

LITERAPOLIS

THE POST-INTERNET TEXTUAL CITY

by

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ABSTRACT

'Literapolis' reconceives the post-Internet city towards advocating the textual production of its citizens. It reacts to the precarious agency, accessibility, and heterogeneity caused by disenfranchising screen environments. In response, the thesis frames the city as a 'born-digital living literary,' whose spaces of writing and reading, though obfuscated, remain tied to place.

The thesis unrolls over five scrolls. The first examines primary terms. The second organises five nested spatio-textual scales – code, page, codex, archive, and city – and relates interdisciplinary research to propose the scales' structural re-definition. The third develops a methodology of vectors, points, and fields to apply the scales to an epicentral post-Internet case study: San Francisco. The fourth posits Literapolis citizen narrative virtualities to re-enfranchise a vital living literary. The fifth reflects on the Literapolis as a language and ethic for reading the city, specifies how research might expand beyond Silicon Valley, and enacts a spatio-text.

ACKNOWLEDGE

My thesis, a born-digital literary, was produced through networked efforts; I have a community to thank for its realisation.

The Azrieli school has been my real and virtual home. First and foremost, I thank my perpetually thoughtful thesis advisor Johan. You piloted me through the virtualities of theory to the limits of architecture but always brought me back to the real. I thank my colloquium critics – Lisa, Stephen, Martien, Dee Dee, and Suzy – by whose advice this thesis has been redirected and refined. I thank my studio instructors – Catherine, Phuong Trâm, Yvan, Jerry, Maria, Neil, Jelisa, and Curry – whose warmth and devotion to architecture allowed me to see the field expansively. I have been exceedingly fortunate to know several other Azrieli ‘people’. Thank you Ozayr for welcoming me to the school, Inderbir for your rigorous training in scholarship, Piper for sharing your thesis and vectors to funding, Connor for thesis brainstorming, Federica for your expertise in architectural archives, Jill for meeting in Barcelona and Berkley, and Ewa for your support throughout. I thank especially Zach: you have been a mentor, a too-kind boss, and a friend.

For the pandemic-dislocating years of my Master’s studies, my place beyond the school has been transient and uncertain; it has been made viable by the social spaces created by those close to me. I thank Marcel for your measured insight, Taylor for your enthusiasm, and Andrea for your understanding asides. I also thank my friends in Ottawa, with whom I have lived many literaries, and in Montreal and Halifax, with whom I have escaped the born-digital. Sam, with you, I conflated data with literature, saw San Francisco, and renewed my architectural perspective; thank you. Finally, to my parents, Lisa and Colin, thank you for raising me to value words and people. I hope you see your efforts reflected among these pages.



SCROLLS

*NB: the thesis
Scrolls. Use
UP ▲ DOWN ▼,
CTRL-F, table and
superscript links.*

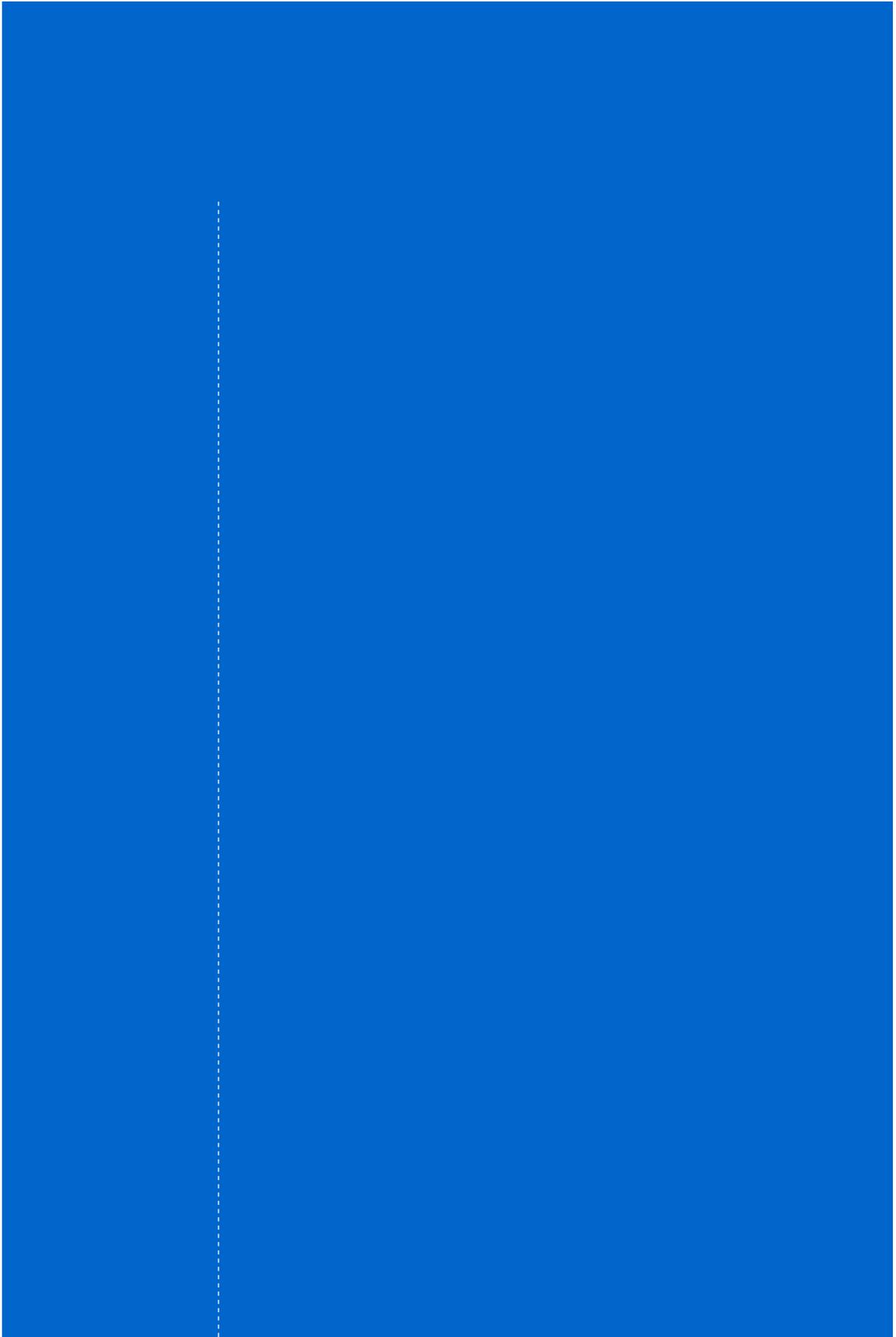
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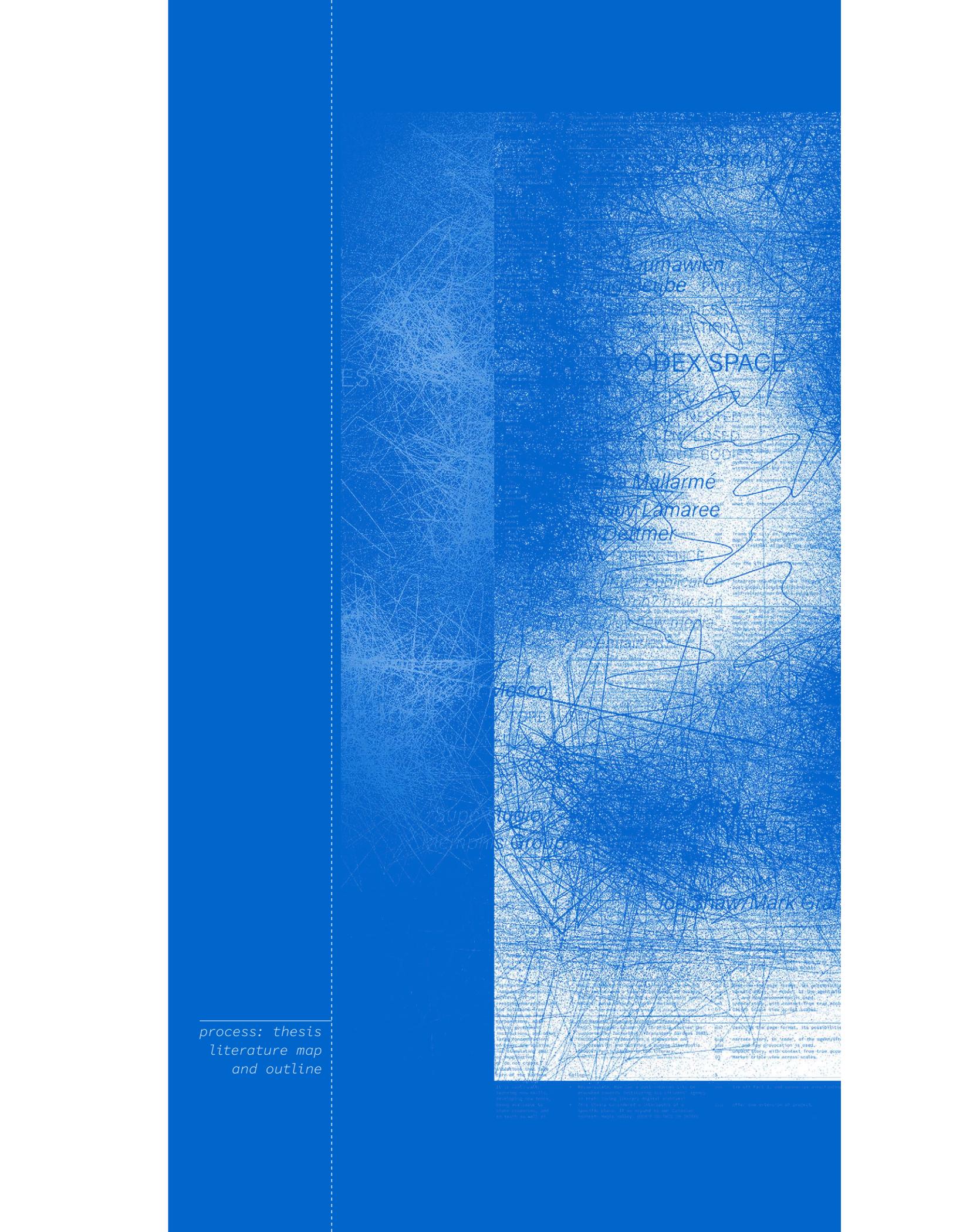


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ES

Walt Whitman
Emily

CODEX SPACE

the Mallarmé
Guy Lamaree
Dettmer

ESSENCE

now can
new

chresco

type
groups

John Law/Mark Giff

process: thesis
literature map
and outline

...the ...
...the ...
...the ...
...the ...

I. PROLOGUE

Opening Lines

The city is permeated by its citizens' textual traces. Meanwhile, the digital literary infrastructure of the city – the Internet – is a poor host for their records, serving foremost the interests of oligopolistic corporate gain. In response to a ferment of virtu-real factionalism, self-referentiality, and dissolution, my thesis asks: how might the post-internet textual city – reframed as a born-digital living literary – reclaim agency, accessibility, and heterogeneity with its citizens?

In my thesis, I examine the city through the metaphor of a *Literapolis*, taking up Shannon Mattern's call to "imagine how we can steward institutions and infrastructures that constitute different epistemological and ethical worlds."¹ To this end, I unravel and move along five 'scroll' **texts**. In Scroll I, I begin by developing a literacy for the thesis' by unpacking its key terms. From this ground, in Scroll II, I propose a spatial framework for a born-digital living literary existing at five progressively larger scales. I treat the definitions of the scales expansively, breaking their spaces open to be re-seen and re-associated, and ultimately, architecturally, re-constructed. Then, in Scroll III, I move back down the scales from Archive to Page. I will analyse an epicentral city – San Francisco – through thumbnail site-photography and mapping and counter the status quo through three provocations: vectors, points, and fields. Scroll IV by encoding and decoding four narratives from a disenfranchised San Franciscan citizenry that provoked acts to reclaim their literary within or without of their heterogeneous identities. This writing will be both an act of acknowledging existing literaries and contributing to furthering their entry into the public record.

Text
encompassing coded data, information, knowledge, and wisdom.

Codec
one recursively encoding/decoding texts; see **readingwriting**.

Delineation

A broad term, I treat the **literary** as a cypher to allow for reading and redefining the term as needed towards complicating its class and institutional connotations. Nevertheless, I am consistent in understanding the literary as textual, as capable of nesting



Bolden

to extract the singular from the plural.

Disambiguate

to sort and separate multiple meanings.

Ambiguate

to conflate multiple meanings.

and networking, and as *a way of knowing space*. I am inspired by past Azrieli School of Architecture & Urbanism director Jill Stoner, who elegantly achieved the latter in her *Towards a Minor Architecture*. There, Kafka, Mallarmé, and Melville were resuscitated to posit urban spaces – the strip mall, the warehouse, the office tower – as sites for citizen-led reactivation, through immaterial acts of speaking and occupying rather than traditional architectural intervention.² Additionally, I am motivated by the writer-educator Felicia Rose Chavez’s goal to complete the canon through a diverse living archive. Following her lead, my use of the literary prioritises narrators’ telling their own stories (within stories (refracted through others’ stories)).³ To this end, I will not privilege ‘literature’ over genre fiction, fiction over non-fiction, or the extended message over the instant message.

Throughout the thesis’ Scrolls, when a term of engagement is boldened, it is indexed, defined, and **disambiguated** or **ambiguated** nearby in a running margin in my own subjective understanding. Here, I follow Raymond Williams’ lexicological work that uncovers how the words we commonly use contain complex geographical, social, and political histories.⁴ Terms will be called out from the body text where appropriate by **boldening**. I have found this a necessary action, as the topics and subjectivities involved in the research are semantically complex.

diagram:
definition tree

Post-Internet City

agglomerated polis or urban topography of neighborhoods, townships, boroughs, infrastructures, parks, waterways, and many lives profoundly impacted by the virtual potential and disenfranchising reality of the Internet.

reframed as a...

Literapolis (place)

born-digital living literary.

Born-Digital (space)

imaginary originating, storing, and black-boxing **texts** as numeric binary on drives and servers, requiring **metadata** and often cloud networking to retrieve and reassemble data.

Data (n.)

plural of datum, that, however abstracted by digital interfaces and algorithms, are human-generated or framed.

Metadata (n.)

data that describes data - its content, context, personnel, medium, form, or otherwise.

Living Literary (mode)

literary records generated in **living**, both actively - data blogged, word processed, emailed; in essays, articles, tweets, manuscripts - and inactively - metadata from daily use of the city and the broader Internet.

Living (adj.)

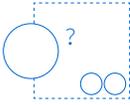
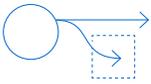
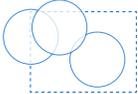
the act of the actor, the agency of the agent; what all writers inevitably write about.

Literary (adj.)

to spatially inscribe using a system of symbols - alphabetic, syllabic, logographic, or numeric - as code to virtualise human experience and thought as text. It cyclically informs and is informed by orality.

[San Francisco,
Montreal, Beijing,
Copenhagen,
Beirut, Cape Town,
Osaka, Brisbane...]

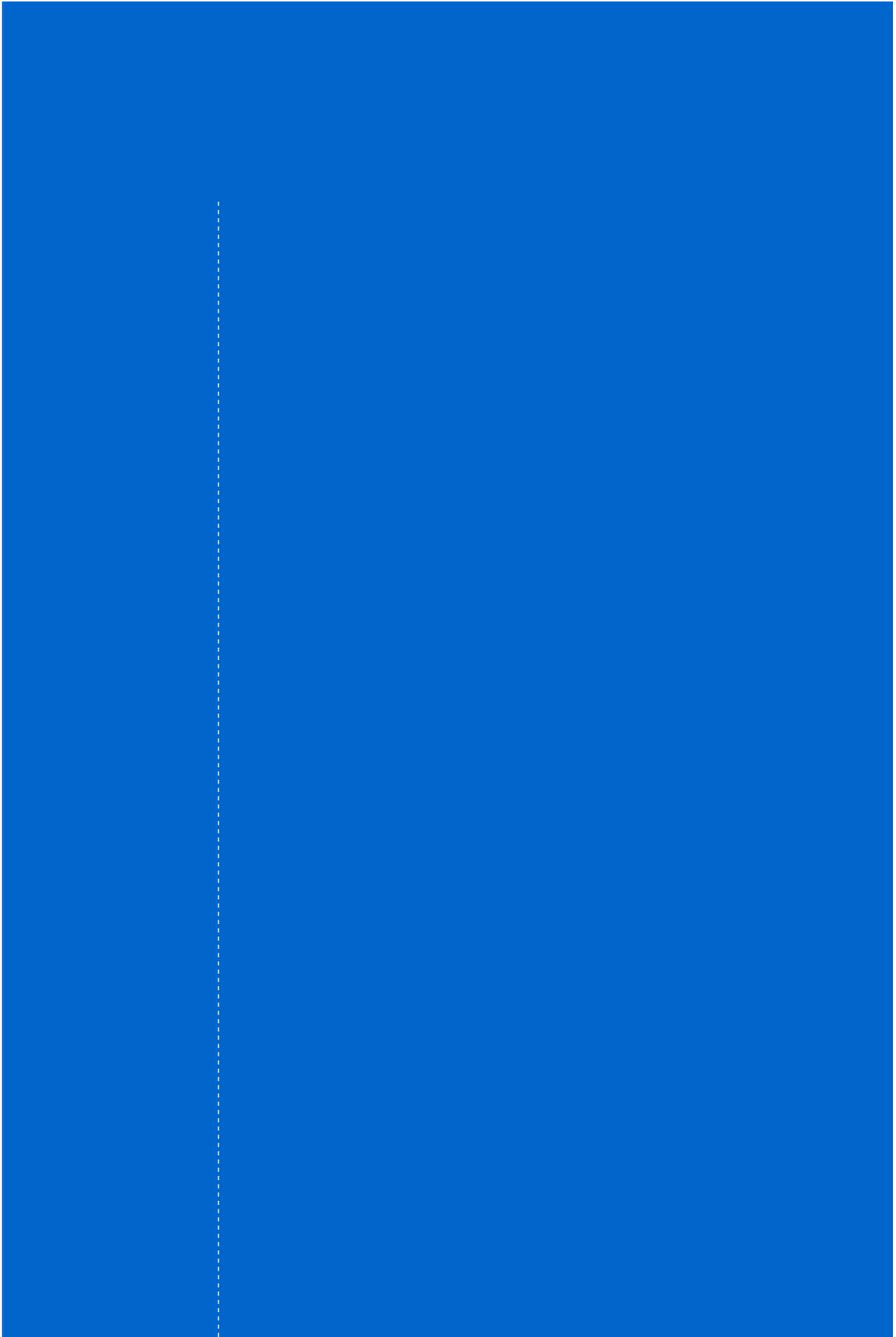
*...towards
advocating for...*

agency	literacy of participation, determination, and self-reliance.	
accessibility	literacy of tools' availability, quality, and if absent, manifestability.	
heterogeneity	literacy of narrative difference, of being singular-plural.	
...with its citizens	a heterogeneous, interlinking network of <i>politis</i> or communities of coder-decoders.	

To summarise, I will treat the **post-internet city** as an urban topography profoundly impacted by the Internet's disenfranchising reality and virtual potential as an aesthetic medium. I re-frame this city using the metaphor of the **Literapolis**, or 'City of Letters', or 'a born-digital living literary'. A **born-digital** is spatial: *where* a generator of data and metadata originates overwhelmingly electronically. A **living-literary**, meanwhile, is temporal: *when* primary records actively compile and morph. From this frame, I examine and complicate the representation of city-sited texts concerning **agency**, **accessibility**, and **heterogeneity**. These three ethics or 'literacies' are embedded in my discussion: they are essential to the literary health of the network of networks of **codecs** that is a **citizenry**.

Endnotes

- 1 Shannon Mattern, *A City Is Not a Computer: Other Urban Intelligences* (Princeton, New Jersey: Princeton University Press, 2021), 15.
- 2 Jill Stoner, *Toward a Minor Architecture* (Cambridge, Mass: MIT Press, 2012).
- 3 Felicia Rose Chavez, "Completing the Canon", in *The Anti-Racist Writing Workshop: How To Decolonize The Creative Classroom*, (Chicago, Ill: Haymarket Books, 2021, PDF),
- 4 Raymond Williams, *Keywords: a Vocabulary of Culture and Society*, rev. ed. (Glasgow: Fontana Press, 1983).



II. SCALES OF THE LITERARY

Metaphor
substitution
promoting an
alternative
conceptual model;
see *virtual*.

The Literapolis as a **metaphor** is complex; for it to be helpful as a way of reading urban space, it must be made spatially legible. Taking inspiration from Georges Perec's *Species of Spaces* – in which a narrator details everyday spaces, from the bed to the neighbourhood to the world – I propose five 'scales': code, page, codex, archive, and city.

diagram: scales

x^n



Code is not just a tool used by computer scientists, but a base communicative event. In the post-Internet, it remains a human experience. Here, I look to writings on text and virtuality towards unpacking how we speak and write in the born-digital living literary.

x^{2n}



The Page is not just an analogue, but a digital recording substrate. In the post-Internet, it may be a Tweet, a webpage, or a program. Here, I unpack a recent genealogy of the media and its spatial implications.

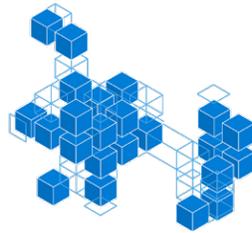
x^{3n}



The Codex is not a paginated collection, but a structural unit of discussion. In the post-Internet, it may be a feed, website, or .epub. I look to Kiene Brillenburg Wurth, Kári Driscoll, and Jessica Pressman's *Book Presence in a Digital Age*, which investigates the record's digital translation.

The Archive is not an institution, but an underlying informational infrastructure. In the post-Internet, it may be a database, a server, or a flash drive. I draw on Annet



x⁴ⁿx⁵ⁿ

Dekker's research into living archival futures, which examines the politics and possibilities of digital archives, and e-flux journal's *The Internet Does Not Exist*, which problematises the Internet's liberating mythologies.

The City is not the Internet but a super-structural reality. In the post-Internet, it may be underlaid by infrastructures like the Internet of Things and the metaverse, but it remains the real organiser of the living literary. I cite critical urban theory that decries 'objective' understandings of the city, particularly Shannon Mattern's critique of equating computation and data with the urban in *A City is Not a Computer*.

Reflexive Subject

meta matter
of concern.

Subjective Reflection

finger pointing
back to itself;
see **mirror**.

At each scale, I first untangle the term by detailing a theoretical grounding informed by interdisciplinary literature from the digital humanities, archival sciences, media theory, and urbanism. Second, I associate the scale with the Literapolis metaphor, exposing the spatio-textual potential of the born-digital living literary to discuss the ethics of agency, accessibility, and heterogeneity are implied. Third, in acknowledging the thesis itself as a primary source 'codex', I close each sub-scroll with two meta-analytical studies. In **Reflexive Subject**, I examine the document as existing across the scales, while in **Subjective Reflection**, I note my entanglement with the scales.

Alongside the text, I offer representational translations of the scales using n-dimensional cubes: lines (n=1), planes (n=2), cubes (n=3), translated cubes (n=4), and networked translated cubes (n=5). In computer science, when data is arrayed in n-dimensions towards analysing complex networks such as communities, it is known as a tensor.¹ As a more specific model, Mohsin Iqbal,

Matteo Lissandrini, and Torben Bach Pedersen have proposed using an n-spatio-textual tensor that can help relate and analyse spatial, textual, and temporal data simultaneously.² Though maintaining some parallel to the basic ‘blocks’ with which we have long abstracted urban space and data, I move to treat the cube as the body of a text, author, or community, and imbed the subjective in a cartesian space often misconstrued as ‘objective’.

While I describe the scales discretely, they do not maintain such hard-lined boundaries in practice. They are only active and activated by the inclusive definitions of their citizen stakeholders: archivists, advocates, and architects alike. As such, in the next scroll, I put the scales to action in a case study Literapolis, where citizens determine the elasticities and transitions between scales.

Reflexive Subject

The plotting of the thesis follows that of the scales. From Scroll I, scales grow in scope from code up to the city over the present Scroll II. Scroll III contracts, mapping and provoking between city and archive, archive and codex, and codex and page. In offering specific citizens’ narratives, Scroll IV comes to rest between the page and its code. Scroll V, a coda, descends the scales a final time.

Subjective Reflection

As an undergraduate student, I studied civil engineering. I was taught to see the city mechanically through forces, flows, and systems. I often endeavour then to ‘structure’ or organise complexity. Meanwhile, as a Queer sceptic, I have questioned if not rejected absolutes, favouring instead space understood as relative. I am then philosophically wedged between post-structural and actor-network theories. Per the former, in this scroll, I have systematised the thesis’ argument into interlinked discrete scales per the latter. Per the latter, in Scrolls III and IV, I have supplemented with more continuous spatial provocation and narrative.

CODE

I begin by examining writings on ‘code’, the textual base of any living literary.

The Literature

Binary

on/off, 0/1,
us/them.

Resolution

degree of fineness
that can clarify
or obscure.

Virtual

the possible, the
imagination; the
space between
now and next.

Reality

perceived 'actual'
or 'present'
experience.

Virtuality

act of passing
reality through
the virtual
to uncover
potentiality.

