appear to be a typical trajectory within the community of dyscriptors: an ‘evolution’ from the commission of a relatively simple dyscriptive act to activities moving beyond typical virtual dyscription, towards hacking with criminal intent or ‘cracking’; with the first, dyscriptive stage featuring both a stylistic act and product (both showing interesting dialogic and monologic aspects), and the later stage generating the balance of its stylistic intensity from features of the monologic act, in this case of writing and installing a hidden Trojan program on the victim’s innocuous ‘Back Soon’ page. We might also consider the dialogic implications of this escalation. As Geoff hints, each incremental stage of LeetMir’s complex dyscriptive event was provoked by Geoff’s refusal to respond to LeetMir’s invitation to talk about the ‘security’ problem. Geoff explains that his only response was to “try and shut him out,” which simply prompted a more impressive exploit. Finally, when it was clear that Geoff was not going to communicate, LeetMir simply tried to “cash out and infect the users’ computers” with what was probably a ‘spam kit’ (a program that turns the infected PC into an email node for broadcasting spam email). Geoff notes that while at first he thought he was just dealing with a script-kiddie, he soon realized that Mir might be a more sophisticated hacker—something Geoff notes with grudging respect. Although Geoff found Mir’s first-stage defacement imagery to be banal and trivial, he began to be impressed by Mir’s coding skills by the end of the engagement.

When I asked Geoff why he thinks they do it, he says that “it is probably just for fun and to get and perfect a skill set”, then muses, like Brian, on his own learning curve as a

student of the digital environment and notes that he now holds both a BSc in Computer Science and an MFA in Digital Media.

Although the exploits of Mir caused a great deal of trouble for DCNY, and work for Geoff, when he talks about the events, he gives the impression that he feels a kind of affinity towards the young kids he imagines working away, somewhere out there in the “digital noise”. When I ask him if he ever visited Mir’s blog, he says that he has, and mentions the picture Mir has posted there of himself, and how it must be a fake (Figure 9). The picture is of a white, precocious twelve-year-old boy.

Virtual Dyscription: The ‘Art’ of the Hacker?

Geoff M’s encounter with Mir, whom we met earlier, is an interesting moment in the development of the ‘writing culture’ of virtual dyscriptors. Although Mir has left a series of defacement pages on Geoff’s site, the imagery itself is considered as the fairly banal work of a script-kiddie, and his feats only generate some grudging admiration when his technical ‘hacking’ skills first surprise then impress the webmaster. Geoff looks at the products of website defacement as simply a problem to be solved, much like the maintenance workers of the MTA did—one that costs him and his company much time and money. In my view, Mir is moving in the direction of a ‘fighting’ dyscriptor, one who focuses on criminal activity and his eventual recruitment into a more serious hacker-cracker gang. The intensity generated in Mir’s productions, at least in the webmaster’s eyes, arises from the dialogic aspects of his praxis, related to his hacking skills. Geoff’s commentary on the website defacement phenomenon shows similarities to the situation in the New York subway system in the early 70s: a growing tide of groups trying to access his system and a resigned ‘acceptance’ of the “digital noise” in the system, and, as many

of the subway workers acknowledged (Austin, 1991; Castleman, 1982), a grudging ‘respect’ for the audacity and daring of the gangs in getting into the train yards and otherwise avoiding electrocution or apprehension by authorities.

2.2 Brian X., Webmaster, Computer Training Systems

Brian X. is a computer security consultant contracted to manage the website of International Training Systems, a small business that develops and implements computerized job training in industrial companies.

Brian has been working in the IT Industry for the last 20 years. He is middle-aged, and tells me he began programming as a 7 year-old on an old Commodore 64. He has been doing website design and programming since the mid-nineties. When I contacted him, he had been working at ITS for three years. The company has less than 50 employees, and he reports directly to the president of the firm. He explains that up until 2010, the firm did not consider their website to be a strategic part of their operations, and the management were not particularly computer (web) literate; only over the last 24 months have they come to see their website as a significant source of competitive advantage, and have thereby become much more reliant on their web presence for product marketing and support. On the other hand, according to Brian, the increasing importance of web operations has not been accompanied by a corresponding increase in budget to ensure proper maintenance of the site. The company was reluctant to invest in making the recommended upgrades to the software suite sustaining their site (a ‘Joomla’-based web content management system), and Brian was often taken to task for time billed for security-related work; instead, his primary mandate was to focus on new functionality and “the customer experience.” Joomla, especially the early versions (CTS was running

version 1.5), is well-known in the hacker community as a product with many vulnerabilities, requiring constant updates and upgrades, all taking significant programming time to ensure secure operation.

In late August and early September 2013, Brian noted on the syslog (a log file that records all attempts to access the webserver) a number of attempts to hack into the site via a technique called SQL-injection, but there was no homepage defacement. Initially, he thought the perpetrators had tried and failed to gain access, but then noticed that some files within the system had been corrupted and now showed “pointers to other sites”. These ‘pointers’ are usually installed by a pre-packaged software program being run and monitored by the defacer; it searches for known vulnerabilities in webserver implementations by running thousands of penetration ‘tests’ to identify vulnerable sites, eventually finds and opens a ‘door’, and then informs the defacer that such an open door has been located. The defacer then returns and takes a first ‘step’ through the door, and, depending on their skill and intentions, makes unauthorized use of the webserver. Brian explains that “by the time I noticed, it was too late,” and he received a phone call from his boss after working hours, telling him the site had been “changed”. Brian looked and found what he described as “a really impressive graphic, three-dimensional monsters, with a sound track, and some really cool stuff,” adding that “we have 3-D animators working for our company and this stuff was really impressive” (see Figure V26). CTS and Brian were being attacked by Mr. WWW of the PhantomGhost Team.

A cycle began whereby Brian would remove the defacement image, and patch what he thought was a software vulnerability, only to find the site re-defaced within the next 48 hours. He thinks Mr. WWW had “fooled around in the site to create new ‘back doors’ I

didn't find at first," and which he still needed to fix. Brian did not contact the defacers directly by the email address they provided on their defacement page, but did look into the HTML source code producing the defacement page and followed some of the links to the webservers hosting some of the defacers' images, music and other files. He also followed a link back to the archive (Zone-h) where he learned he was part of "a game, I mean they were competing to see who could do more defacements...". He also noted that although the first defacement image was complex and interesting, most of the following instances were much less so. The cycle of re-defacement continued for over a week, and Brian talks about "a war I had with them, I even went into their sites and hacked some of their stuff, to see if that might distract them," but it did not. Finally, he was forced to shut the CTS site down for what turned into almost a month, the time it took to get the software cleaned up, upgraded and patched. Overall, he speaks of the contest with enthusiasm and with qualified respect for the tenacity of his foes: "it was definitely an interesting adventure," although by the time he had to shut the site down, he was recording over 500 attacks per day on the website; the back-level software was being queried and tested by many other defacers running the same software kits that PhantomGhost had used to access the site originally. One of the side-effects of PhantomGhost's unauthorized access to the CTS webserver was that they fixed the flaw once they got in, so no other hackers could come through that way, but only after having installed their own 'private entrance'.

Brian tells me that PhantomGhost/Dr. WWW did not directly or intentionally damage any files or steal any data from their website. He recalls another situation, when he first started at CTS (a year before the PhantomGhost exploit), when the antivirus software he

had recently reconfigured revealed the presence, deep inside the server code, of an unauthorized email program designed to deliver 'spam' email originating from CTS email addresses. The webserver had become a node in what is called a 'botnet'. He tells me there was no defacement page or any kind of token imagery accompanying the exploit, and he was able to remove the malicious code.

CTS was not the first location in which Brian had encountered website defacers. Earlier in his career (2007-2008) he had worked for the government of Michigan, and relates that a highly skilled hacker had written some custom PHP script (the programming language used by many interactive websites) for an unauthorized code injection allowing the hacker to access and replace all of the homepages (index files) of all the websites running under the umbrella of the state of Michigan, causing most of the government of Michigan websites to be shut down for 24 hours. However, he tells me that the "guy was really boring, all he did was write 'Hacked by OWNZED' everywhere, we had no idea why he did it...".

When I inquire about his first impressions of Dr. WWW's defacements, he recalls the high quality of the defacement page and marvels at the time and effort he imagines must go into accomplishing not only the acts of repeated access, but also the creation of the defacement pages. He scoffs about the message incorporated into the defacement page explaining to the 'web admin' that the defacer's objective is "To help you out and fix security!" noting that "they seem to imagine I'm going to contact them and pay them to help me fix my server!" He thinks the main reason they do it is simply "because they can," and he is reminded of his own early days as a programmer, even admitting to having been a "bit of a hacker myself," specifically "when the web first started and it was

just to find out what was going on, to see what I could do—there’s all sorts of things you can do on the web, but 90% don’t ever think of the damage that might be done...”. He thinks that the people who defaced his site “are probably really young, teenagers, and they’re just trying to learn and play, their stuff is really interesting.” He thinks the “older guys are probably the ones stealing data or hacking for different reasons.” He does not think badly of Dr. WWW and the PhantomGhost Team, but “respects their capabilities and their creative skills...there’s nothing really bad about them...there’s just so many old sites out there, old languages, just sitting there and can’t afford to update...we’ll always be seeing more and more of this...people start with good maintenance then they just sit there and are likely to get hacked.” I ask him what he thinks of the defacement archive at Zone-h, and he ponders a minute before telling me “it’s probably just documentation and, I guess, allows a kind of tracking,” adding “after all, by looking at the archive I could find out about them and target them too, you know, when I got pissed off...”.

Virtual Dyscription: The Emergence of a Virtual Graffiti

Brian R’s story is similar in some ways to Geoff’s, except Brian clearly recognizes the skilful productions of Dr. WWW as stylized and even impressive events. If we compare the imagery of Mir with that of Dr. WWW, we can see that they are not ‘categorically’ different; both, for example, use multiple fonts, animations and music. Brian contrasts his experience with Dr. WWW to one he had in a previous job with a professional hacker, whose defacement product was a simple tag phrase. Although he does not use the phrase ‘script-kiddie’, he is not overly impressed with Dr. WWW’s hacking skills, but definitely impressed with his website defacement products. His sympathetic viewing of the

defacement pages and his unprompted appreciation of their imagery also has telling parallels to the situation in New York City in the early 70s, except here we encounter the perspective that informs the positive feedback loop in public perception: these ‘things’ are different and interesting, even though they have effectively ‘destroyed’ your home page and even though the producers are still ‘at large’ in your system. Unlike the New York subway system, a resource shared by the public and maintained by the city, the website is more like a private house maintained by the owner. The simple fact that virtual dyscription can be, even momentarily, considered as a potentially aesthetically interesting event speaks to the creative potential of the virtual homologue and makes a strong case for the emergence of what is properly a ‘virtual graffiti’ writing in the activities of what are broadly called gangs of script-kiddies, some of which are developing into the new *writing groups* of the virtual world.

From the perspective of the webmaster/viewer, who is often explicitly addressed by the dyscriptive product (e.g., in comments addressed by the dyscriptor to the website administrator), the most common reaction is a combination of anger, frustration and uncertainty; anger at the transgression of their property, frustration at their inability to keep the dyscriptor out, and uncertainty about what they may have done ‘inside’. In each of my conversations with webmasters, they deflected the issue of poor security to a failure on the part of management to appreciate the costs and benefits of website maintenance. Reflecting, in their way, the attitude of the dyscriptors themselves, the webmasters complained that their sites were poorly secured and open to exploitation; and, in both cases, the intrusion of the dyscriptor had what they believed to be inadvertent and even beneficial side-effects in terms of short-term fund allocation.

There is clearly a quasi-professional affinity between the webmaster and the usually young dyscriptor. The webmasters see themselves at a similar time in their own lives, learning to move and live in what was a profoundly new environment. Geoff expressed a kind of disappointment with the creative efforts of Mir, when Mir first accessed the system, as if his defacement page was too banal; and Geoff wondered why he went to all that trouble “to show us this.” However, when Mir ramped up the audacity of his attack and appeared to demand some kind of ‘negotiation’, Geoff respected him more, due both to his unexpected display of programming skills (to get back into the re-secured site), and to his launching of the Trojan. I think Geoff would have liked to contact Mir, but his employers made it clear he was not to do so. Geoff kept a safe copy of Mir’s Trojan exploit to examine more closely, almost like a souvenir. In the case of the more typical home-page defacement cycle, like the one experienced by Brian at CTS, all the webmaster and users see is the defacement product. In Brian’s case, he felt the imagery was powerful and memorable. Brian was even enthusiastic about the creative skills on display in producing the defacement page, and he was disappointed when, in subsequent defacements, the product qualities became less interesting. Brian did try and contact the dyscriptor (Mr. WWW), but never received a response, probably because Mr. WWW is not looking for responses from the webmaster, but rather appears to leave his website address, and now Facebook coordinates, on his defacement pages simply to invite more viewers to his world.

Both Brian and Geoff, as experienced web programmers, were resigned to the fact that these ‘hacker-defacers’ are out there. They both suggest that there is a certain level of recognition and receptivity not only to the dialogic, but also to the monologic aspects of

dyscription. The receptivity to both the act and the product of defacement can be equally demanding: Geoff dismisses Mir's defacement page as 'banal', while admiring his Trojan exploitation strategy; on the other hand, Brian was "blown away by these kids", not because of their programming skills, but by their creative use of the space and attention they managed to grab at CTS.

3. Archivists

The archive plays a central role in the dyscriptive 'ecology' of the virtual world. Without an archive, the product of virtual dyscription is almost always evanescent, in all but exceptional cases remaining in view for only a few hours or minutes. In Chapter 5, we reviewed the archiving process, focussing on the central role played by Zone-h, the oldest and largest defacement archive in the world. 'Siegfried' and 'Vympel' have been managing the Zone-h archive since 2002. Siegfried acts primarily as the website's system administrator or webmaster, while Vympel works to verify, classify and archive the thousands of defacements received each day. At the time of our interviews, Siegfried is 28 years old and living in Lyon, France; Vympel is 33 years old and lives in Puerto Alegre, Brazil. The Zone-h server resides in Switzerland, co-located on the premises of the Swiss company SecurityLab SAGL, owned by Alberto Redi. SecurityLab offers courses on hack-prevention and penetration testing, as well as offering hosting and related services.

The digital archive is a new 'actor' in the world of dyscription. In a paradoxical fashion, it serves the virtual role of the transit system (subway cars, lines, stations) in that it permits the circulation and re-circulation of the images, permitting some kind of visibility and thereby underpinning the development of the prestige, fame and media economy

(Austin, 1991; Stewart 1991) that stimulated the flourishing graffiti writing culture of the 70s and 80s in New York City. In the ‘real’ world the words and images on the trains were made visible to the subway-riding public, but were also remediated through photographs in newspapers, magazine articles, coffee-table books and academic publications; in popular television news broadcasts as features of most ‘backdrops’ of New York reports; in popular film documentaries; and as indexical images of urban decay in major motion pictures; all in a media feedback-cycle the graffiti writers were well aware of (Castleman, 1982, p. 79). However, the trains were regularly cleaned off, and most of the images are lost to public view forever. The Zone-h archive is, of course, a highly ‘stationary’ thing where circulation is simulated by almost universal access (whoever has an active web browser), an easy to query database making up a theoretically permanent record, and ease of reference (links to images are active and can be embedded in other media)

At the time of writing, the vast archive of virtual dyscription hosted at Zone-h contains the visual history of the emergence and development of virtual graffiti over the course of the last 14 years. There is no equivalent corpus with which to examine the development of traditional graffiti writing in New York City over the course of the late 60s to the mid-70s. The Zone-h archive contains over four million searchable records, and is adding thousands every month. The two men we encounter next are the only people in the world to have had a comprehensive, contextualized and first-hand, if fleeting, view of most of these images.

3.1 “Siegfried”

Siegfried began working for Zone-h when he was 17 years old, in 2002. His first job was to help publish defacements in what was then the newest archive. He was also responsible for an early initiative to run multiple copies of the Zone-h site in different languages (French, Italian, German)¹³², reflecting the predominance of North American and European defacers in the early 2000s.

Siegfried was self-trained when he joined Zone-h, acquiring his skills online with the help of popular e-zines (electronic magazines) devoted to web programming and hacking. He says he started with the same level of knowledge as the average contemporary defacer (whom he calls *pirates* in French), and was part of what was, in 2002, a computer underground of hackers, or “people who were just fooling around, looking into the internet and the web, trying to understand what they could do.” Over the course of our interview, he frequently references these early days of hacking, at the turn of the millennium, when most of the actors were adults working as programmers for major companies, and when a hacker accessed sites of the newly emerging WWW to “test the security and then fix it for the owner/operator.” He notes how a wave of defacement practices emerged after 2002-3 with a different character, attributing the phenomenon to the wide-spread adoption of the highly vulnerable Microsoft webserver software as the standard platform for a first generation of websites. These were built with a ‘home-made’ ethos both by corporations interested in exploring the potential of a corporate web presence and private individuals trying out the WWW. In both cases a certain naivety accompanied these first forays into the virtual world. Siegfried explains that the many

¹³² This multi-lingual initiative was ‘closed’ in late 2006 when Zone-h upgraded to a new version of the site. Siegfried explains that the rapid international ‘spread’ of both the internet and computer technology also reinforced the usage of English as the lingua franca of the digital environment and the evolving defacement community. I interviewed Siegfried in French, although he is perfectly fluent in English.

vulnerabilities in the underlying software platform served as an “open invitation” to a first generation of computer-savvy youth who, with limited skills, were able to deface even important commercial sites. By the end of 2003, most serious websites had either changed software platforms or else staffed up to properly maintain and secure their websites. This explains why almost all contemporary high visibility website hacks are the work of sophisticated hackers, often with criminal intent, while the bulk of website defacements occur on small-scale websites; often on the expanding frontiers of the digital environment where, for example, Third World countries are only today beginning to deliver internet access to government institutions and home users.

Siegfried has seen hundreds of thousands of defacements over the course of the last 12 years, and he points out the changing ethnic origins of the dominant defacement communities: “at first [1999-2000] it was mainly Americans and North Europeans; then in 2001-2002 it was the South Americans, mainly Brazilians; in 2003 it was the Turks; in 2005-2006 the Arabs; and then, as of around 2008 the Muslim activism started, with Iranians and Pakistan, until now when we see lots of Indonesians and the first groups from sub-Saharan Africa, like Nigeria.” He further speculates that the prevalence of target sites in China over the last few years is a result of the mass adoption of earlier (often pirated) versions of Windows to support the explosive growth of websites in that country. He also notes a recent and disconcerting emergence of what appear to be government sponsored defacement teams (e.g., the Iranian Cyber Army, the Indonesian Cyber Army, the Syrian Cyber Army, and others) that seem to serve as arms-length training grounds for young defacers who are then recruited into the government/military

establishment. Siegfried shares LeetMir's opinion that some of the active defacement crews are state-sponsored.

Siegfried thinks the prime motivation of the defacer is the same motivation he had when he started to become aware of the digital environment: "it is a kind of empowerment, they are trying to understand the world, and they are not necessarily aware of the legal consequences of their actions." He says that the defacement pages they leave behind are "just marking their territory, noting the exploit," and goes on to speculate that the defacers are "probably mainly interested in just marking points at Zone-h, upping the number of sites they've pirated; these guys probably only put the simplest mark and don't bother changing it...it's just points in a game." But he also notes that there is clearly a trend towards more complex defacements, incorporating graphics, sound and video, and taking advantage of the advances in web programming techniques. He specifically mentions the prevalence of team logos over the last few years, and adds that it seems to him that "the Arabs and the Turks are always copying each other's stuff, while the Indonesians seem to have a much more romantic streak." He spontaneously notes that it is like a kind of graffiti.

When I ask him about the role Zone-h has played in the defacement ecology, he agrees that it is hard to tell whether or not the archive stimulates the practice of website defacement or simply serves to passively document a small part of what is going on in the digital environment. Clearly it is of some importance to the evolving community of defacers, as they continue to submit their work in growing numbers to the archive. Siegfried thinks that the game-playing aspect of defacement (who can deface the most sites) has become less and less important as the pursuit of fame and broader public

visibility has increased. Although the sheer number of defacements one has accomplished used to ensure certain notoriety in the defacement community, now it is treated as a juvenile pursuit. The new priority of the pirates is to be noticed, and this is primarily accomplished by accessing a ‘visible’ website, but also by leaving something worthy of note behind: a defacement page which, once preserved at Zone-h for reference, may be used in the media, if and when they catch up with the story; as Siegfried notes, the simple fact that Zone-h is always the source (attributed or not) of images used by the media to ‘show’ a site has been compromised is proof of the relevance of the archive to both defacers and the public. He also emphasizes the fact that, without the archival evidence, many of the compromised companies deny a successful attack has occurred, to avoid potential legal consequences, such as the obligation to inform users that their data has potentially been compromised.

Zone-h also serves as the source of authentication within the community of dyscriptors. Since it independently verifies each defacement¹³³, Zone-h effectively protects the value of the defacement community’s ‘currency’ among defacers and in the computer security community in general, including the popular media; if your work is on Zone-h, then it really happened.

3.2 “Vympel”

Vympel has worked for Zone-h since 2003. His primary role is to verify that each defacement posted for inclusion on the archive is, in fact, a real defacement and not a spoof or a fake. Vympel first encountered Zone-h in 2002, when he worked as a systems

¹³³ Ensuring that the defacement appears on a registered site (not owned by the defacer) or that some other subterfuge does not underpin the claim of access; for example, a ‘faked’ subdomain of a real website address, a defacement of the defacer’s own website, or some other such trick.

administrator for the Brazilian Air Force. At that time, he visited Zone-h to track trends in defacement, especially as Brazilian defacers were beginning to come to the forefront.

Vympel looks at each defacement before it is posted in Zone-h, verifies that it is authentic, and then classifies it as ‘Special’ or ‘Regular’. He has literally seen millions of defacement images over the course of the last 13 years. It is a “crazy task,” he says, adding that “the trends of activist defacements can anticipate real events even before the media knows what’s happening on the ground”; because, he believes, website defacement is an effective “first-strike” tool for political activism. At the time of our conversations, the civil war in Syria was drawing the most activity, with Syrian hack-teams posting defacements with video images of anti-government forces committing war-crimes, while the rebel dyscriptors provided their own footage of government atrocities. Like Siegfried, Vympel is surprised at apparent government or para-military involvement with the hacker-groups.¹³⁴ He notes that “many active defacement groups are against war in general, but the bulk of the defacers are simply playing games.” Both of these groups, the hacktivists and the gamers, tend to create simple or standardized dyscriptive products, the former typically using a standard political text and imagery, and the latter often simply tagging ‘Hacked by X’ on the target homepage. Vympel agrees there is a middle ground where we can recognize creative defacement imagery, taking advantage of the new possibilities of using music, animations, video and other advanced programming techniques, and then reflects upon the patterns of borrowing (both of imagery and music)

¹³⁴ Vympel mentions that he has been recently contacted by members of Bashar Al-Assad’s security police concerning the origins of a series of website defacements targeting the Syrian administration. He was asked to remove the images from the database. He did not comply with their request, but he tells me that, from what he could tell, the dyscriptor was working from within the Syrian government. He requested that I not publish the name of the dyscriptor.

that he has remarked upon over the years “nobody even thinks about it very much, but they all copy each other’s images anyway, especially some of the Arab teams”.