Code has often been treated as a medium. Pre-Internet media theorists Harold Innis and Walter Ong differentiated between time-based inscribed code (the text) and space-based ephemeral code (the oral).³ Garrett Stewart, a post-internet professor of letters, complicates this **binary**. He notes that, under the digital, writing, alongside other informational recordings, has been subsumed by the pixel.⁴ Now, all texts can be encoded for posterity, compressed, and re-projected via a single medium: the server. As professor of New Media Art Hito Steryl furthers, the **resolution** of information is now a significant determinant of its perceived quality and, inversely, its accessibility.⁵ While all texts are now coded, they are not encoded equally.

Reacting to the digital textual collapse, John Maeda, Previous President of RISD and current CTO of Everbridge, voiced that we must submit, learning to 'speak machine' by living in its **virtual** world.⁶ The virtual must be understood more expansively to avoid a technocratic server-centric future. To this, feminist professor at Duke University Elizabeth Grosz points out that, though now the virtualisation of texts "into silicon and liquid-crystal traces" is evident, the real of **reality** "has always been a space of **virtuality**."⁷ She concludes, "if virtuality resides in the real ... this is because the real is always in fact open to the future, open to potentialities other than those now actualized."⁸ N. Katherine Hayles, Grosz's colleague at Duke University, similarly acknowledges that the virtual is scarcely a new concept. From a media theory lens, she notes that "literature functions more like simulations than do other discursive forms, because like computer simulations ... literary texts create imaginary worlds populated by creatures that we can (mis)take for beings like ourselves."⁹ We encode, actively or passively, through our body's senses and our mind's reflection, our spaces and communities. Code, as virtuality, is not so much a medium as it is an event. Though the post-Internet may privilege framings of code as a computational, it remains a universal human interaction whereby the boundary of the possible living literary expands.

The Metaphor

Towards a Literapolis, I invite code to be restored as a **communicative event**.

Communicative Event

a living literary becoming; see **virtuality**.

Concrete Poetry

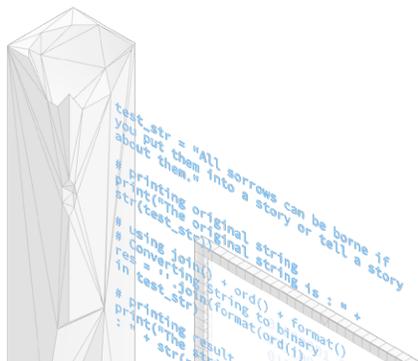
using typography to encode meaning beyond the code itself.

Who: Code is *two subjects meeting*. In my post-structuralist literary, this often entails two citizens employing mutually intelligible language. In a phenomenological literary, code between the human and animal, organic and inorganic, analogue and digital is possible.¹⁰

What: Code is *where* and *when we learn*. In speculative-fiction author Ursula LeGuin's words, it is "a tool of the mind", "how we invent our lives", and "the operating instructions".¹¹

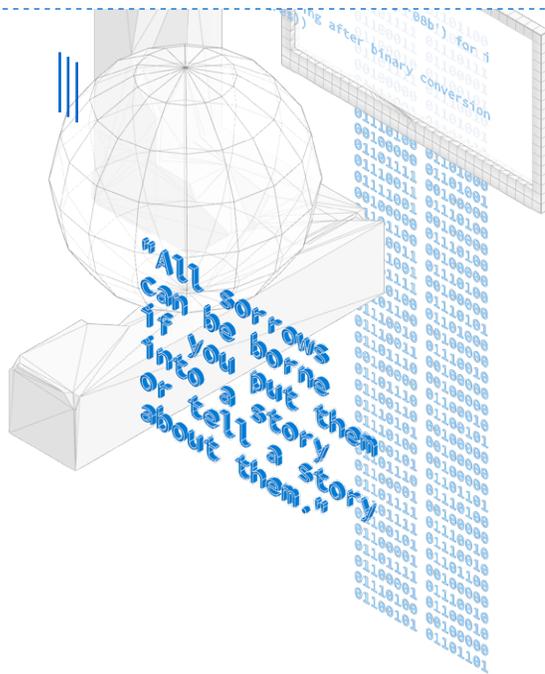
When: Code is *not synchronic*. As Bruno Latour notes, objects present at an event (furniture, clothing, smartphone) were produced on their own timelines at their own pace.¹² Meanwhile, as I discuss at the page scale, linguistic media exist to de-temporalise code.

diagram: code as communicative event



Where: Code is *anywhere*. In the post-Internet, born-digital code can be written wherever there is an input device. Nonetheless, as I discuss at the city scale, it is accessed via the urban.

Why: Code *delimits access*. In **concrete poet** bpNichol's words it must face "the problem, the actual fact, of diversification, of finding as many exits as possible from the self ... to form as many entrances as



possible for the other.”¹³ Post-Internet, code directly correlates to participation in and production of a heterogeneous living literary.

How: Code *instigates societal change*. While often violent in short-term arguments, it can enact renewal in long-term cultural discourse.¹⁴ It can freely use the emoji just as well as the character.¹⁵ Most importantly, it allows agency in moving between and along multiple ways of knowing, “turning data into information and knowledge into wisdom.”¹⁶

Reflexive Subject

The thesis margin explores the possibilities of code – that is, of a text’s semantic malleability – as a medium for productive discussion and poetry or misunderstanding and propaganda. The definitions, as such, are the author’s and subjective. This code is given the colour RGB (0,102,204), a standard version of ‘hyperlink blue’. Subtitles and illustration descriptions are also placed here, which encode academia’s need, if not penchant, for referencing and rationalising.

Subjective Reflection

I aspire to the poetics of Annie Dillard and Arundhati Roy, the humour of Steve Toltz and Satie, the storytelling of Min Jin Lee and Isak Dinesen. Common among these authors, and I believe myself, is a meticulous, even obsessive care for words.

PAGE

Expanding from code, I can unfold writings on ‘the page’.

The Literature

Of the five scales, the page is both the easiest to define and the most multiplicitous. In the pre-digital, Marshall McLuhan wrote that the page “controls the scale and form of human association and action” and is “in the business of moving information.”¹⁷ Specifically, as a **linguistic media**, “it shapes social development,

Linguistic Media

any 'tool' used to extend the voice.

Readingwriting

Lori Emerson's neologism; see **codec**.

The Metaphor**Substrate**

code-retaining linguistic media.

Primary Record

source directly linked to an author.

Mirror

substrate stimulating virtuality.

as much as do the [Marxian] means of production.”¹⁸ It is the frame, window, interface, wall, or screen mediating media. Following McLuhan's prescience, the page exploded in new, unforeseen typologies in the post-digital. The Digital Humanists rejoiced: without page conventions, it was possible to imagine new forms and re-reveal the role of design in communication while recognising “the socio-cultural construction and cognitive implications of standard print formats.”¹⁹ In the post-internet, the page has imploded. Now, all media, in one or many layers, can be hosted on a single webpage. Here, Lori Emerson has offered a pared-down, broad conception: the page is a substrate at the threshold between coding and decoding, depositing and recovering, or **readingwriting** through information.²⁰

Towards a Literapolis, I draw on various scholarships to expand and redefine the page as any literary **substrate** for a **primary record**.

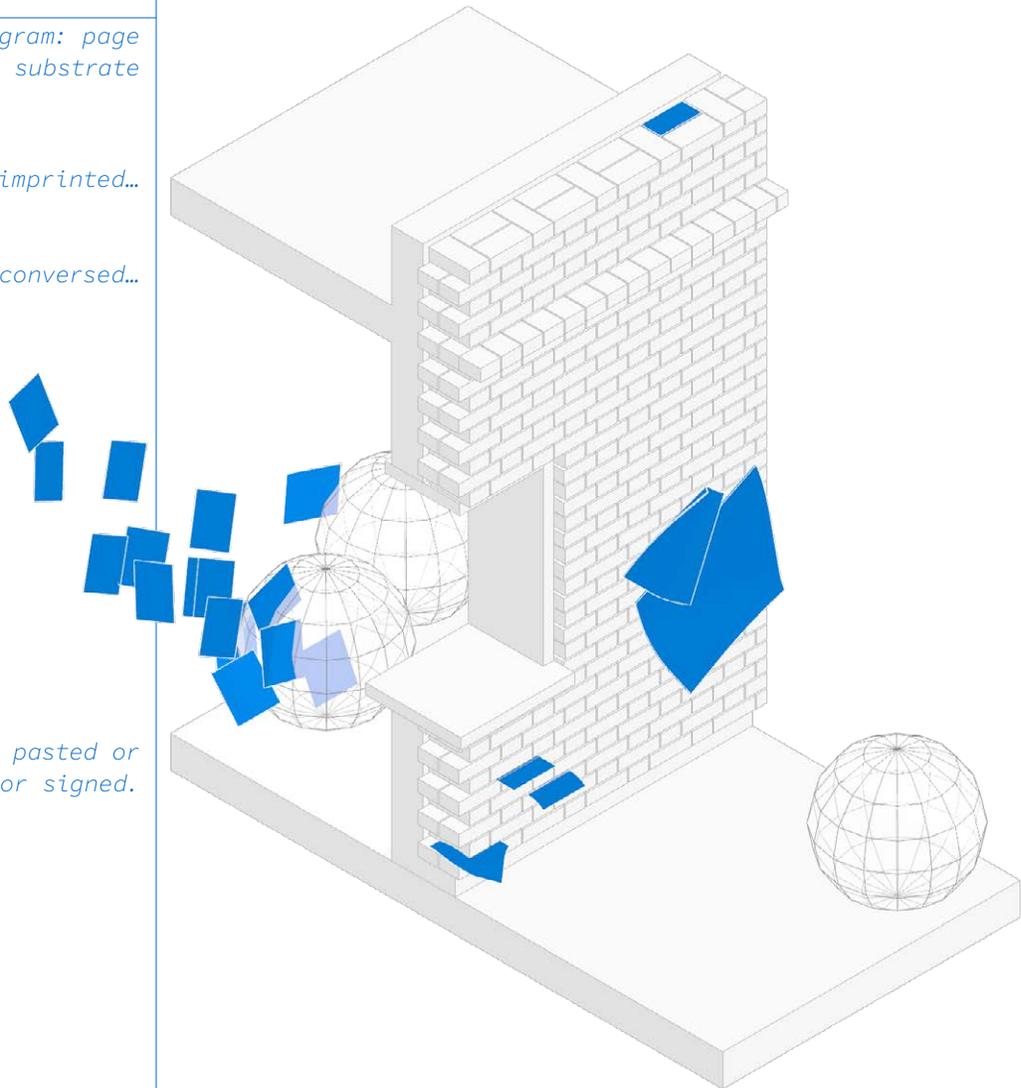
Taking Utrecht University professor in media and digital society José van Dijck's idea of ‘mediated memories’, pages “form sites where the personal and the collective meet, interact and clash.”²¹ Thus, the Literapolis page can be a circulated poster, a scrap of an email thread, a blog post, a Tweet, or a Goodreads review. Wherever, in Percec's words, “the miscellaneous elements that comprise the everydayness of life come to be inscribed.”²² Though scantily literary in itself – despite some postmodernist rhetoric²³ – I see architecture as one more effective post-Internet page. Architecture can literally act as substrate: as Mattern demonstrates, ancient Chinese, Arabic, Incan, and Roman societies as much as contemporary ones inscribed their city's stones and bricks.²⁴ It can also be a substrate figuratively: information can be tied to objects in a real space virtualised in the mind, as in a ‘memory palace.’²⁵ In the Literapolis, the page in the hand of a local author – Dickens' London, Roy's Kottayam, Thuy's Montreal – can even be a **mirror**, personifying and poeticising the living literary sites of production.

diagram: page
as substrate

a brick imprinted...

a room conversed...

a wall pasted or
sprayed or signed.



Reflexive Subject

Standard academic page requirements – 8.5x11” pages with double-spaced 12pt font and margins of 1.5 or 1.0” – communicate staid and outmoded academia of photocopiers and fledgling word processing. Operating within these confines to remain highly legible in printed form, the thesis incorporates the post-internet reality of the continuous scroll. As such, narrower columns of text are employed with typefaces optimised for on-screen reading: Paul D. Hunt and Teo Tuominen’s *Source Serif* for the text body and *Source Code* for the code margin. Content is truncated each 11” to expose now arbitrary formatting.

Subjective

My fascination for letterforms, type, and page design as ‘media

Reflection

messages' has been compounded in writing the thesis. Copies of Robert Bringhurst's *The Elements of Typographic Style*, Ellen Lupton's *Thinking with Type*, and Lynne Truss' *Eats, Shoots & Leaves: The Zero Tolerance Approach to Punctuation* were at hand throughout my writing practice.

CODEX

Expanding from 'the page', I can peruse writings on 'the codex.'

The Literature

Semantic

symbolic system with relatively defined meaning; see **communicative event**.

Cybernetic

informatic systems untangled to be reemployed philosophically and technologically.

Authority

culturally acknowledged place of power allowing **agency**.

The codex is the hallowed western literary format. It is the institutionalised mode of accumulating cultural capital for a living literary author. In the post-Internet, Kiene Brillenburg Wurth, Head of Humanities at University College Utrecht, notes that the codex retains its presence in our **semantic** iconology because of a societal "emotional investment."²⁶ John T. Hamilton meanwhile notes, "hardly a dangerous supplement, digitisation appears to be a beneficial complement, a **cybernetic** enhancement of [the codex]", such that any speculation on its death is idle.²⁷ The codex, semantically and cybernetically, remains a primary textual unit.

While the analogue codex's ethics were never assured, as a highly collaborative practice – between writers, editors, publishers, agents, typesetters, binders, distributors, and booksellers – it posited **authority** and so, for some citizens, trustworthiness. The born-digital codex's ethics – agency, accessibility, and heterogeneity – are less assured.

First, states are wont to support equitable codex agency publicly. In the 20th century, Canada underfunded literary production, disregarding the codex "because it was highly regarded" as the "privileged medium which stored and perpetuated the educated classes' cultural capital".²⁸ Its production would only come to be publicly supported through a National Cultural Industries Policy operating via mass-publication quotas. In born-digital publication, **micro-presses** who undermine and expand the literary must rely on personal finance and an economy of favours to subsist on their production.²⁹

Micro-press

low-resolution
publisher of one
or few citizens
without ISBN.

Skeuomorph

new medium
employing allusions
to culturally
established media.

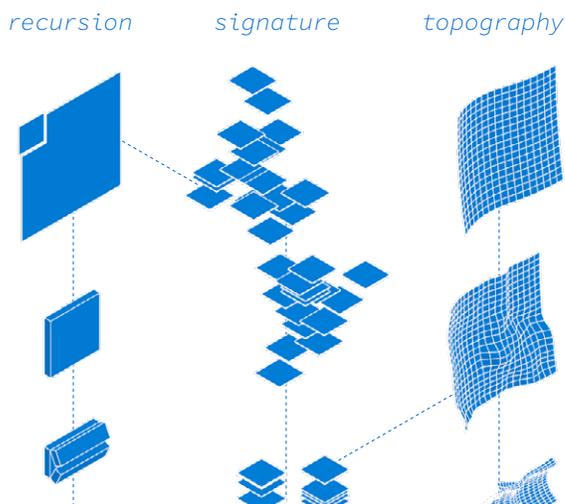
Second, as will be explored in this codex's final scroll, many digital codices are paywalled or otherwise complicated by rights of access and use. Copyright, particularly, is a post-Internet power readily misapplied by authorities.³⁰ The cost of interacting with and disseminating codices can be prohibitive, leaving the discursive participation of relevant publics precarious.

Third, the standard forms of digital codices are inadequate to capture heterogeneous narratives. They are often rigid **skeuomorphs** to ensure familiarity – as with the .pdf's paper-like pages³¹ – or abolish design intent through their malleability – as with the .epub's shiftable interface. Book artists Doug Beube and Brian Dettmer have expressed that traditional codex forms cannot represent “what's possible in our lives and in our contemporary times”, our current “multimodality and synchronicity.”³²

The Metaphor

Towards a Literapolis, I draw on several bibliophiles and publishers to re-define the codex as a **unit of structure**, a building object capable of synthesising many subjects.

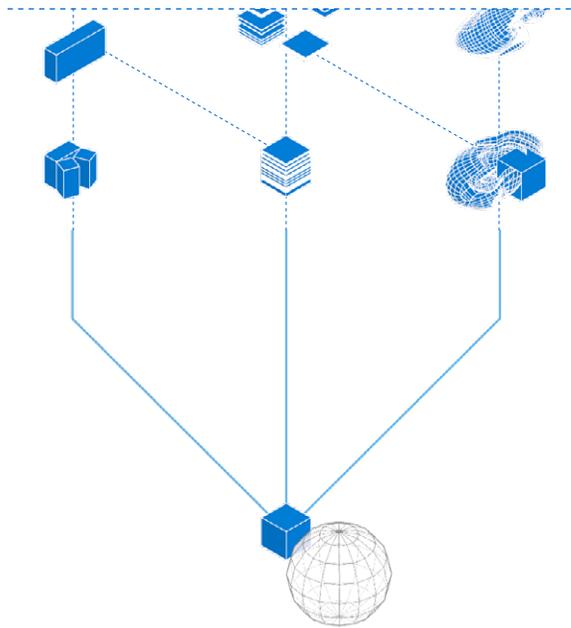
diagram: codex as
unit structure



It may be the compression of a citizen subject. In her *History of the/my World*, the book artist Johanna Drucker has done as much, entangling herself (historio)graphically with global and local events.³³ Code moves fluidly across pages, scripts, and timelines to re-present a personal history.

It may be a future discourse. For one, the political artists of La Société Anonyme, in their SKOR codex, have left us a tome as a repository decodable “only if there will be advanced civilizations on earth.”³⁴

It may be a compendium of salves for any illness. Ella Berthoud and Susan Elder-



Unit of Structure

sturdy material
that bears
itself and other
discursive masses.

Infrathin

liminal
Duchampian space
with semantic
importance, e.g.,
between posted
and published.

Reflexive Subject

kin's *The Novel Cure*, and their expanding accompanying website, propose the codex as capable of 'Bibliotherapy', addressing ageing, social strife, and the common cold.³⁵

It may be a design precedent. For architect Douglas Darden, in his *Condemned Buildings*, the codex linked text and image for reassembly on the drawing page.³⁶ Codex narratives are read, processed in the virtuality of the imagination, and recreated as new spatio-texts.

Though the goals of these codices are disparate – synthesising a subjectivity, discourse, compendium, or precedent alternately – their authors all propose ways of breaking the codex off its privileged shelf and into the hands of citizens. It is reconceived as a cooptable unit for structuring their living literary.

Taking these ideas to the born-digital, I follow, for one, **infrathin** online publishers Gauss.pdf and 0x0a, who expand the post-internet codex to be as processual and alive as its code.³⁷ For two, I follow bookmaker Irma Boom, who explores the book's indexical, searchable, gestalt qualities.³⁸ Some would abandon the codex as a form with a dusty, colonial, bourgeois history. I seek its reestablishment instead. Its new equitable authority will derive from its production and distribution by, and living link to, a citizen or community. It will reify identity through folded recursion, stacked signature, or zipped topography of one or many pages. Subverting bibliophilic fetishisation, it can not only be stored but shared, edited, fragmented, lost, or discarded.

The post-graduate thesis – a cycle of funding, writing, printing, binding, and collecting dust – is academia's unit structure self-justifier. It is the codex that maintains its institutional power

through reification and embodiment. This thesis then prods its inherited norms by interlinking trade literature and marginalised subjectivities, deeply reading some codices while only lightly touching others, and conducting a critical meta-analytical study of itself. As visible but the mass of footnotes below, the thesis must be read as indexical, networked, and post-Internet.

Subjective Reflection

I take the Copenhagen S train with *Seven Gothic Tales*. I pick up volumes of Borges from Harlem's labyrinthine stairways. I receive and re-gift copies of *The Diamond Age* in Halifax phyles. I solicit Berthoud and Elderkin from McGill cubicles for a literary prescription. I email across Ottawa seeking self-produced poetry chapbooks. Codices have become subjects of and subjected to my cities and communities, reminding me of where and what I am.

ARCHIVE

Expanding from 'the codex', I can decompress 'the archive.'

The Literature

Most concisely and authoritatively, as defined by the UNESCO and the International Council on Archives:

"Archives are a unique and irreplaceable heritage passed from one generation to another. Archives are managed from creation to preserve their value and meaning. They are authoritative sources of information underpinning accountable and transparent administrative actions. They play an essential role in the development of societies by safeguarding and contributing to individual and community memory. Open access to archives enriches our knowledge of human society, promotes democracy, protects citizens' rights and enhances the quality of life."³⁹

The idealism of this statement does not necessarily persist in practice. As the Society of American Archivists admit, 'archive' is fraught and ever-shifting.⁴⁰ It is an ambiguation: simultaneously an act (to archive), space (the archive), and authority (Archive).

Historically, the archive was physically isolated and austere. It

Professionalised
edification through
standardisation
and exclusion;
see **authority**.

Discursive
interlinking
as matters of
concern; not
argument.

Reification
periphery to
centre; many
to one.

siloed codices in unwelcoming warehouses to “secure evidence, memory and history” towards canonisation and ossification.⁴¹ Only recently have they been overseen by a **professionalised** archival science. As the philosopher and literary critic Michel Foucault outlines, the archive constituted “the general system of the formation and transformation of statements,” where the “never completed, never wholly achieved uncovering of the archive forms the general horizon to which the description of **discursive** formations, the analysis of positivities, the mapping of the enunciative field belong.”⁴² The archive was the possibility and control of what could be said, and so always related to political power: who had (higher) social or economic capital, and so (more) space and (better) tools to remember? Hence, as civilisations have expanded through the interdependent projects of trade, colonisation, and Enlightenment Encyclopaedic **reification**, states have archived to legitimise themselves symbolically.⁴³ Similarly, architects have archived as a mechanism for continued control of their image and legitimacy.

Now, while these understandings of the archive carry forward, digital archives – say, the Canadian Center for Architecture **database** – are redistributed, aggregated and put in contact by the Internet. Archivists here have increased agency to connect records across institutions. Further, departing from Foucault’s definition of the archive as a privileged discursive formation of the professional or the institution, archival scientist and curator Annet Dekker forwards that “today ... everyone is an archivist.”⁴⁴ Many ethical complications have arisen from the new or uncovered from the old.

The archive is *fleeting*. In navigating a digital onslaught of content, the digital archive is entered by a search, a browser history, or a link, with site, domain, and address acting only as vestigial abstractions of localisation. Meanwhile, codices

**Database**

primary sources
together for
reimagining; see
reification.

Algorithm

repetitious or
recursive citizen-
defined process.

Infrastructure

below; roads,
parks, waterways,
bodegas, libraries,
banks, etc.
see **fibre**.

accessioned are themselves in flux. With digital files, it is possible to transfer a ‘copy’ of an archive directly from a creator as they continue to create, edit and re-network digital files.⁴⁵

The archive is *suppressed*. Assange notes that many codices are actively prevented from even entering the public record, so “our understanding has a great hole in it.”⁴⁶ Archives (and their states) that invest in preventing access do so in many cases to maintain power; this censorship “expresses weakness, not strength.”⁴⁷

The archive is *revised*. As an overlaid second level of code written by a third party, if not an **algorithm**, metadata often permanently displaces the source author and the text’s context. Martien de Vietter, in her archival practice with the Canadian Centre for Architecture’s ‘Critical Cataloguing’ project, uncovered how such processes insert bias and privilege specific texts over others.⁴⁸ Hatebase offers a solution: a script parsing, finding, and changing outdated terms.⁴⁹ This approach presents its challenge: language, via Internet and digital communications norms, now changes rapidly; today’s terms may not be relevant tomorrow. As a result, though metadata should be updated for archival accountability, a record of the record’s record becomes necessary.

The archive is *totalised*. Increasingly, we



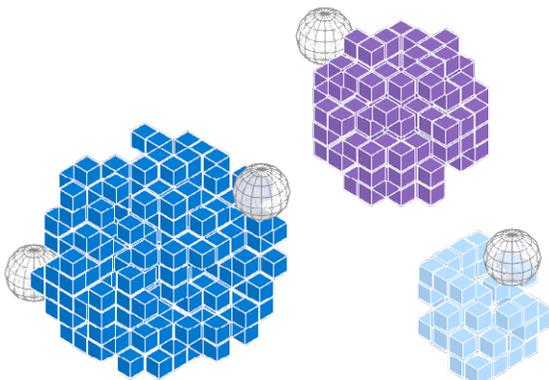
archive purely to externalise memory without considering the more profound (Socratic) costs. To one extreme is the total recall of 'life-logging', where, in an endless mirror, all data is archived in high resolution. To the other is 'digital amnesia', where data is perpetually retrievable so that we may instantly forget.

The Metaphor

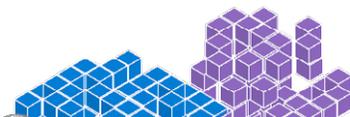
Towards a Literapolis, I posit the archive as an **infrastructure**. As several citizen-archivists have exposed, with past delimitations turned, the archive can be fertile soil for the interlinking of living codices.

diagram: archive as infrastructure

1. pre-internet, archives were interior, still; archivists siloed records in isles of collections.



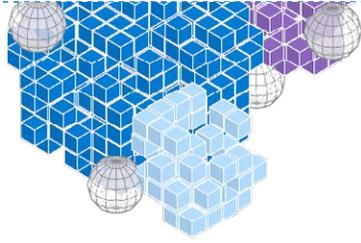
2. post-internet, archives are aggregated, in contact; meta-data archivists inter-relate records.



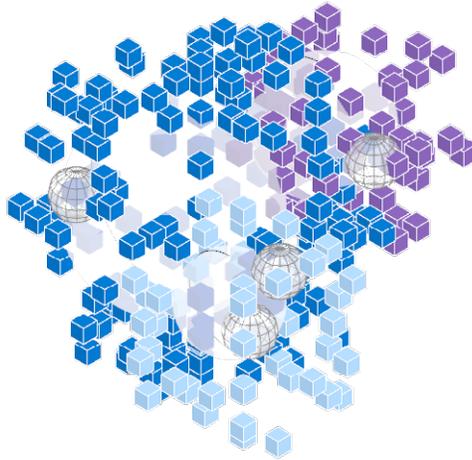
This Archive is not fleeting but *being told*. As Dee Dee Kramer, a digital archivist at the San Francisco Public Library, notes storage is only one aspect of the archive; the concepts or stories that come out of it, the ecology of how records are used and reused, is what the archive is really about.⁵⁰ The many public bodies are archival localities.

This Archive is not suppressed but *unburied*. For one, Geocities, deaccessioned by Yahoo and saved by The Archive Team, has proved an exciting site for archaeology, uncovering the aesthetics and templates of everyday life.⁵¹ Many archives – governmental or otherwise – are prime for digging.

This Archive is not revised but *layered*. As Linsey Drager explores in her codex *The Archive of Alternative Endings*, such an



3. *post-Literapolis, archives expand, are re-networkable; citizen-archivist are authors of living records.*



archive allows multiple resolutions.⁵² The archive's metadata language is treated sedimentarily, each word layering and compressing the previous through history, but retrievable in cross-section.

This Archive is not totalised but *permeable*. As Babak Afrassiabi and Nasrin Tabatabai propose, it permits recirculation of content to disperse, personal contributions to seep in, and voids-for-addressing to appear.⁵³ It is not primarily a power protocol; it does not need to be complete. It is purposely **imperfect**, validating citizen-archivists through, per Be Oakley, “uninformed, spontaneous, naive and failed notions of what an archive can be ... a freedom of creating your own knowledge, understandings and actions.”⁵⁴

Reflexive Subject

Imperfect

able to grow, change, adapt; not burdened by aesthetic or orthodoxy.

This thesis will enter an archive in the Azrieli School of Architecture and Urbanism's room 201. This wall of codices is the primary source for the culmination of decades of student work at the school. It is an impenetrable, aestheticised archival space made useful by its searchable online mirror, the *CURVE Theses and Dissertations Collection*. Meanwhile, Prof. Yvan Cazabon's endeavour to digitise the school's archives might one day result in the work's digital duplication: a scan in of a printout of a (lost) pdf.⁵⁵

Subjective Reflection

I have long conflated community with a city's archives: in wandering Vienna's State Library with my father, studying with classmates in Montreal's Bibliothèque et Archives nationales du Québec atrium or visiting the Canadian Centre for Architecture with my first architecture friend, and in researching alongside my partner in San Francisco's James C. Hormel LGBTQIA Center.

CITY

Expanding from ‘the archive’, I can complicate ideas of ‘the Internet’ and ‘the city’ to advance the latter as the fifth and final scale of investigation.

The Literature**Experience**

while associated with technocratic branding; see **reality**.

Many digital archives are parsed and indexed on the Internet, returning packets of information to be reassembled and downloaded in variable megabytes per second as scrollable codices. It is even possible for archival citizens to **experience** codices through online imaginaries of urban space to some extent. Most recently, this was realised with Meta’s ‘Metaverse’ proposal, but precedents exist in Second Life, The Sims, and Minecraft.⁵⁶ The Internet is all too easy to conceive as the eminent literary scale.

Cloud

diaphanous server space for textual storage and processing.

Because of the Internet’s scale, it has increasingly become illegible and prone to disenfranchise and dissociate its communities. This effect is furthered with the vaporisation of data to the **cloud**, with the Internet’s access site, seemingly out of nowhere, is anywhere. As current Associate Professor of English and past network engineer Tung-Hui Hu writes, the cloud is a virtuality, “a technique for turning real things into logical objects” with the goal of black-boxing processes and marketing universal connectivity as a public good.⁵⁷ Elsewhere, Hu shows that this virtualisation allows “an extractive industry that converts data and humans alike into an industrial resource.”⁵⁸ Unlike the productive virtuality of code – wherein we can imagine and communicate in and beyond ourselves – the de-mediation of the Internet poses challenges to citizen agency – with corporations like Facebook making the unethical seem inevitable.⁵⁹ As I describe in Scroll V, citizens are ripe to be ill-treated in a numinous digital space for which they maintain low literacy rates.

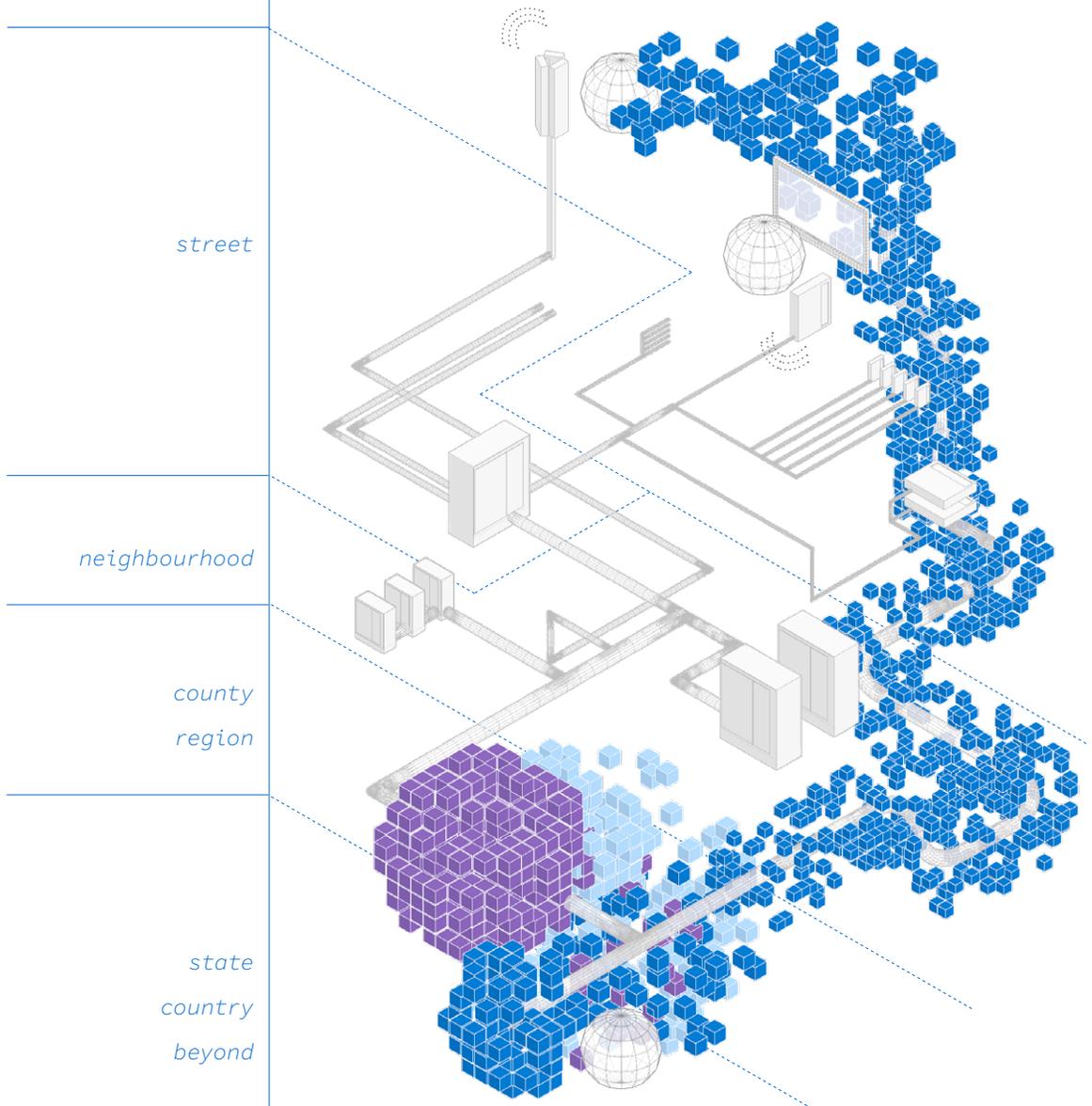
Exiting its imaginary, the Internet, like municipal water, electricity, and transportation, is just one more public infrastructure. It is plugged into from bedrooms and street corners by router-modems and cellular data antennae, in turn connected by phone lines or buried fiberoptics to Internet Service Providers, or ISPs,

Internet of Things
enmeshing life
with digital code.

diagram: city as
superstructure,
not internet

urban fabric as...
access place

boxes at street-level and neighbourhood-level, with multiple such ISPs communicating to city-level data servers and beyond.⁶⁰ This is to say that, though the Internet (and the **Internet of Things**) extends broadly, it is *held in place* and *provided a reason for being* by the city. Rather than an ‘archive of archives’, the Internet is better read as the ‘pipeline of digital information’. Remediated, it is possible to see the Internet as essential infrastructure to literary participation in many societies, begging the question, “Is there an informational right to the city?”⁶¹



The city then, under- and over-laid by digital technology, is the proceeding, structural scale. Architect Christopher Alexander showed how this structure, previously conceived of as a hierarchical ‘tree’, could be modelled as a semi-lattice, its spaces and agents interconnected vertically and horizontally.⁶² Looking back on the impact of his writing on the field of computation, Alexander would go so far as to suggest that computer scientists, and not architects, would structure future cities.⁶³ Mattern has worked hard to unravel Alexander’s rhetoric. To this end, as alternatives to the ‘computational’ city, she has proposed the tangible metaphors of ‘mud’ – as record-keeper in tablets, walls, and streets – and ‘scaffolds’ – the digital and physical social knowledge networks propping-up urban agency – as tangible ways of urban seeing.⁶⁴ In her codex, *A City is Not A Computer*, Mattern elaborates that, while “we’ve long conceived of our cities as knowledge repositories and data processors, and they’ve always functioned as such,” narrow, technocratic metaphors of the city – as computational, as dashboard, as platform – miss the point.⁶⁵ The city and its literary cannot be defined, iterated, and modelled by a “machine or a mind primed to think in branches.”⁶⁶ It can only be fully understood by acknowledging the distributed cognition – the complex decision- and data-making – of its public.

Towards a Literapolis, I re-define the city as a material **superstructure** overlaying, orienting, and organising infrastructure. While the Literapolis city is informed by but not limited to computation thinking, it is complicated by a post-Internet local-global binary.

To understand this binary, I look to critical urban theory and literary studies, which offer socio-political critiques of the city and its power mechanisms towards breaking open divisions of urban knowledge. Per Professor of Urban Theory Neil Brenner, his field has exposed how globalisation has resulted in “the uneven stretching of an **urban fabric**, composed of diverse types of investment patterns, settlement spaces, land use matrices and

Superstructure
above; architecture
with or without
architects.

Urban Fabric
totalising,
orienting
topographical
overlay; see
vectors.

The Metaphor

Globalisation

integration of all
infrastructures,
compounded by the
born-digital.

Traceable

find and re-find
a source despite
changes in textual
scale; accountable.

infrastructural networks, across the entire world economy.”⁶⁷

While enfranchising and, to an extent, producing diaspora, nomadism, and a ‘global-citizenry, this total urbanism attempts to virtually flatten not only infrastructure but the city itself into a singular late-capitalist organ. Meanwhile, from a literary studies lens, UCLA professor Ursula K. Heise describes how a renewed engagement with national and local identity has grown in the face of **globalisation**, defining literary cultures by borders and truncating the urban fabric only for a political convention.⁶⁸ Here, the “conflict between a conceptualisation of national identity as either an oppressive hegemonic discourse or a tool for resistance to global imperialism, and of local identity as either an essentialist myth or a promising site of struggle against both national and global domination, ... [is] a theoretical stalemate.”⁶⁹ Focus on the global, the national, or the local as separatable modes of identification ignores the urban fabric as a mappable place consisting of *vectors, points, and fields* demarcated by citizens – an entanglement I explore in the following chapter.

The Literapolis city, in reaction, is **traceable** but not defined by local factionalism, national boundaries, or global homogenisation. Instead, it is delimited by the multiple publics it houses and the citizen-led archives they prioritise. It is ‘scaffolded’ and underlaid by a re-materialised literary public infrastructure operating on or in parallel to the Internet. It ethically navigates the scales of page to archive, seat to city, or local to global. It would make evident, as does Drulhe, that the “Internet is a single entity, but with a myriad of territorial projections [with] as many Internet architectures as there are users.”⁷⁰

**Reflexive
Subject**

The thesis, produced between Ottawa and San Francisco, would be unequally accessible to those city’s citizens. In Ottawa, it will be held in the preeminent archival authority in the country: Library and Archives Canada’s online database *Theses Canada*, which collects all institutionally accredited national codices. Meanwhile, while it will be emailed directly to a few individuals

Subjective Reflection

in San Francisco, it otherwise risks disassociation from its own subject. As a resolution, it will be uploaded to the Internet Archive, an institution of global reach but Bay Area-based servers.

In late 2021, I visited the San Francisco Bay Area for two months. I was confounded by the disparate economies and presences of the archive and the Internet there developed and persisting, and the contestation hence begot in the local real and virtual literary spaces.

Endnotes

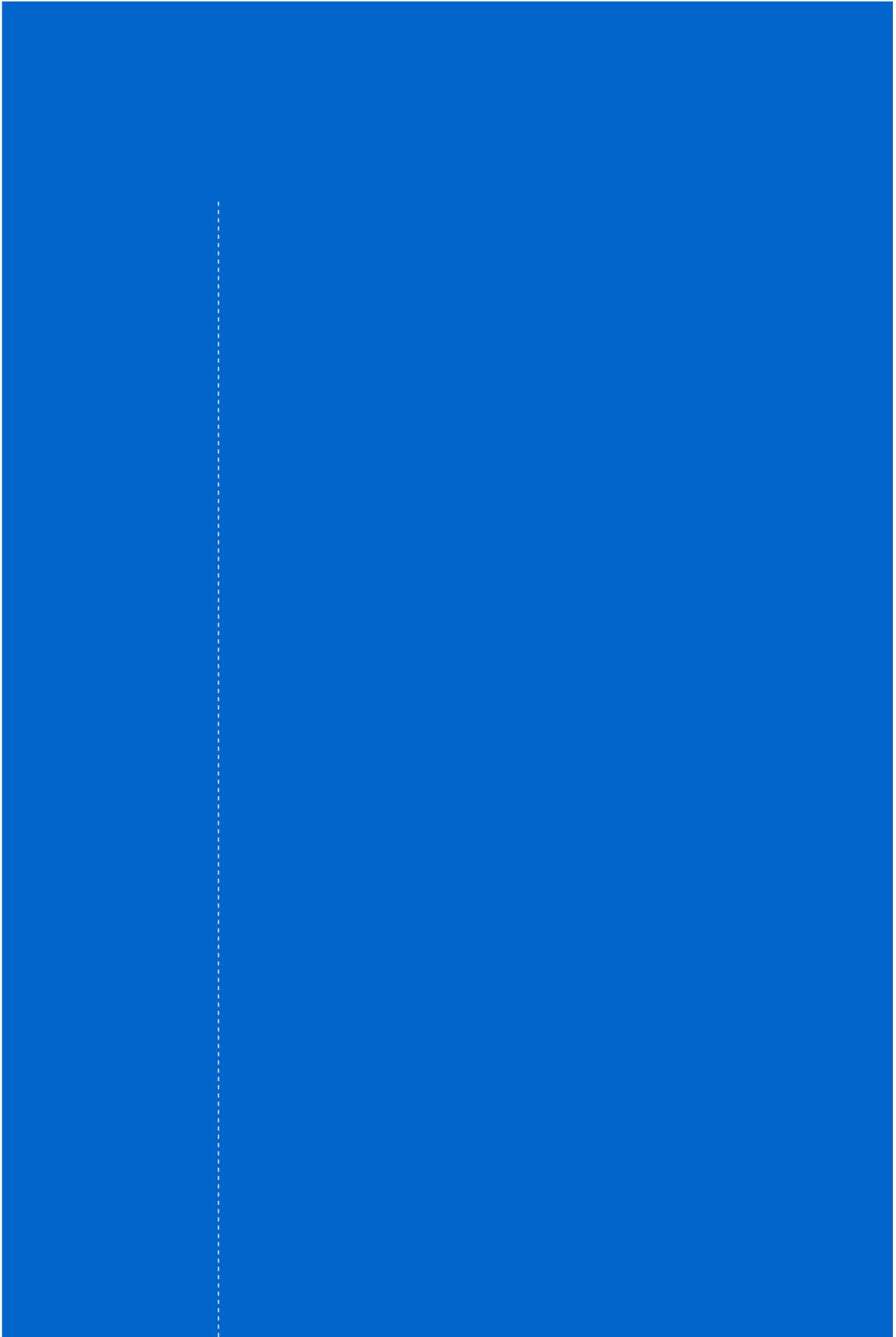
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- 2 Mohsin Iqbal, Matteo Lissandrini, and Torben Bach Pedersen, "A Foundation for Spatio-Textual-Temporal Cube Analytics," *Information Systems* (2022). <https://doi.org/10.1016/j.is.2022.102009>.
- 3 "The concepts of time and space reflect the significance of media to civilization. Media that emphasize time are those that are durable in character, such as parchment, clay, and stone. The heavy materials are suited to the development of architecture and sculpture. Media that emphasize space are apt to be less durable and light in character, such as papyrus and paper. The latter are suited to wide areas in administration and trade." Innis, Harold A, "Introduction." In *Empire and Communications*. Vol. 4. Toronto: Dundurn, 2014. 26–7. See also Walter Ong, *Orality and Literacy* (1982).
- 4 Garrett Stewart, "From Codex to Codecs," in Kiene Brillenburg Wurth, Kári Driscoll, and Jessica Pressman, *Book Presence in a Digital Age* (New York, NY: Bloomsbury Academic, 2020), 47.
- 5 Hito Steyerl, "In Defense of the Poor Image," *e-flux Journal*, 10 (2009), 6.
- 6 John Maeda, *How to Speak Machine: Computational Thinking for the Rest of Us* (New York: Portfolio/Penguin, 2019), 15.
- 7 Elizabeth Grosz, "Cyberspace, Virtuality, and the Real," in *Architecture from the Outside* (Cambridge: MIT Press, 2001), 76, 78.
- 8 *Ibid*, 90.
- 9 N. Katherine Hayles, *My Mother Was a Computer Digital Subjects and Literary Texts* (Chicago: University of Chicago Press, 2005), 6.
- 10 For instance, see Astrida Neimanis, *Bodies of Water: Posthuman Feminist Phenomenology* (2017).
- 11 Ursula LeGuin, "The Operating Instructions," in *The Wave in the Mind* (Boston: Shambhala Publications, 2004), 206–210.
- 12 Bruno Latour, *Reassembling the Social an Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005), 200.

- 13 Back cover of bpNichols, *Journeying & the Returns*, (Toronto: Coach House Press, 1967).
- 14 Franco Berardi, “Malinche and the End of the World”, in e-flux journal, *The Internet Does Not Exist* (Berlin: Sternberg Press, 2015), 100–109.
- 15 Lisa Gitelman, “Emoji Dick and the Eponymous Whale,” in *Book Presence*, 195–210.
- 16 Mattern notes that the hierarchy Data < Information < Knowledge < Wisdom, proposed by Management theorist Russell Ackoff, is often contested as it implies a direct extraction of utility between levels. Mattern, *A City Is Not a Compute*, 69.
- 17 Marshall McLuhan, *Understanding Media: The Extensions of Man* (Cambridge, Mass.: MIT Press, 1966), 26.
- 18 Ibid, 58.
- 19 Anne Burdick, Johanna Drucker, Peter Lunenfeld, Todd Presner, and Jeffrey Schnapp, *Digital Humanities* (Cambridge: MIT Press, 2012), 10.
- 20 Lori Emerson, *Reading Writing Interfaces: From the Digital to the Bookbound* (Minneapolis: University of Minnesota Press, 2014), xvi.
- 21 José van Dijck, *Mediated Memories in the Digital Age* (Stanford: Stanford University Press, 2007), 2.
- 22 Georges Perec, *Species of Space and Other Pieces*, trans. John. Sturrock (London: Penguin, 2008), 12.
- 23 The poverty of architecture as a language in itself is explored in the CCA exhibition *Architecture Itself and Other Postmodernist Myths*, and in Sylvia Lanvin’s accompanying book, *Architecture Itself and Other Postmodernization Effects* (Leipzig: CCA/Spector Books, 2020).
- 24 Shannon Mattern “Of Mud, Media, and the Metropolis: Aggregating Histories of Writing and Urbanization.” *Cultural politics (Biggleswade, England)* 12, no. 3 (2016): 314-316.
- 25 “Here is how to remember. First you must choose a place. It should be somewhere you know very well. Most people pick somewhere spacious and grand—a great hall, one of the ruined towers of the city. You get to know this place as well as you can. You walk around it, impressing every detail on your memory, until you can tour it in your mind when you are not there. Then you place the things you need to remember around the building, in the form of pictures. These pictures must be startling enough to trigger your imagination ... when you need to recall something, you merely go in your imagination.” Hari Kunzru, *Memory Palace*, curated by Laurie Britton Newell and Ligaya Salazar (London: V&A Publishing, 2013), 9.
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- 27 John T. Hamilton, “Pagina Abscondita: Reading in the Book’s Wake,” in *Book Presence*, 28.
- 28 Paul Litt, “The State and the Book,” in Patricia Fleming and Yvan Lamonde, *History of the Book in Canada* 3 (Toronto: University of Toronto Press, 2004), 37.
- 29 For further information on the Canadian micro-press, see Colin Jan Martin, “At the Margins: Chapbook Presses in Canada,” unpublished PhD diss. (University of Calgary, 2016).
- 30 For one, Apple has become increasingly litigious, targeting any company

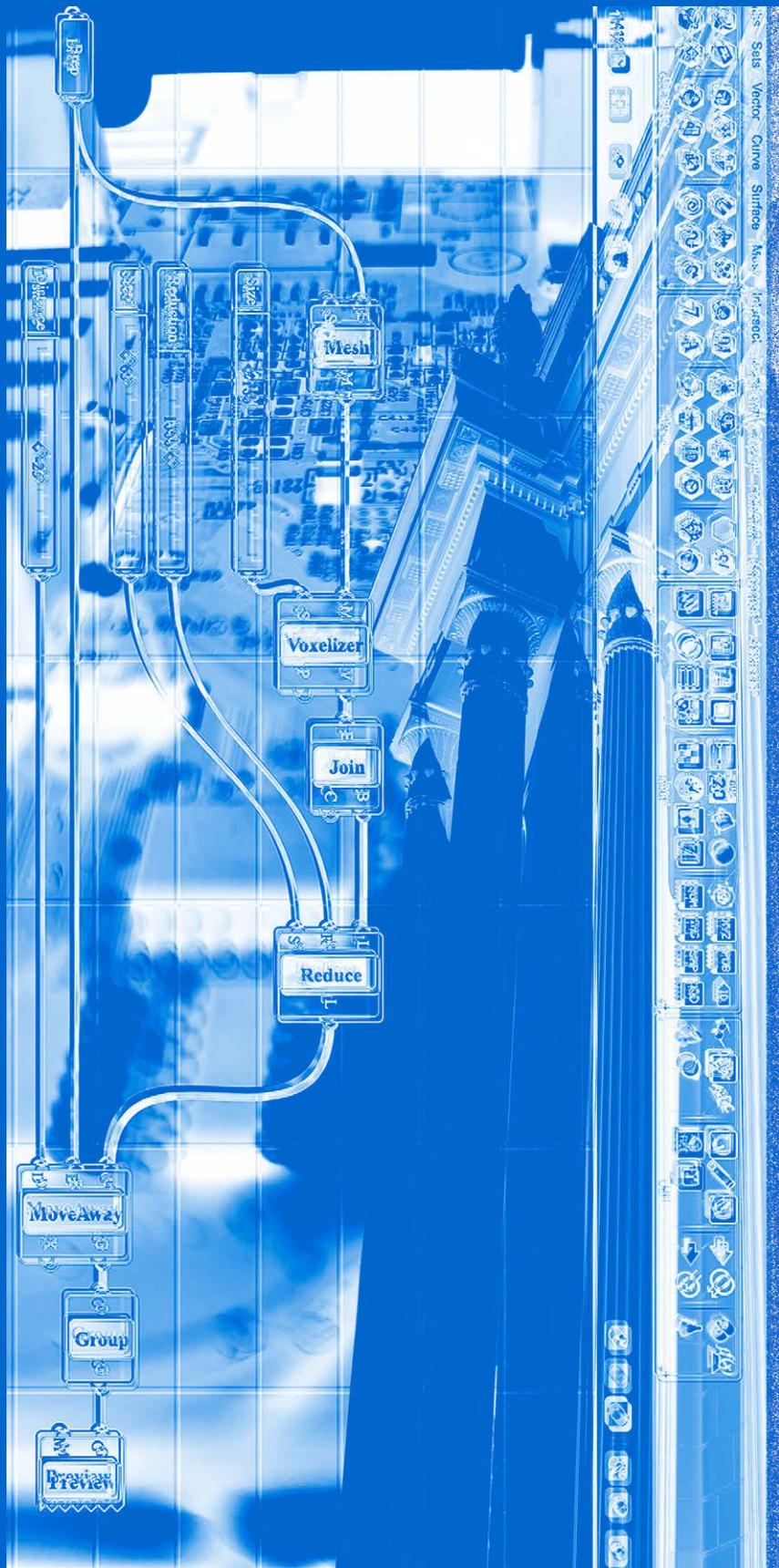
- attempting to copyright a fruit-like logograph. Ryan Mac and Kellen Browning, "Behind Apple's Aggressive Moves to Protect Its Trademark - The New York Times," *The New York Times*, March 11, 2022, <https://www.nytimes.com/2022/03/11/technology/apple-trademarks.html?action=click&module=Well&pgtype=Homepage§ion=Technology>
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- 32 Jessica Pressman, "Bookwork and Bookishness: An Interview with Doug Beube and Brian Dettmer," *Book Presence*, 67.
- 33 Drucker, Johanna. *History of The/my World: Fragments of a Testimonial to History, Some Lived and Realized Moments Open to Claims of Memory*. New York: J. Drucker, 1990.
- 34 Annet Dekker, "The SKOR Codex launches into the future: Interview with La Société Anonyme," *Open!* April 17, 2014, <https://www.onlineopen.org/the-skor-codex-launched-into-the-future>.
- 35 Ella Berthoud and Susan Elderkin, *The Novel Cure: from Abandonment to Zestlessness: 751 Books to Cure What Ails You* (New York, NY: The Penguin Press, 2014).
- 36 Douglas Darden, *Condemned Buildings: An Architect's Pre-Text* (New York: Princeton Architectural Press, 1993).
- 37 Hannes Bajohr explores the 'differentiating non-difference' of online publishers in "Infrathin Platforms: Print on Demand as Auto-Factography," *Book Presence*, 71-89.
- 38 Joshua Barone, "Irma Boom's Library, Where Pure Experimentalism Is on the Shelf", *The New York Times*, January 16, 2017, <https://www.nytimes.com/2017/01/16/arts/design/irma-boom-bookmaker-vermeer-prize-amsterdam-library.html>.
- 39 International Council on Archives, Universal Declaration on Archives, 10 November, 2011, https://www.ica.org/sites/default/files/20190510_ica_declarationuniverselle_en_0.pdf.
- 40 See notes at <https://dictionary.archivists.org/entry/archives.html>, alongside the 'at least twelve' definitions. For further definitions of archives, see Marlene Manoff, "Theories of the Archive from Across the Disciplines," *portal: Libraries and the Academy* 4, no. 1 (2004): 9-25.
- 41 Annet Dekker, "Introduction: What it Means to be Lost and Living (in) Archives," in *Lost and Living (in) Archives: Collectively Shaping New Memories* (Amsterdam: Valiz, 2017), 14.
- 42 Michel Foucault, "The Historical a priori and the Archive" in *Archaeology of Knowledge*, trans. A. M. Sheridan Smith (New York: Pantheon Books, 1972), 130-1.
- 43 Mattern. *A City Is Not a Computer*, 65
- 44 Dekker, "Introduction", 15.
- 45 For instance, the Het Nieuwe Instituut's acquisition of architecture office MVRDV's living archive. For more information on how HNI has been changed by the process of digitization, see Ania Molenda, "Between Creators and Keepers: How HNI Builds its Digital Archive," (iPRES Conference, 2018), https://collectie.hetnieuweinstituut.nl/sites/default/files/between_creators_and_keepers_final.pdf.
- 46 Hans Ulrich Obrist, "In Conversation with Julian Assange," in *The Internet Does Not Exist*, 210.