I ask him who he thinks are the best defacers, and he mentions ‘Iskorpitx’, who has managed to deface almost 500,000 websites in his long career. Vympel believes that Iskorpitx is over 60 years old and works alone. He also mentions ‘Tiger-M@te’ (the mentor of Donzay Stone), a relatively new presence at Zone-h, who has quickly accomplished some massive and well-publicized attacks¹³⁵. Vympel thinks the most impressive defacers are those who access the most tightly secured sites; like ‘agd_scorp’, who defaced the sites of the FBI, Google, and Microsoft, along with many other well-known popular websites. He agrees that most defacers try to become famous for the amount of websites they access and deface, and that some even want to be arrested because they imagine this will make them famous and get them a job. He says that this trend to value ‘volume’ has peaked with the spectacular ‘mass defacements’ accomplished by Tiger-M@te and Iskorpitx. However, this “volume approach is old school,” he notes, and slowly disappearing, except in the most extravagant cases, where the target is a highly secured web-hosting service housing thousands of websites.

Vympel has noticed that there is a lot of copying of imagery, themes and other effects in the defacement products of many “low-end” groups of defacers, and explains that like the traditional graffiti writers in Brazil, where the “higher up on a tall building you leave a mark, even if it’s just your name, the more fame you get,” there is a similar ethos among defacers relative to the perceived difficulty of the task. Vympel notes that in Brazil there are two types of traditional graffiti: *grafite*—which is now made by professional (artists),

¹³⁵ In news.softpedia.com/news/700-000-InMotion-Websites-Hacked-by-Tiger-M-Te0223607.shtml.

and *pixacao*, which is always cryptic black letters and made by criminal gangs, adding that “in the cyber-world, both types of activity are treated as criminal.” Although he sees similarities in website defacement to traditional *grafite*, he goes on to add that there is an abundance of copying both of styles and of specific java-scripts that produce the stylistic effects, where the various groups who copy the code simply substitute their own group names into the pre-fabricated dyscriptive product. A perfectly homologic process to that seen in the early days of the graffiti explosion in NYC and then across the USA and the world; copying and imitation of what are now widely acknowledged ‘styles’: the bubble-lettered tag, the 3D lettering, the shading techniques, the “burner”, the “piece”, “Wild Style” (Austin, 1991; Castleman, 1982; Chalfant, 1984) .

Vympel notes that in the early days of website defacement, the defacers “tried to do a good job when they defaced a site, they backed up all the files, fixed the security flaws and made a good index...it was a good thing to get defaced, mainly because the attacker would close the holes so another attacker could not access the site again...but right now many defacers destroy websites, erase files, steal databases, insert ‘backdoors’(for Trojans) so they return over and over again or use the webserver as a spam server...”; the same pattern of escalation noted above, in the approach of LeetMir at the DCNY.

Both Vympel and Siegfried were initially surprised to hear of my interest in the defacement images. They had never really thought of the defacement archive as housing a historical archive of virtual graffiti; but both quickly agreed it was a powerful analogy and intuitively made a lot of sense. They were both very curious and enthusiastic about exploring this aspect of the database, and specifically mentioned that this was the first time anyone had ever asked them to consider the contents in this fashion; it was a new

way of thinking about what they had both spent a great deal of time doing, seeing and experiencing over the last 15 years.

3.3 An Archive of Virtual Graffiti

In the early days of the WWW (mid- to late-1990s and pre-Zone-h), special websites were run by hackers, for hackers to generally share information about weaknesses in web software infrastructure, and these served as a purely playful zone for ‘showing off’ and studying the exploits of others¹³⁶. Most of the users were themselves website administrators, and most of the hackers would access a site to fix it, so their passage was typically considered to be a good thing. The notion of a ‘White Hat’ hacker riding out on the digital frontier to save distressed websites emerged from this ethos; and it continues to inform, albeit in a more paradoxical fashion, the behaviour of the contemporary generation of dyscriptors, many of whom intentionally seek out and exploit a website’s vulnerability, and then attempt to persuade the victim that they (the dyscriptor) should be hired to fix the problem.^{137 138}

¹³⁶ This too is strikingly similar to the hangouts established for socializing, close to subway stations (sometimes at a certain bench in the subway station), by the first generation of New York graffiti writers, called “writers’ corners” (Castelman, 1982, p. 83). Of course, in the digital environment, social media (e.g., Facebook) serves a similar function.

¹³⁷ Since typically the targeted website is often a ‘home-made’ or ‘Mom and Pop’-style operation that only requires ‘protection’ from someone like the dyscriptor (the sites contains little or no valuable information), the scheme proposed by the dyscriptor is a lot more like a classic ‘Mafia-style’ protection racket than ‘a friendly cowboy’.

¹³⁸ I was unable to locate any contemporary North American or Western European dyscriptors, however, this ‘new’ digital frontier would seem very much an ‘American-style’ frontier, given the genesis of the internet and the various application networks sustained by it; the myth of a ‘Wild West’, where an open frontier awaits the well-equipped cowboy, working, exploring and patrolling, seems deeply written into the fabric of the contemporary dyscriptors’ interactions. With the exponential increase in websites and web users across the world, and the critical role now played by web-based transaction in daily life (economic, personal, and private), the relationship of ‘hacker’ to ‘website’ is changing from the mysterious ‘no-name’ helper, to the provocative, often fame-seeking, outlaw—or, as noted above, to a nascent digital ‘mafia’.

In the early 2000s (2003-2005) the archive mutated into one which tracked the rapid expansion of webserver software and vulnerabilities. The professionalization of the webmaster role, the formalization of electronic ‘property’, and the criminalization of unauthorized access to such property, promoted a bifurcation in the early hacker community: with the increase in security and legal prosecution, the professionally trained hacker often disappeared from view as a website defacer, preferring to ply their skills for monetary gain (legally or illegally), while an emerging generation of future script-kiddies, raised in and on the WWW, began to explore the possibilities of pre-programmed computer scripts. Raised on computer games, they began playing ‘tag the website’ for points, provoking the criticism of the established hacker community. Zone-h became the living archive of the activities of these kids from around the world, as they moved about in the ‘digital darkness’ leaving marks on the walls of wherever they could reach. This put the archive in the position of having to react to the charge of stimulating the events they purported to be simply recording. Either way, the archive became less and less a place to go for getting an update on security, and more and more a meeting place and a trusted, verified archive of virtual *cacoethes scribendi*. Occasionally a ‘kid’ would graduate to a serious hacker, or a serious hacker would for some reason leave a few defacement pages stored at the archive to prove to the world, with a verified link that was both publically accessible and untraceable, what he or she had accomplished. Over the last few years, Zone-h has continued to serve as a depository of digital *cacoethes scribendi*, although there is a notable and growing presence of hacktivist organizations, some of them para-military or para-governmental, all of them using the archive to display their work for media reference in a neutral public place. This more recent politicization is

tempered by the youth of most of the participants and the youthful braggadocio that characterizes most of their activities, although the apparent involvement of para-governmental agencies suggests that perhaps the archive is also becoming a new kind of training ground, where the best dyscriptors will be recruited for serious pursuits that will not be archived at Zone-h.

In my extensive and often wide-ranging interactions with dyscriptors, I have noticed a tendency for the archive to be supplemented or even supplanted by ‘show-off zones’ on social media (Facebook and Twitter). Although these defacement ‘selfies’ do not guarantee the veracity of the exploit, and are not trusted for the old kind of games, they offer easy, widespread broadcasting of alleged feats to a now extensive and fluid network of viewers. I believe the uptake of the ‘show-off zone’ is both prompted by and promotes a greater emphasis on the style of the dyscriptive product. One curious consequence of this trend is a reduction in emphasis on the verified *act* of dyscription. Dyscription without a verified dyscriptive act (of unauthorized inscriptive defacement of property) becomes something else: a digital sketchbook or an ‘authorized’ form of self-promotion.

The Zone-h mirror archive has maintained its relevance over the last 15 years by serving as a trusted witness to the broad phenomenon of virtual dyscription; it is filled with artifacts of hacking and hacktivism, but principally with the traces of a virtual *cacoethes scribendi*, overlooked until now as merely residual sources of ‘digital noise’, the turbulence churned up by the progressive civilization of the digital environment and its virtual worlds.

4. Media

Most scholarship on traditional graffiti writing draws attention to the hierarchies of writers and writing groups that emerged once graffiti writing became a self-conscious and competitive praxis (Austin, 1991; Castleman, 1982; Ferrel, 1993; Hebdige, 1979). The “Syle Wars” (Chalfant, 1984) were waged to see who would be a ‘King’ (the King of a subway line) and who was merely a ‘toy’ (an insignificant writer), based upon the quality and visibility of the writer’s work (Castleman, pp. 80- 81). This was very much a ‘fame’ economy (Austin, 1991; Castleman, 1982), and the popular media (newspaper, television and film) played a key role in establishing a positive feedback circuit that stimulated the intensity of the competition (quality and quantity) and intensified the pressure on civic authorities to combat the resultant ‘explosion’ in both graffiti writing and its visibility to a growing public audience (i.e., beyond just the subway riders and citizens of NYC).

Austin (1991) has noted how the emerging recognition of the ‘formal’ aesthetic importance of graffiti writing was met with the cultivation, on the part of the authorities, of an “aesthetics of fear” (p. 140) and the construction of a “subway crisis” feeding into a general crisis in perception of public safety in the city of New York: “the images of biological disaster used to represent writing in the mass-mediated public sphere made the city’s shared public spaces seem diseased. The natural order of New Rome [New York City] was under attack by a spreading viral script that ‘disfigured’ shared public space” (p. 102).

If we consider the contemporary treatment of (criminal) hacking in the popular media, we can see the cultivation of a similar “aesthetics of fear”, and especially the use of the metaphor of biological contamination to characterize the acts and products of usually

nameless virtual dyscriptors who create ‘viruses’ that come in through ‘back doors’ and ‘infect’ our systems, jeopardizing our personal information and the overall integrity of our new, virtual, public and private spaces. Virtual dyscription by what I am suggesting are homologues to the ‘writing groups’ of the WWW receives little or no public visibility at all, and if it were not for the Zone-h archive the phenomenon would be effectively invisible to the public.

There are, however, a number of specialized journals focussed on hacking prevention (including website defacement) and a number of ephemeral websites and e-zines that take up a pro-hacking position and publicize the feats and accomplishments of all types of virtual dyscriptors.

In the early days of the WWW (1995-2001), the emergent practice of what would come to be called website defacement was treated by the media as an interesting ‘underground’ practice. Web-based publications and e-zines such as *Hack in the Box* (HITB) and others covered the ‘hacking culture’, and website defacement was a practice of both the respected hacker and the emergent but must less respected script-kiddie. HITB gave out monthly “State of the Hack” awards (1999-2000-2001)¹³⁹, based on their reviews of submitted defacements (typically about 500 per month), selecting winners for such categories as “Best Almost Comprehensible Diatribe”, “Best Cheerful Yuletide Greeting”, “Best Font”, “Best Hidden Advice to the SysAdmin”, “Best Non-functional Java Applet”, “Coolest Logo”, “Most Original Effort”, “Most Irrelevant Use of Scripture”, “Most Symmetric Layout”, among many others. It is evident that playfulness

¹³⁹ See Hack in the Box (hitb.org), “*State of the Hack Awards #2*” <http://news.hitb.org/content/state-hack-awards-2> for the awards discerned for December 2000.

motivated both the discrimination of prizes and most of the website defacements under consideration.¹⁴⁰

In the early days, every exploit required what was then considered an impressive degree of skill; the practice of defacement was new and surprising, and the skill set was still relatively rare. The products of these early dyscriptive events almost always displayed an interesting stylistic intensity too. Most early defacements were definitely going to be seen by both the website administrator and an appreciative ‘underground’ community of hackers.

With the explosion and internationalization of the WWW (2001-2005), the increase in commercial- and business-critical usage of websites, the standardization of webserver software, and the increasing consciousness of ‘security’ (and the clarification of legal penalties for unauthorized access and/or destruction of data), the general playfulness of the early days evaporated. The blurred lines between script-kiddies and hackers became sharply drawn in relation to the divergent practices of each group. Hackers stopped doing ‘amusing’ defacements and focussed on accessing the increasingly inaccessible websites through feats of custom coding, while script-kiddies continued to use old and easy-to-use preprogrammed tools (scripts) to exploit either the growing number of poorly maintained or ‘naïve’ websites springing up in second and third world countries, or the second wave of ‘home-made’ or self-administered blogs and websites in America and Europe. Most of the web-based media (specialized and more mainstream) refocused or re-branded themselves as publications in the ‘Computer Security’ field, and the exploits of the script-

¹⁴⁰ Journalists such as Kelly Walker (*Left Business Overview*) from these ‘early’ days also looked into the soon to be defunct mirror archive (Attrition.org) to find the funniest or most amusing hackers, documenting the work of Evil Angelica for a more general public audience. (see mailman.lbo.org/2001/2001-July/012374.html)

kiddies became of little interest, or only to exemplify the ‘dirt’ which the website owner should quickly remove. The more sophisticated hacks and cracks of the professional criminal hacker became the focal point. Although many script-kiddies would aspire to join the ranks of the hacker or cracker, most would participate in website defacement as a game to be played for points, of little interest to anyone except the players and perhaps the mirror archive, which continued to verify, register and categorize successful exploits in what was otherwise becoming a ‘vacuum’.

4.1 *Edouard K., Security editor at Softpedia*

Softpedia¹⁴¹ is a popular news site based in Romania, but with a world-wide audience. The site is popular for providing an encyclopedia of free software downloads, and its news and information features (written in English) are very popular among the broad community of dyscriptors. I was able to contact and interview the editor of the Security category on the site’s news section. Since he joined Softpedia in 2011, he has written literally thousands of short articles covering all aspects of information security, including frequent features on website defacement.

When I asked him about the press coverage website defacement generates, he explained that “it is getting increasingly difficult to deface high-profile websites, so such attacks attract the attention of the press.” From his own statistics, he says that his readers seem to be interested in attacks targeting government websites in India, Pakistan, Bangladesh, the

¹⁴¹ Softpedia is an internet site that indexes information and provides software. The site also covers technology, science, health, and entertainment topics from external and in-house sources, and provides software and game reviews. It is owned by SoftNews NET SRL., a Romanian company. As of 2012, it was the 25th most visited site by Romanians, although the website caters primarily to English speakers. In 2006, 95% of its revenue came from outside Romania. By 2007, it had 3.5 million visitors per week and most were from abroad. (Wikipedia)

Philippines, the UK, and the US; “basically, if there’s a major hacktivist operation in Bangladesh for instance, our articles covering the campaign are usually read by thousands of people from the country.” I ask him if he has ever paid attention to the defacer’s ‘style’ and he explains:

Each group has its own defacement pages. Groups in Asia usually have some fancy graphics with a lot of movement on their defacement pages. Tigers, Anonymous masks and derivatives, dragons and other ‘cool’ symbols are integrated. In some cases, the defacement page consists of a simple piece of text which reads something like “Hacked by X.” I think this also depends on what type of access the hackers gain to the web server. If they gain complete control, they can upload anything. In some cases, they’re limited to uploading image or text files. Some defacement pages also include stats. They show the visitor’s IP address, location and the browser they’re using. This is a simple trick, but it makes the hacker look ‘scarier,’ at least for regular Internet users. In my opinion, the hackers who do this like to show people their ‘power’ and display superiority.

Do you have an opinion on the defacement pages?

Famous hackers, particularly ones that claim they’re above script-kiddies, say website defacements are ‘lame’, so they focus more on data leaks. However, when I asked a famous hacker (a member of Team Poison) about why he defaced a particular website, he

said it was a better way to get his group's message through. He placed a counter on the defaced website to show how many people had seen the defacement. He pointed out that tens of thousands had seen it, which was a success for their mission.”

Who are the most impressive website defacers?

The Indonesian hacker Hmei7 holds the record for most websites defacements. He's not really a hacktivist. Instead, he defaces random websites to boost his reputation. His defacement pages are simple. Only a piece of text that reads something like “Owned by Hmei7.” The Iranian team (Ashiyane Digital Security Team) has also defaced a lot of websites. Their defacement pages are a bit more elaborate. The defacement pages usually don't contain a mission statement, but clearly show that the group supports Iran. The defacements of the Syrian Electronic Army are probably the most impressive. Mainly because the group has managed to breach and deface several high-profile websites by using some clever techniques.

What makes them impressive?

The Syrian Electronic Army's defacement pages vary, depending on the target. They sometimes only alter the text on the existing website layout, while in other cases they post an image of the Syrian flag and some text to show their support for their country.

They're impressive because they've breached some websites that are considered difficult to hack. (Interview by the author with Edouard K., March 2014)

Edouard also notes that there has been an evolution over the last few years, away from defacing random sites, towards more sophisticated DDOS (distributed denial of service) exploits, in an attempt to boost the dyscriptor's reputation. He also notes some national tendencies:

Website defacements are popular among hackers in certain parts of the world. Hackers in Latin America are big fans of defacements, as opposed to ones in Northern America who usually stick to leaking data. Also, hackers in the Middle East and countries like Pakistan, India and Bangladesh seem to focus more on defacing websites rather than leaking data to prove their point. (*ibid*)

When I ask him more specifically about the products of dyscription, the website defacement pages and their imagery, his perspective is that, at this time, his readership is not really interested in them, but instead they are drawn principally to the location and magnitude of the exploit.

I asked him about his view of the role of the Zone-h archive and he explained that he thought the dyscriptors use the archive to take credit for an attack and prove their claims. He also noted that many experts he had spoken with on the subject of the archive saw no point in keeping defacement archives, "but I think they play an important role. They provide both statistical and historical records on website attacks."

Other journalists, who would not speak with me on the record (e.g., ‘WaQas’ from Hacker News), also commented on the shift from a playful interest in the unusual and typically harmless exploits of hackers and the ethos of the hacker culture towards an intense preoccupation with security and security threats to either corporate and personal data. Most of these media professionals believe that the activities of the script-kiddies are gateways to criminal hacking for profit. When questioned about the interesting and creative defacement products that are produced and left behind, few had much to say. Most notable was a vague agreement that some of the hacktivist groups clearly had typical imagery associated with their work, imagery that was now standard branding for stories about their exploits (e.g., the black-masked Guy Fawkes figure that brands the Anonymous group).

There is a constantly changing landscape of websites dedicated to the news of the hacking world, focused on the most impressive acts of hacking and the activities of sophisticated hacktivist organizations. Although they do publish the defacement pages associated with the most impressive acts (almost always pulled from the Zone-h archive), their focus is on the characteristics of the access exploit or the hacktivist agenda. In addition, there is a significant and growing body of academic literature devoted to hacktivists, hackers and crackers from the perspective of the computer sciences (security), legal studies, and political science, but little or no attention is paid to the monologic products of dyscription.

The feedback circuit from the media (popular and specialized) promotes the value of the act of access and links notoriety and fame to accomplishments in the realm of hacking and even cracking. As yet there is little to no positive media feedback circulating from

the intensity of style manifest in monologic aspects of the products of dyscription. Not unlike their traditional counterparts in the mid-50s and 60s, virtual dyscription is generally categorized as either an act of vandalism (hacking), break and enter (cracking) or else simple a boring, puerile nuisance.

We might also add lewd to the list, as a recent example playfully suggests (Figure V28)

Virtual Graffiti on the Cusp

In summary, I would like to suggest that as viewers and scholars we now stand in largely the same relation to the praxis of *virtual* dyscription, as the typical scholar or public observer stood in relation to *traditional* graffiti in the 50s and 60s, prior to the aestheticization of graffiti-writing in the 70s. If we recall the attitudes of observers toward graffiti in that earlier time, we find that it was typically treated as vandalism, criminal activity, property abuse, or *latrinalia* bearing witness to puerile, repressed desires (Fenichel, 1953)—effectively a kind of urban pollution; the actual and even potential aesthetic features of inscriptive defacement being largely neglected by both viewers and dyscriptors alike¹⁴². In the early 1970s, this attitude was radically altered by the reception of subway graffiti in New York City. As a result of the sudden and intense interest in the phenomenon from para-academic writers such as Norman Mailer and pop-artist Claes Oldenburg, the New York art-scene, and widespread media attention—interest deeply ensconced in the broader ‘counter-cultural’ currents of the time—the practice of graffiti-writing was rapidly transformed into an emergent, proto-aesthetic

¹⁴² With the striking exception, perhaps, of Brassai, who already in the 1930s, was collecting sketches and photographs for what would become his exhibition “Graffiti” in the mid-60s.

practice; and what had yesterday been offensive and uncivil urban pollution, marring the face of the world's major cities, could suddenly and *seriously* be seen a "big bouquet":

You're standing there in the station, everything is gray and gloomy and all of a sudden one of those graffiti trains slides in and brightens the place like a big bouquet from Latin America. At first it seems anarchical—makes you wonder if the subways are working properly. Then you get used to it. The city is like a newspaper, so it's natural to see writing all over the place. (Claes Oldenburg)

With his breath he flowers the drop about to fall and presses it back into its defining line. They work with speed, they work with cool, they paint their masterpieces (now that they are found for an instant by society) before the camera of a German TV crew...some will yet be bastions of a fat and dying world. But the beginning of another millennium of vision may also be with them. For we do not know with what instruments we will draw in years to come nor by which materials. (Norman Mailer)

From that moment forward, the world has looked at graffiti in a different way. Let us then assume, for the sake of argument, that we find ourselves now in roughly the same place as the typical viewers of the 1950s and 60s viz. the inscriptive defacement of property, but facing the vastly different "instruments" and "materials" of the virtual world. If this were true, what would we expect to find if we, like those 70s explorers, went out into the

world (here the virtual world) and met the actors and observers of *virtual* graffiti? First, I would suggest, there would exist a massive amount of actual dyscriptive activity ‘under our very noses’, either being ignored (as much as possible) or categorized under non-aesthetic categories, like the 50s’ urban pollution; second, the observers of such dyscription would almost entirely neglect the potential aesthetic features of such products, but instead treat them as one form or another of socio-economic nuisance; third, the dyscriptors themselves (we are yet far from being able to call *them* ‘graffiti artists’) would evince, at best, only a dim, proto-awareness of both the technical and stylistic potential of their work; and finally, if however, these new forms of dyscription *were* approached, as in the 70s, with a vigorous awareness both of the depth and breadth of this tradition and of the eternal newness of art, sensitive to the first, novel stirrings of age-old aesthetic practice, something new and interesting may emerge.