- 47 Ibid, 221.
- 48 The CCA's digital archiving source code is available to (per)use at <https://github.com/CCA-Public/cca-tools>. Martien de Vletter, "The Discovery of Absences", CCA, accessed March 13, 2022, <https://www.cca.qc.ca/en/articles/82962/the-discovery-of-absences>.
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- 50 Dee Dee Kramer, conversation with the author on February 15, 2022.
- 51 See Olia Lialina, "Still There: Ruins and Templates of Geocities," in *Lost and Living (in) Archives*, 193–212.
- 52 Throughout her book, Drager describes how the story of Hansel and Gretel is written and interpreted and overlaid across many lives and centuries. Linsey Drager, *The Archive of Alternative Endings* (Dzanc Books, 2019).
- 53 A 'Permeable Archive' is, appropriately, described piecemeal throughout Annet Dekker, "Permeable Archive: A Conversation with Babak Afrassiabi and Nasrin Tabatabai from Pages", in *Lost and Living (in) Archives*, 213–223.
- 54 Be Oakley, *Imperfect Archiving, Archiving as Practice For a Love of Softness* (Brooklyn, NY: GenderFail Press, 2021), 36.
- 55 Cazabon's project, arkHive, is visible at <https://arkhivecarleton.com>.
- 56 Second Life even went so far as maintaining its own explicit literary through magazines ECLIPSE, The SL Enquirer, and The AvaStar.
- 57 Tung-Hui Hu, *A Prehistory of the Cloud* (Cambridge, MA: MIT Press, 2015), x.
- 58 Tung-Hui Hu, "Black Boxes and Green Lights: Media, Infrastructure, and the Future At Any Cost," *English Language Notes* 55, no. 1–2 (2017): 86.
- 59 For more information on how Facebook treats its users as means to ad revenue, to disastrous effect, see Ellen Cushing, "How Facebook Fails 90 Percent of Its Users," *The Atlantic*, October 25, 2021, <https://www.theatlantic.com/ideas/archive/2021/10/facebook-failed-the-world/620479/>.
- 60 Mattern extensively discusses city dashboards and data control centres in "Chapter 1: City Console," *A City Is Not a Computer*.
- 61 For in-depth exploration of this question, see Joe Shaw and Mark Graham, "An Informational Right to the City? Code, Content, Control, and the Urbanization of Information" *Antipode* 49, no. 4 (2017): 907–927.
- 62 Christopher Alexander, "A City is Not a Tree" *Architectural Forum* 122, no 1-2 (1965): 58–62.
- 63 Christopher Alexander, "The Origins of Pattern Theory, the Future of the Theory, And the Generation of a Living World" (keynote presented at The ACM Conference on Object-Oriented Programs, Systems, Languages and Applications (OOPSLA), San Jose, California, October 1996), <https://www.patternlanguage.com/archive/ieee.html>.
- 64 See Shannon Mattern, "Scaffolding, Hard and Soft: Critical and Generative Infrastructures," in *The Routledge Companion to Media Studies and Digital Humanities 1* (Routledge, 2018), 318–326; and "Of Mud, Media, and the Metropolis," 310–331.
- 65 Mattern. *A City Is Not a Computer*, 62.

- 66 Ibid, 4.
- 67 Neil Brenner, "What is critical urban theory?", *City* 13:2-3 (2009): 205.
- 68 Ursula K. Heise, "From the Blue Planet to Google Earth", in *The Internet Does Not Exist*, 73-4.
- 69 Ibid, 75.
- 70 Louise Druhle, *Critical Atlas of the Internet*, <https://louisedruhle.fr/internet-atlas/>.



*process: vector,
point, field*



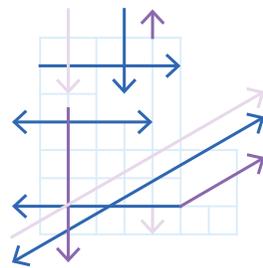
III. LITERAPOLIS SAN FRANCISCO

Having elaborated the Literapolis metaphor, I propose applying it to a metropolis towards uncovering textual spaces and ethics in the post-Internet city. I begin by describing a methodology to judiciously frame space through the five scales. Then, I unpack my reasoning for choosing San Francisco as my case-study city.

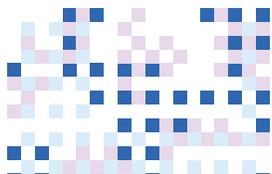
Apply the Scales

I consider, alongside Actor-Network theorist Bruno Latour, that academic studies often over- and pre-determine scale. In practice, it “is what actors achieve by scaling, spacing, and contextualising each other through the transportation in some specific vehicles of some specific traces.”¹ To avoid the pitfall of absolute scales “spoiling any hope of superimposing documents in some readable format”, Latour reminds that “size and zoom should not be confused with connectedness.”² To maintain their relativity, the scales must adapt to citizens’ use. As such, following Actor-Network theory, my case study builds-in flexibility across three nested sub-scrolls noted here and developed below:

*diagram:
relativities*

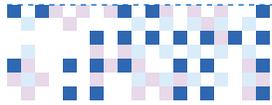


Vectors are the interstices of city and archive: they translate texts at the grade between superstructure and infrastructure. In the Literapolis, I consider the transit network as relevant as the Inter-network. On this basis, I explore how vectors, as possible textual pathways, prompt questions of agency.

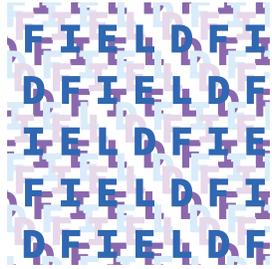


Points are the interstice of archive and **codex**: they locate the unit structure within the infrastructure. In the Literapolis, I consider how many urban typologies can be understood as archival spaces, not just traditional institutions. On this basis, I explore how points, as spaces for textual





interaction, prompt questions of accessibility.



Fields are the interstice of codex and page: they affect and are affected by the play between substrates and unit structure.

In the Literapolis, I consider questions of identity essential to balanced fields. On this basis, I explore how fields, as discursive textual forces, prompt questions of heterogeneity.

Vectors

line, road, axon,
cable, etc.

Points

node, hub, neuron,
outlet, etc.

Fields

mediator,
vehicle, synapse,
electricity, etc.

While these three relativities may seem further abstractions, they are fundamental to the reality of born-digital constructs. Respectively, they translate, locate, and affect the spatio-textual cubes of Scroll II. They are significant to the Literapolis metaphor for two reasons. One, within these interstices, imagined citizens can self-determine the transitions between elastic scales. Without the pre-definitions of an institution, a citizen can use the Literapolis as a tool to uncover and produce a born-digital living literary. Two, my Literapolis definition of code as a communicative event – as connective virtuality expanding the possibilities of the real – can only take place if the other scales are allowed to be related as needed. Accounting for relativity prevents an internal contradiction in the metaphor by allowing code to grow and adapt between page, codex, archive, and city spaces.

Contextualise

treat data as
matters of
concern.

Map

spatialise data as
vectors, points,
and fields.

I elaborate on each of the sub-scrolls through several steps. First, I disambiguate with a technical definition. Second, I **contextualise**. I provide site photography, local literature, and brief personal recollection to ground discussion. Third, I draw from context to ambiguate a Literapolis definition. Fourth, under the expanded definition, I **map**. Here, I return to Latour. He notes that digital maps can be mimetic – as approximate topographical trace – and navigational – as signposts through heterogenous data.³ Professor of Digital Humanities Maureen Engel furthers this framing by

proposing a ‘deep mapping’ where maps are “used to the complex stories of human thought, culture, history, and production.” In following, narrative is expressed through “a spatial interface as much as through a linguistic one.”⁴

Provoke
urge to imagine
a **counter-**
environment and
take **action**.

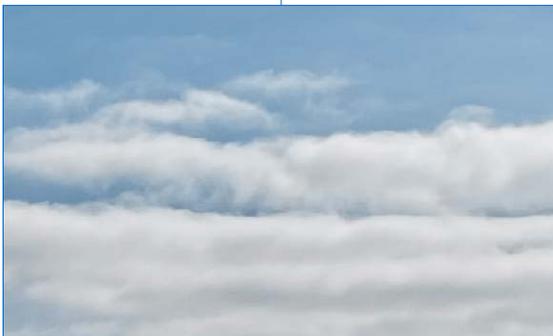
Epicentre
representative
centre of centres.

Context and maps, in treating human systems as historic and informatic, cannot tell the full story. In this vein, Indigenous author Lee Maracle has critiqued the map altogether, favouring instead stories as the eminent mode to communicate the complexity of a place.⁵ From Maracle, I use simultaneous mapping of objective and subjective uses to expose relativities to begin to problematise the map. Narrative is then fully employed as a tool in the fifth and final step. Here, I **provoke**. I synthesise the data gleaned through context and mapping into knowledge: a depiction respectively for a vector, point, and field. While I invite the reader to imagine alternatives, I use these initial provocations as a threshold to scroll VI and its delineation of citizens’ narratives.

Choosing a City

site photo: clouds
over a Literapolis

While any metropolis could be a Literapolis, I have chosen to apply the metaphor broadly to California’s Bay Area and specifically to San Francisco. As described below, the Bay Area is the **epicentre** of the post-internet. It is the ideal region to discuss the prospects and tensions of the born-digital pointedly. Meanwhile, it is a solid historical and living literary, with codecs scattered across the city grid. Finally, San Francisco’s mythic prosperity rhetoric is untethered virtuality – an imaginary produced from a cultural distance⁶ – that begs to be complicated by its socio-political reality.



As a study guide, I reference two San Franciscan codices as inspiration. The first is Rebecca Solnit’s *Infinite City*, which presents the city via an atlas of subjectivities and via musings centring on narrative identity and experience. The second is Franco La Cecla’s *Against Architecture*,



where narrative, and not architecture-itself, is argued to be the key to a Literapolis. As a study reference, I draw spatial data from Berkley Library, DataSF, and the California State Geoportal databases.⁷ As a study precedent, I co-opt the work of artist and publishing collective Temporary Services.⁸

With a city selected, I can apply the Literapolis scales across vectors, points, and fields through disambiguation, contextualisation, ambiguity, mapping, and provocation.

VECTORS

Disambiguation

The first method to apply the scales is the vector. Per mathematician James Stewart, “the term vector is used by scientists to indicate a quantity (such as displacement or velocity or force) that has both magnitude and direction. A vector is often represented by an arrow or a directed line segment.”⁹ Meanwhile, vectors in digital graphics – for instance, forming typefaces – are zoomable, resolution-maintaining lines. What is consistent is that vectors direct and draw data along some distance. I describe San Francisco’s vectors as interstices of city and archive from the basis of this definition. Then, having outlined context-specifics, I will ambiguously, map, and provoke vectors towards a literacy of agency.

Context

*site photo: BART,
topo, fibre*



In the Bay Area, the Advanced Research Projects Agency Network (ARPANET), an academia-military complex technical precursor of the Internet, first drew post-Internet vectors in 1969. Over the last several decades, the Bay has experienced waves of tech booms and has come to host the companies that vertically control the western born-digital. This includes the device used for access (the semiconductor chips of Intel and AMD, graphics cards of Nvidia, computer peripheral devices of Logitech, and the computers of Apple), significant Internet spaces (the search engine and media servers of Google, the knowledge-base of Wikimedia, the source code of Github, and software of Adobe), and broader re-



Fibre
underlying
material of the
post-Internet
urban fabric.

Ambiguation

lated structures (the standards of the Internet Engineering Task Force (IETF), the network hardware of Cisco, the banking of Wells Fargo, and the credit of Visa). Now, the global textual production likely passes through the Bay somewhere along the line.

Despite its extent, this profit-driven techno-corporate chain is only one vector supporting the city's actual literary translation. Equally, the streetcars and trains of Caltrain, BART, and MUNI move citizens between wealth disparities; ferries relate the academic networks of UC San Francisco and UC Berkeley; stairs navigate a hilly terrain replete with poetic vistas; neighbourhood and state parks externalise the home or office; and bikes and skateboards skirt through an arborescence of alleys teeming with communicative events. Alongside an entanglement of communications **fibre**, these public infrastructures promote the translation of spatio-texts.

For the Literapolis, I expand on Stewart's definition of the vector. I posit vectors as navigators between the scales of city and archive. They are the possible, weighted paths of translation of texts between archival places. When embodied by an author, vectors delineate agency. They establish, as such, a dynamic of mobility in the city: who moves, where do we move, and how do we move?¹⁰

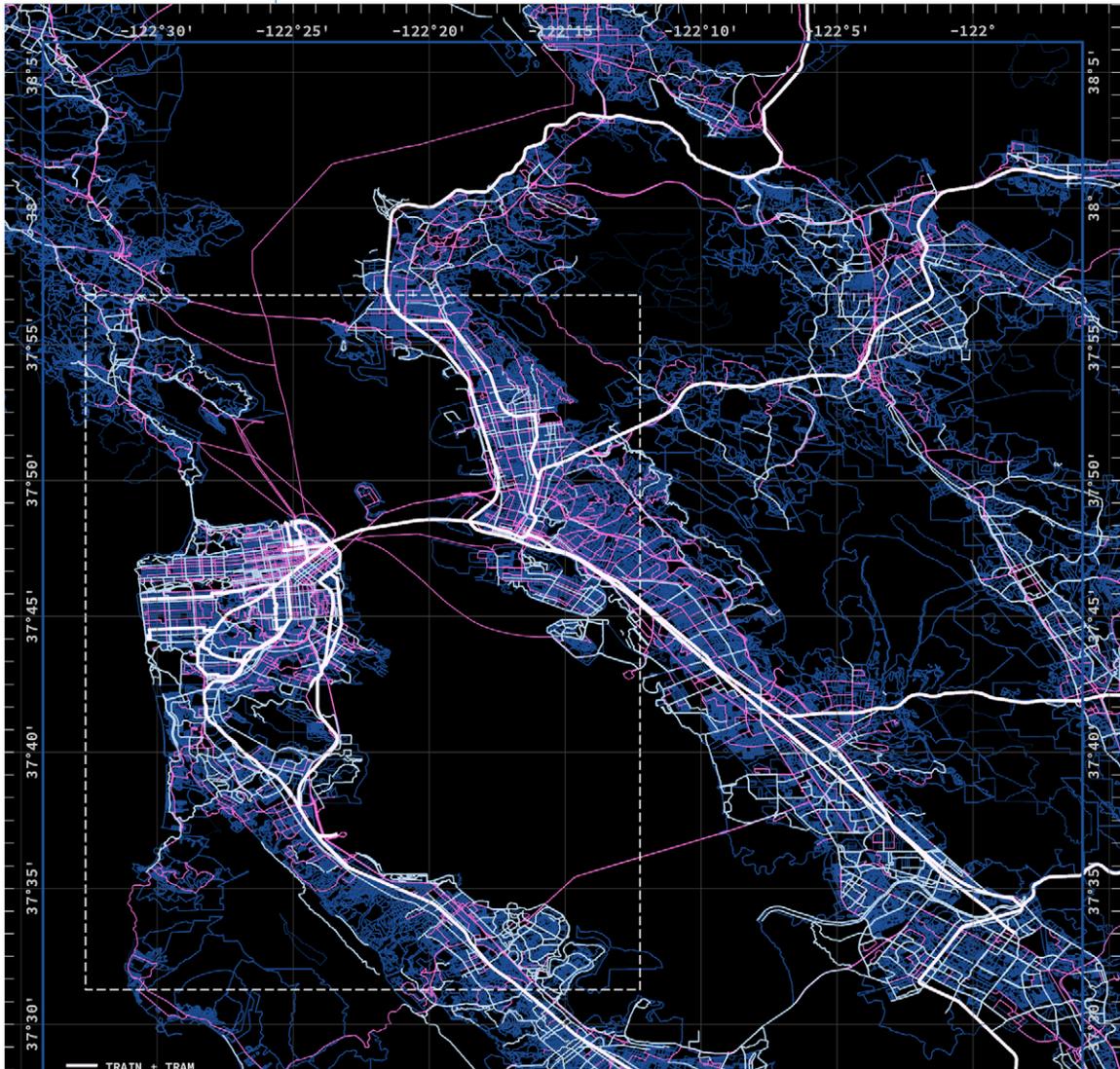
Map

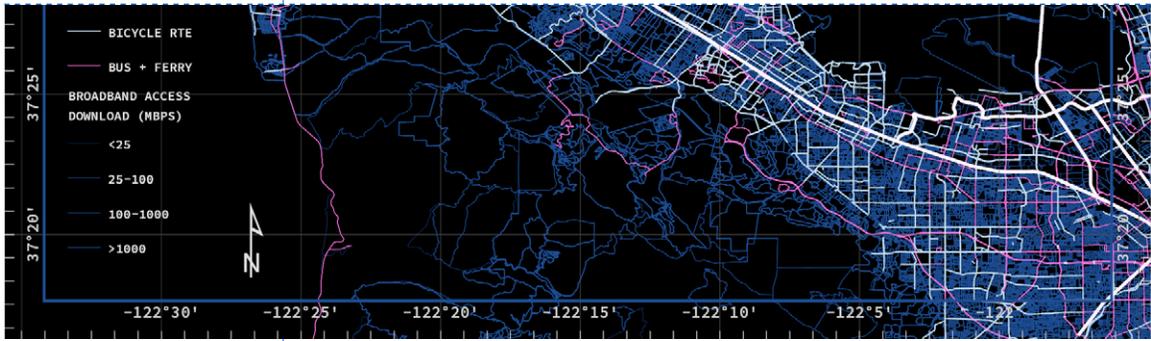
Broadband
data transmission
prerequisite to
post-Internet born-
digital access.

In the vector map then, I overlay several regional factors that mediate mobility and its implied agency. I include major train and bike routes that link archival infrastructures over long and short distances. These determine which neighbourhoods can translate adjacent living literaries into their own and participate in cultural production. I also layer **broadband** speeds which – unsurprisingly based on the stakeholders – are very high. This realisation contrasts with a previous study I conducted in Cleveland, Ohio. There, I exposed 'digital redlining', where endemic, national, racially segregating red- and yellow-line vectors continue to affect the unequal distribution of urban infrastructures

in the digital.¹¹ Specifically, in many racialised neighbourhoods, broadband speeds run well below the 25mbps now required to participate in streaming video discursion in a post-pandemic era. Meanwhile, in the Bay Area, the wealth influx from a homogenous tech industry has ensured an Internet primed to serve emancipating ends.¹² Meanwhile, the stories of the Black and Latino communities who were redlining in the area – and whose continued presence is at risk because of the vectors of capital and housing – must enter the born-digital record. It will be essential to maintain the city’s accessibility both by the body and digital device to ensure this transpires.

map: vectors
(1:500,000)



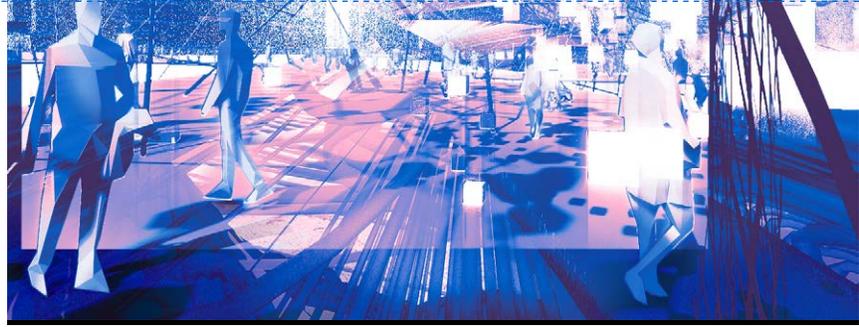


Provocation

I provoke a Literapolis where the city’s extensive structural vectors can be tactically tapped into with limited means. This may allow the weight and direction of vectors to be modified or to position or reveal the need for points, detailed below, to draw new mobilities. Alongside Maracle, the Literapolis would equally consider stories, narratives, tales, and personal histories as mobile or in translation; they too are vectors.

provoke: vectors of agency





Grassroots
from the
citizen up.

Vectors would act at the scale of the city in organising and overlaying super- and infrastructures and at the scale of the archive in being told first-hand. To this end, a vector, per the artists' collective Temporary Services, is self-reliant. "It is creating shared culture and solutions from the bottom up when corporations, mass media, government institutions, and other large concentrations of power ... do not create situations that take care of the maximum number of people."¹³ Inspired by the work of NYC Mesh – a **grassroots** Internet provider that is maintained and disseminated by its users¹⁴ – I offer some preliminary provocations for the Literapolis: a scooter with ports, a bicycle with keyboards in three languages, and a skateboard that can professionally capture and transcribe on the fly. By synthesising transit and communications as born-digital vectors, I invoke pathways for citizens to reclaim and maintain literary agency, whether at the level of the street or the search bar.

*speculate:
portage,
typecycle, on-air*



POINTS
Disambiguation

The second method to apply the scales is the point. In Math Open Reference founder John Page's words, "a point is an exact position or location on a plane surface." Page meanwhile reminds that a point is spatial and not theoretical: "It is important to understand that a point is not a *thing*, but a *place*."¹⁵ I describe San Francisco's points as interstices of archive and codex from the basis of this

definition. Then, having outlined context-specifics, I will ambiguate, map, and provoke points towards a literacy of accessibility.

Context

The city has a strong archive presence. While in San Francisco, I visited several:

site photo: San Francisco archives

point ▼ offline ▼ online ▼



At the SF History Center, I encountered a series of index systems. Some cards were mirrored online, while others were only retrievable from the recesses of physical storage. These dusty codices **materialised** the digital public record database in an accessible space but did not fully utilise the post-Internet's indexical capacities.



At the Letterform Archive, I was guided through a new exhibit space with a high-quality digitisation project. It **broad-casted** records online, but standards of collection and representation were not readily apparent, and codex retrieval was highly privileged.



At the Prelinger Library, I saw a distinctive approach that **stored** codices in a spectrum, representing the post-Internet instincts of two San Franciscans highly involved in born-digital collecting. While a novel mode of access and organisation, its scale was hardly mass-replicable.

At the Internet Archive – which, consisting of petabytes of data on a warehouse of servers, exists mainly online – I could not enter the premises. Its mission to store everything via the agency for anyone to



upload becomes problematic. Prominent institutional curators – museums, universities, and governments – maintain outsized visibility and influence, with community-level agencies left to be found via search and hyperlink functions.

Further, nothing is **disposed of** in downloading the Internet for posterity. Despite some optimisation, it is an archive riddled with junk.

Meanwhile, I visited an overburdened infrastructure at the [San Francisco Public Library \(SFPL\)](#). In visiting, I spoke to several librarians and archivists, who furthered and deepened my research. I saw a devoted and caring staff whose expertise in primary and published materials was spread thin by their institution becoming a day-care, school, makerspace, and community service centre. The library and its librarians cannot be the city's sole access point to every structural unit. As Shannon Mattern notes, there is a need to decentralise towards “a more robust ecology of social services.”¹⁶

Ambiguation

For the Literapolis, I expand on John Page's definition to posit points as the mode of (geo)locating, however temporarily, both the places of archives and their contained codices. Moreover, points are the references used to construct vectors of citizen and informational translation across the city. When embodied by an author, points are where a text rests, the primary places for textual interaction. Their presence or non-presence then, across the city, is a determinate of accessibility.

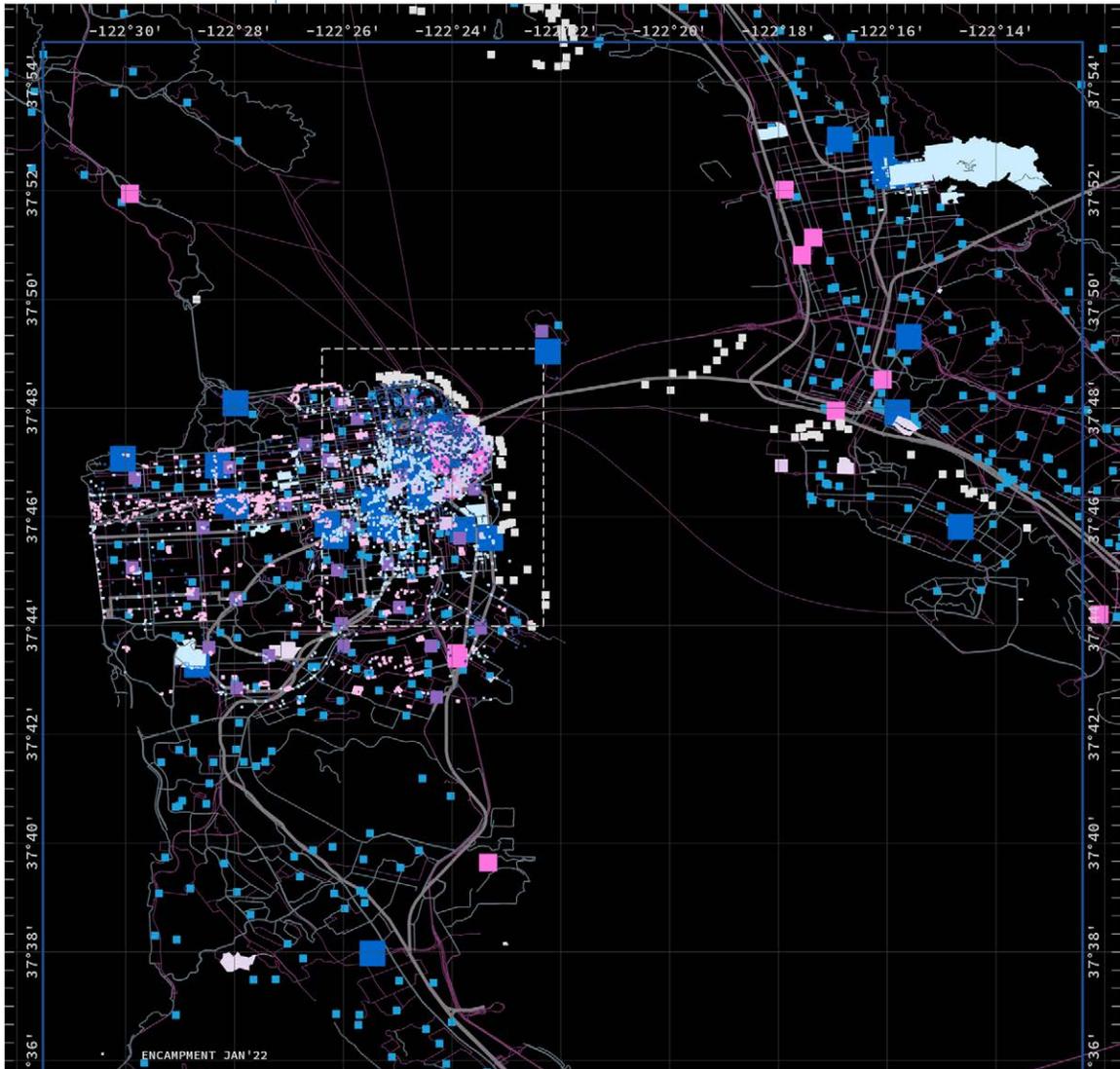
Map

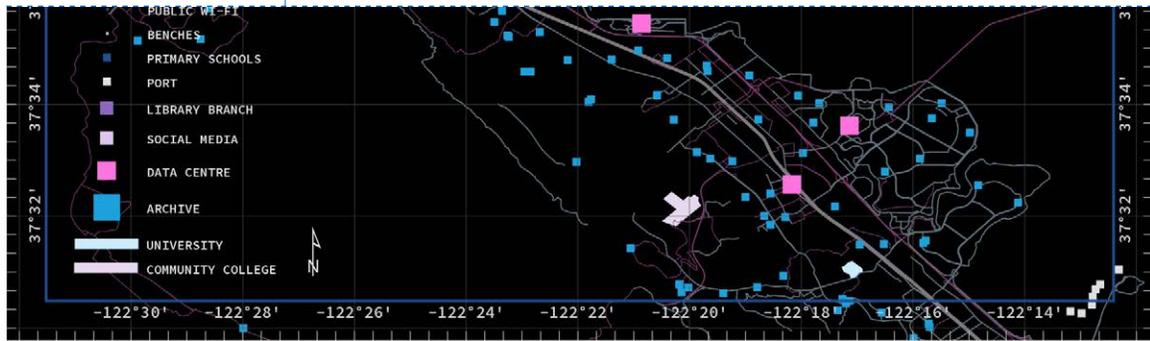
Then, in the point map, I locate discrete places relevant to the Literapolis to expose adjacencies for interstitial fields and new vectors. First, I geolocate San Francisco's literary archives (those described above alongside SFPL branches and other local presences), social media companies (Twitter, Discord, and LinkedIn,¹⁷

Touch
to interact
with reality.

map: points
(1:250,000)

for instance), and data centres. These three typologies are consistent as institutions that delineate literary accessibility. Second, I interlay points for street furniture benches, public Wi-Fi points, and 311 reports of encampments in January 2022.¹⁸ While institutions manage access differently, they are often mainly consultation spaces, relying on professional or expert-led curatorial agents and use-patterns pre-determined from above. This second set of points then are spaces already under citizen control; they promote participation and so agency in the born-digital living literary.¹⁹ These are as relevant as social media companies, data centres, and institutional archives as locales to touch the archive and the codex.





Provocation

I provoke a Literapolis where community-based public points-of-access are scattered and small.

Materialise

make evident,
tangible,
accessible.

Broadcast

publicise texts
for community
visibility.

Store

place somewhere
for safekeeping
and future reuse.

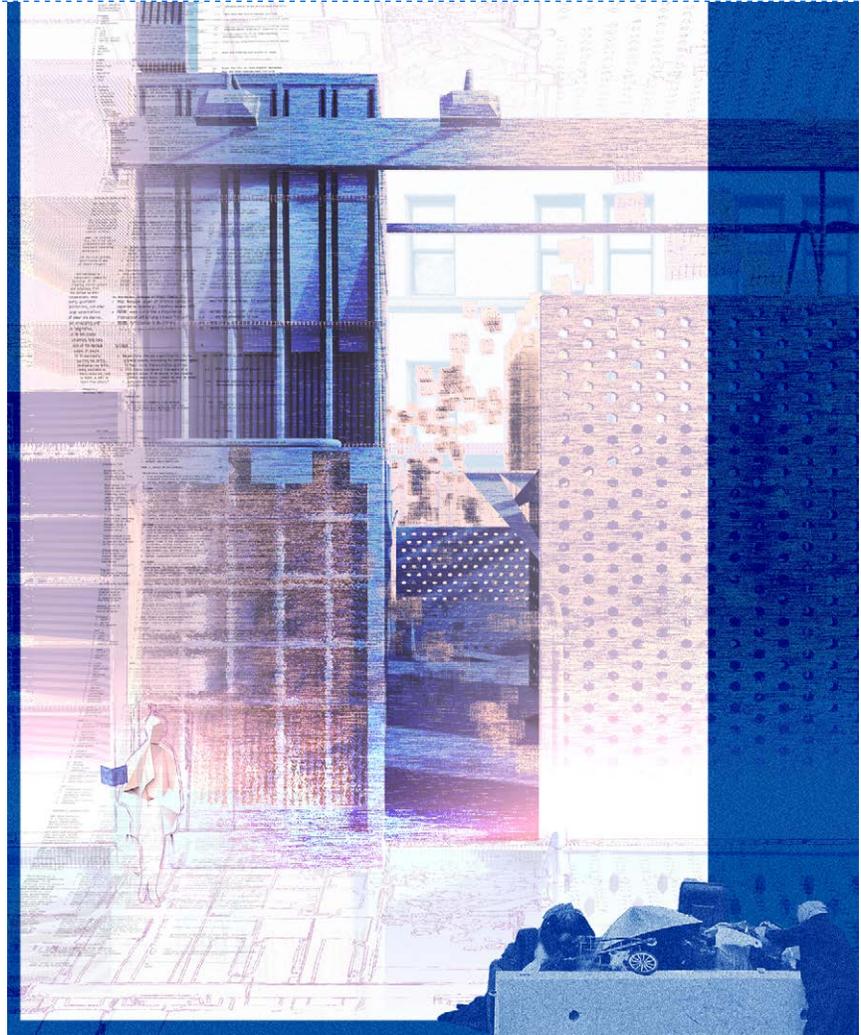
Dispose

allow to de-
materialise, to
return to noise.

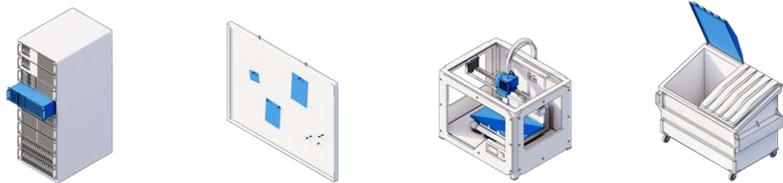
Points would act at the scale of the archive in allowing texts to be unburied, layered, and permeated.²⁰ This approach has a precedent in San Francisco: at Rainbow Grocery in Mission, a binder-memorial to 9-11 sat on a shelf to which any community member could contribute clippings, writings, and images. As Salem Collo-Julin found, “there were no boundaries to stop anyone from adding or subtracting their own input ... there were voices of dissent within the pages ... This binder seemed to be a quiet way for anyone taking a break to retrieve information and find common places of mourning.”²¹ Temporary Services, to which Collo-Julin belongs, were inspired to develop their own conflated archive-codex point, the *Binder Archives*. In this project, the artists travelled with a set of codices in an icebox that could be positioned anywhere to produce and disseminate a highly specific literary.²² I follow Temporary Services, where community-defined public-interest points – in Mattern’s words, ‘civic tech’²³ – are placed in parks, on street corners, or scaled to the niche available. The virtual access points generated are more significant than the humble means.

provocate: points
of access





*speculate: store,
broadcast,
materialise,
dispose*



Points would also act at the scale of the codex in being processual. I see a born-digital precedent in the *bak.ma* project, which operates as a database to collect the recent history of Turkey by members editing, downloading, uploading, tagging, and annotating videos.²⁴ Here, I provoke a renewal of citizen agency and accessibility at the point through four services: **storing, broadcasting, materialising, and disposing of**. The ‘point’ becomes a place for citizens to take their born-digital codices to be renewed as a living literary tool. In whatever format, however stable or

FIELDS

Disambiguation

temporary, citizens' stories are resituated. They are provided a place.

The third method to apply the scales is the field. Per physicists Lev Davidovich Landau and Evgenii Mikhailovich Lifshits, “the interaction of particles can be described with the help of the concept of a field of force.” Here, in electromagnetic and gravitational fields, “instead of saying that one particle acts on another, we may say that the particle creates a field around itself; a certain force then acts on every other particle located in this field.”²⁵ I describe San Francisco's field as interstices of archive and codex from the basis of this definition. Then, having outlined context-specifics, I will ambiguate, map, and provoke points towards a literacy of heterogeneity.

Context

While enmeshed by a structure of translating vectors and locating points, San Francisco is equally affected by a field of author-particles producing texts and influencing the generation of points and vectors. The city has been home to Maya Angelou, Armistead Maupin, Amy Tan, and the Beat Poets Allen Ginsberg, Bob Kaufman, and Jack Kerouac. Across the Bay, meanwhile, are Ursula LeGuin, Michael Chabon, Jack London, Gertrude Stein, and the Free Speech Movement. These codexes have projected and interlinked their identities with their community or broader city as codex-bound narratives.

*site photo:
students, queer
folk, free radicals*



Less renowned beyond the city but essential to the health of a living literary are the pages that San Franciscan communities imagine in interacting daily with their city. For one, scattered throughout are a mass of computer scientists writing petabytes of code. While this group leaves a written trace, many citizens' stories are undocumented in the digital, persisting mainly in the public record as social media accounts and birth-marriage-death dates. There is a feeble literary to bind as **anthology** representing the true diversity of the city's identities.²⁶

Ambiguation

In the Literapolis, I posit the codex and pages as particles in a relational archival field of force. My opening-up of the field definition here aligns with architect Stan Allen's essay "Field Conditions," wherein he notes:

"... a field condition could be any formal or spatial matrix capable of unifying diverse elements while respecting the identity of each. ... Overall shape and extent are highly fluid and less important than the internal relationships of parts, which determine the behavior of the field. Field conditions are bottom-up phenomena, defined not by overarching geometrical schemas but by intricate local connections. Interval, repetition, and seriality are key concepts."²⁷

Anthology

collection of
discursive textual
voices in a codex;
see reification.

A spatio-textual field is unlike one in pure, conceptual math, like a 'direction field' – per Stewart, that "allows us to visualize the general shape of the solution curves by indicating the direction in which the curves proceed at each point."²⁸ Instead, as relatively applied, it not only unifies and affects the pathways of surrounding vectors and points but equally affects itself. Recalling Foucault's definition of the archive complicated by Dekker, I see the field as an 'enunciative' base of all citizens' knowledge, with pages influencing and influenced by the pages of adjacent codices. The heterogeneity of citizens then is an essential consideration to such a discursive field: should some local textual-identities be unrepresented or out-weighted, the field will be unbalanced, with a homogenous central pull and a flat periphery.

Map

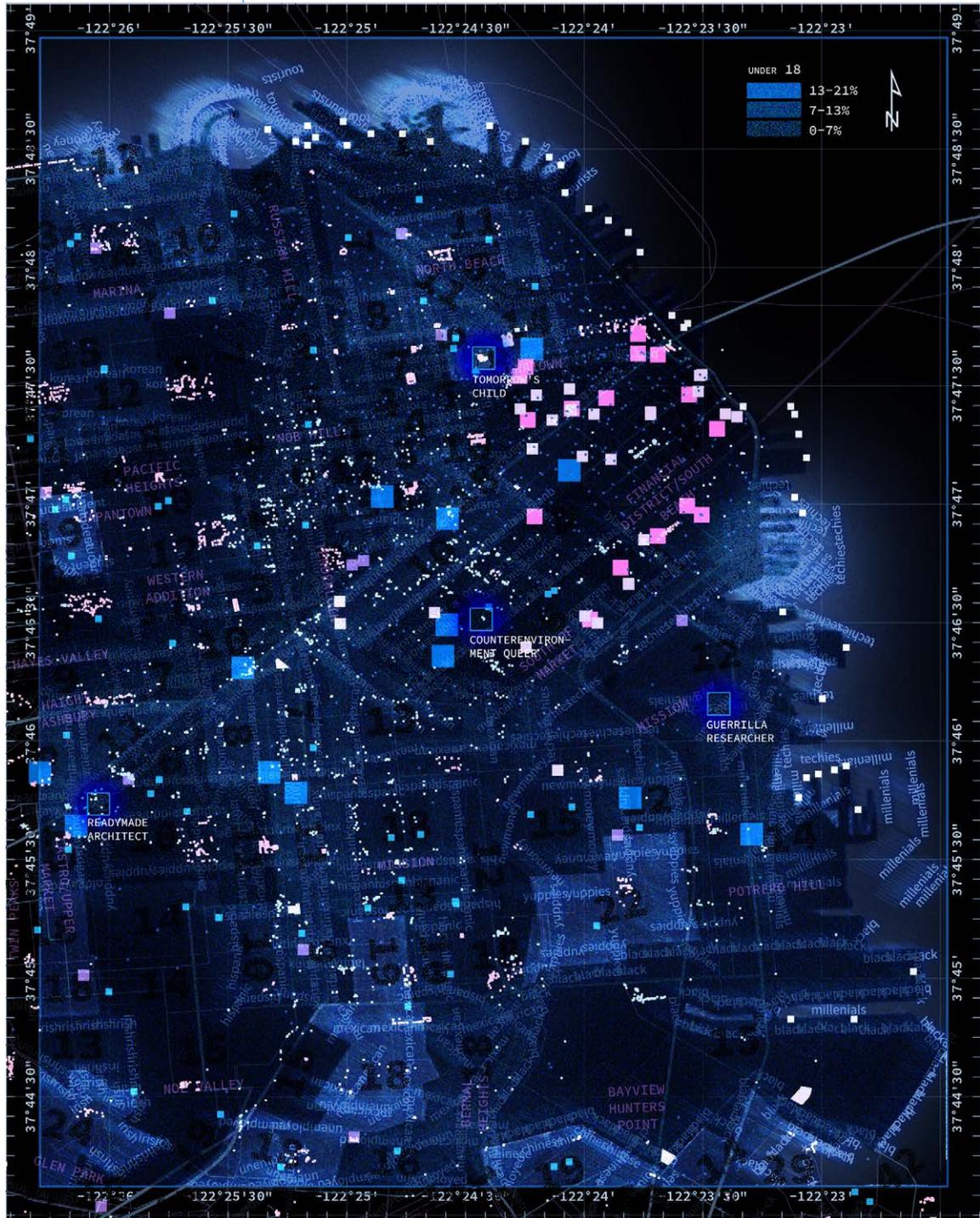
In Solnit's *Infinite City*, in the vein of Latour, subjective navigations overlay mimetic maps. In this atlas, citizens have agency to map their knowledge, producing unconventional cartographic pages that reveal a multiplicitous urban landscape. Here, the

force permeating fields of identity and history are revealed. With this atlas' inspiration, I have similarly sought to uncover some identity labels that connect pages to become codices in the field map. The complex identities I discover here inform the four codex-to-page citizens in the next scroll. As in Solnit's map "Tribes of San Francisco," these are often associated with different neighbourhoods: Queers in the Castro, Mexicans in Mission, Yuppies in Dogpatch.²⁹ Meanwhile, Solnit describes that identity cannot be prescribed so basically with her map "Who am I Where?":

"In Pacific Heights, I am the granddaughter of Trotsky's flag boy / In North Beach, I am martinis with Paul Yamazaki and punk rock memories / In Chinatown, I am the West / On Nob Hill, I don't know what time it is: the 1870s and robber barons, / the mid-century and swank cocktails, or my SO hotel youth / In the Tenderloin, I wonder about suffering and sex / At the Civic Center, I am civil society / In the Main Public Library, I am indigenous ..."³⁰

Gradient
relational wholes
that affect and
are affected
by the broader
network.

Identity changes with a given field's conditions, such that a city's codexes are as internally heterogeneous as their communities and places. To this, I depict identity fields as fills or **gradients**. Here, I find one intersectional identifier particularly noteworthy in discussing the present field and the health of the future Literapolis: the city's youth. There is a staggeringly low population of citizens aged under eighteen, a number that continues to dwindle despite recent attempts at county mandates and funds.³¹ To note this absence, I have dispersed the lowest youth-density field areas, demonstrating the weak force children exert on the city's textual field.



Provocation

map: fields
(1:50,000)

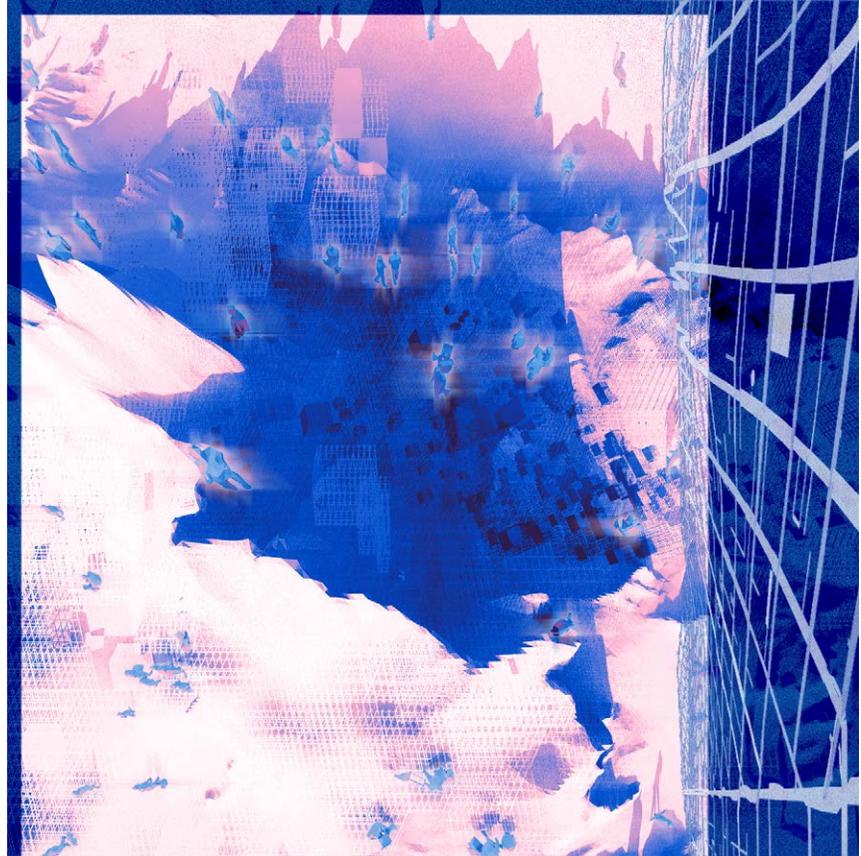
I provoke a Literapolis where the shape and extent of a discursive identity-informed field are allowed to influence and be influenced by heterogeneous adjacent codices towards redistributing the weight of over-cited codex centres. This force field is made possible twofold.

First, it is realised through re-deploying existing technologies. Such technology must distribute textual forces between multiple points along differentiated vectors such that, per Allen, they repeat and are made serial. I again turn to Temporary Services for precedent. In their Designated Drivers exhibition, artists provided a collection of their work to be freely distributed to any visitor with a laptop via a USB. This act allowed open-sourcing of codices – encouraging editing and reuse of distributed materials – but ensured a connection between writer and reader.³² In the post-Internet, a similar directed ‘pass’ is made between BitTorrent **swarms**, particularly via private (that is, exclusive) tracker servers. Unlike Temporary Services’ approach, this connection’s technicality renders it inaccessible to many citizens. I propose using essential, even obsolescing digital tools – the USB, scanner, and e-transfer – as a hybridised interaction for a heterogeneous citizenry. The manual transfer of (a) memory becomes a radical act.

*provoke:
heterogeneous
fields*

Swarm

hive mind;
citizens share and
safeguard data in
the post-Internet.



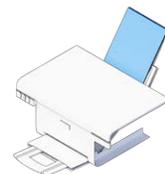
Missed Connection

narratives
unrealised,
vectors undrawn.