Conclusion: *Cacoethes Codiendi*

Preliminary analysis of the ethnographic material suggests at least three distinguishable modes of digital dyscription, according to their underlying stylistic dynamics. All dyscriptive events display some intensity of style emerging from the monologic and dialogic aspects of both the act and product of dyscription. It is worth re-iterating that although we have analyzed the dyscriptive event into two components (act and product), and then considered each component in two aspects (the dialogic and the monologic), we must keep firmly in mind that the concept of ‘a dialogic act’ or ‘a monologic product’ cannot stand alone in the case of real (or even potential) dyscriptive events; all such terms are merely heuristic tools to help us understand the respective locus(es) of experienced stylistic intensity.

With this in mind, we can visualize the interdependent aspects of digital dyscriptive ‘modes’, as well as the contemporary digital dyscriptors typical of each stylistic locus.

<i>Locus of emphasis</i>	<i>Dialogic</i>	<i>‘Monologic’ (Formal)</i>
<i>ACT</i>	<p>The implicit (but given the logical nature of code, in a sense also explicit) dialogue between the dyscriptor and the site he/she is attacking</p> <p><i>Hackers/Crackers</i></p>	<p>The nature and structure of the site independent of the specific dyscriptor and dyscriptive act AND The nature and characteristic style of the dyscriptor, independent of the specific site and act</p> <p><i>Hackers</i></p>
<i>PRODUCT</i>	<p>The often implicit (but sometimes explicit) dialogue between the graffiti product and its now defaced site</p> <p><i>Hactivists</i></p>	<p>What can be said about the product independently of the dialogue between product and the defaced site (e.g., the inherent and repeated style of the dyscriptor’s tag)</p> <p><i>Virtual Dyscriptors</i></p>

Figure 50 – Modes of digital dyscription (crackers, hackers, hactivists and virtual dyscriptors)

What permits us to identify a distinctive dyscriptive ‘style’ is the gravitation of the locus of stylistic intensity toward one of the four quadrants. This ‘gravitational’ effect arises and is intensified by the attitudes of both the producers and the viewers of website defacement, typically linked through a variety of positive feedback circuits.

i. Hacking as digital dyscription

This is the stylistic register many of our contemporary dyscriptors aspire to. Hacking emphasizes *the act as both dialogue and monologue*: the stylistic intensity of hacking arises from the skill with which the dyscriptor has created and used code to gain unauthorized access to the *murus codicis*, the code-wall of a webserver hosting one or many websites. The most intensely styled acts are ‘zero-day’¹⁴³ exploits of vulnerabilities (‘bugs’) in newly released (in this case webserver) software. The site selected for attack might be popular and visible to the public, but might as easily be a beta-test site running in a software lab where the only viewer is a professional programmer. Here the dyscriptor, in the case of a successful exploit, might not even leave a publically viewable dyscriptive product at all; no message, no defacement page, nothing other than an entry in a system log (or a trace in anti-intrusion software), invisible to all but the attentive system administrator. Typically the hacker leaves something behind, a small hidden file with his name or a logo or a link which can be shared with other hackers, the owners of the site, or even with the media as proof of a successful exploit. The style of the event, from the perspective of the dyscriptor and dyscriptive community, arises from the innovative and skillful construction and execution of the exploit, where there is a premium on who was able to do it first and the factor of surprise (“How did they *do* that?”). From the perspective of the targeted site (users, system administrator) the stylistic intensity also arises from the feat of access (the monologic aspects of the act) although inflected by *potential* dialogic energy (“Is he asking for something?” “What happens next?” “Why us?”). The actual defacement product (if there is one) or the mark left behind by the

¹⁴³ A ‘zero-day’ exploit is the exploitation of bugs or vulnerabilities discovered on the first day of a new software product’s release for public use. Frequently, the new product has been used at a high visibility ‘beta’ test site to generate awareness and ‘proof of concept’ in the commercial/public marketplace.

dyscriptive hacker is treated as a token by both its author and its viewers. It stands for the realization of a complex stylistic act of programming virtuosity, a possibly highly offensive mark on what was considered to be a clean, functional and well protected wall.

This stylistic ethos is reinforced in the specialized press, where the most respected and feared hackers speak through their exploits and not with their defacement pages. A serious hacker risks ridicule and accusations of being a script-kiddie if they ‘waste time’ creating sophisticated defacement pages. This sentiment is echoed in my interviews with the relatively ‘low level’ or aspiring (to hacker-status) dyscriptors who, almost without exception (see AprilGhost), treat their often complex defacement pages as second thoughts.

The activities of hackers have been studied by scholars in the disciplines of computer science, criminology and sociology, and ‘hacker’ is a perfectly serviceable word to refer to a style of digital dyscription that draws its stylistic charge predominantly from monologic aspects of the act. I would argue, however, that we should not be too quick to overlook the potentially interesting stylistic characteristics of the monologic products of dyscriptive hacking. Not only do the products created for us by hackers at the *murus perceptus* (the ‘hidden’ file with a name or logo, the link to a ‘deface’ page) sometimes reveal interesting features in themselves, but a closer inspection of the hackers’ creative code-work at the surface of the *murus codicis* (the code wall) – the results of what we have called the *primary act* of inscription--may also display new and emergent stylistic intensities for those attuned to the language spoken and sensible to the new materialities of such places.

The indifference and even active rejection (by the average viewers, but also the producers themselves) of the growing corpus of defacement images as simply residual tokens of digital vandalism, criminal intent or childish behaviour parallels a phase in the evolution of the treatment of traditional graffiti that maps onto our understanding of the phenomenon on the cusp of its ‘rediscovery’ in New York City during the 1970s. It is also echoed in the interested but highly judgemental classifications of the late Victorian archaeologists.

ii. Hacktivism as digital dyscription: the product as dialogue

Although many dyscriptors aspire to hacking, few acquire the skills enabling them to realize their stylistic aspirations in this manner. Hacktivism is another style of dyscription that has shown increasing signs of popularity over the last ten years, partly perhaps because of the growing difficulty of producing media-worthy hacking exploits, but also because the virtual ‘wall’ is resembling more and more the traditional walls dyscribed for these purposes. Now, as then, the dialogic product is the predominant locus of stylistic intensity informing the hacktivist style. The hacktivist dyscriptor accesses a website with the objective of defacing the homepage with a product that engages in both explicit (the ‘message’) and implicit (the fact that it could be sent) dialogue with the website and viewer. The characteristics of the message, in the case of the hacktivist, are almost always oriented towards the statement of political or politico-religious views. These messages range from the specific recriminations of, for example, ethnic or religious minorities in situations of political repression (Kurds in Syria, Muslims in India, Palestinians in Israel) to positions taken on global conflicts of religious and economic viewpoints (Islamic activism, ‘Anonymous’ activism against the privatization of the

WWW , the ‘Occupy’ movement, etc.). In these cases, although the target site selection can play an important factor in the stylistic intensity of the dyscriptive event (for example, an Israeli site for an anti-Israeli message), the dominant stylistic factor is *what* the dyscriptor has inscribed on the visible face (*murus perceptus*) of the website. This kind of activism is not satisfied with surreptitious access to (or even destruction of) a website; what is critical is to display the content of a visible, legible message, and the messages and images are often tightly controlled (as is the case for Anonymous groups), following the logic of branded content.

Hactivism has itself been extensively studied (Coleman, 2012; Jordan & Taylor, 1998, 2004; Samuel, 2004), and the term ‘hactivism’ is a perfectly useful one to characterize this style of virtual dyscription, drawing its stylistic charge predominantly from the dialogic aspects of the product. The average hactivist inscribes a standard defacement page on whatever websites they are able to access. Those engaged in regional conflicts will sometimes target websites residing in the relevant country (by IP address), but more often than not there are few affinities in either location or political affiliation between the target site and the hactivist agenda; the hactivist simply defaces the homepage of whatever site they can manage to access. In some cases their agenda targets otherwise obscure and vulnerable websites which momentarily come into the public eye (e.g., the case of a Kurdish Refugee Centre in Toronto). In some cases, well-organized hactivist groups (Anonymous cells, LulzSec) can marshal significant pools of hacking skills to create mediatized and highly visible public events (see Samuel). In all these cases, however, the *dialogic product* is the preponderant locus of stylistic intensity in the eye of both the public viewer and the dyscriptor. The popular media is attracted to the often

controversial messages proposed by this type of hacktivist exploit, and some dyscriptors, recognizing the potential for media attention, will use hacktivist tactics to publicize non-hacktivist dyscriptive activities: if using Arabic calligraphy and music on your defacement page generates media reaction to your ‘work’ when exploiting US websites, then the ‘hacktivist’ rhetoric is used to serve another stylistic role, like an attractive or attention-grabbing colour fulfilling a stylistic role in the *monologic* aspect of the dyscriptive product.

Not unlike the political posters and tracts pasted on the walls of towns and cities from classical times to the present day, the products of traditional dyscriptive activism provide a fascinating portal into the issues and concerns of the people and places where it arises. In most respects, the hacktivism is simply the remediation of this praxis into the digital world, and as such merits a deeper and more detailed treatment than can be provided here (see Paths for Future Research below). However, we would be making a mistake if we were only to pay attention to the legible dialogic aspects of the products of virtual dyscription: not only would we overlook the potentially fascinating evolution of the monologic aspects of hacktivist production, but we would keep invisible the vast corpus of almost ‘pre-conscious’ dyscriptive productions that fill the mirror archive.

iii. Cacoethes codiendi and virtual dyscription

Although there are many interesting and often highly publicized cases illustrating both the typical hacking and hacktivist styles (many of which result in some sort of dyscriptive product recorded in the Zone-h archive), the bulk of the archive’s contents consists of the dyscriptive products of neither ‘pure’ hackers nor ‘pure’ hacktivists. They are considered by many viewers and producers alike to be the puerile marks and traces of the activities

of script-kiddies with no particular political agenda, no notable technical skills, nor any discernable or coherent reason to deface a website other than for the fun of it. Overall, this most typical ‘style’ of virtual dyscription has, until now, met with the same treatment Helen Tanzer gave to the startling quantities of graffiti emerging from the lava ensconced ruins of Pompeii in the late 1930s; subjected to pre-emptive and largely uncritical classification into what Tanzer called the “decorous” (advertising, signage, political posters) and the “indecorous” (the infantile, puerile and often lewd inscriptive *defacements* “that no plane surface in public places...is likely to escape”(Tanzer, p. 5), which Geoff (Webmaster at DCNY) calls “digital noise”.

In the context of Tanzer’s first taxonomic exercise, ‘decorous’ graffiti were those that served some discernable purpose (posters/advertisements/political tracts) and which eschewed foul language and lewd subject matters. ‘Decorum’, in the case of digital dyscription, is generated, one might say, either by the skillful use of code (hacking) or else the clear communication of some kind of legible, coherent message (hacktivism). The decorous act of digital dyscription skillfully accesses or ‘addresses’ the *murus codicis*; the decorous product of *virtual* dyscription leaves a purposeful message to a discernable audience at the *murus perceptus*. There are many examples of ‘decorous’ graffiti in the archive, but there is a preponderance of *indecorous* virtual graffiti which has hitherto been completely overlooked; the “idle scribblings” of the first ‘digital’ generation, most clearly homologous with the commonplace dyscription which traces an uninterrupted lineage as far back as the act of inscription itself.

As I argued in Chapter 1, it was only with the para-scholarly interest and media attention generated by the ‘explosion’ of graffiti in the New York City subway system that a new

kind of scholarly attention was brought to bear on the otherwise disregarded, ‘indecorous’ graffiti of ancient Pompeii, of the Medieval and Renaissance periods, and of contemporary cities such as London, Paris, New York, Denver and Philadelphia. The aestheticization of the New York phenomenon would contribute to a ‘premature’ compartmentalization of future graffiti studies, and a re-marginalization of all contemporary graffiti not following the New York trope as effectively vandalism, obscuring the deep, historically continuous tradition of dyscription. Any treatment of what I have called virtual dyscription as simply an ‘indecorous’ subset of hacking effectively repeats the same oversight, and deflects us from a potentially fascinating and instructive encounter with humanity’s first inscriptive explorations in a categorically new environment.

My interaction with the virtual dyscriptors sheds light on the state of their praxis prior to its aestheticization, when these dyscriptors are often simply marking territory, having fun, exploring, learning and ‘being’ in a new environment—in short, doing precisely what graffiti producers had been doing for centuries, before the transformative light of aestheticization was so dramatically cast on them 50 years ago. We cannot be sure what the graffiti writers of New York were thinking *before* they came to the attention of the broader public; by the time they were interviewed (Mailer, 1973; Castleman, 1982; Chalfant, 1984; Ferrell, 1993) they were already on the cusp of fame, and conscious, soon hyper-conscious, of many of the stylistic registers at play in their dyscriptive work. In the case of virtual graffiti, there are not yet clear positive feedback circuits in place to reinforce the stylistic importance of the monologic aspects of the products of virtual dyscription; no one is looking carefully or with deep interest at the defacement images,

although they are circulating more and more widely. However, even a cursory survey of the wide variety of work sampled in Chapter 5 (and Appendix C – CD-ROM) suggests that the monologic aspects of the products of dyscription are not merely engaging, in an already sometimes complex and sophisticated manner, with traditional formal aesthetic tropes, but also displaying potentially novel and far-reaching stylistic trends emerging from a creative engagement with the new digital environment.

Conclusion

The central claims of this work are, first, that there currently exists a vast and variegated body of what I have termed and characterized as distinctively *virtual* graffiti, archived yet hitherto largely undiscovered and unstudied, which—owing to its clear and suggestive affinities with traditional ‘real-world’ graffiti, to the by now well-established social and aesthetic importance of graffiti praxis in general, and to the equally well-established importance of the virtual environment in the early 21st century—is a phenomenon richly deserving of exploration and study; and second, that to develop the heuristic framework requisite for such study, however, given the radical differences between the real-world and virtual/digital environments in this respect, we must first build a conceptual ‘bridge’ in the notion of graffiti praxis itself, sufficiently robust to carry us from the traditional variety, as discussed in extant graffiti scholarship, to its highly complex Janusian homologue in the virtual world. Thus, the study as a whole is, at best, a propaedeutic to future study of this new phenomenon.

If, as I hope, these claims have been adequately supported and addressed by this work, at least in the preliminary, workmanlike manner befitting such a novel endeavour, we find ourselves now on a kind of ‘beachhead’ on a hitherto undiscovered, but seemingly vast and complex island. We have gained this beachhead by establishing the basic limits and topography of that island, and equipping ourselves with the heuristic apparatus requisite both to secure ourselves in this liminal position, and to make preliminary but well-

grounded forays into the virtual ‘jungle’ lying before us. Some of the most suggestive paths into that uncharted territory are summarized below. Here I shall briefly summarize the structure and perceived value of the beachhead itself.

Drawing from the largely discipline-specific body of scholarship on traditional ‘real-world’ graffiti, I synthesized a syntagmatic characterization of graffiti praxis, and ‘modelled’ it in the form of exemplars based on that scholarship; elaborated and nuanced this characterization by manipulating the models, to construct a conceptual bridge, which would enable us to seek for and characterize a virtual homologue to traditional graffiti, in the digital environment; and discovered such a homologue in website defacement, as copiously archived in the Zone-h mirror archive. My similar syntagmatic investigation of this entirely *new* phenomenon suggested a clear and provocative migration of the ethos and praxis of traditional dyscription into the virtual world, and explored this *virtual* dyscription as a sensitive platform for registering the mutative pressures on human inscription arising from the new material modalities of the digital environment.

In its propaedeutic role, my work seeks to contribute to the development of contemporary graffiti studies (MacDowall, 2005; Neef, 2011; Waclawek, 2009) by establishing a formal bridge between traditional graffiti praxis and website defacement, and making some preliminary typological, ethnographic and stylistic investigations into this new medium, within the comparative framework provided by that conceptual bridge. In addition, my homologic exploration offers a new perspective on hacking and hacktivism, by broadening the critical perspective of hacking studies (Jordan, 2008; Jordan & Taylor, 2004; Samuel, 2005) to include the surprisingly widespread and increasingly complex praxis of virtual graffiti; focussing on the relevance of stylistics as a tool for the critical

investigation of digital dyscription in all its manifestations; and, I believe, linking my future research to the broader inquiries into the implications of communicative practices, as Tim Jordan (2013) has put it in the title of his recent book *Communicative Practices: Before and After the Internet*.

The combined propaedeutic and empirical work of the study suggests that we find virtual graffiti in a homologous moment to that of New York style signature graffiti prior to its aestheticization in the late 70s, and I have tentatively named (see Appendix D) some notable virtual 'styles' in anticipation of a new 'rupture' into self-consciousness on the part of the virtual dyscriptors and their audiences. The study has focussed on how traditional graffiti has migrated into the virtual world; but if its account is just, there are no doubt other narratives to be written, focussed on the new, mutative aspects of the virtual phenomenon *per se*, revolving especially, I would expect, around the complex, dual nature of the digital/virtual walls, and the hybrid human/machine dyscribing on them. My hope is that this propaedeutic study will provide a useful conceptual foundation for future empirical study of the nature and implications of the products, acts and actors of virtual dyscription. Some promising avenues for such study are outlined below.

Future Research Paths

Exploring the stylistic potential of the products of primary inscription

One of the most interesting and controversial future research paths would explore the complex stylistic character of virtual dyscription, based on a heuristic framework such as the one outlined above, in light of the unique phenomenological architecture of the digital environment. I noted earlier (Chapters 3-4) how the once simple act of inscription is now

bifurcated into a *primary* inscription at the *murus codicis*, and a corresponding *secondary* inscription that appears on the perceptible screen surface (*murus perceptus*). Our experience of traditional dyscription is homologous with our experience of *secondary inscription* at the virtual surface, and the body of work in the Zone-h archive is a record of these ‘secondary’ inscriptions. My study focussed on the analysis of these products of secondary inscription; however, it is clear that further research is needed to assess the character of *primary* inscription and the possibility of a stylistic *product* of primary inscription. At the most mundane level, this research would involve interacting with computer programmers to understand how and what they observe when they note a ‘bug’ or an ‘incursion’, or the interactions that occur when an intelligent anti-malware software application reads code to ascertain if it has been defaced. Very rapidly, this kind of work would involve more complicated issues, such as how certain styles of coding create certain types of ‘code-walls’, with different material features conducive to different kinds of transgressive code-markings. And this line of inquiry will bring us finally into what may seem a very alien space, where notions of human agency begin to merge with those of increasingly ‘intelligent’ code-machines that instantiate and animate an increasingly non-human world.

However, if we focus on the relatively simple case at hand, the archive of website defacements *per se*, then a number of future research paths immediately emerge, drawing on the skills of a number of traditional disciplines.

Digital archives: preservation, organization and excavation

At the material-archival level, drawing on the practices of museology and digital humanities, we may consider the project of preserving and strengthening the existing

archive. As it stands, every day an unknown number of once complete defacement images lose their referential integrity, as the various links to outside images, sounds and animations are ‘broken’. It is very difficult to reconstitute these links, but comparatively easy to implement a protocol for saving them before they break. This kind of project would ideally be pursued in concert with the Zone-h organization, and would result in a secure, more contextualized and more lasting record for scholarly analysis.

As part of this project of preserving a robust and functional archive of dyscription for future research, a comprehensive effort to reorganize the Zone-h database, to provide more useful and discipline-oriented search tools, would appear to be of considerable value to future scholars and ‘digital humanitarians’ interested in this phenomenon. The mere ability to query an archive of over four million dyscriptive images for the presence of specific file types (audio, video, javascript, etc.) should prove extremely valuable in many academic and even commercial contexts; for example, in the construction and testing of a generic digital-museological interface for archiving and retrieving multimedia objects.

Art history: the curatorial encounter with virtual dyscription

The student or professional working in the discipline of art history now faces an opportunity to explore the archives of virtual dyscription, much as curators first began to scrutinize the dyscriptive images on the subways of New York, with an eye to establishing the aesthetic character, and then locating the best ‘artist-practitioners’, of this new generation of ‘graffiti writers’. I have only touched on this opportunity in sketching out the stylistic quadrants, a tactical heuristic aimed, among other things, simply at suggesting that something of interest to the art historian lies in the archive. The scholarly

work of modifying or developing new working aesthetic categories, to account for what may be categorically new modes of aesthetic practice, is yet to be done. Without these efforts, the work of Noface, Dbuzz, ApriliGhost and untold others may fade not into traditional obscurity, but into digital oblivion. This sort of work would require an interest in working with, and developing the emergent aesthetic canons of, the New Media, as well as expertise in the contours of Art Brut, Folk or Outsider Art. However, the slate is, in almost every respect, clean. The archive serves as a hitherto unexplored corpus for the art historian to investigate, with an eye to discerning the emergence and dynamics of, for example, a new digital or virtual folk art.

Sociological and political sciences

If we consider the potential research interests of sociologists and political scientists, much of the work already accomplished by scholars on the subject of traditional graffiti can be reoriented to comparatively examine the social dynamics of the virtual homologue, including more extensive ethnographies of the producers, and their group formations and languages; the role of social media in constituting the virtual groups; the emergence (or non-emergence) of ethnic or religious sensibilities; and the role of global English and standard information technologies and education in the development of virtual dyscriptive style. In addition, as discussed above, we face the disconcerting emergence of the cultivation of groups of script-kiddies by paramilitary components of the ‘cyber-armies’ of a number of (often unstable) countries. Such groups would appear to be, by nature, vulnerable to manipulation and mobilization in the service of politico-military propaganda goals of engaged countries, and some of the best ‘players’ are already being cultivated and trained to later join in this service.

My yet limited experience with the emerging dyscriptive community suggests an exceptional amount of ethnographic detail waiting to be investigated. However, the requisite language skills now include thoroughgoing computer literacy, in addition to traditional foreign languages (dyscriptors naturally tend to be both highly motivated to discuss their technical skills and highly reticent to discuss their work in a second language); and the ethnographic requirements include a thorough and highly nuanced understanding of the communicative dynamics of social media and the geography of the ‘dark webs’ that now serve as trusted routes and resting places in the interstices of the virtual world.