Second, it is realised by the aggregation of born-digital pages into new codices with their own fields of influence. I look to Craigslist, a San Francisco company that skeuomorphs the classified ad to (re)connect citizens. As Alan Feuer reflects on his codex of found poems from Craigslist's **Missed Connections** pages, "if you are open to the argument that the greatness of our great American cities derives from their diversity and density ... [then Missed Connections are] the Id of the places they emerge from: the craving, aching, aroused, embittered, angry, and invariably a collective expression of a crowd of lonely people all jammed together, but unable in the moment to connect."³³ Even as amassed disparately, individual born-digital pages can combine as a codex relating an aspect of the city's heterogeneous literary. I would see the Literapolis bind such codices, crossing as many points along as many vectors as needed to connect, across time, an interrelated history of us all.³⁴

speculate: drag-n-drop, e-transfer, scan-in

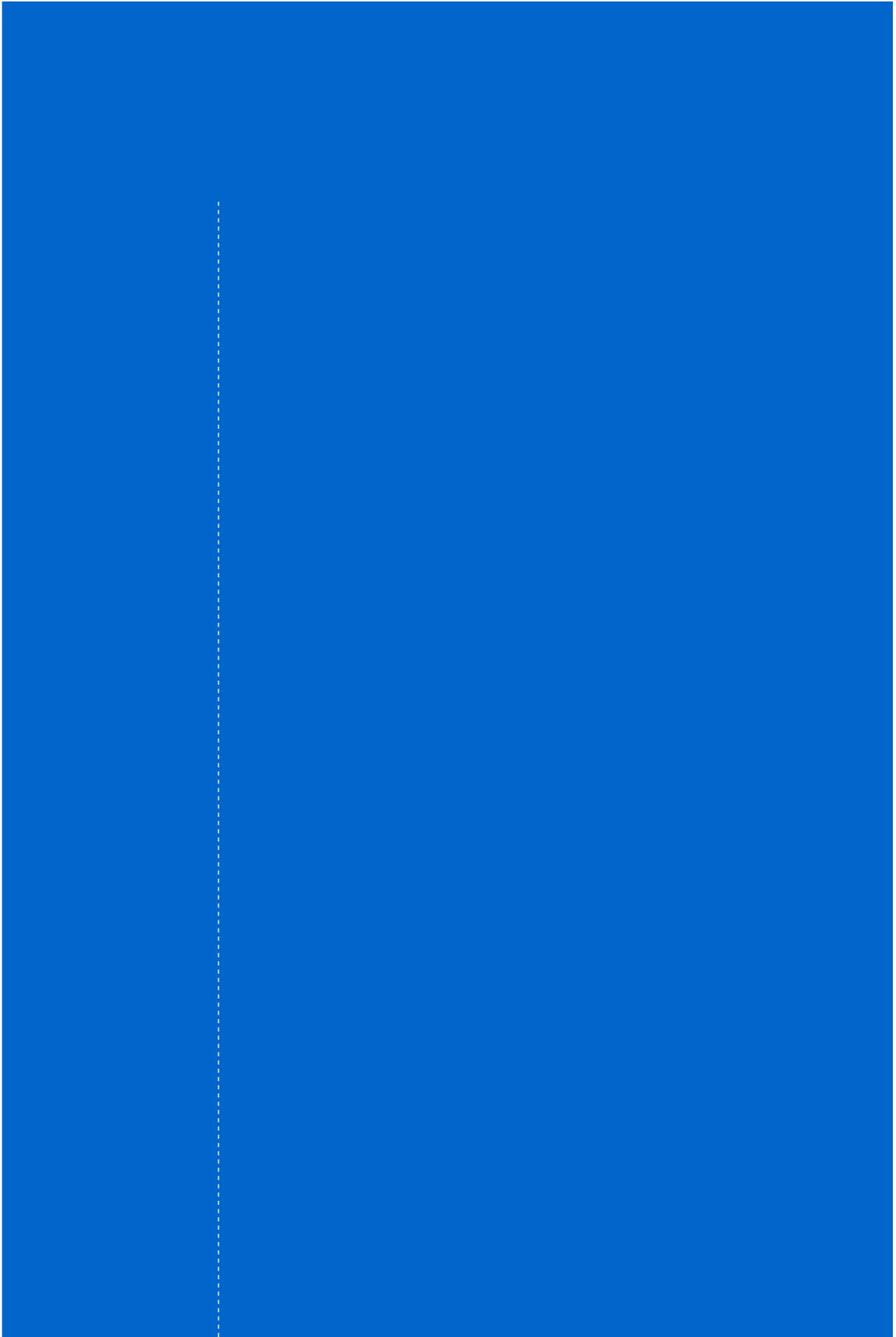


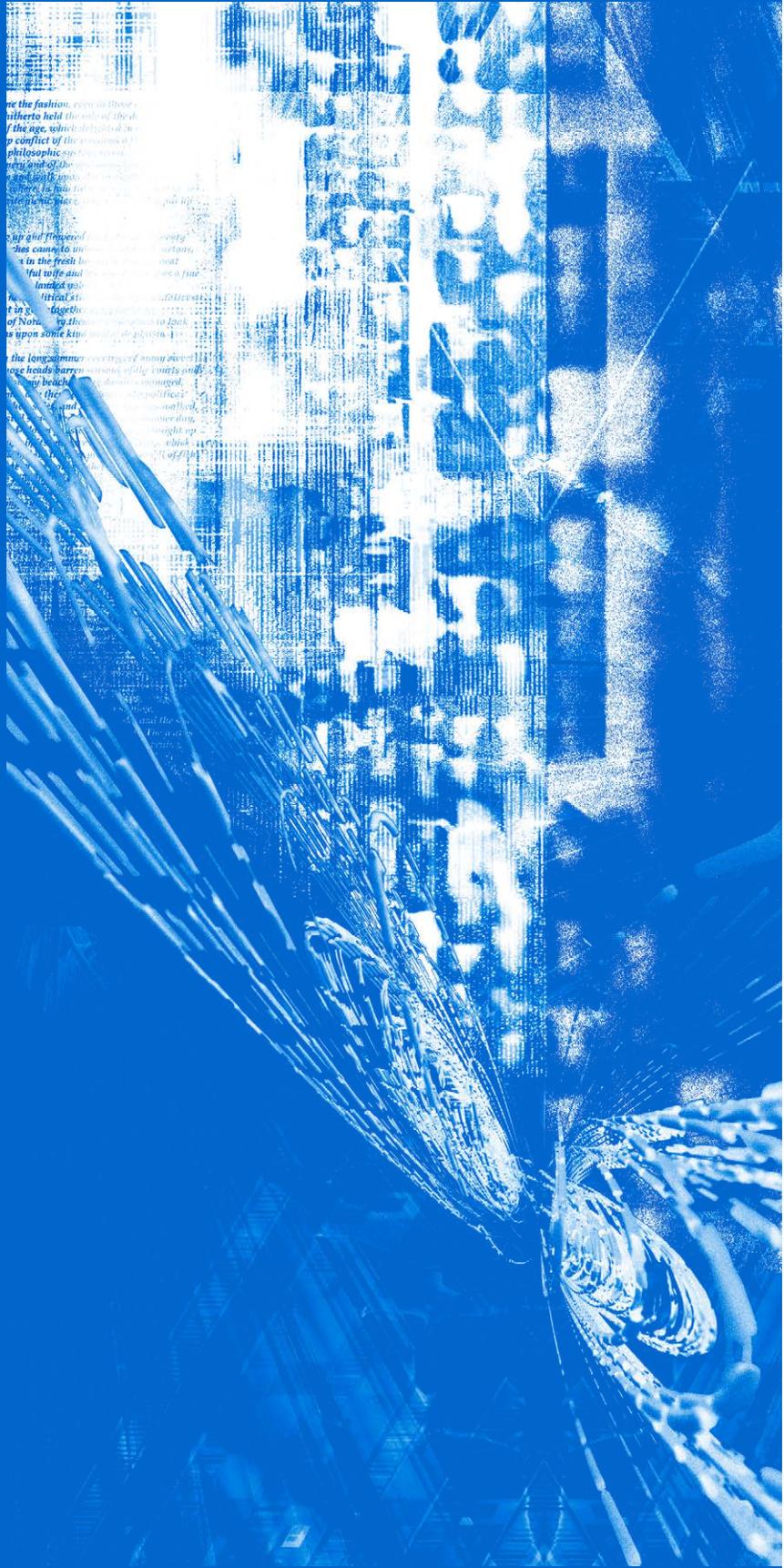
Endnotes

- 1 Bruno Latour, *Reassembling the Social: an Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005), 183-184.
- 2 Ibid, 187.

- 3 Bruno Latour, "Entering a risky territory: space in the age of digital navigation," *Environment and Planning D: Society and Space* 28 (2010), <http://www.bruno-latour.fr/articles/article/117-MAP-DIGITALpdf>.
- 4 Engel looks particularly to writings from Kevin Lynch (*The Image of the City*, 1960), Henri Lefebvre (*The Production of Space*, 1974), and Michel Foucault (*Of Other Spaces: Utopias and Heterotopias*, 1967). Maureen Engel, "Deep Mapping: Space, Place, and Narrative as Urban Interface," in *The Routledge Companion to Media Studies and Digital Humanities*, 1st ed., ed. by Jentery Sayers (London: Taylor and Francis, 2017), 214.
- 5 Maracle, as an alternative to the map, collects 'places' through the stories of Indigenous women in *My Home As I Remember* (2000).
- 6 In *Empire of Signs* (1982), Roland Barthes, a Frenchman knowing Japan mostly from afar, similarly read into a place's culture.
- 7 These are respectively accessible at <https://guides.lib.berkeley.edu/gis/California>, <https://datasf.org/opendata/>, and <https://gis.data.ca.gov/>.
- 8 For further information and a list of publications, see Temporary Services' website: <https://temporarieservices.org/served/>.
- 9 James Stewart, "Vectors and the Geometry of Space," *Calculus* 7th ed. (Belmont, CA: Brooks/Cole, 2012), 815.
- 10 I draw these questions from Eunjoon Cho, Seth Myers, and Jure Leskovec, "Friendship and Mobility: User Movement in Location-Based Social Networks," in *Proceedings of the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, ACM (2011), 1082.
- 11 The San Francisco and other Bay Area redlining maps can be retrieved at *Mapping Inequality Redlining in New Deal America*, <https://dsl.richmond.edu/panorama/redlining/>.
- 12 For an in-depth exploration of nation-wide broadband adoption, see Patrick Ryan, *ArcGIS Living Atlas*, "Broadband Availability and Adoption: Leveraging ArcGIS Living Atlas of the World to Help Bridge the Digital Divide," <https://storymaps.arcgis.com/stories/e6d25b67ec0b45978f8c5f225e266e94>.
- 13 Temporary Services, *Self-Reliance Library*, 2nd ed (Chicago, IL: Temporary Services, 2013), cover.
- 14 Bliss Broyard, "'Welcome to the Mesh, Brother': Guerrilla Wi-Fi Comes to New York," *The New York Times*, July 16, 2021, <https://www.nytimes.com/2021/07/16/nyregion/nyc-mesh-community-internet.html>.
- 15 John Page, "Point," *Math Open Reference*, 2011, <https://www.mathopenref.com/point.html>.
- 16 Shannon Mattern, *A City Is Not a Computer: Other Urban Intelligences* (Princeton, New Jersey: Princeton University Press, 2021), 100
- 17 LinkedIn has its own 'community hub' across the first floor of its downtown headquarters, a point where it endeavours to create new networks and connections. When I visited, its doors were wide open and welcoming. Not a single citizen was using the space.
- 18 To see the city-wide data set over several years, use the filter at DataSF, "DST - Mission Encampments," <https://data.sfgov.org/City-Infrastructure/DST-Mission-Encampments/i9y9-bmz9>.

- 19 Here, I use the now commonplace terminology from Sherry R. Arnstein's touchstone urbanism article, "A Ladder of Citizen Participation," *Journal of the American Planning Association* 35, no. 4 (1969): pp. 216-224.
- 20 "Where infrastructures are absent or unreliable, the gaps are filled by illegal water taps, grafted cables, pirate radio stations, backyard boreholes, shadow networks, and so forth. Many regions have their own distinctive "repair ecologies," like the underground market in Cuba for *el paquete semanal*, a weekly supply of new digital content circulated off-line, via hard drive, in order to circumvent the nation's insecure internet." Mattern, *A City Is Not a Computer*, 115-6.
- 21 Salem Collo-Julien, "The Rainbow's 9-11 Binder," *Temporary Services*, retrieved March 11, 2022, http://www.temporaryservices.org/binder_archives_text.html.
- 22 Temporary Services. *Binder Archives Exhibition Guide*, rev. ed. Chicago, Il.: Temporary Services March 2004.
- 23 Mattern, *A City Is Not a Computer*, 93.
- 24 Özge Çelikaşlan, "Autonomous Archiving," in Annet Dekker, *Lost and Living (in) Archives: Collectively Shaping New Memories* (Amsterdam: Valiz, 2017), 239.
- 25 Lev Davidovich Landau and Evgenii Mikhailovich Lifshits, *The Classical Theory of Fields* 4th ed. (Oxford: Pergamon Press, 1975), 43
- 26 Two anthologies that do achieve this end are Makeda Silvera's *Piece of My Heart: a Lesbian of Colour Anthology* (Sister Vision, 1991), and Kateri Akiwenzie-Damm's *Without Reservation: Indigenous Erotica*. (Kegedonce Press, 2003).
- 27 Stan Allen, "Field Conditions," in *Points + Lines: Diagrams and Projects for the City* 1st ed. (New York: Princeton Architectural Press, 1999), 92.
- 28 Stewart, *Calculus*, 620.
- 29 Rebecca Solnit, *Infinite City: A San Francisco Atlas* (Berkeley: University of California Press, 2010), 105-6.
- 30 *Ibid*, 102-3.
- 31 Susie Neilson, "Is San Francisco the most childless city in the country? Here's a look at the data on kids," *San Francisco Chronicle*, August 12, 2021, <https://www.sfchronicle.com/sf/article/Is-San-Francisco-still-losing-kids-Here-s-what-16383942.php>.
- 32 Temporary Services, *Designated Drivers*. (Chicago, Il.: Temporary Services, 2014).
- 33 Alan Feuer, *I Hope You Find Me: The Love Poems of Craigslist's Missed Connection* (Venice, CA: Knock Knock, 2017), 6.
- 34 For an excellent piece of fiction on this process, see Gopnik, Adam. "The Blue Room." *The New Yorker*, February 15, 1987. This piece is archived; to access its pages, send me an email at danieldickson3@cmail.carleton.ca.





process: imagining
access and
laying-out type

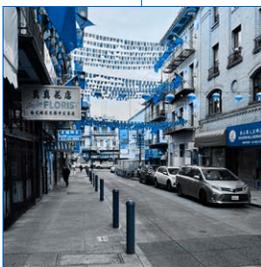
IV. NARRATIVES ENCODED/DECODED

Avatar
stand-in for you
or the other.

Descending from city to archive to codex to page scales, I used the previous section to guide us vertically through a metaphorical structural hierarchy of urban wisdom. In this final chapter, I move between the remaining two scales: page and code. These are the scales of the individual – the stakeholder as archivist, activist, and architect – and of localised close-reading. These are also the scales for advocacy and action, where grass-roots interventions are feasible. By investigating the complexity and specificity of subjects in this interstice, I will depart from the direct-hierarchical conceptions of urban space critiqued by Christopher Alexander and Shannon Mattern. I will move away from the semilattice and towards a dashboard-decentered conception that is nuanced, kinetic, horizontally activated, and moves both through hierarchies and indices.¹

*site photo:
four literapolis
citizen points*

As informed by the above mappings, I introduce four heterogeneous literary citizens of San Francisco. They are avatars standing in for those underrepresented by publishing and archival centres. Currently, their words are circulated and preserved at the periphery of city and state. Each avatar will be tied to an archival neighbourhood and a localised ‘point’ for the individual or community’s management of pages and codices.



Tomorrow’s Child (13 y/o) is an 8th-grade Chinese American boy splitting his time between his family home in South Central and his grandmother Po Po’s apartment in Chinatown. His in-use literary point is sited by the Willie “Woo Woo” Playground basketball court, where he is doing coding homework.



Counter-Environment Queer (43 y/o) is a non-binary multi-media artist based in a co-house off Folsom Street in SOMA. The co-house set up their in-use literary access point in the living room – a space open





to the broader community by buzzing in – where they are writing out a manifesto for their blog.



Guerrilla Researcher (27 y/o) is a post-grad Health Science student working out of a lab at the UCSF Medical campus in Mission Bay. Her in-use literary access point is in the quadrangle green downstairs from the third-storey dry lab, where she Tweets during her lunch break.



Readymade Architect (59 y/o) is a chronically homeless woman spending her days in the Tenderloin plazas and nights in The Castro's alleys. Her in-use access point unfolds from a telephone pole lodged between the sidewalk and bike lane on Jones Street, which transcribes her daily log.

Intersectional
overlay of gender,
race, ethnicity,
class, religion,
and sexuality.

Fonds
the bequeathed
collective works
of a citizen or
collective.

The citizen avatars are amalgamations of sources, personal knowledge, and hearsay – I have tried to cast an **intersectional** net, but it is a fraught endeavour. As Solnit notes of mapping, but equally of literary spaces, “San Francisco contains many more than eight hundred thousand living maps ... the map of this place in relation to others that could be confined to a few neighbourhoods or could include multiple continents of ancestral origin, immigration routes and lost homelands, social ties, or cultural work.”² Real citizens cannot be any less than a **fonds** distributed and networked across several ‘points’, entangled with local hierarchies and global narratives. Latour seems to further Solnit, noting that the ‘inside’ of identity is directly linked to the ‘outside’ of globalisation; to seek out a separate, unknotted identity amidst a connected network of actors or an enveloping of spheres cannot be possible.³ As a result of intersectional complexity, though I chose specific identities, I have been reductive. Significantly, I considered incorporating more racialised discussion: as of 2010, 15.1% of the population was Hispanic/Latino, and 6.1% was Black. I decided only to specify a race or ethnicity for Tomorrow’s

Action

write; participate
and grow the
conversation;
see **discursive**.

Child, as Chinese Americans have a storied history with the city and are part of the largest population after the 48.5% White, with 33.3% Asian identifying. ⁴ I leave the other three avatars as cyphers open to subjective interpretation.

While noting the challenges of representation, I take **action**. In recognising action as the pre-political mode, and not labour or work, Hannah Arendt states, “[it is] because of [the web of human relationships] and the attending quality of unpredictability that action always produces stories, with or without intention, as naturally as fabrication produces tangible things.”⁵ Thus, the citizen narratives, as stories, will be produced and made through the tangible *act* of drawing. I will first imagine a reality of intervention-provoked, post-Internet informed acts as *digitally framed pages*, each elaborated through specific coded texts. In juxtaposition, I will *(re)materialise the citizen* as acting through these pages’ virtual literary spaces where they maintain and inhabit the codex-as-box analogy developed through the scales. I offer a *final interstitial drawing* to disrupt the virtual/real binary: a processual translation or virtualisation of city to code – or of San Francisco to Literapolis – represented through the algorithmic and manual abstraction of access points. I pair each section with research to decode born-digital living literary questions encoded in the avatars’ pages. Here, I detail the San Francisco-specific and systemic socio-political circumstances of the citizens’ communities, interrelating underlying questions of agency, accessibility, and heterogeneity.

**TOMORROW’S
CHILD**
Coded Page

narrative:
tomorrow's child

```
woowoo.py
1  from pathlib import Path
2  print(Path(__file__).stem) # willie wong playground
3  # playing ball by me at a bench
4  # playing coder
5
6  print('Hello Python') # who
7  # am I speaking to why
8  # am I in this class what
9  # does this code do do I care
10
11 # well I care but for po po
12 # who says I must learn this language
13 # because I will need money to live
14
15 # to write in this white guy city
16
17 # I have imagination ideas
```

VECTOR

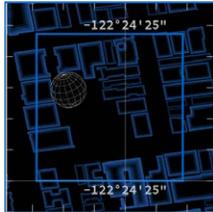
Chinatown/
South Central

POINT

Willie "Woo Woo"
Wong Playground

FIELD

13 y.o. 8th Grade
Chinese-American



PAGE

woowoo.py program

CODE

Python, Chinatown
Chinese, Bay
Area English

```

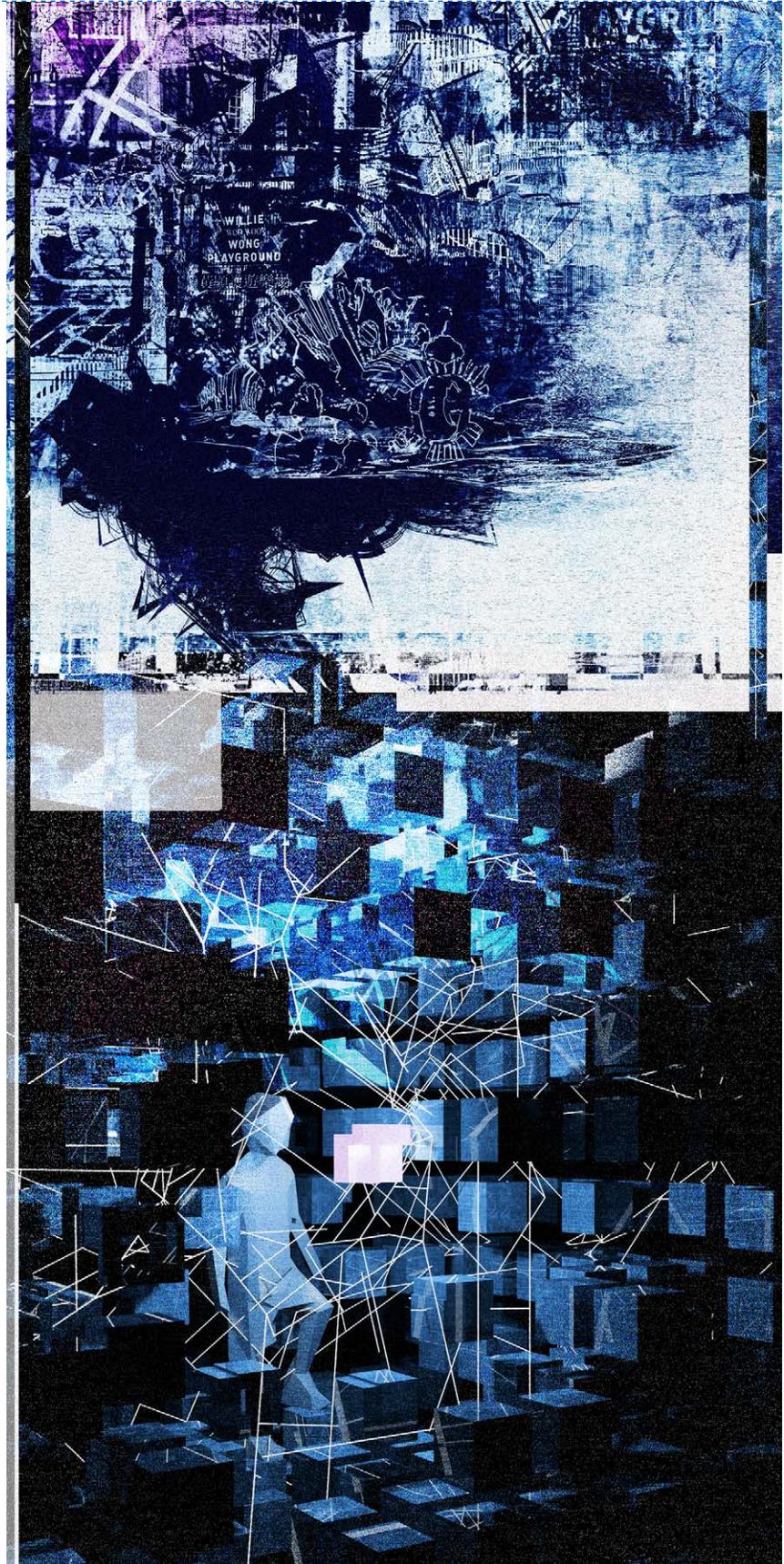
11 # well I care but for po po
12 # who says I must learn this language
13 # because I will need money to live
14
15 # to write in this white guy city
16
17 # I have imagination ideas
18 # to go to LA I can write movies
19 # or games or books maybe
20 # comic books
21
22 # but using which words
23
24 print('bay words:') # making dictionary 1
25 # words I hear used everywhere
26 # how the city sees how the city writes how the city knows
27 d1 = {"MUNI" : "trains",
28      "BART" : "more trains",
29      "Town" : "Oakland",
30      "City" : "San Francisco",
31      "415" : "San Francisco"}
32 print(d1)
33
34 print('neighbourhood words:') # making dictionary 2
35 # words po po uses with our family
36 # how she writes how she sees how she knows
37 d2 = {"Tang" : "Cantonese",
38      "pak mun" : "apartment",
39      "Do Pan Gai" : "Grant Avenue",
40      "San Fan Ssu" : "San Francisco",
41      "Old Gold Mountain" : "San Francisco"}
42 print(d2)
43
44 print('my words:') # one dictionary in the other
45 # words I use to describe my world
46 # how I see how I write how I know how I play
47 d1.update(d2)
48
49 # printing the merged dictionary
50 # rereading rewriting recording my city
51 print(d1)
52
53 # can I take my dictionaries apart again
54 # can I be more than d-one

```



Digital literacy
skill to code
and decode texts
on- or offline.

Deep reading
skill to reflect
and develop
discursive wisdom.





Decoded Narrative

Literacy in the Literary

As described in and alongside the map in Scroll III, there is a deficient population of children in San Francisco County. Persons under 18 years old account for 13.4% of the city's population on average – some neighbourhoods drop well below 10% – while the National average is 22.2%.⁶ Meanwhile, some of the healthiest child-rearing communities have high Asian American populations: South Central and South Bayshore.⁷ Chinatown is absent: while a stronghold of the Chinese American community, its population is ageing, with young families moving to the city periphery. Thus, Asian American children are simultaneously positioned as important to the city's future health and as activists to maintain Chinatown's narrative past for the literary future. To act for their community, these children will require two literacies.

The first is **digital literacy**. Now, computer science provides a right to access. This is especially true of the tech-centric Bay Area market. Meanwhile, most public schools do not offer coding as part of their curriculum: only 4% of students are enrolled in related courses.⁸ Interested families must take their children either to private or coding schools (e.g. Code Tenderloin, Mission Bit, theCoderSchool). This added financial burden leads to the inequitable distribution of digital literacy. More expansively, digital literacy is not just writing programs but a tool to decode texts throughout the post-Internet. This is an essential skill to navigate ill-intending online forces (hackers, corporations, or governments) who seek to mislead and misinform.⁹ Where children are also often “encouraged to reduce their social life to “sharing” information” in online spaces, it is an essential literacy for realising and acting against narrative flattening.¹⁰

Embedded then in digital literacy is another literacy: **deep reading**. As of 2021, per the California Reading Coalition, only 22.4%

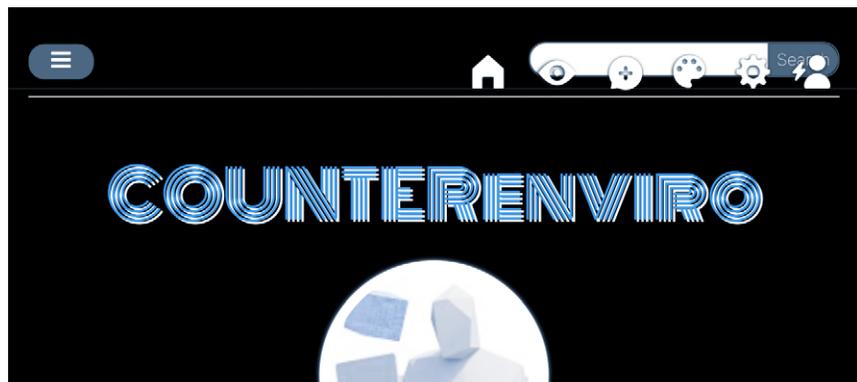
of 8th-grade San Franciscan students meet or exceed testing for deep-reading literacy, with the city ranked in the bottom 30 of 287 districts.¹¹ These abysmal numbers would concern UCLA Professor-in-Residence of Education Maryanne Wolf. As she notes, “[the plasticity of the ‘brain that reads deeply’] – with its intrinsic ability to adapt and reflect the environmental milieu – contains within itself the foreknowledge of change.”¹² Deep reading checks the flattening of complexity and provides a discursive path forward. Wolf continues that “... reading is not just about “decoding” the information before our eyes ... [but] about an encounter between a reader and another mind that leads to thinking beyond ourselves.”¹³ Without deep reading, a child cannot read with, beyond, or between the pages to establish a bi-lateral codec relationship. Their literary agency is delimited.

Tomorrow
Disney’s co-
option, Ray
Bradbury’s dream.

In the Literapolis, these two literacies are conflated. **Tomorrow’s** child tells his story in several languages tied to his intersectional space. He, precociously, acknowledges that written and-or transliterated Chinese and English are equally valid as is code as modes of communication in a multi-lingual city. He rebels against the model minority model, against his overwhelmingly Asian-male coding class, to see himself as a writer of fiction.¹⁴ He sees himself in a Chinese American Bay Area Literary lineage, from 1911’s *Jinshan Geji* through Frank Chin, Shawn Wong, Maxine Hong Kingston, and Amy Tan.¹⁵ He does not wish to write the Chinatown-fiction stereotype of the action hero.¹⁶ He hopes to capture the complex lives of his present and future family tree.

COUNTER-
ENVIRONMENT
QUEER

Coded Page



narrative: counter-environment queer



March 8th, 2022

HOW-TO: MAKE POST-INTERNET NOISE

I will delineate an experiment in palimpsest, abstraction, and noise in the following. Through the generative, recursive archiving feedback loop, I was able to imagine an archival realm of my DNA - the page for the code to build the codex of my complex mind/body - made for and of its Queer-self. My goal here is to offer a Post-Internet process that you, too, fellow artist-blogger-reader-codec, will be able to replicate towards rediscovery and reinvention of a newly aggregated or existing source archive.

__FIRST PASS__

A noise mannered and biased

(1) Chose an archive. I used Wikimedia 'Commons', a source fragmentarily, transiently uploaded by citizen-authorities. *If you have an archive already, proceed to step (5).*

(2) Choose a textseed. This is the input to generate initial data. I used the term 'DNA'.

(3) Take a depth-first approach. In Wikimedia, go down imbedded hierarchies. I moved from images to topic to matter to molecules to molecular biology to DNA.

OR Take a breadth-first approach. Search across hierarchies through content tags.

AND Save a copy of the data.

(4) Repeat (3). I did so 20 times, resulted in a varied, idiosyncratic database.

(5) Compose an assemblage. I did so in photoshop. Deaccession any files which no longer suited your aesthetic, authorial, archival needs.

VECTOR

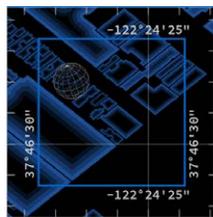
South of Market (SOMA)

POINT

Cohouse living room

FIELD

43 y.o. non-binary artist

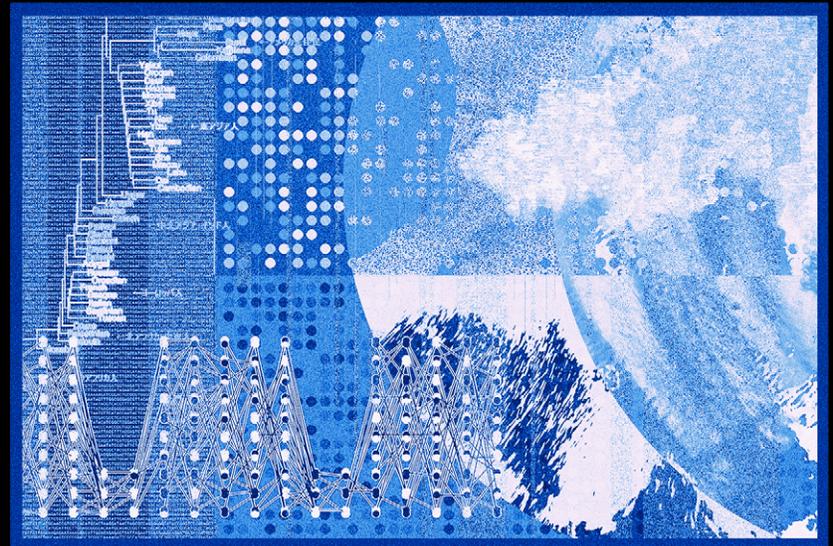


PAGE

How-To: Post-Internet Noise

CODE

HTML, CSS



▲

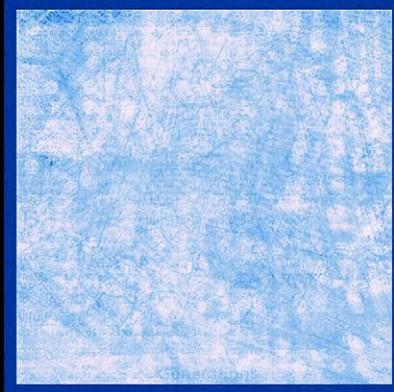
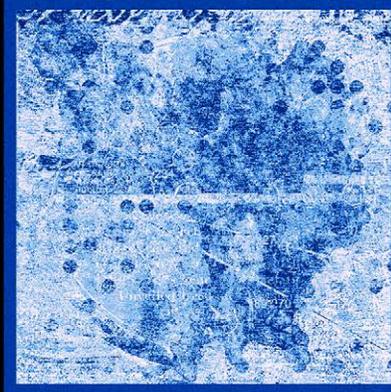
__SECOND PASS __

A noise thickening, emerging spatial potentials.

(1) Overlay. Arrange and group data in sets of 4-5.

(2) Blend manually. 'Image average' in Photoshop using Blend Modes or otherwise to generate both more noise and more insight .

(3) Blend algorithmically. Remove 'the hand' by applying an image averaging algorithm, radically probing the black box with tasks for which it was not designed. I used Smartobject tools.



__THIRD PASS __

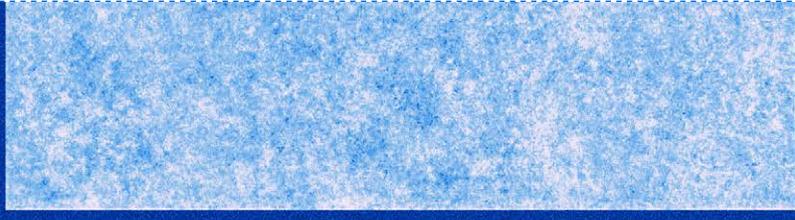
A noise unfigured, a subject(ive) dream, a (de)limitation.

(1) Feed noise back to the archive. Reverse Search in an Internet engine. I used Bing.

(2) Archive 'related' content. Choose another data set, bypassing fluff if you see fit.

(3) Reassemble the assemblage. Overlay the set and return this derivative archive through the image averaging algorithm. I used a 'median' approach.





I ask you, my friend, to further my archival practice. What seeds will you employ? How will you recover the archive of a community? Of the colour blue? Of a day in your life underwritten by the Internet? I hope this poetics of method will help you re-see your sources, develop a poetics of writing, and structure your codices into rivers of text and images of what might be.

2 weeks ago

artist

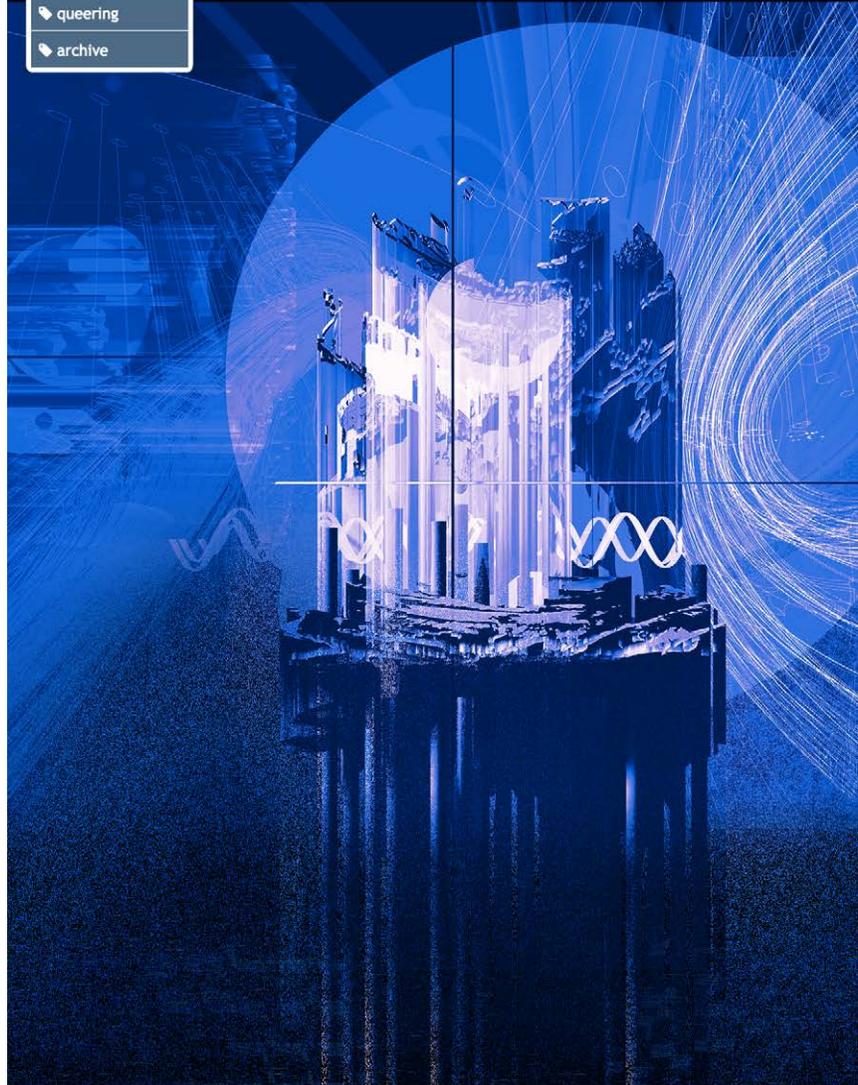
POSTED AT 10:59 PM

san fran

noise

queering

archive

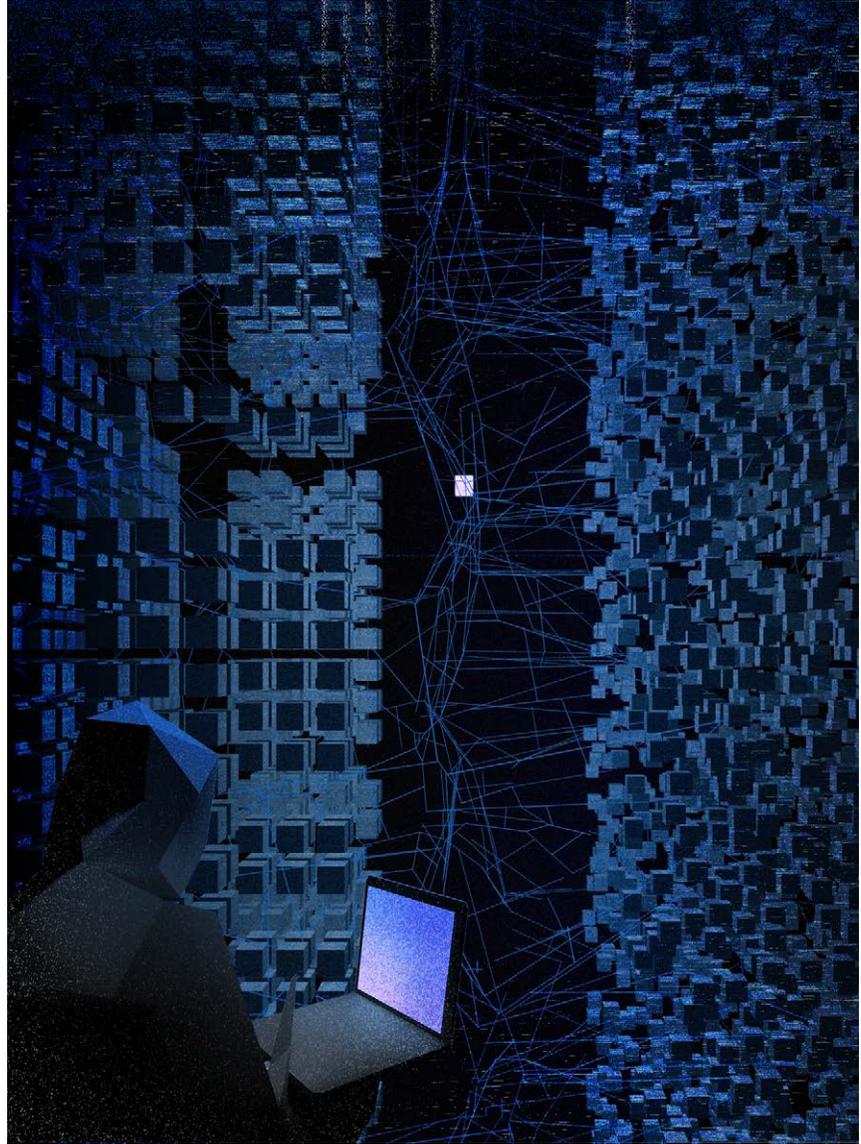


Noise

current overload condition; see virtuality.

Hybrid

physical + digital = phygital.



Decoded Narrative

Loss in the Literary

San Francisco has been a Queer centre throughout the 20th Century, particularly in Polk Gulch, Folsom Street, and The Castro neighbourhoods. The dot-com era of the mid-‘90s, with its inflated housing prices, luxury cultural developments, and demographic shifts, profoundly changed these neighbourhoods.¹⁷ The Castro – a stronghold of the LGBT community since the ‘70s – is a brand increasingly too expensive or insular for its diverse community. Folsom, in SOMA, meanwhile fragily retains its status as a home to Queer and notably Leather communities.

Queer codices, scattered across **sub-subcultural** urban territories, are prime for inactive loss and decontextualisation, if not

Sub-subculture
an **intersectional**
lens; micro-press
or micro-narrative.

**Counter-
environment**

alternative
to orthodoxy;
see **virtual**.

destruction. As the Queer-led Carter/Johnson Leather Library and Collection sited in Newburgh Indiana detail, amassing a collection has been challenged by extremists acquiring physical pages from forums like eBay solely to remove the culture's products from what is already a marginal public record.¹⁸ Such loss of agency is insidious in the digital: an artist's blogged 'pages' or entire account 'codex' can be taken down at the behest of internet trolls and face-saving corporations. In contrast, 'non-notable' artists are deaccessioned from Wikipedia by selecting a homogenous editorial citizenry.¹⁹ Unlike the ease of documenting the loss of physical archives due to flood or war, loss in the digital literary leaves little or no material trace.²⁰ The resulting trauma is outsized for citizens operating at the periphery, limiting their recollective mobility their agency to accession and deaccession.

Queer theory in the post-Internet has entangled this loss with **noise**, with narratives inhabiting failure and glitch. Queer citizens, bound to an "illegibility to the social order", can see through the din to the "possibility of a political imaginary" through a critique of technological futurism.²¹ Be Oakley of Genderfail, through their exhibition and accompanying codex *Imperfect Archiving, Archiving as Practice For a Love of Softness*, offered one such imaginary. In employing a 'functional messiness' in siting and relating an array of art books and zines at one temporary site, they sought to 'soften' notions of archive, the literary, permanency, and authorship, celebrating the heterogenous, productive noise of ephemeral publication, towards "conveying the scripts for truly radical change."²²

The Literapolis metaphor is a mechanism for the Queer subversion of loss-as-trauma to loss-as-potential. Taking McLuhan to task, the Queer artist discerns the environment through the noise. They proposes an archive as **counter-environment**, or "interference with the unperceived [informational] ground" causing what is "largely hidden from our awareness (but that is the context for all of our activities) to be made visible by

directing our attention laterally and outward rather than directly and focused.”²³ The artist enacts a newfound literary agency by **hybridising** an assemblage of fragmented codices as noise. Their virtualised practice would simultaneously create, activate, interpret, and expand the city’s archival infrastructure.

GUERRILLA RESEARCHER

Coded Page

narrative:
guerrilla
researcher

VECTOR

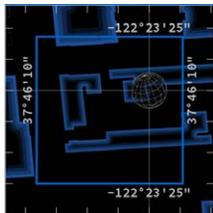
Mission Bay

POINT

UCSF Medical
campus green

FIELD

27 y.o.
international
student woman



← gorillagrll

gorillagrll
@gorillagrll_
UCSF Health Scientist / Tactical Researcher
Joined March 2022

Tweets Tweets & replies Media Likes

gorillagrll @gorillagrll_ · Mar 7
I propose an [#AnteArchive](#) to host our forthcoming articles, a tactile force against knowledge hegemony and towards the [#OpenSourcing](#) of wealthy institutions. It would employ the fledgling ‘Point’ servers to localize a database on campus of articles in pre-published form

gorillagrll @gorillagrll_ · Mar 7
to download, print or etch our journals on some surface, to peer-to-peer torrent from/to/around the Big Guys via our own city fiber. Meanwhile, this force should look to fund and advocate a global [#AcademicCommunity](#), recirculating ad revenue and journal royalties where possible.

gorillagrll @gorillagrll_ · Mar 7
I know this is all half-baked, but dream with me: how can we imagine a better community, one with equitable access, one

PAGE

'Idea for an Ante-Archive' twitter posts

CODE

scientific semantic environment

defocusing solo-lab showboating, and emphasising the collective written academic project?



gorillagrll @gorillagrll_ · Mar 7



For several years then, our #UC system battled with @ElsevierConnect over access costs, leaving our research in publication limbo. We were unable to pull our own previously published and were encouraged to seek out alternative publishers' journals to disseminate our work.

You can reply to this conversation



gorillagrll @gorillagrll_ · Mar 7



Our choices were few, an overwhelmingly controlled by other large corporations. While UC-Elsevier have now reached an agreement, we cannot forget that few institutions have the weight or resources of ours to pick such battles.



gorillagrll @gorillagrll_ · Mar 7



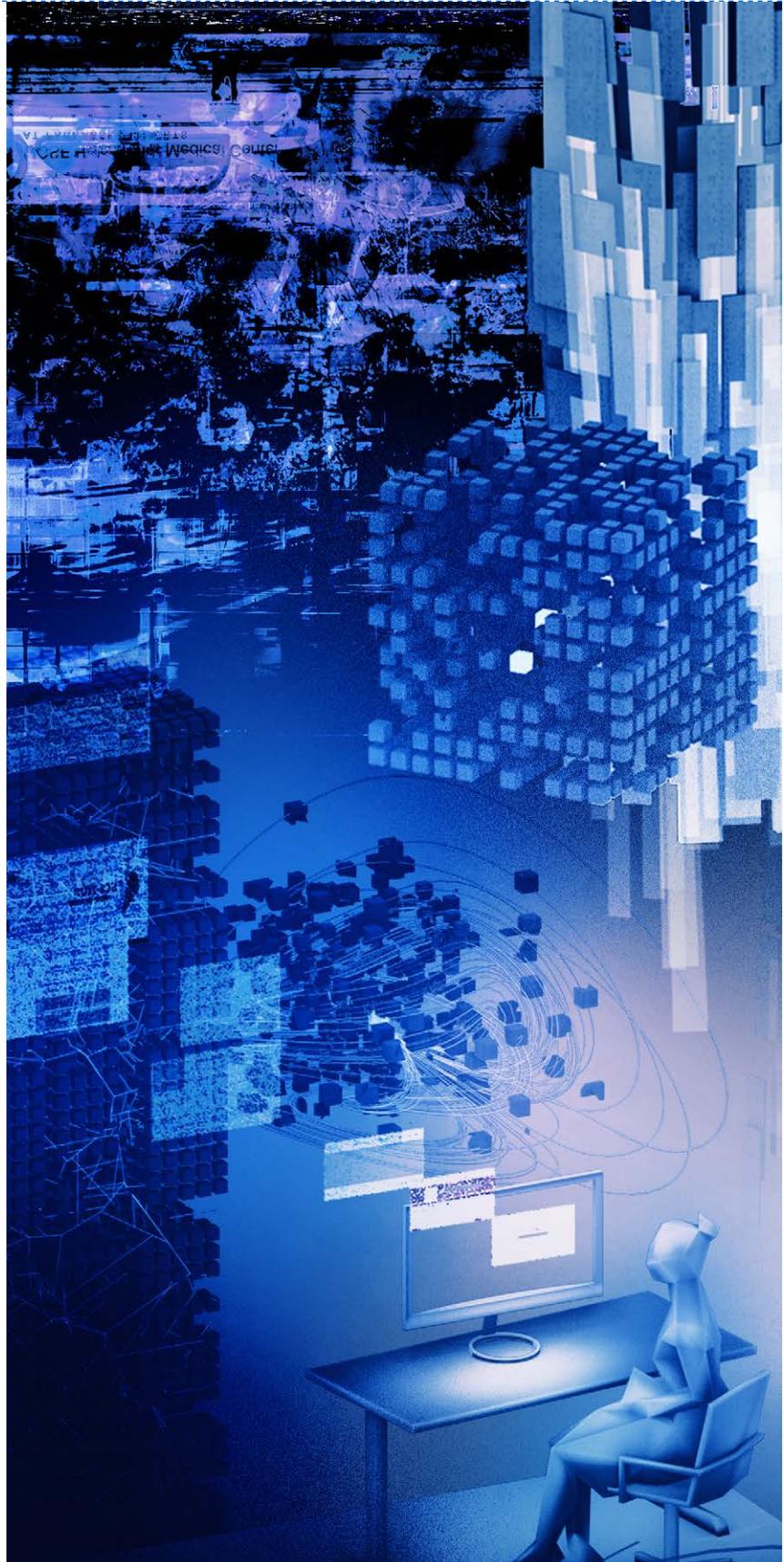
Furthered by #COVID19, inequities buried in the transition to digital publishing were uncovered: though hardcopies were harder to disseminate, they were literally on our desks, while ephemerally database-accessed online journals are easily modified, buried, repriced, or removed.

You can reply to this conversation



Paywall
structure
delimiting
access in the
born-digital.

Shadow Library
repository
bypassing paywall
and copyright.





Decoded Narrative

Access to the
Literary

In 2018, citing high access costs, the University of California system dropped its subscription to publisher Elsevier, demanding open access to its research articles.²⁴ While an agreement was reached with Elsevier as of March 2021, the episode effectively exposed how English language peer-reviewed research has, through digital de-mediation, become controlled behind the **pay-walls** of large multinational, profit-driven publishers Routledge, Elsevier, Springer, Taylor and Francis, Wiley, and Sage.²⁵ The output of an academic lab or institution can conceivably, if not commonly, be entirely tied to the user policies, agreements, and monopolistically defined costs – otherwise said, the whims – of a single legal entity.