The benefits of a partnership between an academic institution and Zone-h seem obvious: an entire digital humanities sub-program could be built around the work of exploring this hitherto undiscovered trove of digital production, rich not merely in its lineage, but in its abundance and potential.¹⁴⁴

¹⁴⁴ Over the course of my research, I had frequent opportunity to discuss this new phenomenon of ‘virtual graffiti’ with a wide range of scholars and professionals, from across the disciplinary spectrum: Carleton’s Project Office of the Centre for Quantitative Analysis and Decision Support (CQADS), Carleton’s Human-Computer Interaction Group (HCI), the Canadian Society for Digital Humanities, and Concordia’s Centre for Research-Creation in Media Arts and Technologies, as well as the ‘field’ workers at Zone-h and the dyscriptors themselves. Without exception, in each case, a high level of enthusiasm was expressed not only for the current project itself, but for the possibility of future collaborations along the lines outlined above.

Appendix A: Etymology of ‘Graffiti’

Etymology¹⁴⁵

Although most scholarly and popular writers on the topic of graffiti (e.g., Chalfant, 1982; Cooper, 1984; Ganz, 2009; Reisner, 1971) are quick to note the ambiguities lurking beneath the surface of the English word, foremost its plural form, its Italian root in ‘to scratch’ and often its Greek root in ‘to write’, a systematic survey of its use and import has yet to be provided. If we do pay careful attention to the conceptual evolution of the word; how and why it first arose in Greek, Latin and then Italian; how and why the Italian word supplanted the English word for such an activity; and finally how the American English singular noun came to serve, in our time, as an almost universal term in all languages, we rapidly confront a number of themes and concepts that will help us discern the criteria for, if not the actual terms of, what is radically common to all acts of graffiti.

There are a host of root-sources in Proto-Indo-European for the first stirrings of the activity that English speakers will call “writing”, and the subsequent flowering of these roots in the Indo-European language families (Hellenic, Italic, Germanic) will produce a group of lexically distinct but semantically related terms in English, which both surround and inform the word ‘graffiti’.

i. Indo-European to Greek and Latin

At the Indo-European (IE) level, there is a clear semantic distinction between the actions of scratching and cutting¹⁴⁶. The IE root *gerbh-*, to scratch, is clearly differentiated from the IE root *skriba-*, to cut. Complexity arises with the need to discern the specific act of writing proper, because when that act was practiced, as it would have been on complex plastic surfaces such as stone, wood, hides, clay or papyrus, it could consist either in cutting or scratching (or both).

These distinct IE roots give rise to two distinct stems in Greek: *graph-* and *skariph-*. The first emphasizing the mode of action, the second the tool used to accomplish the act.

¹⁴⁵ For my etymological analysis, I am using as a primary source the Shorter Oxford English Dictionary on Historical Principles, 6th Edition (2007), supplemented by Liddell & Scott’s Greek-English Lexicon (1987) and Robert Clairborne’s *The Roots of English* (1989).

¹⁴⁶ We could add the Indo-European *deph-* (to stamp on, much later on wax or leather tablets, and eventually the Latin *littera*, *litteratura*, etc.) as well as *wrei-* (to tear or scratch). The actions of tearing, scratching, carving and cutting are closely related in the process of making marks on objects, but with the emergence of writing proper (as distinct from simple marking) along with the techniques and surfaces best suited to that evolving practice, one or another of these roots would become more prominent following culturally specific tendencies (availability and preference of writing materials, value of writing, symbol systems/alphabets etc.)

Graph- (to grave or scratch marks), will yield the verb *graphein* (to write) and then *graphikos* (able to draw or paint) and also *graphis* (a stylus)¹⁴⁷. *Skariph-* will provide the noun *skariphos* (a twig or dry stalk, a stylus for drawing lines as in an outline or sketch) and *skariphismos* (a scratching or raking up of something; i.e., trifles). The different stems will come into play in relation to the emergence of formal writing systems and the material surface supports preferred for that activity. In Ancient Greek, *graph-* is the major stem that carries the etymological weight of everything we associate with the act of writing, while *skariph-* may be considered as the minor stem, denoting the implements used for writing and scratching or the results of that activity: a heap or pile.

This valency is reversed when these roots emerge in Latin and later, via Latin, in English. *Skariphos* will inform the major Latin stem *scribere* (to trace characters) and its many cognates (e.g., *inscribere*, to write into), while *grapho* in its nominal form provided Latin with the simpler concepts of *graphium* (stylus) or *graphicus* (able to write)¹⁴⁸.

As the distinctive act of ‘writing’ emerges from the acts of scratching, cutting and carving, it initially flows down through the Gk. *graph-*; but with the uptake of both these Greek stems (*graph-* and *skariph-*) into Latin, perhaps due to the changing nature of writing and writing materials, the sense of writing proper is mostly channelled through the Latin *scribere* (*skariph-*), with the more specific aspect of the instrument used for scratching and carving continuing now through the L. *graphium* or stylus. This will also inform the word ‘style’, with its primary sense of a manner and mode of production, in reference to the way a stylus was first used to make and erase an imprint on a wax tablet.

ii. Germanic and Latin into Old and Middle English

Old English will first draw on Germanic roots. The verb ‘to write’ arises from the proto-Germanic *writan* (to scratch, carve or incise symbols)¹⁴⁹. In English ‘to write’ will carry the sense of writing proper, however, both the ‘scribing’ and the ‘graph’ complexes, once they arrive with the Norman Conquest of England, will produce a large family of often overlapping words for similar ideas.

These two Latin roots will enter and influence Middle English through ‘graph’ (as noun, prefix and suffix) denoting something written or the instruments used for making the marks, with the Latin *scribere*, in what is a complex relation to the pre-existent Anglo-Germanic ‘writtan’, now *also* denoting the evolving act of writing proper.

¹⁴⁷ And also the large *gramme* complex of terms e.g.: *gramma* – that which is drawn: a picture, a letter of the alphabet; *gramme* – a stroke in writing, etc.

¹⁴⁸ And through *gramme*, the L. *Grammaticus* etc.

¹⁴⁹ Following Anglo-Saxon settlement (500-600 AD). The root is of unknown origin, although probably drawing from the IE (*w*)*Rei-* to tear or to scratch.

The English language will also transfer the meaning of the Latin *graphium* into the English word “graft” (a shoot inserted into in a slit made in another stock) through the resemblance of a twig (or scion) to a stylus.¹⁵⁰

By the start of the Modern English Period (1700), we have ‘to write’, ‘to inscribe’, ‘to graft’, and then the ‘graph’ complex, hinging on the concept of a stylus: graphite (for writing), graphic (something drawn with a pencil or pen) and the suffixes: –graphy (denoting a process or style of writing: biography), -graph (what was written: e.g. autograph – that which is written in one’s own handwriting).

iii. From Italian to Modern English

The meaning and use of the word *graffito* over four centuries of Italian was first informed by the Latin root word *graphium*, which referred to the tool or stylus used for scoring, engraving or inscribing a plastic surface (stone, wood, leather, clay, stucco, wax). The *graffito* was closely associated with an artistic technique, called *graffiato*, for leaving decorative marks (image and text) on both objects (cups, bowls) and walls, typically by carving with the *graffito* through a layer of dark paint to reveal a lighter under-painted surface.

During the Italian Renaissance, the singular form *graffito* was used to denote specifically the technique of scratching or engraving a surface while the plural noun *graffiti* denoted the designs or imagery that resulted, but typically not any textual features (*inscrizioni*) or actual painting (*dipinti*). Graffiti was a decorative modality, and a person during that time period might say approvingly: “Look at the graffiti on the façade of that palace!”

According to the Shorter Oxford English Dictionary on Historical Principles (2007), the word ‘graffiti’ comes into the English language in 1851 through the work of the anthropologist Sir Daniel Wilson, in an article for *The Archaeological and Prehistoric Annals of Scotland*, in a commentary on runic wall markings uncovered during the excavation of a Neolithic chambered tomb at Maeshowe in Orkney, Scotland.¹⁵¹ Wilson writes, “The slight scratching of many of the Maeshowe Runes, and the consequent irregularity and want of precision in the forms...of what, it must be remembered, are mere *graffiti* (OED).

Wilson (1851) appears to imply that what stands in opposition to *mere* graffiti is something more worthy of scholarly attention, what would probably be called an ‘inscription’. The interesting question is why the author felt that a novel term was required when English provided a number of perfectly serviceable words: scribbles,

¹⁵⁰ The notion of the graft and its potential relation to the act of graffiti offers a wonderful metaphor for the act of graffiti on a public surfaces and as a concept-word grafted onto the world’s languages.

¹⁵¹ The inscriptions were eventually attributed to Vikings of the 12th and 13th centuries, who used the tomb for shelter while wintering during their long ocean voyages.

scratches, informal inscriptions, wall-writing, defacements, engravings, casual drawings etc. After all, the historians and archaeologists working in English prior to the 1850s did use some English expression for the phenomenon.¹⁵²

The word ‘graffiti’ thus begins its history in English in the sense of an archaeological curiosity or triviality: something that draws scholarly attention just long enough to require something like a formal academic dismissal¹⁵³. This connotation informs the spread of the English word into more popular usage in the latter part of the 19th century, where it comes to denote casual wall writing that does not have the character of being incised but simply written upon.¹⁵⁴

In 1900 the Oxford English Dictionary defines *graffito* as “a drawing or writing scratched on a wall or other surface; a scribbling on an ancient wall, as those at Rome and Pompeii. Also a method of decoration in which designs are produced by scratches through a superficial layer of plaster revealing a different ground”; and in 1910, the *Encyclopaedia Britannica* adds a new entry that reads: “a general term for the casual writing, rude drawing, or marking on the walls of ancient buildings, as distinguished from the more formal or deliberate writings known as inscriptions”.

iv. Contemporary Graffiti

The English usage of the Italian word ‘graffiti’ was now tied to the denotation of an unusual and presumably unauthorized act of inscriptive casual writing that took place in Classical Antiquity.

This sense of graffiti would slowly (as noted above) come to denote the contemporary activities of casual wall writers, but mainly it would begin to appear in the field of antiquarian history and archaeology, the earliest English example being in G.G. Coulton’s *Medieval Graffiti* (1915). Following the publication and popularity of Tanzer’s *The Common People of Pompeii: A Study of the Graffiti* (1939), with, for its time, a very

¹⁵² We can assume that Wilson was well aware of the use of the Italian *graffito* as it pertained to both the act of scratching (*graffiare*), and the decorative technique for engraving objects and walls (*graffiato*) and the results of such acts (*graffiti*). It is highly probable he was aware of the then current use of the term in Italian archaeology to denote some of the growing body of unclassifiable paintings (*dipinti*) and inscriptions (*iscriziones*) that Giuseppe Fiorelli and others had uncovered during the ongoing work at Pompeii over the course of the early to mid-19th century (1840 – 1870); e.g., Raffaele Garucci’s book, published in 1856 in Italian as *Graffiti di Pompei*, and translated the same year into French as *Graffiti de Pompeii: inscriptions et gravures traces au stylet*.

¹⁵³ Writing in 2001, Andrew Gordon reviews an anonymous article that appeared in the Edinburgh Review in 1859 called the “The Graffiti of Pompeii”, making a good case that “At the particular historical moment when the concept of graffiti emerged [in Pompeii], that very discovery could be thus conceptualized as a form of (unwarranted) writing upon a pre-existing edifice”.

¹⁵⁴ “Visited by crowds of early travellers, who have as usual left their neatly-scribbled graffiti on the walls” (Edwards, A.B.[1877] in the OED – *Graffito*), and then carried over to words written on paper: “She sang pleasantly; and could scribble such graffiti as may be found in school-girl’s copy-books” (Dowden, E. [1886] in the OED).

positive reading both of graffiti and its linkage to the practices of everyday people, the word began circulating more widely outside the circles of archeology.

Over the course of World War 2, the word ‘graffiti’ came to be associated with the slogan “Kilroy Was Here” as it made its way around the world and back with the deployment of American troops (Gastman, 2011). However, it was not until the early 70s that the word graffiti emerged as the public name for a startling phenomenon that had come to the attention New York City, and then, with the central role that city and its leading citizens played in the World media ecology¹⁵⁵, to the attention of the world. The particular NYC-style graffiti would galvanize our contemporary sense of what ‘graffiti’ meant and from there trace its own retroactive, semantic colonization of most of the languages of the world.

In the late part of the 20th century, the word ‘graffiti’ or its phonetic equivalent was introduced or reintroduced into most of the major language groups in the world to denote a spray-painted inscription. This resulted in emendations being made to both the OED¹⁵⁶ and the Italian Dictionary¹⁵⁷ to reflect the contemporary American meaning of the word.

Summary

What the etymology clearly indicates is the essentially performative character of the act of inscription, one of the central conceptual dynamics that I try to consolidate in the syntagmatic characterization of graffiti. Graffiti is always both an act and a product, this is echoed in the verbal nouns used to shape the definition: carving, etching, drawing, inscription, defacement; it is a performative event that links not only the mark and the surface, but also the author and the audience. The disciplinary contexts often emphasize either the object (the inscription) or the action (unauthorized), however, a synthetic characterization has to keep an eye firmly on both.

The etymological record highlights the sometimes ambiguous, often troubling, but very distinctive character of the act of inscription. The historical etymology of ‘graffiti’ reveals the genesis of some of the fundamental ambiguities implicit in act of graffiti, which we develop in greater detail over the course of Chapters 2, 4 and 5..

¹⁵⁵ The title of George Lucas’s film *American Graffiti* (1973) makes implicit reference to the documentary value of prehistoric “Graffiti” and perhaps draws an analogy between the cinema experience (cultural images viewed on the walls of the cinematic ‘dark cave’) and the rupestral activities of prehistoric humans.

¹⁵⁶ In 2007, the OED added “originally *U.S.*, Words or images marked (illegally) in a public place, esp. using aerosol paint.”

¹⁵⁷ In 1987, the *Vocabulario Della Lingua Italiana* added to the definition of graffiti: “By analogy to the Anglo-American usage of the Italian form *graffiti*: a spontaneous pictorial tendency, popular in black America, diffused across the USA in the middle of the 1970s and manifested initially with inscriptions and figures (in reality not graffiti but performed with spray paint) on the walls and on the subways of New York.”

Appendix B: Static Images of Virtual Dyscription

List of Figures

Figure B: 1 - Typical Email contact address on homepage defacement (Zone-h 20636136)	373
Figure B: 2 - Invitation to dyscriptor community (written by author and posted by Zone-h staff)	374
Figure B: 3 - Defacement images - Spring 2013 series (Note: animated and music).....	375
Figure B: 4 – Leetboys – Spring series #2	375
Figure B: 5 – Leetboys – Spring series #3 (music and animation).....	376
Figure B: 6 – Leetboys – Spring series #4	376
Figure B: 7 – Leetboys (Donzay) – Repeatedly used ‘romantic’ imagery	377
Figure B: 8 – LeetMir’s website (1337mir.com) see V19 for video overview.....	378
Figure B: 9 – Typical 1337Mir deface page (Zone-h 21242263).....	379
Figure B: 10 – special deface page for Pavla (note:spectacular animated mouse effects not visible) provided by LeetMir	379
Figure B: 11 – Source code for Pavla with apology to website operator (middle of page in green letters).....	380
Figure B: 12 – Simple early deface page by Coup de Grace (see page tab) of Gangtengers Crew	381
Figure B: 13 – CoupdeGrace - relatively simple static homepage defacement (Zone-h 20736978)	381
Figure B: 14 – CoupdeGrace - relatively simple following the model (figure 12) above (Zone-h 20770388)	382

Figure B: 15 – CoupdeGrace - more sophisticated dialogue (see V20 for animation/music) (Zone-h 20722026)	382
Figure B: 16 – CoupdeGrace – dialogue more intense (see figure V21 for animation/music) note copyright (Zone-h 20808790)	383
Figure B: 17 – CoupdeGrace – with Muslim activist aspect – (Zone-h 20889334)	384
Figure B: 18 – CoupdeGrace with Gantengers Crew – (Zone-h 21564068)	385
Figure B: 19 – OpIsrael – AnonGhost (including one member of PhantomGhost Crew) successfully defaced 550 Israeli websites on April 7th, 2014. CoupdeGrace was not invited to join AnonGhost.....	385
Figure B: 20 – Dr.WWW – Lombok, Indonesia (Zone-h 21240858)	386
Figure B: 21 – Mr.WWW – Slogan #1 (Zone-h 21353084).....	387
Figure B: 22 – Mr.WWW with PhantomGhost – Slogan #2 (Zone-h 21447466).....	387
Figure B: 23 – ApriliGhost “I Am Ghost in Cyber World” from his artist book (like traditional graffiti).....	388
Figure B: 24 – ApriliGhost - “[Who Am I]”	388
Figure B: 25 – ApriliGhost – “I Am Cat in Cyber World”	388
Figure B: 26 – ApriliGhost “quatre(4)-prili-six-six-six-h-zero-cinq(5)-t” or 4prili666h05t.....	389
Figure B: 27 – ApriliGhost – image used for website defacements (see Zone-h 21751472 and 21972972)	389
Figure B: 28 – ApriliGhost – image used for website defacements	389
Figure B: 29 – ApriliGhost – used for website defacement.....	390

Figure B: 30 – ApriliGhost – used for website defacement with MrWWW (Zone-h 21730841) and see vX8	390
Figure B: 31 – ApriliGhost – series of name holders #1	390
Figure B: 32 – AprilGhost – name holder #2 (cat themed)	391
Figure B: 33 – ApriliGhost – name holder #3	391
Figure B: 34 – ApriliGhost – name holder #4	392
Figure B: 35 – ApriliGhost – sketches for work with AnonSec #1	392
Figure B: 36 – ApriliGhost – sketches for work with AnonSec #2	392
Figure B: 37 – ApriliGhost – sketches for work with AnonSec #3	393
Figure B: 38 – ApriliGhost – sketches for work with AnonSec #4	393
Figure B: 39 – AnonSec standard deface page (AnonSec cell-captain is Adil Aslam)..	394
Figure B: 40 – ApriliGhost chastised by Adil Aslam for using non-approved AnonSec deface page.....	394
Figure B: 41 – ApriliGHost – “The Life is a Game” from his ‘Black Book’	395
Figure B: 42 – Email from Mir (LeetMir) to website administrator.....	396



Figure B: 1 - Typical Email contact address on homepage defacement (Zone-h 20636136)



Home News Events Archive Archive ★ Onhold Notify Stats Register Login
search...

The Virtual Graffiti Project

03/02/2014 [Written by Todd Hopkins](#)



To the Zone-H community:

I'm a specialist in graffiti, one of the oldest and most interesting forms of human expression.

As a researcher at a major North American University, I've been carefully following the most recent development in the long history of graffiti: the move to the digital environment and the rise of what I call *Virtual Graffiti* – my name for the work you do and for what is preserved here at Zone-H.

I'm interviewing virtual graffiti artists as part of *The Virtual Graffiti Project*, an exhibition that I'm putting together with some friends and colleagues, to introduce virtual graffiti to the broader world. I work on Skype or Gmail chat, and record interviews on a digital recorder, carefully protecting the anonymity of my sources (see below).

In the exhibition and accompanying book, I want to highlight the interesting works of virtual graffiti I've discovered, as well as comments from the artists, to introduce both to the world, and establish links between them and the 'traditional' graffiti we find in the 'real' world.

The project has been approved by my university – which will guarantee the confidentiality of our interview. I provide all participants with a formal letter outlining the measures taken to guarantee the privacy and confidentiality of everything discussed over the course of the interview.

I speak English and French (and some Spanish), but have access to interpreters in most other languages.

If you're interested in discussing your work with me, or if you have any questions, please contact me at this email address: Virtual.graffiti.project@gmail.com.

I hope to hear from you!

Todd Hopkins

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Figure B: 2 - Invitation to dyscriptor community (written by author and posted by Zone-h staff)

LEETBOYS



Figure B: 3 - Defacement images - Spring 2013 series (Note: animated and music)



Figure B: 4 – Leetboys – Spring series #2

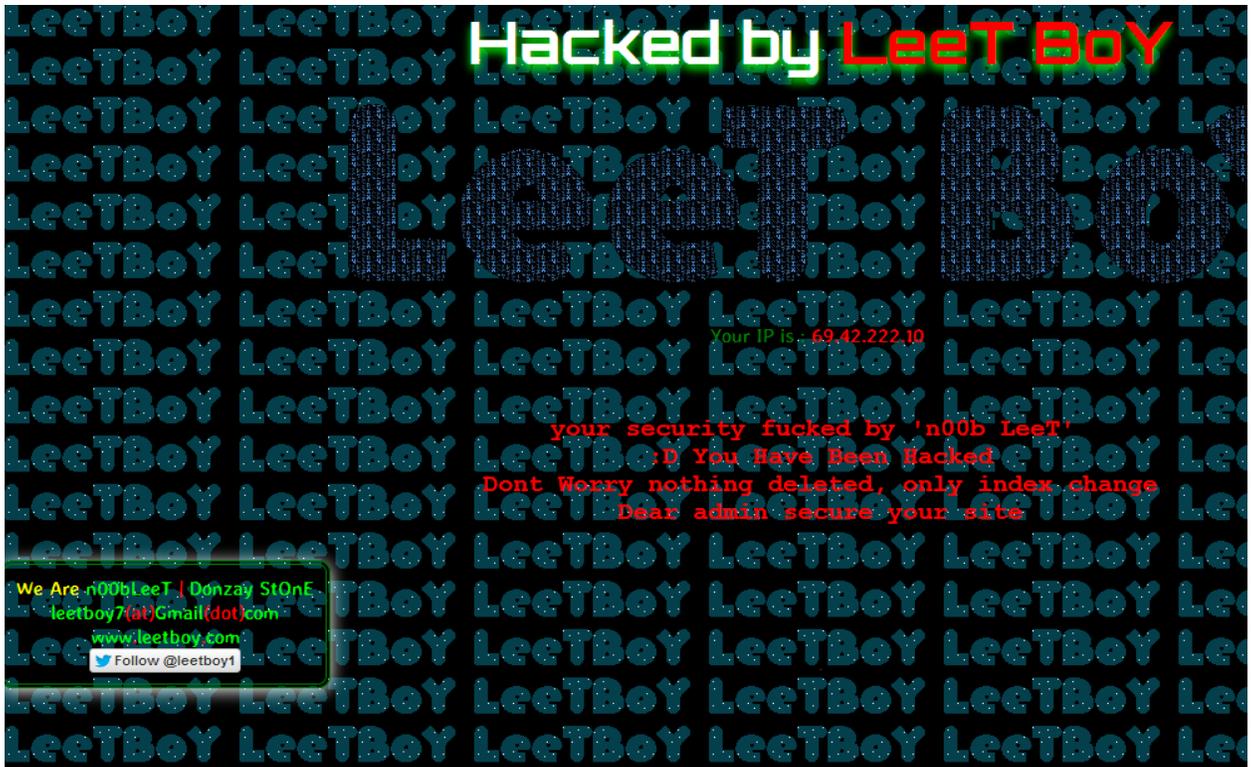


Figure B: 5 – Leetboys – Spring series #3 (music and animation)



Figure B: 6 – Leetboys – Spring series #4

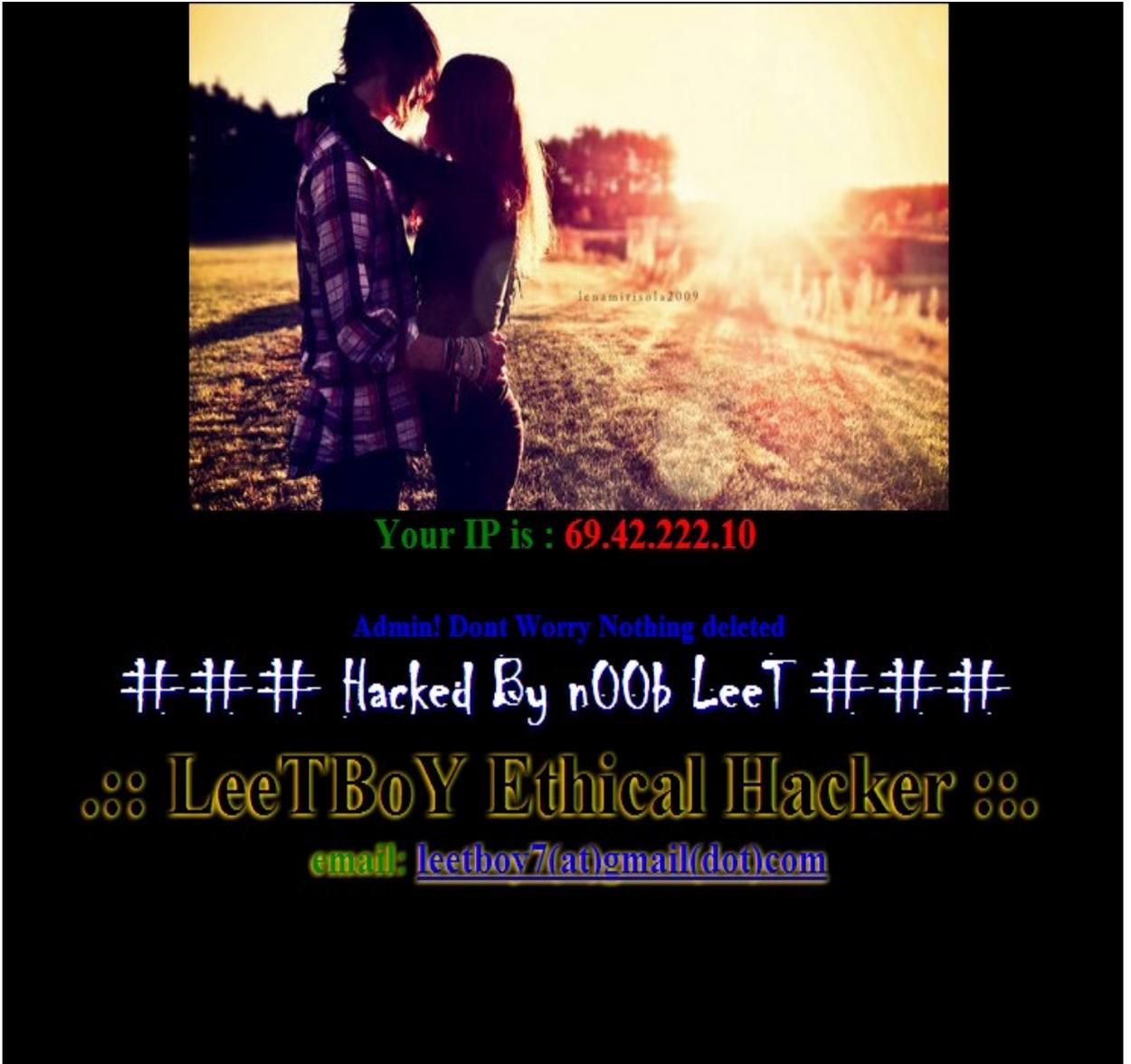


Figure B: 7 – Leetboys (Donzay) – Repeatedly used ‘romantic’ imagery

LEETMIR

leetser@gmail.com



White Hat Hacker And Security Researcher

[Home](#) [Exploits](#) [Leaked](#) [Hacking](#) [Security](#) [Entertainment](#)

About Me

[Home / About Me](#)

hi, my name is MIR. I am under 16 years of age. I am from *****.
I love to hacking and like to break website security.

[About Me](#)

Photos

My Skills



Follow Me:



Figure B: 8 – LeetMir’s website (1337mir.com) see V19 for video overview

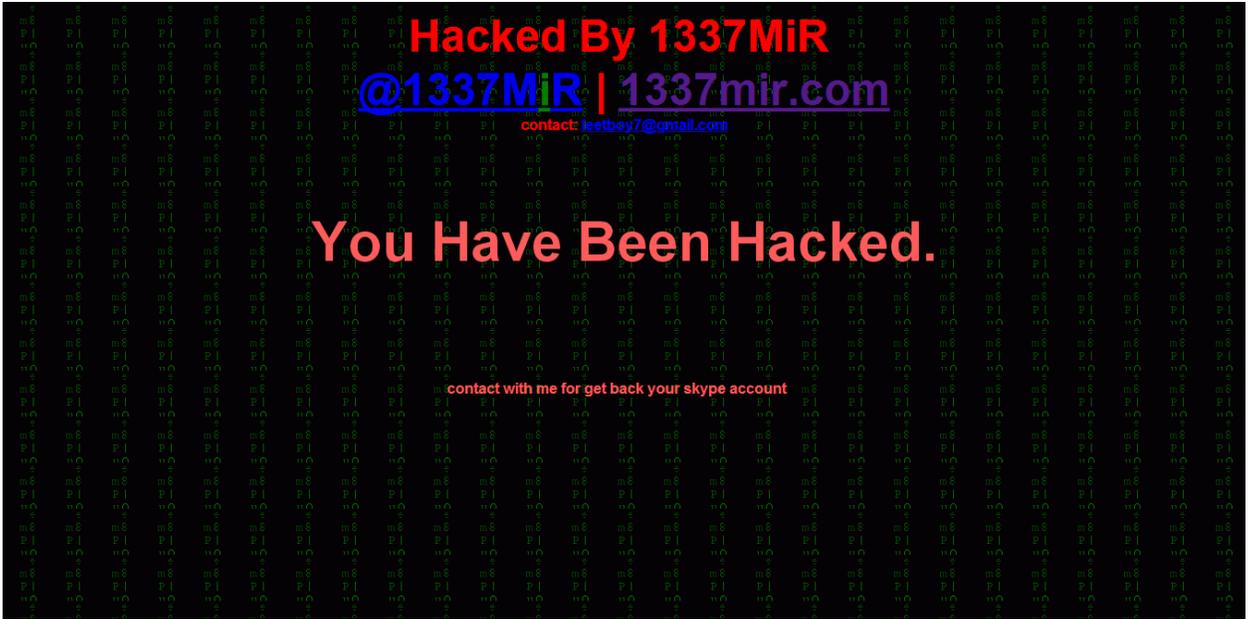


Figure B: 9 – Typical 1337Mir deface page (Zone-h 21242263)

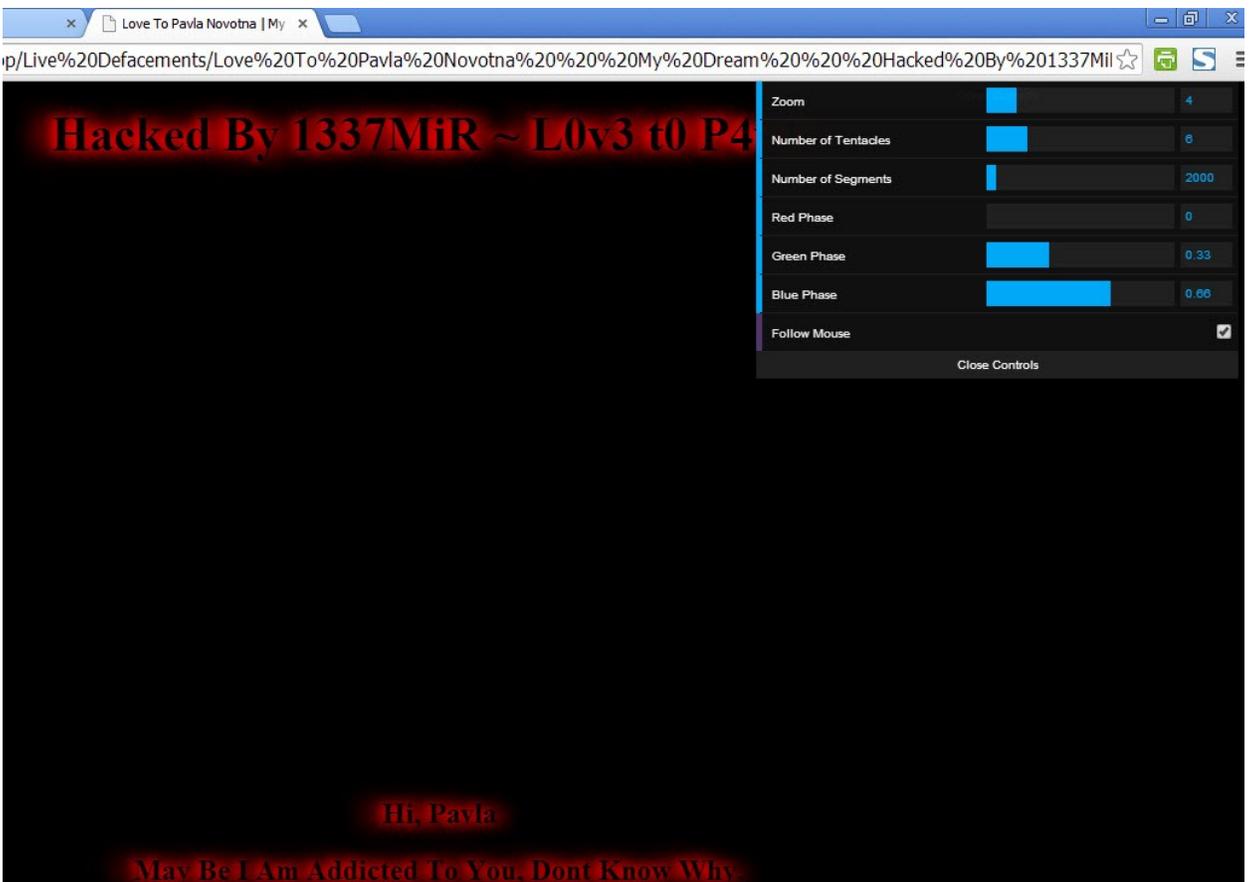


Figure B: 10 – special deface page for Pavla (note:spectacular animated mouse effects not visible) provided by LeetMir

```

1 <!DOCTYPE html>
2 <!-- saved from url=(0034)http://fabindonesia.com/pavla.html -->
3 <html><head><meta http-equiv="Content-Type" content="text/html; charset=UTF-8"><style type="text/css">#guidat { position: fixed; top: 0; right: 0; width: auto; z-
index: 1001; text-align: right; } .guidat { color: #fff; opacity: 0.97; text-align: left; float: right; margin-right: 20px; margin-bottom: 20px; background-color:
#fff; } .guidat, .guidat input { font: 9.5px Lucida Grande, sans-serif; } .guidat-controllers { height: 300px; overflow-y: auto; overflow-x: hidden; background-
color: rgba(0, 0, 0, 0.1); } a.guidat-toggle:link, a.guidat-toggle:visited, a.guidat-toggle:active { text-decoration: none; cursor: pointer; color: #fff;
background-color: #222; text-align: center; display: block; padding: 5px; } a.guidat-toggle:hover { background-color: #000; } .guidat-controller { padding: 3px;
height: 25px; clear: left; border-bottom: 1px solid #222; background-color: #111; } .guidat-controller, .guidat-controller input, .guidat-slider-bg, .guidat-
slider-fg { -moz-transition: background-color 0.15s linear; -webkit-transition: background-color 0.15s linear; transition: background-color 0.15s linear; }
.guidat-controller.boolean:hover, .guidat-controller.function:hover { background-color: #000; } .guidat-controller input { float: right; outline: none; border: 0;
padding: 4px; margin-top: 2px; background-color: #222; } .guidat-controller select { margin-top: 4px; float: right; } .guidat-controller input:hover { background-
color: #444; } .guidat-controller input:focus, .guidat-controller.active input { background-color: #555; color: #fff; } .guidat-controller.number { border-left:
5px solid #00aaff; } .guidat-controller.string { border-left: 5px solid #1ed36f; } .guidat-controller.string input { border: 0; color: #1ed36f; margin-right: 2px;
width: 148px; } .guidat-controller.boolean { border-left: 5px solid #54396e; } .guidat-controller.function { border-left: 5px solid #e61d5f; } .guidat-
controller.number input[type=text] { width: 35px; margin-left: 5px; margin-right: 2px; color: #00aaff; } .guidat .guidat-controller.boolean input { margin-top:
6px; margin-right: 2px; font-size: 20px; } .guidat-controller:last-child { border-bottom: none; -webkit-box-shadow: 0px 1px 3px rgba(0, 0, 0, 0.5); -moz-box-
shadow: 0px 1px 3px rgba(0, 0, 0, 0.5); box-shadow: 0px 1px 3px rgba(0, 0, 0, 0.5); } .guidat-propertyname { padding: 5px; padding-top: 7px; cursor: default;
display: inline-block; } .guidat-controller .guidat-slider-bg:hover, .guidat-controller.active .guidat-slider-bg { background-color: #444; } .guidat-controller
.guidat-slider-bg .guidat-slider-fg:hover, .guidat-controller.active .guidat-slider-bg .guidat-slider-fg { background-color: #52c6ff; } .guidat-slider-bg {
background-color: #222; cursor: ew-resize; width: 40%; margin-top: 2px; float: right; height: 21px; } .guidat-slider-fg { cursor: ew-resize; background-color:
#00aaff; height: 21px; } </style>
4 <!-- Hi, Camilla Novotna. I am really really sorry. I Break Your Website Security To Give A Msg To Pavla. Please Dont Mind. Change You Website Index. I Keep Backup
Of Your Website Index File -->
5 <meta charset="utf-8">
6 <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
7 <meta name="viewport" content="width=device-width, initial-scale=1.0">
8 <title>Love To Pavla Novotna | My Dream | Hacked By 1337MiR</title>
9 <script type="text/javascript" async="" src="/Love To Pavla Novotna My Dream Hacked By 1337MiR_files/load.js"></script><script type="text/javascript">
10
11     /*  */
12     (function() {
13         var s = document.createElement('script'), t = document.getElementsByTagName('script')[0];
14         s.type = 'text/javascript';
15         s.async = true;
16         s.src = 'http://api.flattr.com/js/0.6/load.js?mode=auto';
17         t.parentNode.insertBefore(s, t);
18     })();
19     /*  */
20 </script>
21 <style type="text/css">h1.drop-shadow(text-shadow:4px 4px 6px #1AD98F)</style>
22 <script language="JavaScript">
23 <!--
24 //edit this message to say what you want

```

Figure B: 11 – Source code for Pavla with apology to website operator (middle of page in green letters)

CoupdeGrace

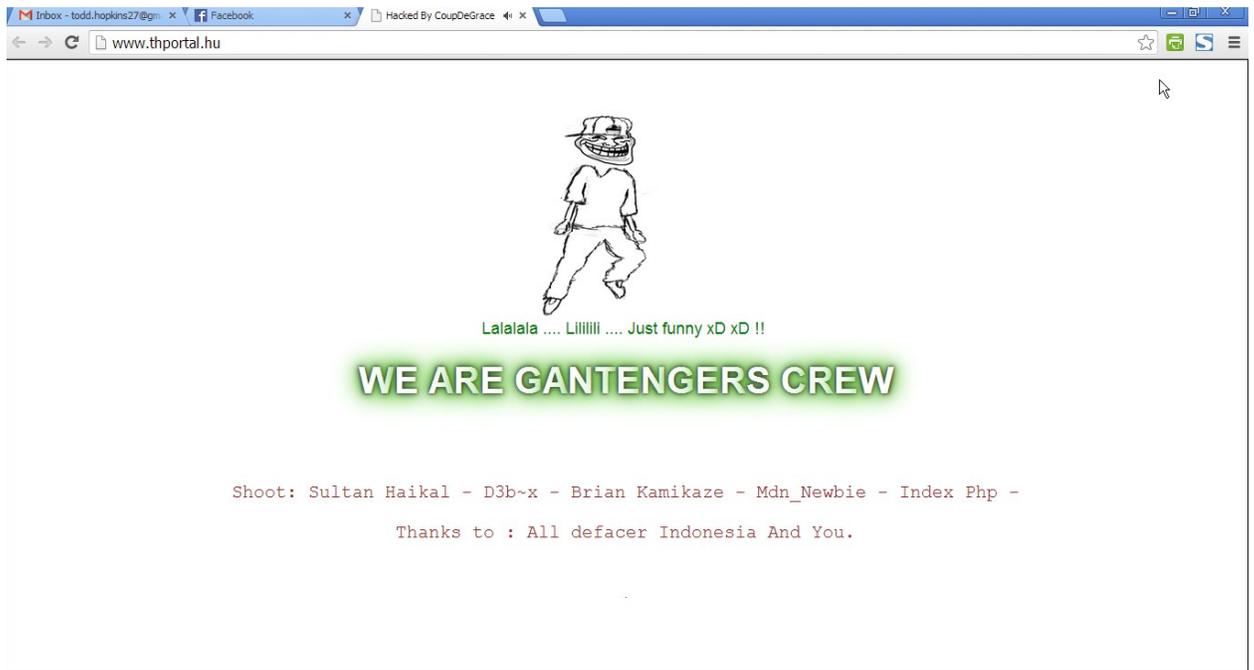


Figure B: 12 – Simple early deface page by Coup de Grace (see page tab) of Gangtengers Crew

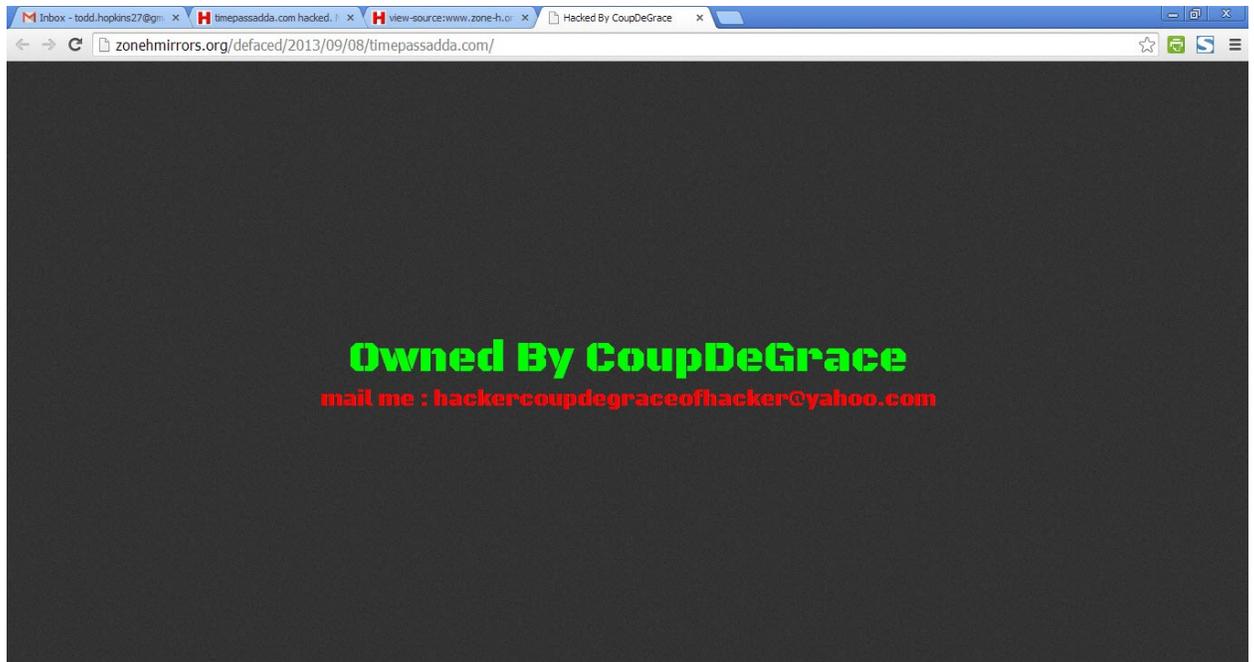


Figure B: 13 – CoupdeGrace - relatively simple static homepage defacement (Zone-h 20736978)

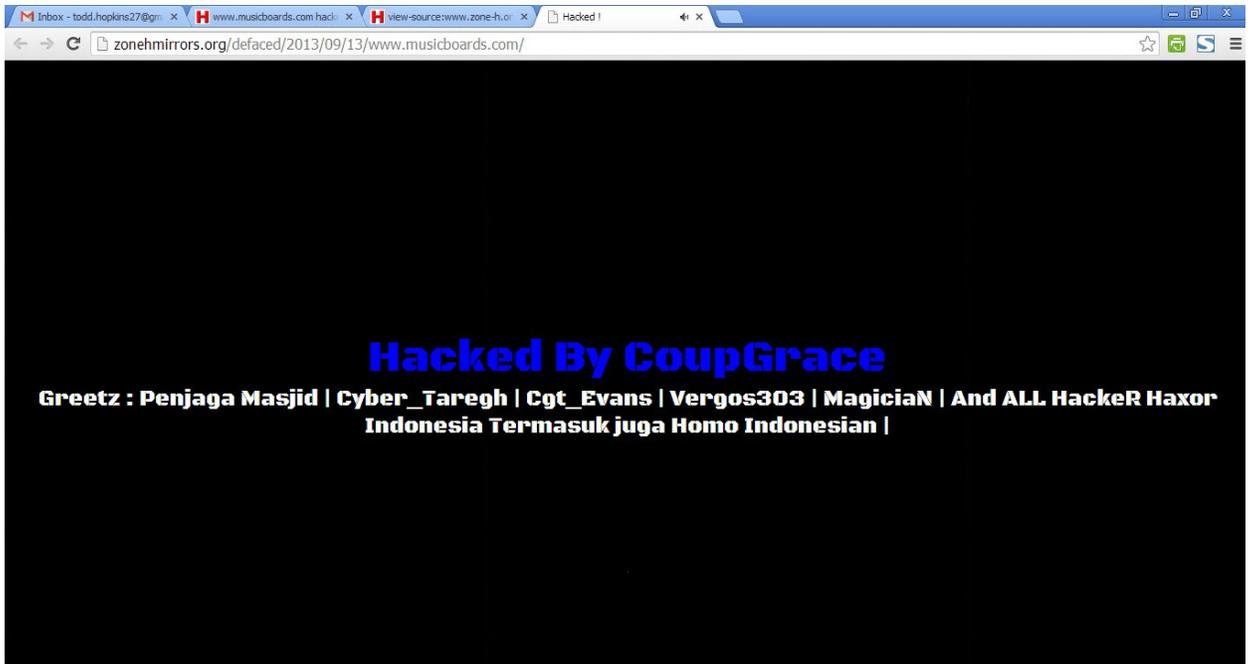


Figure B: 14 – CoupdeGrace - relatively simple following the model (figure 12) above (Zone-h 20770388)

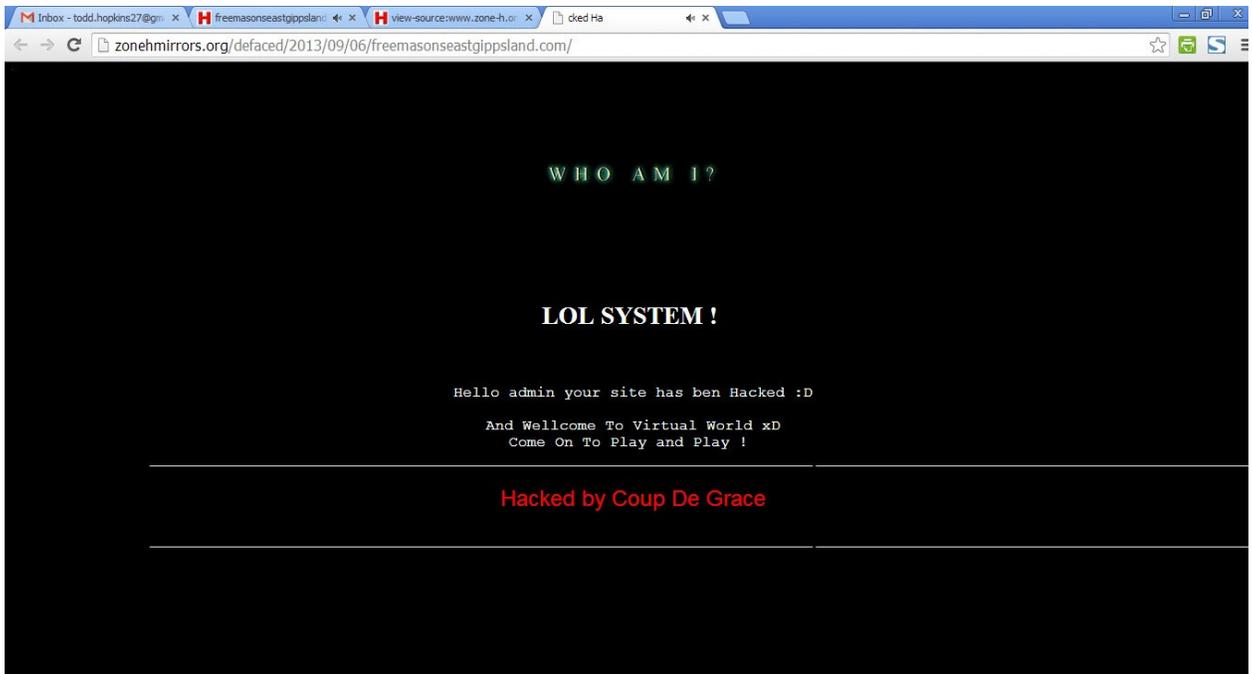


Figure B: 15 – CoupdeGrace - more sophisticated dialogue (see V20 for animation/music) (Zone-h 20722026)

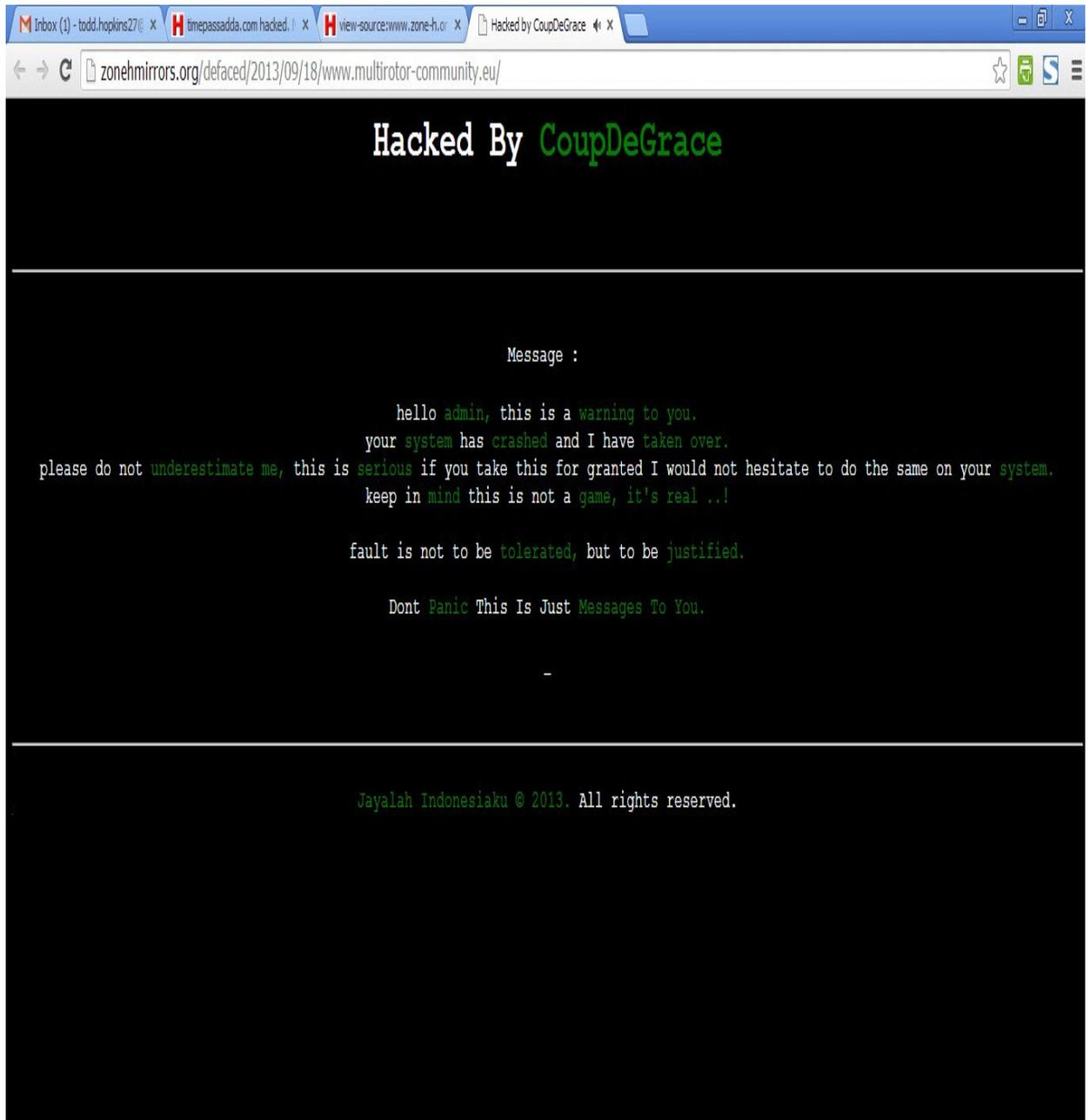


Figure B: 16 – CoupdeGrace – dialogue more intense (see figure V21 for animation/music) note copyright (Zone-h 20808790)

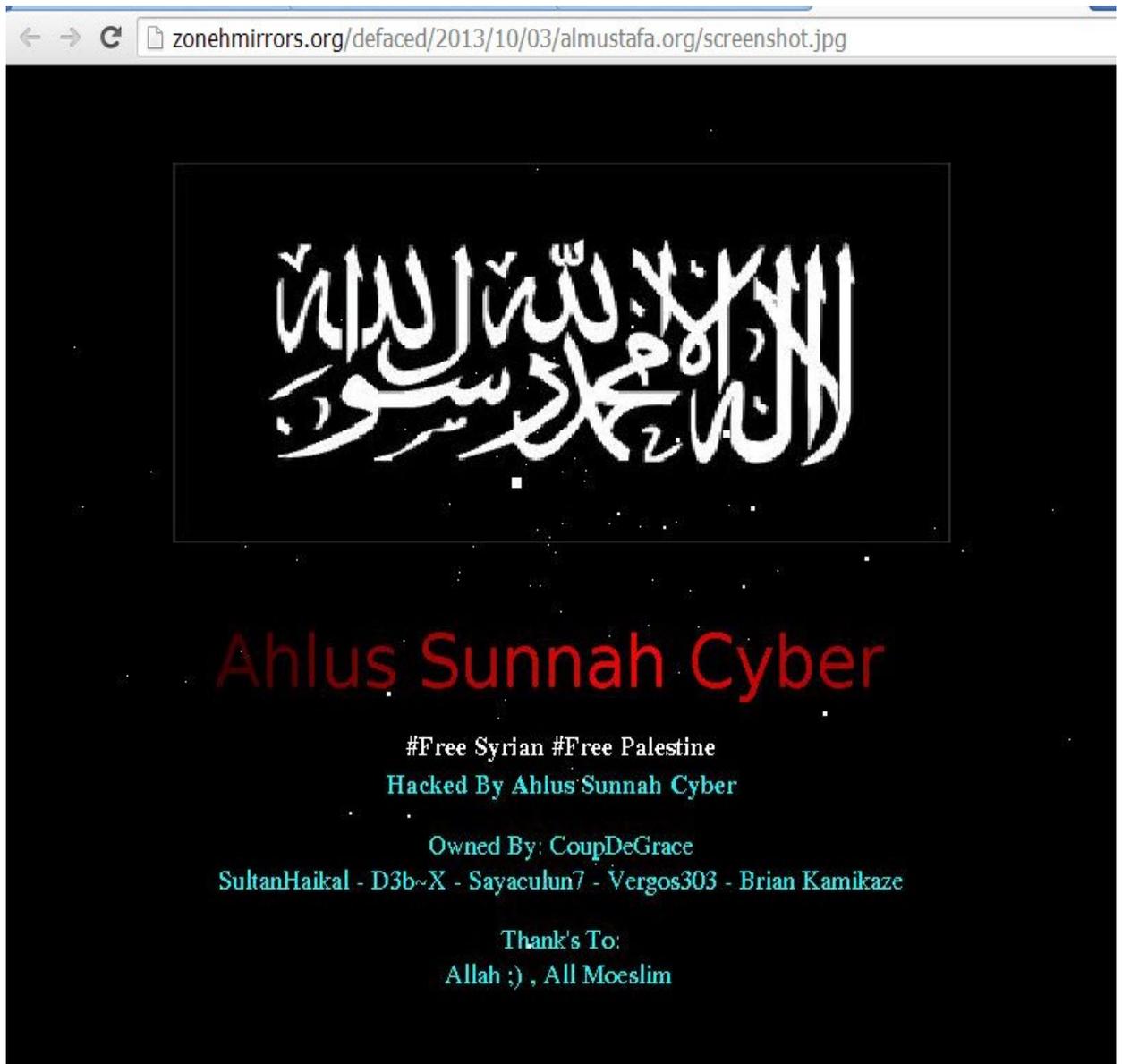


Figure B: 17 – CoupdeGrace – with Muslim activist aspect – (Zone-h 20889334)

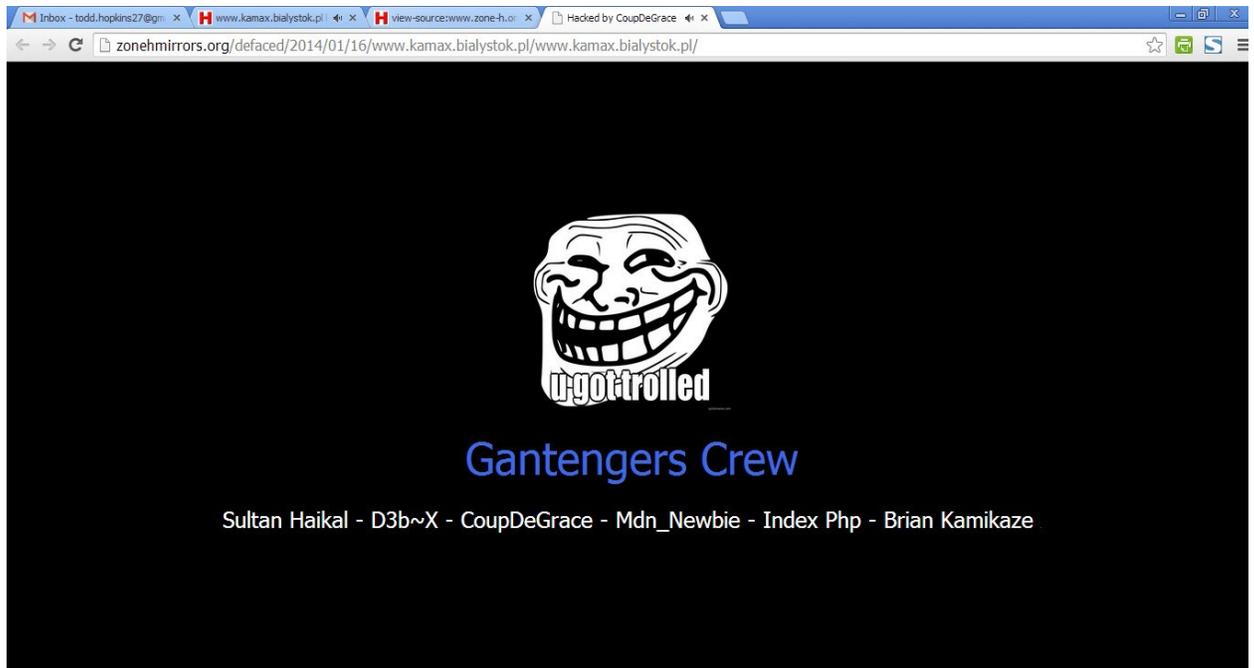


Figure B: 18 – CoupdeGrace with Gantengers Crew – (Zone-h 21564068)

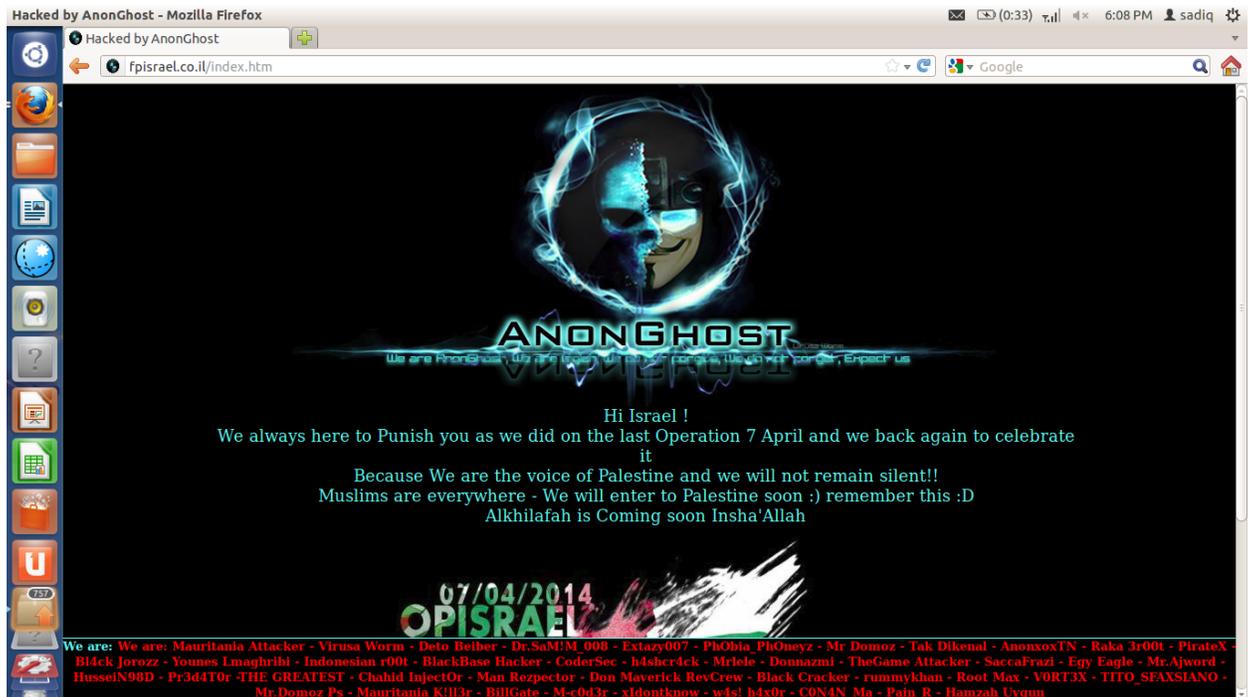


Figure B: 19 – OpIsrael – AnonGhost (including one member of PhantomGhost Crew) successfully defaced 550 Israeli websites on April 7th, 2014. CoupdeGrace was not invited to join AnonGhost.

MrWWW



Figure B: 20 – Dr.WWW – Lombok, Indonesia (Zone-h 21240858)



Figure B: 21 – Mr. WWW – Slogan #1 (Zone-h 21353084)

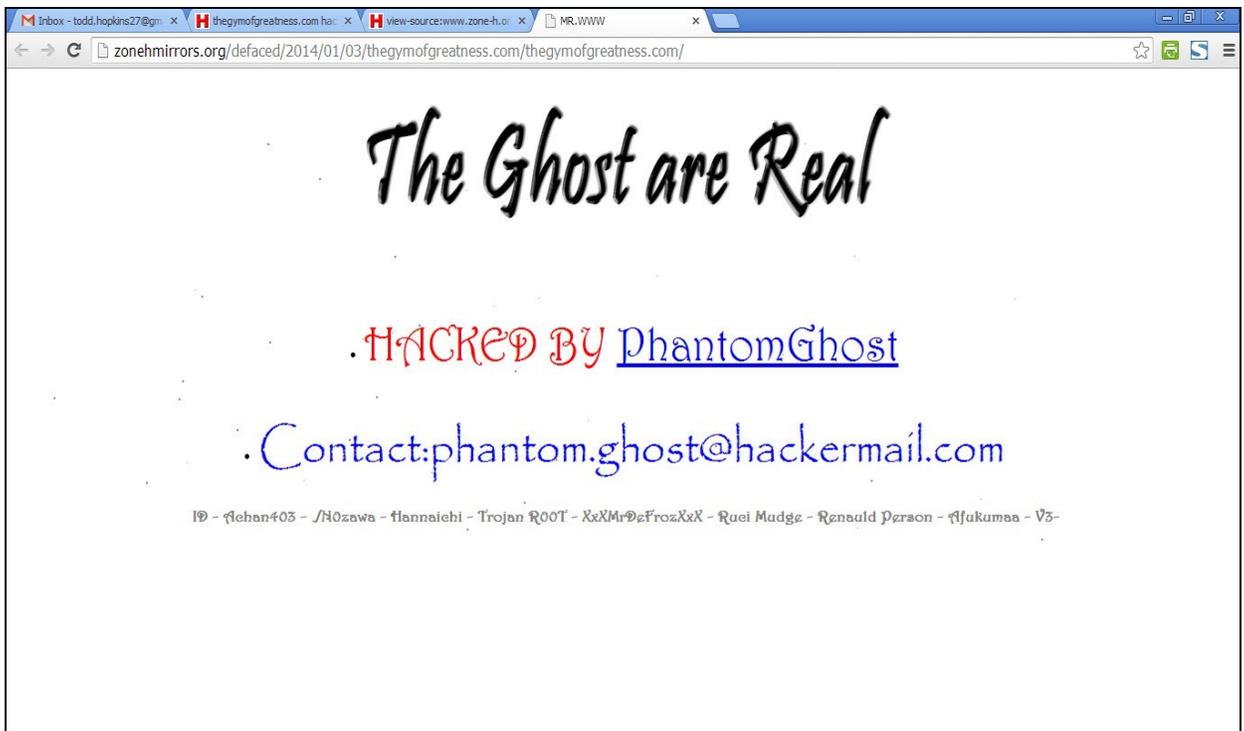


Figure B: 22 – Mr. WWW with PhantomGhost – Slogan #2 (Zone-h 21447466)

APRILIGHOST (4prili666ho5T) - from his artist book



Figure B: 23 – ApriliGhost “I Am Ghost in Cyber World” from his artist book (like traditional graffiti)



Figure B: 24 – ApriliGhost - “[Who Am I]”



Figure B: 25 – ApriliGhost – “I Am Cat in Cyber World”



Figure B: 26 – ApriliGhost “quatre(4)-prili-six-six-six-h-zero-cinq(5)-t” or 4prili666h05t



Figure B: 27 – ApriliGhost – image used for website defacements (see Zone-h 21751472 and 21972972)



Figure B: 28 – ApriliGhost – image used for website defacements (see Zone-h xxxxxxx)



Figure B: 29 – ApriliGhost – used for website defacement (Zone-h xxxxxxxxx)



Figure B: 30 – ApriliGhost – used for website defacement with MrWWW (Zone-h 21730841) and see vX8



Figure B: 31 – ApriliGhost – series of name holders #1



Figure B: 32 – AprilGhost – name holder #2 (cat themed)



Figure B: 33 – AprilGhost – name holder #3



Figure B: 34 – ApriliGhost – name holder #4



Figure B: 35 – ApriliGhost – sketches for work with AnonSec #1



Figure B: 36 – ApriliGhost – sketches for work with AnonSec #2



Figure B: 37 – ApriliGhost – sketches for work with AnonSec #3



Figure B: 38 – ApriliGhost – sketches for work with AnonSec #4



Figure B: 39 – AnonSec standard deface page (AnonSec cell-captain is Adil Aslam)



Figure B: 40 – Aprilighost chastised by Adil Aslam for using non-approved AnonSec deface page



Figure B: 41 – ApriligHost – “The Life is a Game” from his ‘Black Book’

-----Original Message-----

From: LeeT Sec [mailto:leetsec@gmail.com]

Sent: Thursday, March 13, 2014 5:52 AM

To: [obsolete email]; [obsolete email]; [one of the staff member's email]; [email of the old webmaster no longer working here]; [obsolete email]

Subject: ****.edu website security warning | hacked

hi there,

i am mir from "leetboy" ethical hacker group.

your website is SQL injection vulnerable. and you use weak password.

and there is lots of configuration mistake.

please secure your website, otherwise bad hacker damage your website data.

proof: http://cp.mcafee.com/d/2DRPoOcy1J5AQsLzOpEVjvdTdETHouvouK-rhKyMY-MqemjhOrhKyMY-MZtMSzt5ZxNZVCVJpnIqMDkO2BrgbtW3pJmQ2TuwSrIWxp5BB_HYYCVtXHTbEKf3KhpohshhVqWtAkRkrKsG7DR8OJMddECQjt-jLuZXTLuVKVI060k0E1g2ZW3u8IzBphU76VRgg9RmaOxg5m4-Jlj_Dm7mQSUyU-r2om3x04zhEwbCy05zihEw0nO59jYQg8uXJU-4Pra9I-j9

i just upload this file to proof that your website is vulnerable and hackable. dont worry, i didnt edit/change/delete any files and data from your website, all data are safe.

i got some weak password. below are those pass> and some mysql database username password below.

*****THERE FOLLOWS A LIST OF USERIDs AND PASSWORDS WHICH I HAVE REMOVED (Todd Hopkins)*****

you can contact with me for fix security issue. email me at mir@leetboy.net or leetsec@gmail.com

cheers

mir

Figure B: 42 – Email from Mir (LeetMir) to website administrator

Appendix C: CD-ROM Virtual Description

Multimedia Figures V1 – V30 are included on a CD-ROM that accompanies this thesis

Appendix D: Some Emerging Styles of Virtual Dyscription

In general, even dyscriptors producing very complex and stylistically charged defacement pages (dyscriptive products) were typically not consciously organizing this aspect of their work or interested in talking about it. The monologic products of defacement are more like sophisticated tags¹⁵⁸ (to use the terminology of the traditional graffiti world), to display your name and, sometimes, how you might be contacted. They are the last activity (file upload) you perform before the job is finished, to prove you were there; almost any file could do. The file upload is important, because otherwise no one would know you had got in; thus, usually the file renders an identifiable sign, for example your name, and then, usually, what you have done: “Hacked by Mir”. Although these tags begin as simple text on blank backgrounds, they often evolve into complex stylistic gestures, but are still typically treated by their creators as something like a side-effect of the main event: testing and compromising security.

Nevertheless, if we look over the selection of dyscriptive activity created by the crews we have interviewed, we can see that their compositions (visual and aural) are far from simple or standardized. Although many other and often more accomplished defacers simply use a basic ‘tag’ to signal their presence on a target site, these mid-range groups clearly have a product-oriented ‘style’.

¹⁵⁸ In traditional graffiti, a ‘tag’ is a simple set of initials, intended to be easy and fast to apply under what are usually risky circumstances. In the virtual world, with regard to defacing the homepage of a vulnerable website, there are no comparable constraints – the defacement page is always prepared in advance (more like a stencil), and it is just a matter of uploading a file.

We can discern some broad categories in terms of the prominent aspects of dyscriptive style, or at least which quadrants of the stylistic spectrum are dominant in the dyscriptive experience of the producers and the viewers.

Gamer style (low stylistic intensity of both act and product)

The gamer is simply trying to deface as many sites as possible and get to the top of a list, almost always the one maintained at Zone-h. Around 2003-2005, this statistic (number of sites defaced) was highly valued by defacers and conferred notoriety on the individuals or groups who were at the top of the list. The gamers are not interested in interacting with the site owners, the site viewers, or the general public; they are interested in registering confirmed exploits at Zone-h, in building their point-total (one point per site), and in making sure others players can see their score. They will typically create a ‘proof of presence’ defacement page and upload it to every site they manage to access. Sometimes this standard page is more complex, but it will usually remain the same throughout a ‘campaign’, and even over the course of a year or years. These events typically show little stylistic intensity in either act or product, being closer to what one webmaster (Geoff X. - below) calls “digital noise”; and while they certainly may cause much frustration and anger among their randomly selected victims (what one might call unexpected dialogic effects), the gamers are not intentionally targeting anyone in particular, but only opportunity. This is the clearest case of what is pejoratively known as the script-kiddie (or ‘skiddy’) within the broad defacement community itself, an appellation that everyone I have spoken to attempts to distance themselves from. This mode of operation puts almost no value on the monologic product, and the only operative feedback loop is sustained by the point totals registered at a reliable, trusted archive, and

in the ‘dialogue’ with other player-dyscriptors (i.e., the changing rankings proclaiming the current champion, etc.). We may assume, however, that the winners are deemed to be displaying a certain kind of skill (perhaps not appreciated outside of the other players) and that these ‘skills’ enable groups to gain notoriety by playing a winning game.¹⁵⁹

Hacker style (high stylistic intensity of act, low intensity of product)

The defacement pages of some of the most famous hackers are very simple. Many professional hackers do not bother with a homepage defacement product at all, except in the case of a highly visible or seemingly impregnable website, where they simply want to show off. Almost all the stylistic intensity of the event is provided by the dialogic and monologic features of the *act*. There is no need to do much more than show you were there, since no one imagined anyone capable of *getting* there. The typical dyscriptor who is not simply playing a game (gamer), usually harbours notions of being or becoming a real ‘hacker’, and so there is pressure to emulate their heroes; many of the dyscriptors I spoke to expressed some version of this attitude: the quality of the defaced page is of little interest, it is a waste of time, it contributes little to the ‘virtues’ of the dyscription, everything of interest and value arises from the act of access, etc. The commonplace dyscriptor speaks ‘up’ by praising the act and using a more technical vocabulary; I frequently encountered this kind of conversational affect in talking or chatting with members of the ‘ordinary’ dyscriptor community.

¹⁵⁹ Overall, this gaming mode of defacement has lost much of its interest with the advent of mass defacements, which, in a sense, devalue the ‘volume’ currency by making it possible to access one webhosting server and register sometimes thousands of points at a time (the skilled hacker Tiger-M@te defaced 700,000 sites in one ‘play’). It became clear that a skilled hacker could easily ‘win’ the game anytime, if and when they ever deigned to play, with one impressive act of ‘hacking’. After 2005, with the advent of massive webhosting services, occasionally a famous ‘hacker’ would perform a huge mass defacement that would ruin the game.

The hacker affect underscores the typical relationship between dialogic act and monologic product realized in their dyscriptive style (at least in regard to the locus of stylistic intensity from the perspective of the producers and most of the viewers of the exploit): a highly charged dialogic act (skilled, successful access to a ‘hard’ site) is usually accompanied by a simple even standard defacement page. The stylistic intensity of the act is effectively transmitted by what we have called the monologic aspects of the typically simple dyscriptive product, a further homologue to pre-aestheticized traditional graffiti; for example, in the early years a simple three letter tag on the outside door of a subway car carried a high stylistic charge simply from the novelty and audacity of the act. However, as we saw with Dr. WWW and AprilGhost, when the dialogic act is of relatively low intensity, then the monologic aspects of the product begin to gain ‘traction’ as a locus of more conscious stylistic activity and potential intensity. This dynamic is reinforced for the dyscriptor whose likely viewers are mainly ‘friends’ in a socially-networked community, vs. a broader audience concentrated on highly visible and correspondingly less accessible sites.

Hactivist style (high intensity in dialogic aspects of the product, with some ‘branded’ content)

The ‘hactivist’ (Samuels) sub-group of virtual dyscriptors are typically concerned with a political agenda, and usually affiliated with some like-minded group. These groups, unlike the gamers and hackers, but similar to their traditional activist antecedents (protest movements), typically pay considerable attention to the dialogic aspect of their product, where the stylistic intensity arises from a consideration of what the defacement page is saying, literally or implicitly, to the specific defaced website or the website’s typical

viewers. Most of the stylistic charge arises from the highly conscious communication of particular content (image or text). What is notable is the mounting pressure to standardize this content, as the hacktivist groups become more organized or members of larger ‘umbrella’ organizations (Anonymous etc.) where their defacement page begins to serve as a kind of brand.

The hacktivist agenda tends to standardize the defacement imagery (product) to meet the ideological branding standards of the group, with dyscriptors relying on the stylistic intensity of their act (target selection and skill of execution) to galvanize the attention of viewers and the popular media. It becomes ever more important for the standard brand image to serve as the focal point for attention resulting from a given high-profile exploit: the Iranian Cyber Army does not want to be mistaken for a collection of script-kiddies. Again, this is not unlike the prominent role of the Hells Angels logo in a newscast when a high profile murder has been committed.

Cacoethes codiendi

Here, a dyscriptor’s act of access is typically ‘minor’ and uninteresting (both socio-politically and technically), but often results in a carefully constructed defacement product, which it is hoped might impress the website viewers (who may be very few), but may also impress a social network of friends and other interested (but not targeted) viewers. This is a different kind of game, very much following the ‘trajectory’ of the graffiti in the New York subway system in the early 70s, in the years preceding its ‘explosion’ (i.e., its coming to the attention of the media-arts community, such as feature writers, journalists, and art galleries), when the simple monochrome tagging of three initials on various surfaces seemed to be transformed into something categorically new

on the surfaces of the subway system, and then rapidly evolve into a more complex and sophisticated series of ‘new’ painterly practices (the ‘fill-ins’, ‘burners’, ‘top downs’, ‘pieces’ and ‘full car’ murals) which controversially catapulted graffiti writing into the category of an emergent fine art. In the same way, in these early days of *virtual* dyscription, the dyscriptive products of these ‘ApriliGhosts’ are, in a sense, still occurring in a manner that anticipates but does not partake of the categories and hermeneutics of aestheticization, which define the self-conscious, gallery-oriented practices of most contemporary, self-identified, traditional graffiti-artists.

Contemporary media outlets (popular and specialized) currently show little interest in the ‘aesthetic’ features of the defacement imagery – so there is little positive feedback at this time. However, if the trajectory of virtual dyscription continues to parallel that of its traditional analogue, we should expect to see the growing practice and valorization of what I have called the monologic aspects of the dyscriptive product. ApriliGhost provides a good example of this emerging dynamic (see Appendix B, Figure .

The Emergence of Stylistic Tendencies

If we return to our schematization of the four aspects characterizing the stylistic profile of digital dyscription (see Figure 50, p.229), we can note the emergence of some implicit ‘meta-styles’, according to the preponderance of one aspect over the others in accounting for the type’s apparent stylistic intensity. This ‘weighting’ arises both from the disciplinary focus on those particular stylistic ‘features’ (e.g., Computer security researchers will emphasize feats of unauthorized access, political scientists will naturally focus on activist messaging, etc.), but also should be understood as reflecting the stylistic dynamics of the virtual phenomena themselves. It is important to re-emphasize that, in

all cases, all four aspects are active to some degree and intrinsic to the constitution of any fulfilled instance of virtual dyscription.

I have tentatively characterized these four ‘meta-styles’ of digital dyscription as (1) *hacking*, where the locus of stylistic intensity arises predominantly from *the act* as both dialogue and monologue; (2) *cracking*, to name a variation of the hacking style where intensity arises mainly from the act as dialogue (i.e., those cases of purely criminal intent); (3) *hacktivism*, where the *product* as dialogue is the main locus of intensity; and finally (4) what may now be fully and properly termed *virtual graffiti*, whose primary stylistic charge arises from what I have called the product as monologue, the intrinsic features of the dyscriptive product as we encounter them on the *murus perceptus* and in the archive.

Given the complex dual-surface architecture unique to virtual dyscription, as described above, not merely virtual graffiti itself, but all four of these praxes may be seen as forms of digital dyscription, since all involve *at least* dyscription on the *murus codicis*, even if it be effectively invisible to the common viewer. In this way, hacking, cracking and hacktivism may all be seen as fellow species of digital dyscription, along with virtual dyscription (virtual graffiti). However, though keeping in mind this important fact, as well as its implications to any future stylistics of virtual dyscription *tout corps*, for our more narrow heuristic purposes here, given the strong homologic affinities I am exploring between traditional and virtual dyscription, and the particularly ‘virtual’ nature of digital graffiti, I shall use the term ‘virtual dyscription’ interchangeably with ‘virtual graffiti’.

I noted earlier (here and in Chapter 3), how the first three meta-styles of digital dyscriptive phenomena have typically been focused on under the aegis of hacking studies in computer science, political science and criminology. My research, in part, seeks to draw attention to the important work remaining to be done in hacking studies to further elucidate not only the style dynamics of *the act* (dialogic and monologic) of coding, which has so far served as the primary foci of these scholarly approaches, but also those intrinsic monologic aspects of the coded product *itself*, where we should also expect stylistic intensity to arise. Some studies specifically on hacktivism have focused on the products of virtual dyscription, but typically on what I have called their dialogic aspects, what they literally say (Samuel, 2011), leaving open the opportunity for more sustained stylistic analysis, for example of the rhetorical devices or literary ‘styles’ that will inevitably be at play in this mode of dyscriptive praxis. Such deeper treatment of the stylistic dynamics of dyscriptive hacking, cracking and hacktivism remains for the future.

Here our focus lies on what has remained largely unexamined by scholarship to date, those artifacts of virtual dyscription that generate most of their stylistic intensity by means of what I have called the monologic aspects of their dyscriptive products. These products are the ‘marks’ left behind by the dyscriptors, the website defacements (images, sounds or multimedia artifacts), now standing alone as complex ‘objects’ mirrored in the archive, effectively independent of the acts through whose agency they initially arose.

These objects can be treated in much the same way we treat a painting, drawing, sculpture or film, and stylistically analyzed using the same formal criteria typically deployed to do so: colour, line, contrast, volume, texture, representational likeness, composition, camera angle, imagery, characterization, etc. Heretofore, these phenomena

have typically been treated as the *cacoethes scribendi* of the virtual world, put aside either as boring side-effects of hacking or hacktivist activity, or as the indecorous and uninteresting scribbling of script kiddies. We are now, however, in a better position to see these virtual artifacts as clear and often suggestive homologues to traditional graffiti, opening a historically significant window on the virtual world and its aesthetics, mores and inhabitants. Even the attitudes toward and neglect of them as artifacts in their own right bear striking homologic affinities to the treatment of traditional graffiti, until the 1970s paradigm-shift centred on the inscriptive defacements of New York City subway cars. The fourth quadrant of our schema brings into the foreground the intrinsic aspects of virtual dyscription's style which are most obviously homologous to our contemporary experience of traditional graffiti, and will inform this first attempt to characterize some of the predominant styles and stylistic tendencies of virtual graffiti.

Given the vast quantity and variety of the material, and the absence even of a *framework* for approaching it from a stylistic perspective, here I can only hope to sketch some of the most notable features of the stylistic topography of virtual graffiti, based on the study of over 5,000 instances of virtual graffiti recorded in the Zone-h archive; however, I hope that this preliminary analysis will act as a bridge from the empirical and taxonomic work of this study to the elaboration of a comprehensive stylistics of virtual graffiti in the future.

Stylistic Tendencies

Apocalyptic

In striking and profound contrast to the *overlaying* of traditional graffiti, which typically defaces a surface by covering part of it with spray paint (or an inscriptive marking of some sort), virtual graffiti accomplishes defacement by *replacing* the visible surface (*muris perceptus*) with one of the dyscriptor's creation; and latent in almost all website defacement imagery are (more or less devastating) references to the marred functionality of the website itself, typically through visual cues (e.g., pop-up boxes with passwords, file names, user ids, user privilege escalations, database access) explicitly addressed to the site administrator, and/or through exposing viewers to apparently 'raw' code elements or procedures, all of which have the effect of revealing the sheer superficiality of what the typical user sees (*muris perceptus*) and confirming the dyscriptor's presence at the 'hidden' code wall (*muris codicis*). The dyscriptors are 'inside' the system, in between the *muris codicis* and the *muris perceptus*, acting as a ghostly interface between you and the machine. This sense of transgressive revelation, of suddenly removing the 'face' of a website like removing a friendly mask, to reveal not merely the hidden and to most viewers unfathomable world lying beneath the everyday, 'user-friendly' surface, but also the (equally unfathomable) power of the dyscriptor him/herself; this unsettling, even sinister surprise is perhaps the most critical and distinctive element informing the overall stylistics of virtual graffiti. It is above all, in the pure, classical sense of the term, apocalyptic ('from cover').

Tenebrific

Interestingly, given the above, one of the most distinctive qualities of virtual graffiti is its predisposition to darkness. Although the entire range of colours is available to the virtual dyscriptor, the overwhelming majority of virtual graffiti compositions are set against a

dark, most often black, background, creating a mood of enclosure, at times almost stifling. Reasons for this might include the frequent dyscriptor involvement in computer gaming worlds, which often privilege this aesthetic mode, or simply the now vestigial sense of trespass occurring at night in the 'real' world, under the cover of darkness.

Although most traditional graffiti is inscribed at night and in the dark, it is intended to be viewed in the light; in the case of virtual graffiti, however, though many of its elements will be brightly coloured, it is typically *set* in darkness, rather like fireworks.

Collagistic

Traditional graffiti is predominantly drawn, painted or inscribed with a 'free hand'. In the most typical New York signature styles, letters, symbols, popular figures and icons are the result of careful and painstaking illustration. In the world of virtual graffiti, however, we rarely meet with hand-drawn letters or sketches, and if we do, they are typically cut-and-pastes of 'found' images, not the hand-made work of the dyscriptor themselves. The true stylistic creativity of the dyscriptor is typically displayed in collagist techniques, such as the selection, sizing, positioning and composition of the new defacement page which will be viewed by users. If we look at the source code of the defacement page, we see the collage is typically constructed by simple coded (e.g., HTML) references to files containing multimedia objects (pictures, video, music, logos etc.) 'composed' into a page-view in HTML by the dyscriptor. The collage is the essential means of virtual graffiti creation, and this fundamental technical disposition translates into a fundamental stylistic disposition, from simple 'tags', such as a block of text and logo, to much more sophisticated 'pieces', such as complex, multimedia compositions.

One noteworthy exception to this prevalence of collagist stylization is the use of repetitive patterns of keystrokes (single letters) within the HTML source code to produce a visible figure, not unlike quilting or mosaic technique, with affinities to the traditional stylistic features of American folk art, echoed in other categories as well.

Agonistic

Far more notable in virtual graffiti than in its traditional counterpart (though a definitive feature there as well), and echoing, like the tenebrific disposition above, the stylistics of virtual gaming so akin to dyscriptive transgression, much virtual graffiti has a pronouncedly agonistic character, most typically in the vaunting of victorious accession before the viewer, but also, more or less explicitly in overcoming the defenses put in place by the site administrator, and even in outdoing fellow dyscriptors. This characteristic antagonism will often shade into something like moral scolding ('Let this be a warning to you'), with the dyscriptor taking the role of a higher authority rooting out and punishing the unpardonable programming 'sins' of an administrator whose assurance of system security has failed.

Ludic

More similar to its traditional counterpart, and intensified in the 'Carnivale' style below, is the ludic character of virtual graffiti. There seems a characteristic and pervasive playfulness about the dyscriptive moment, reminiscent of the childlike fun and excitement of unsupervised but rule-bound activities of 'tagging up' in the underground subway network, but now in the video-game like cumulative 'tagging' of websites, and even more in the interactions of the dyscriptor with the fundamentally game-like

architecture of computer systems in general, whose security perimeters sit like puzzles or riddles to test the ingenuity of the dyscriptor, and any successful exploit or breach at one level invites the player deepen into a game-like ‘matrix’. Deeper still perhaps is the ludic *ontology* of the ‘pretend world’ of the virtual itself, so sensual and intense, yet in reality so superficial, ephemeral and fragile—especially in the hands of a skilled dyscriptor.¹⁶⁰

Animative

Curiously reminiscent of their traditional real-world counterparts in New York City, who realized the power of animation by inscribing their imagery onto subway cars moving through the city, virtual dyscriptors, especially those working since the early 2000s, show a pronounced tendency to animate their work, perhaps again influenced by the restless real-time point-and-shoot ethos of video games and the fluidity of social media, but certainly encouraged by the hyperplasticity of the medium itself, exploiting a wide variety of multimedia playback features built in to contemporary web browsers. Stylistic evidence includes the frequent occurrence of dark backgrounds with lightning flashes and/or moving stars; letters and images that rarely stay still but instead move from left to right, shrink, or display strobe effects; message boxes popping up and disappearing; and the viewer’s own mouse pointer spewing out letters or colours, or otherwise participating in the defacement imagery.¹⁶¹

¹⁶⁰ This strange, novel, ludic yet deeply unsettling ontology of the WWW (at least in these early stages of our adaptation) bears obvious and striking affinities to the (identically two-tiered: *perceptus/codicis*) world depicted in the Wachowski bros’ Matrix trilogy; and the interstitial *daimon* here represented by the skilled dyscriptor is there vividly (semi-)incarnated in the playfully maleficent ‘Frenchman’ (the Merovingian), who manages access to the mainframe responsible for sustaining the virtual worlds and their inhabitants (real and digital).

¹⁶¹ The characteristic animations we see in virtual graffiti, relying as they do on the ingenuity of the dyscriptors in borrowing, coding and incorporating eclectic animation schemes into each individual dyscriptive piece, are surprisingly akin to the whirly-gigs of the folk art tradition—those wind-powered,

Some Notable Styles

These general stylistic tendencies of virtual graffiti inform a host of what might be termed stylistic ‘nodes’, in which one or more are mingled and sufficiently intensified to define an observable style of their own, and deserve a separate room in our imaginary gallery. Among the many I came across in studying the Zone-h archive, five may serve as illustrations—Cybergothic, Code Warrior, Carnivale, Mesmeristic, and Invective; finally, I shall make note of some leading personal and ethnic styles emerging in this practice.

Cybergothic

In the Cybergothic style, we see a predisposition to incorporate ghosts, death iconography, faceless people, ghouls and ravens, with backgrounds typically animated with strobe effects including lightening. This style of virtual graffiti often incorporates highly atmospheric and mysterious music, hinting that something ‘uncanny’ is occurring in an otherwise familiar setting (your home or office), typically conveying an atmosphere of fear or dread; and while the typical set of clichéd images or tropes is deployed with an enthusiastic and youthful ‘naiveté’ that, standing alone, may have a limited degree of effectiveness, the combination of the imagery *plus* the ‘apocalyptic’ disruption of the user’s website can prove quite effective. The combination of images or text related to computer (mal)function is what makes the style *Cybergothic*. Overall, the Cybergothic style intimates the notion that something ‘bad’ from outside your usual experience of the virtual world has gotten inside your ‘system’, and you cannot be sure what it will do next.

mechanically complicated ‘animated’ constructions that sat outside farm houses and commercial stores to attract the eye of the passerby with their casts of often brightly painted folk characters, animated by wind driven gears, pulleys and moving parts. See: *Common ground/ uncommon vision: the Michael and Julie Hall Collection of American folk art / Milwaukee Art Museum: essays by Lucy Lippard, Jeffery Hayes, Kenneth Ames; introduction by Russell Bowman. 1993.*

The style is wide ranging, and, if we were to look to the real world for affinities, we would not find them as much in graffiti as in the imagery and ethos of the ‘Heavy Metal’ or ‘Death Metal’ music sub-culture, which can be viewed on the t-shirts and video releases promoting the various groups (Slayer, Cannibal Corpse, Morbid Angel, etc.), or in contemporary role-playing video games borrowing from the gothic genre, especially in the composition of their ‘evil’ characters and settings.

In much of these artifacts we find suggestive overlaps with the Carnivale style, and even with the Mesmeristic and Code Warrior styles (below), which would appear to be due to the general predisposition, noted above, of all virtual graffiti to cultivate an ‘apocalyptic’ affect, arising from a combination of the functional impairment of the users’ website, the destruction of its ‘security’, and the violent exposure of the sites ‘entrails’ to the whims of a powerful ghostly intruder who, in the case of the Cybergothic in particular, appears to have an aberrant state of mind.

Code Warrior

This style is reminiscent of the hacktivist ethos, but here we focus on the characteristic ‘look and feel’ of the defacement pages *per se*, regardless of the literal meaning of the (typically political) messages they include in the composition. Unlike the Cybergothic style, the Code Warrior typically employs highly specific, often labelled images and symbols clearly associated with specific causes; for example, a photomontage or video clip will be borrowed from some popular media outlet (Al Jazeera, CNN, etc.). The style usually incorporates a central iconic medallion or blazon with the name of an ‘army’, and frequently uses a bird (raptor) as a symbol, echoing the military blazons of the FBI, CIA, or national variations of other such agencies. The text portion of the defacement is

typically written in broken English, and scrolls automatically across or down the screen.

These text-image collages are usually accompanied by anthemic music borrowed from the soundtracks of well-known computer games (such as *World of WarCraft*, *Call of Duty* or *Splinter Cell*) or action-war films (such as *300* or *Gladiator*), suggesting a noteworthy agonistic ‘exploit’ or challenge overcome.

As in the Cybergothic style, these dyscriptions often incorporate design elements suggesting they have overcome the security ‘defenses’ of the targeted site; however, unlike the Cybergothic, the Code Warrior style does not attempt to frighten or spook, or otherwise insinuate the dyscriptor’s presence any more deeply into the psyche of the user community, but instead simply ‘kills’ the target website and affixes the victor’s ‘flag’ on it, perhaps with the accompanying hope that the exploit will generate further publicity.

From a stylistic perspective, the style appears, at first, to be formally austere, using colour and animation in programmatic or banal layouts; however, given the national and/or ethnic affiliations of the practitioners, and the standardized aspects of the style, even small variations in the presentation can be telling features for cultural comparative analysis, while careful stylistic analysis of the literary styles of the text portions of the defacements may prove equally valuable.

Carnivale

Carnivale describes a style that, like the Cybergothic or Code Warrior, typically employs collagist techniques to generate multimedia artifacts, but here with a strikingly different mood, tone and purpose. Instead of unsettling or intimidating the viewer, it functions more as a kind of subtle, Felliniesque ‘invitation’ to participate in a new world, to join the carnival you can see and hear at the edge of town, one you may have glimpsed on a local

news broadcast (“Hey, isn’t that a clip of that F1 car crash?”) or overheard your children laughing about while texting on Facebook (“What a troll!”). Like the Cybergothic, the Carnivale style also frequently incorporates computer command and control iconography (‘raw’ code displays, animated file searches, etc.) but in a more playful fashion, daring the user to push a button and see what happens. As in real-world carnivals, the Carnivale is typically set in darkness, or sometimes in what feels more like dusk or twilight, and often employs ‘mash-ups’ of familiar, sometimes macabre items of popular culture, such as clips from the *Saw* film franchise, mock car accidents or the like, mixed with other viral sub-cultural ‘memes’ like Carlos Ramirez’s “troll-face”¹⁶² comic figure, or reworkings of the famous “cha-cha babies”¹⁶³ video clip. We will see a further stylistic variation of this in the Mesmeristic style below. Carnivale graffiti evinces numerous affinities with traditional graffiti ‘pieces’ (large scale ‘masterpieces’) or the practice of what is now called (illegal) Street Art (Waclawek), but here the imagery and composition are presented as if the user’s computer has been hijacked and turned into a virtual showcase.

I include in the Carnivale style what might properly be termed the ‘burlesque’ or ‘ludicrous’ variation, which has a predisposition to employ clichéd sexual imagery, for example a ‘dancing penis’, or humorous ‘photoshopping’ of popular figures, where the dyscriptor simply shares a laugh with the viewer, apparently downplaying the transgressive context that otherwise would cast a more ominous shadow on the ‘joke’.

¹⁶² Trollface is a rage (a comic style) comic character wearing a mischievous smile that is meant to represent the facial expression of an Internet troll (See: <http://knowyourmeme.com/memes/trollface-coolface-problem>)

¹⁶³ See: <http://knowyourmeme.com/memes/dancing-baby>. This clip originally appeared in email chains as early as 1996 and is still popular in Carnivalesque virtual graffiti.

A more detailed examination the Carnivale style would, I believe, support the position that we are witnessing what in literary studies has been called a 'Grotesque', specifically the grotesque as developed in the work of Bakhtin, where exaggeration and deformity are used as symbols of a kind of festivity, an attempt (here) to suspend the ordinary everyday categories of web browsing, and suggest that beyond or behind the formulaic 'interface' of the everyday website lies a new reproductive zone, full of strange mixtures and unexpected actors, having fun at the expense of the 'system', but also, somehow, proposing a new zone where some kind of creative reconciliation might arise.

Mesmeristic

This style is distinguished by its specific and often highly technical focus on computer command-and-control themes, some 'real' and some simply semblances, to communicate that your webserver or even your personal computer is now 'under the control' of someone else. Thus, the Mesmerist will often deploy stylistic conceits drawn from major motion pictures, where an important government agency computer (or the personal computer of the protagonist), typically of the military or secret service, appears to be taken over by a hostile 'agent' and the user can only sit and watch as files are opened, passwords and user-ids flash by, and command lines of computer code are entered into a once well-secured but now shockingly exposed system. I call this Mesmeristic because the dyscriptor creates the effect of revealing or exposing the 'real' digital anatomy (*muris codicus*) sustaining the superficial 'appearance' (*muris perceptus*) of the website, in a manner strikingly similar to hypnotic or mesmeristic technique, merely substituting one's computer for the 'subject' and the dyscriptor for the 'hypnotist'. Thus:

The [*computer*] appears to heed only the communications of the [*dyscriptor*]. [It] seems to respond in an uncritical, automatic fashion, ignoring all aspects of the environment other than those pointed out to [it] by the [*dyscriptor*]. [*The computer*] sees, feels, smells, and otherwise perceives in accordance with the [*dyscriptor's*] suggestions, even though these suggestions may be in apparent contradiction to the stimuli that impinge upon him. Even the [*computer's*] memory and awareness of self may be altered by suggestion, and the effects of the suggestions may be extended (posthypnotically) into the [*computer's*] subsequent waking activity.

(Enc. Brit. 'Hypnotism'

2004)

This effect of external control over the system is also present in the other styles mentioned above, but in the Mesmeristic, these command-and-control tropes are the only ones active, and the user is put in the position of a passive, impotent viewer. There is no invitation to play, to communicate or to engage in any way with the process or the dyscriptor, simply rendering the 'suggested' virtual face and exposing the site owner's (and user's) helplessness, in a typically unsettling manner.

Invective

Of less thematic interest perhaps, but with no less potential for aesthetic intensity, much virtual dyscription is characterized by invective stylistic elements, intensifying the broader 'agonistic' tendency noted above, but in a mode that moves firmly into the realm

of direct personal offence, deploying words, images or music to directly insult the viewer. This style has clear homologues in the world of traditional graffiti, often as sub-species of what is called *latrinalia*.

Personal styles: the 'NoFace' style

The virtual dyscriptor who goes by the name 'NoFace' has already produced a corpus of work that shows the emergence of a curious and distinctive personal style, which not only skilfully exploits the aesthetic and technical potentialities of the medium, but would appear to herald a promising new avenue for creative work in this area.

NoFace, who I believe to be Indonesian, stages virtual 'mystery plays' and prompts the viewer to participate. He/she accomplishes this by the use of multiple linked sets of webpages that can typically be 'discovered' from a closer look at the source code underlying the 'primary' homepage replacement image. NoFace provokes the viewer to examine the defacement product in ever greater detail by incorporating 'clues' and 'moments of recognition' into his multi-layered compositions. Addressing perhaps the gaming sensibility of many contemporary viewers, especially the site administrators who typically attempt to track down dyscriptors, his/her work acts like a decoy, provoking the viewers to 'take a shot' at him, to try and find him, even to punish him. If the viewer makes a first move, for example right-clicking the mouse to 'reveal source', we find NoFace has placed a number of curious links, which we are then tempted to follow. When we take the first step by clicking on a link, we are lead along bifurcating paths to view film clips, listen to monologues, visit websites and other places, typically tied together narratively by a supernatural theme (imagery and music). Along the way, NoFace sets up 'moments of recognition': we suddenly come across his 'signature', for

example, as if we have reached another ‘level’ in the game, confirming that we are on the right trail and not simply lost in the hyper-linked jungle.

NoFace’s work is clearly exploring a distinctive new modality of aesthetic experience, in the context of virtual graffiti, drawing widely from all six major stylistic characteristics noted above, to realize potentialities latent in the emergent ‘ergodic’ sensibility of the everyday computer user (see Chapter 5) reacting to and excited by the interactions of dyscriptor and user as they move together through something like a narrative ‘rabbit-hole’, playfully ‘in between’ the walls (*m. perceptus* and *m. codicis*).

Ethnic styles

Being careful to avoid trivial stereotyping, we may nonetheless note some emerging ethnic tendencies in the virtual dyscription corpus, as one might describe distinctive traits of ethnic cuisine, here no doubt partly owing to the ‘outlaw fraternity’ effect, facilitated both by the extraordinary ease of fraternization on the web, and the lure of anonymous intimacy pervading the social internet in general. Among the notable ethnic styles apparent in the Zone H archive material, one may serve as an illustration: the Indonesian style, which tends draw on traditional Indonesian (Malay) *hantu* ghost-demon traditions for imagery (doll-like vampires, the ‘toyol’ or small child spirit), and often incorporates an enchanting ethnic Malay singing style. In addition, Indonesian dyscriptors frequently use explicit tag phrases exclaiming they are ‘Ghosts’, or that ‘The Ghosts are Real’¹⁶⁴, suggesting a powerful mutual reinforcement between the ‘apocalyptic’ and ‘mesmeristic’

¹⁶⁴ See Ch. 6 – *PhantomGhost*. Note: the highest grossing Indonesian/Malay film in 2007 was *Jandang Pandang BelaKang (Don’t Look Back)* [2007], which tells the story of a malicious spirit inadvertently brought back inadvertently into the protagonist’s home.

stylistic tendencies latent in virtual dyscription, and this ‘supernatural’ tendency of such Indonesian dyscriptors.

Appendix E: Research Ethics Approval

1. Ethics Clearance Form



Carleton University Research Office
Research Ethics Board
1325 Dunton Tower
1125 Colonel By Drive
Ottawa, ON K1S 5B6 Canada
Tel: 613-520-2517
ethics@carleton.ca

Ethics Clearance Form

This is to certify that the Carleton University Research Ethics Board has examined the application for ethical clearance. The REB found the research project to meet appropriate ethical standards as outlined in the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, 2nd edition* and, the *Carleton University Policies and Procedures for the Ethical Conduct of Research*.

New clearance

Renewal of original clearance

Original date of clearance:

Date of clearance	3 June 2013
Researchers	Todd Hopkins, Ph.D. student
Department	Institute for the Comparative Study of Language, Art and Culture (ICSLAC) Cultural Mediations
Supervisor	Prof. Carlos Novas, Sociology
Project number	14-0011
Title of project	Virtual Graffiti

Clearance expires: **31 May 2014**

All researchers are governed by the following conditions:

Annual Status Report: You are required to submit an Annual Status Report to either renew clearance or close the file. Failure to submit the Annual Status Report will result in the immediate suspension of the project. Funded projects will have accounts suspended until the report is submitted and approved.

Changes to the project: Any changes to the project must be submitted to the Carleton University Research Ethics Board for approval. All changes must be approved prior to the continuance of the research.

Adverse events: Should any participant suffer adversely from their participation in the project you are required to report the matter to the Carleton University Research Ethics Board. You must submit a written record of the event and indicate what steps you have taken to resolve the situation.

Suspension or termination of clearance: Failure to conduct the research in accordance with the principles of the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, 2nd edition* and the *Carleton University Policies and Procedures for the Ethical Conduct of Research* may result in the suspension or termination of the research project.

Andy Adler, Chair
Carleton University Research Ethics Board

Louise Heslop, Vice-Chair
Carleton University Research Ethics Board

1. Sample of Informed Consent Letter



Title of Research Project: Describing Virtual Graffiti

Date of ethics clearance: June 01, 2013

Ethics Clearance for the Collection of Data Expires: December 31, 2013

Dear Sir or Madam,

My name is Todd Hopkins and I am a student doctoral candidate at the Institute for the Comparative Studies in Language, Art and Culture (ICSLAC) at Carleton University working under the supervision of Professor Carlos Novas (carlos_novas@carleton.ca).

I am conducting a research project on the practice of website defacement. As part of my research programme, I would like to undertake a series of semi-formal interviews with individuals directly engaged in the production of website defacements.

I am contacting you to request your participation in two interviews on the topic of website defacement. The interviews would be conducted via voice over internet (e.g., Skype, Gmail chat etc.), and they would be separated by a time interval of approximately thirty days. The interviews would last for approximately one hour each, and they would be recorded on a digital, hand held voice recorder. The first interview would serve as an introductory overview of your experiences with the practices of website defacement, and the second interview would be structured following the information gathered over the course of my interviews with other representatives from the community of website defacers. Over the course of the research interviews, you can decline from answering any questions and you may withdraw from the study at any time. Should you decide to withdraw from the study, the information you have provided (audio and documentary) will be destroyed.

For the purposes of this study, I will not require your real name and I will keep the names of any companies or individuals that may arise over the course of our discussions completely anonymous. Selected quotations from the interview will probably appear (removing any names/references) in the final dissertation.

Once the original voice recordings have been transcribed to a Word file, they will be destroyed. Once the original transcriptions have been edited (anonymized), the original transcripts will be destroyed. The edited versions of the transcripts will be kept for five years as an encrypted Word file on a hard drive that will be kept in a locked filing cabinet. Should I wish to use this data for any future projects, I will contact you to request your permission. After five years, this data file will be destroyed.

There is no financial remuneration for participation in this study, however, an electronic copy of the final research document (dissertation) will be provided to all participants.

This project has been reviewed and received ethics review and clearance by Carleton University Research Ethics Board. Should you elect to become a participant in this study and if you have any questions or concerns regarding your involvement, you may contact the Research Ethics Board chair:

Professor Andy Adler, Chair
Research Ethics Board
Carleton University Research Office
Carleton University
1125 Colonel By Drive
Ottawa, Ontario K1S 5B6
Tel: 613-520-2517 E-mail: ethics@carleton.ca

If you are interested in participating in this study, please contact me electronically at this address:

Todd Hopkins: toddhopkins@carleton.ca

Todd Hopkins
Ph.D Candidate
Insitute for the Comparative Study of Language, Art and Culture
Carleton University

3. Sample of Oral Consent Protocol (registered on tape)

Title of Research Project: Virtual Graffiti

Date of ethics clearance: May 01, 2013

Ethics Clearance for the Collection of Data Expires: Dec. 31, 2013

My name is Todd Hopkins and I am a student doctoral candidate at the Institute for the Comparative Studies in Language, Art and Culture (ICSLAC) at Carleton University working under the supervision of Professor Carlos Novas .

I am conducting a research project on the practice of website defacement for a study called: "Virtual Graffiti".

As part of my research programme, I am undertaking a series of semi-formal interviews with website defacers engaged in the activities and production of acts of website defacement.

I am contacting you as a member of this group for the purposes of conducting the [first/second] of two semi-formal interviews on the topic of website defacement. The interview will last for approximately one hour, and it will be recorded on a digital, hand held voice recorder.

Over the course of the interview, you can decline from answering any questions and you may withdraw from the interview or the study at any time. Should you decide to withdraw, the information you have provided (audio and documentary) will be destroyed.

For the purposes of this study, I will keep your name and the names of any companies or individuals that may arise over the course of our discussions completely anonymous. Quotations from those edited transcripts will probably appear within the body of the final dissertation.

Once the original voice recordings have been transcribed, they will be destroyed. Once the original transcriptions have been edited and anonymized, the original transcripts will be destroyed. The edited versions of the transcripts will be kept as an encrypted Word file for five years on a hard disk that is kept in a locked filing cabinet. Should the data be considered for use in any future research projects, you will be contacted for your permission to do so.

There is no financial remuneration for participation in this study, however, an electronic copy of the final research document (dissertation) will be provided to all participants.

This project has been reviewed and received ethics review and clearance by Carleton University Research Ethics Board. Should you elect to become a participant in this study and if you have any questions or concerns regarding your involvement, you may contact the Research Ethics Board chair:

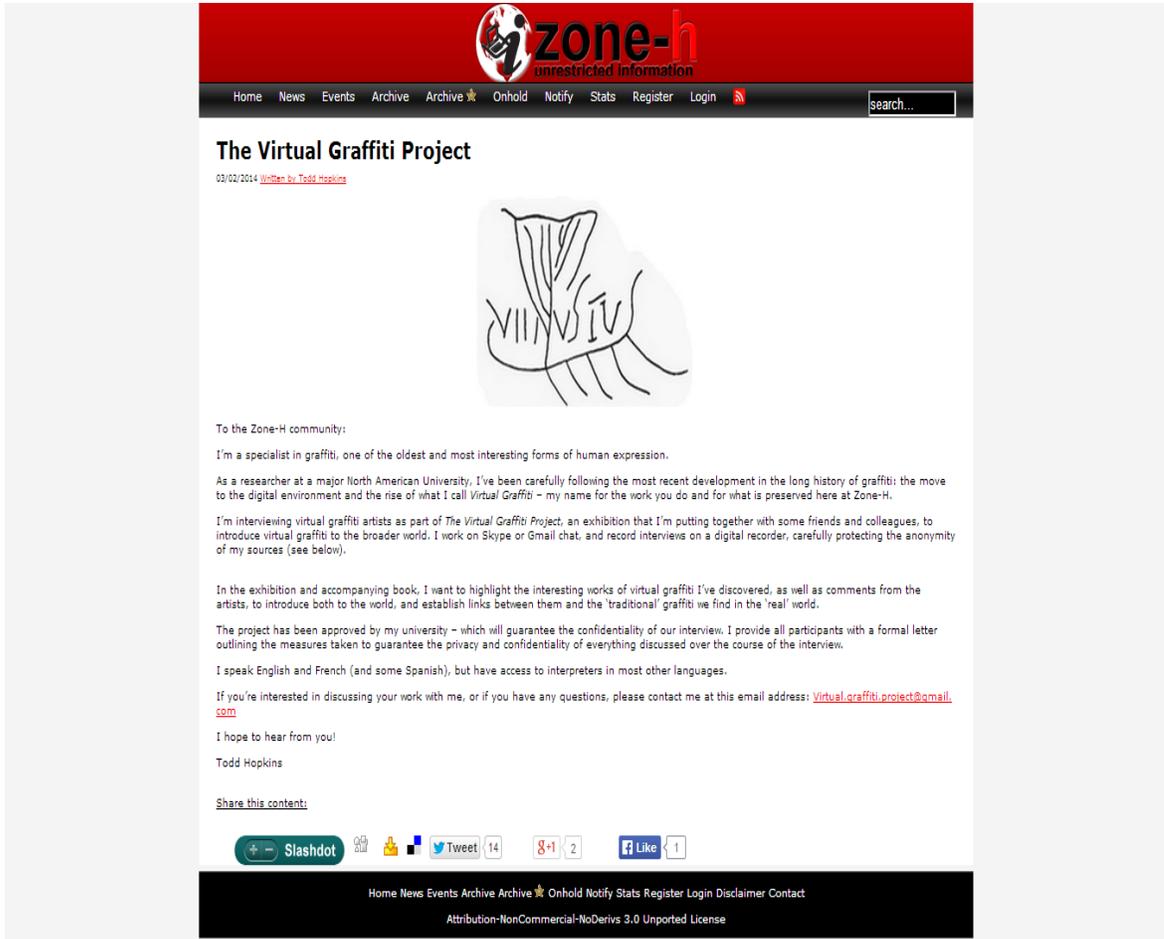
Professor Andy Adler, Chair
Research Ethics Board
Carleton University Research Office
Carleton University
1125 Colonel By Drive
Ottawa, Ontario K1S 5B6

Should you be interested, an electronic copy of the final dissertation will be made available to you upon the completion of the project and the acceptance of the dissertation.

Do you have any questions or require any clarification of any of these points.

Can I have your permission to begin the interview?

4. Sample of invitation to user community posted on 'News' section of archive site



The screenshot shows a web page with a red header containing the 'zone-h' logo and the tagline 'unrestricted information'. Below the header is a navigation menu with links for Home, News, Events, Archive, Archive with a star icon, Onhold, Notify, Stats, Register, and Login. A search bar is located on the right side of the header. The main content area features the article title 'The Virtual Graffiti Project' and a sub-header '03/02/2014 Written by Todd Hopkins'. A hand-drawn sketch of a hand with the word 'VIRTUAL' written across it is displayed. The text of the article is as follows:

To the Zone-H community:

I'm a specialist in graffiti, one of the oldest and most interesting forms of human expression.

As a researcher at a major North American University, I've been carefully following the most recent development in the long history of graffiti: the move to the digital environment and the rise of what I call *Virtual Graffiti* - my name for the work you do and for what is preserved here at Zone-H.

I'm interviewing virtual graffiti artists as part of *The Virtual Graffiti Project*, an exhibition that I'm putting together with some friends and colleagues, to introduce virtual graffiti to the broader world. I work on Skype or Gmail chat, and record interviews on a digital recorder, carefully protecting the anonymity of my sources (see below).

In the exhibition and accompanying book, I want to highlight the interesting works of virtual graffiti I've discovered, as well as comments from the artists, to introduce both to the world, and establish links between them and the 'traditional' graffiti we find in the 'real' world.

The project has been approved by my university - which will guarantee the confidentiality of our interview. I provide all participants with a formal letter outlining the measures taken to guarantee the privacy and confidentiality of everything discussed over the course of the interview.

I speak English and French (and some Spanish), but have access to interpreters in most other languages.

If you're interested in discussing your work with me, or if you have any questions, please contact me at this email address: Virtual.graffiti.project@gmail.com.

I hope to hear from you!

Todd Hopkins

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