Lacking the UC's leverage, most institutions must pay any fee unquestioned to access non-open access research databases and fully participate in the academic forum. Meanwhile, 'open access' itself is not free access: counterintuitively, open access, in offloading publication costs to the institution, reinforces the

Guerrilla

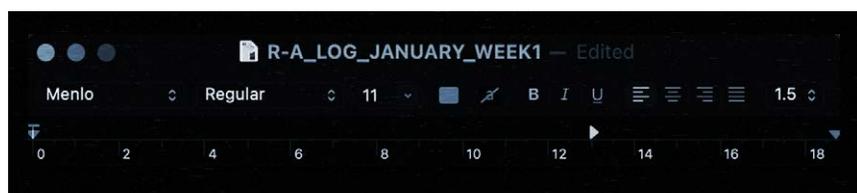
small group with power in gestalt. See **swarm**.

hegemony of Western academics who can front publication fees, whereas independent researchers and those in the Global South depend on ‘closed access’ publication royalties and prestige. As cultural psychologist Jaan Valsiner puts it, “opening up access may be equal to closing it at the other end.”²⁶ San Francisco – with universities UCSF, San Francisco State University, Stanford, and nearby UC Berkley, is one of the world’s wealthiest academic centres – is prime for an emergent community to confront the ethics of an article-based literary. Here, there is perhaps no better citizen-advocate than one studying our corporeal wellbeing: a researcher in the majority-women Health Sciences.²⁷

First, protected by the Scholars at Risk Network, and following the example of Alexandra Elbakyan and her paywall-cracking archive Sci-hub, she might create a **shadow library** towards an Open Science.²⁸ Co-opting the Literapolis frame through Guerrilla tactics, skirting or crossing into the illicit, she would bypass copyright-gates of past pages, resituating them on a peer-to-peer reliant host-server in their place of production to be torrented from anywhere. Second, she might look to Monoskop. Its founder, Dušan Barok, employed the wiki-form towards synthesising discourses through interlinked primary source anthologies, effectively treating the digital codex as a searchable index.²⁹ Her archival approach would amass a bibliography of San Franciscan research, contextualised with authorial metadata with lay-person legibility, searchability, and re-networkability. Third, she might look to Reporters Without Borders’ Uncensored Library, sited in the game Minecraft.³⁰ In creating a grassroots literary network, operating over and in parallel to the Internet, the researcher would combat Russian, Chinese, and American regimes’ digital sovereignty dictating access to online resources.

READYMADE
ARCHITECT

Coded Page



narrative:
readymade
architect

01-02-2022

06:30:23 Building my gardens out today. It's been a warm winter for some, but not me or my dahlias. Getting their beds laid and arrayed.

07:10:11 Strike that, will be doing some reconstruction - I feel the rain coming. Going to source materials.

21:23:31 Added a Tyvek awning before the rains came - the construction site of a nearby playground left the goods drifting.

01-03-2022

010:30:23 Cops took John to the hospital last night. He was rough. Taking his place into mine.

01-04-2022

14:42:51 I've been thinking about that first time I was out of the house. I was living in my car. I went around to every gym in town and got those one-week trial memberships, so in the morning, I'd get my daughter from wherever she was, take her to school, go to the gym, take a shower, and that was the only way I could keep clean. Then I'd go to the county and job search.

19:31:09 Been building.

22:13:48 You hear it here first: I'm claiming this street corner, a plot of my own. To hell with 'real' estate; it's my city; I'll build it as I please.

01-06-2022

11:27:46 Talks of another round of counts of street folk. Not sure they understand. Those numbers are actually people. We are not just numbers. We're persons. We have a history. We have roots.

01-08-2022

06:30:23 No log yesterday. Fridays are too much for me. Union Square mucks descend from their Union Square shops, come into our Tenderloin to Opera and rave. It's better to stay down in Castro, though it's just a different scene, same party.

14:54:13 Who's even building this city anymore? Fat tech money architects. Leave it to me; I've got years left; I can flatten a tower or two. LinkedIn looks like a good spot for some old fashioned housing, I'd say. After all, I was born and raised here, and I know San Francisco. I have a rhythm established. I have history. I have a network here.

VECTOR

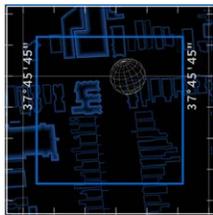
Mobile (Castro,
Tenderloin)

POINT

Jones Street
sidewalk

FIELD

59 y.o. chronically
homeless woman

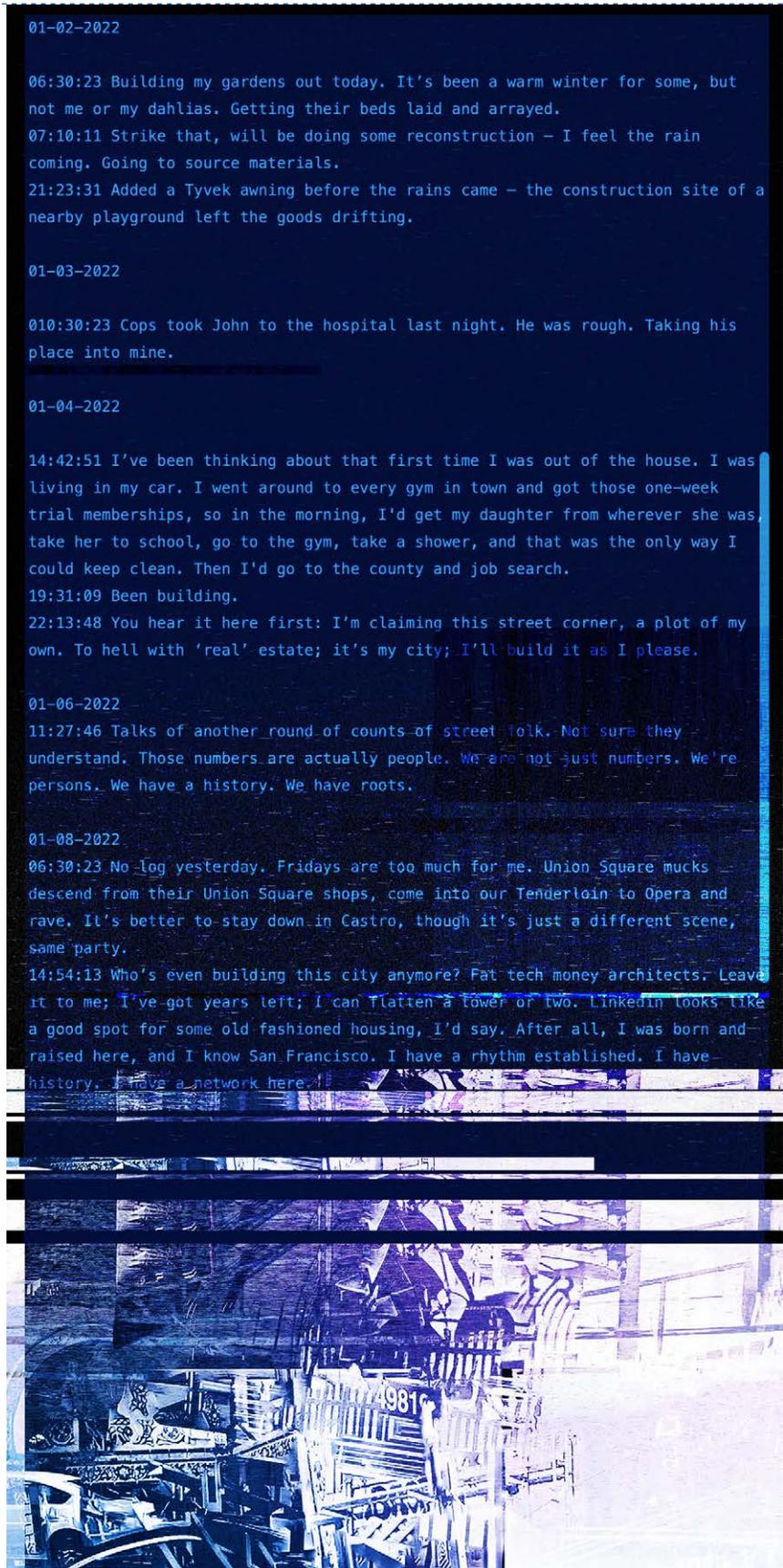


PAGE

Week of January
2nd, 2022 daily log

CODE

hand, machine,
digital letterforms





Chronically

back on the
street, again;
high health need,
the most at risk

Readymade

reimagining of
materials found,
acquired cheaply,
or traded

I was born and raised
HERE,
and I know



San Francisco

I have a rhythm established.

I have history.

I have a n-e-t-w-o-r-k

HERE.

Decoded Narrative

Participation in
the Literary

San Francisco's homeless community is considerable and highly visible, with Market Street sidewalks fully occupied and alleyways encamped throughout the city core. While Seattle, Washington, Boston, and New York maintain higher rates of homelessness, San Francisco's climate and wealth disparity emphasise the situation. As of 2017, only 42% of the population was sheltered in contrast to the peer median of 57%. Meanwhile, 31% were **chronically** homeless, the second-highest rate in the United States counties after Long Beach.³¹ This population is ageing rapidly, with one-third aged 50 or older.³² Nested and underexamined in this data are older women. As Jane Bullen suggests, their narratives must be uncovered to make "women's need for housing and other assistance more visible and [offer] a pathway to greater insights into policy and program development."³³

A few approaches have been attempted to render these stories visible. The San Francisco Chronicle, Vice, and the New York Times have frequently reported on the topic, using piecemeal, attention-grabbing quotes. Anita Varma describes this approach – sharing a moment in an individual's life – as 'texts for

Solidarity
writing *with*,
not *for*, *to*,
or *against*;
see **action**.

empathy’ rather than ‘texts for solidarity’, which would construe homelessness as systemic and socially unjust.³⁴ Erin McElroy foregrounded one path to homelessness in a ‘text for **solidarity**’ by depicting evictions in the city through mapping. Nevertheless, she acknowledges that her data science is a partial solution. No single or combined data set “can ever do justice in describing the intricacies and entanglements ... [or] fully narrate a history of the present.”³⁵ Documenting either type – or scale – of text alone is ineffective in rendering the heterogeneous community visible.

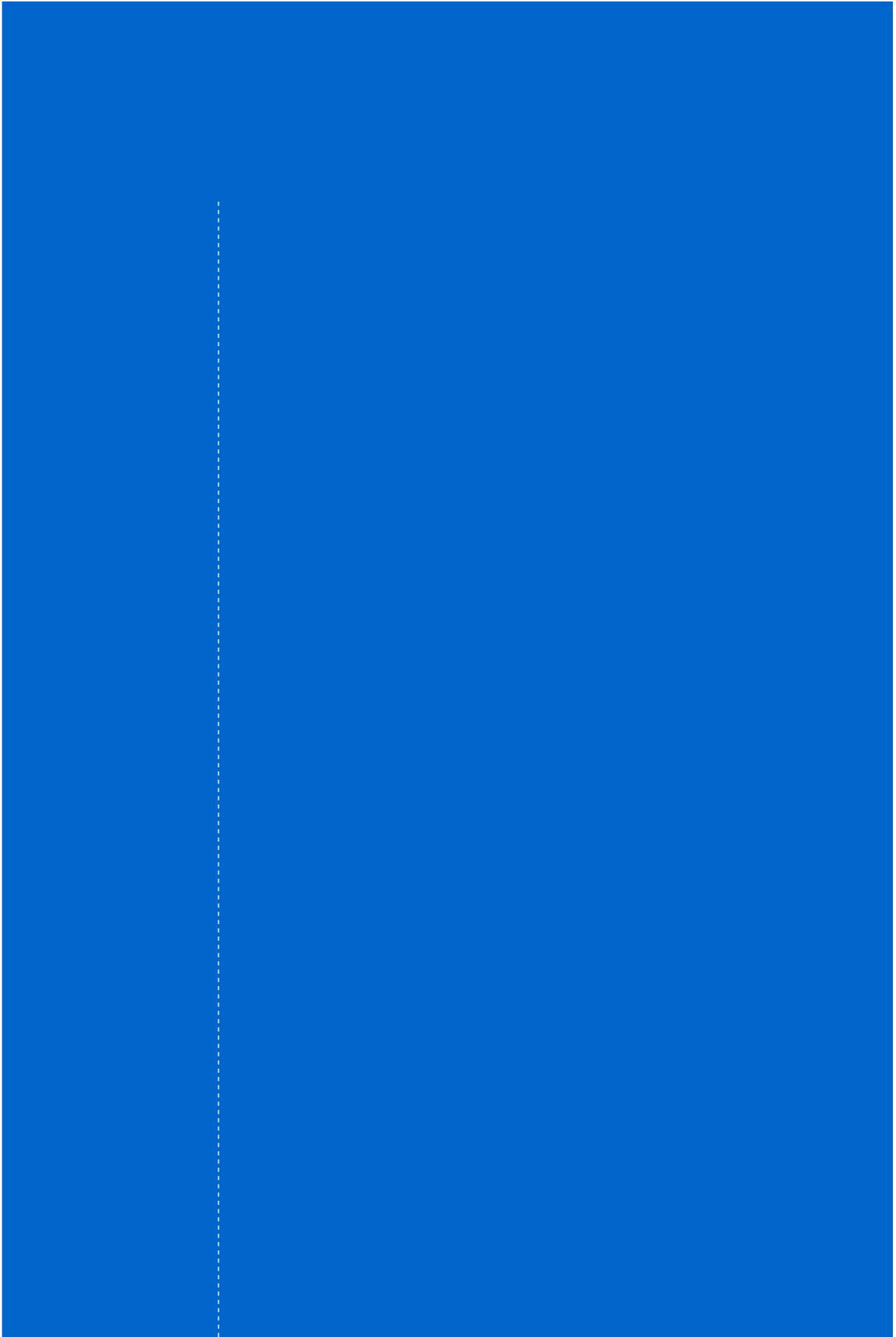
In the Literapolis, metadata would become vertically tracible, from the community to the individual and back, and life data would remain horizontally unpackable. For the Readymade Architect, such data could appear as logs or transcripts, a continuous page for a day’s acts recorded by voice – capturing her parlance – or by letter – capturing her hand – and eventually constitute the depth of a codex. Therein, hints of a networked life central to future archival study might be found. Perhaps her constructions were informed by the Duchampian idea of the **readymade**. Perhaps she was featured in the 1993 publication *Transitory Gardens*. Perhaps, as an elder, she has offered her life insight by partnering with the city’s relevant agencies – the Department of Homelessness & Supportive Housing, Glide, Urban, Alchemy, and St. Anthony’s – to complete site reports and tent-tenant check-ins.³⁶ Most recently, perhaps, she protested the hypocrisy of luxury restaurants freely occupying public space during the COVID-19 pandemic.³⁷ Highlighting the agency and accessibility required to create such documentation acknowledges the real participation of this citizen – and her heterogeneous community-by-extension – in generating the city’s literary.

Endnotes

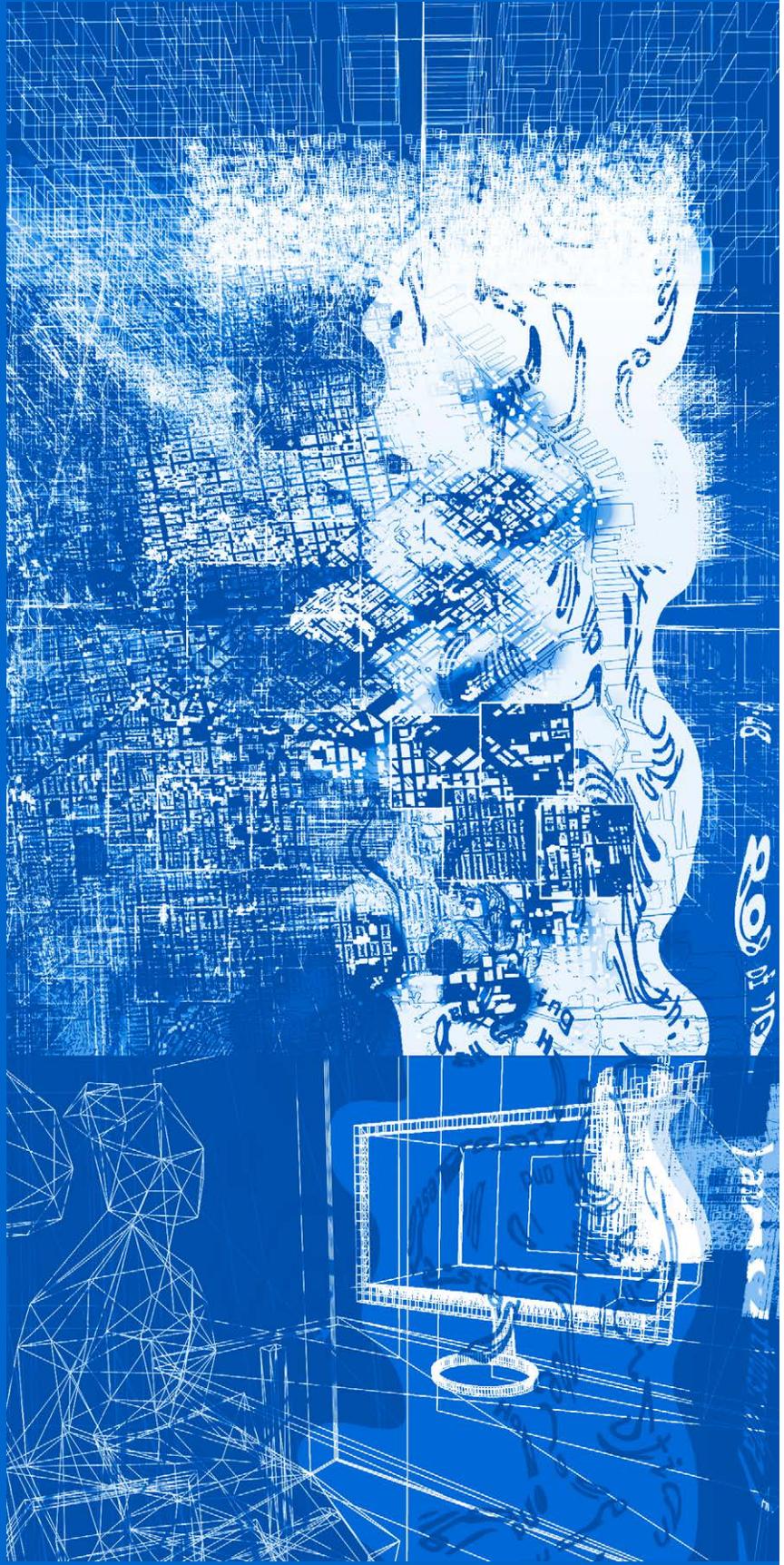
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- 2 Rebecca Solnit, “On the Inexhaustibility of the City” in *Infinite City: A San Francisco Atlas* (Berkeley: University of California Press, 2010), 3.

- 3 Bruno Latour, "Some Experiments in Art and Politics", in eds. Julieta Aranda, Brian Kuan Wood, and Anton Vidokle, *The Internet Does Not Exist* (Berlin : Sternberg Press, 2015), 46.
- 4 "Census Atlas Poster of San Francisco," *San Francisco Planning*, updated January 31, 2020, <https://sfplanning.org/resource/census-atlas-poster-san-francisco>.
- 5 Hannah Arendt, "Labor, Work, Action" (1964), in *The Portable Hannah Arendt*, ed. Peter Baehr (London: Penguin, 2000), 180.
- 6 "QuickFacts: San Francisco County, California" *United States Census Bureau*, <https://www.census.gov/quickfacts/sanfranciscocountycalifornia>.
- 7 "Census Atlas Poster."
- 8 "The Data," *Computer Science for California (CSforCA)*, retrieved March 13, 2022, <https://csforca.org/the-data/>.
- 9 For further development of this 'dark participation,' see Oscar Westlund, "Advancing Research into Dark Participation," *Media and communication* 9, no. 1 (2021): 209-214.
- 10 Geert Lovink, "What is the Social in Social Media?" *The Internet Does Not Exist*, 180.
- 11 "California Reading Report Card: County Report," *California Reading Coalition*, retrieved March 13, 2022 <https://www.careads.org/county-report>.
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- 13 Ibid, 4.
- 14 Asian boys are overrepresented in coding courses; see "The Data".
- 15 Wen Jin, Literature, Chinese American, in Huping Ling and Allan W. Austin, *Asian American History and Culture: An Encyclopedia* 1st ed. (Florence: Taylor & Francis Group, 2010), 202-204.
- 16 Charles Yu offers an account of this circumstance, albeit in Los Angeles, in his novel *Interior Chinatown* (2020).
- 17 Rebecca Solnit disavows this thoughtless turnover in *Hollow City: The Siege of San Francisco and the Crisis of American Urbanism* (2002).
- 18 Jesse Dorris, "The Queer Past Gets Deleted on eBay," *The New Yorker*, August 27, 2021, <https://www.newyorker.com/culture/cultural-comment/the-queer-past-gets-deleted-on-ebay>.
- 19 Gregor Weichbrodt, *Dictionary of non-notable Artists*, 0x0a, 2016, <https://0x0a.li/en/text/dictionary-of-non-notable-artists/>.
- 20 Susan Orlean's *The Library Book* (2018) details the fire at the Los Angeles Central Library Goodhue building in 1993, while UNESCO's Memory of the World commissioned Hans van der Hoeven and Joan van Albada to extensive collate *Libraries And Archives Destroyed In The Twentieth Century* (1996), archived at <http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/lost-memory-libraries-and-archives-destroyed-in-the-twentieth-century/>.
- 21 Jacob Gaboury, "Critical Unmaking: Toward a Queer Computation," in *The Routledge Companion to Media Studies and Digital Humanities*, first ed., ed. by

- Jentery Sayers (London: Taylor and Francis, 2017), 484-485
- 22 Be Oakley, *Imperfect Archiving, Archiving as Practice For a Love of Softness* (Brooklyn, NY: GenderFail Press, 2021), 44.
 - 23 Kenneth R. Allan, "Marshall McLuhan and the Counterenvironment: 'The Medium Is the Massage,'" *Art Journal* 73, no. 4 (2014): 26-27.
 - 24 Elsevier's article output accounts for 18% of global research and 27% of citation share. Its owner, RELX, has ensured continued market dominance through vertical integration of research services, with bibliographical searching through Scopus, record access through Elsevier and ScienceDirect, and citation management through Mendeley. Elsevier, "Fast facts about Elsevier," retrieved March 19, 2022, https://www.elsevier.com/___data/assets/pdf_file/0005/1095953/Fast-Facts.pdf.
 - 25 Pacher, Andreas. "A List of Academic Publishers and Their Scholarly Journals: A Webscraping Approach," *Investment Weekly News*, NewsRX LLC, 2021.
 - 26 Jaan Valsiner, "Review Essay: 'Open Access' and Its Social Context: New Colonialism in the Making?" *Forum*, qualitative social research 7, no. 2 (2006).
 - 27 Jennifer Cheeseman Day and Cheridan Christnacht, "Women Hold 76% of All Health Care Jobs, Gaining in Higher-Paying Occupations," *United States Census Bureau*, August 14, 2019, <https://www.census.gov/library/stories/2019/08/your-health-care-in-womens-hands.html>
 - 28 For further information on 'open' licenses, see Robert Spoo, *Without Copyrights: Piracy, Publishing, and the Public Domain*, (New York: Oxford University Press, 2013).
 - 29 Annet Dekker and Dušan Barok, "Copying as a Way to Start Something new: A Conversation with Dušan Barok about Monoskop" in *Lost and Living in Archives: Collectively Shaping New Memories* (Amsterdam: Valiz, 2017), 175-189.
 - 30 Reporters Without Borders, *The Uncensored Library*, Germany, 2020, <https://www.uncensoredlibrary.com/en>.
 - 31 City and County of San Francisco, "Homelessness Benchmarking," *City Performance Scorecards*, <https://sfgov.org/scorecards/benchmarking/homelessness>
 - 32 Judith A Hahn, Margot B Kushel, David R Bangsberg, Elise Riley, and Andrew R Moss, "Brief Report: The Aging of the Homeless Population: Fourteen-Year Trends in San Francisco," *Journal of general internal medicine*: JGIM 21, no. 7 (2006): 777.
 - 33 Jane Bullen, "Chronic Homelessness-What Women's Experiences Can Tell Us," *Housing studies* (2021): 17.
 - 34 Anita Varma, "When Empathy Is Not Enough: The Possibilities for Solidarity in The San Francisco Homeless Project," *Journalism practice* 13, no. 1 (2019): 106.
 - 35 Erin McElroy, "Mapping the Anti-Eviction Struggle in the San Francisco Bay Area Anti-Eviction Map", in *This Is Not an Atlas: A Global Collection of Counter-Cartographies*, 2nd ed. (Bielefeld: Verlag, 2018), 39.
 - 36 For in-practice detail on how unhoused women create space, see Nicholas Pleace, Eoin O'Sullivan, and Guy Johnson, "Making Home or Making Do: a Critical Look at Homemaking Without a Home," *Housing studies* 37, no. 2 (2022): 315-331.
 - 37 See Ariana Gunderson, "The Illegitimate Tent: Private Use of Public Space at a San Francisco Restaurant," *Food & foodways* 28, no. 4 (2020): 321-331.



*process: a
language of scales
and relativities*



V. EPILOGUE

To reify the thesis, I ravel the scrolls' pedagogical ambiguations and steward Literapolis development by offering potential extensions and a final narrative. I write from the MacOdrum Library in Ottawa and the Harvey Milk Memorial Branch of the San Francisco Public Library to situate this reflection.

PEDAGOGY

A lesson is embedded in each scroll. Through the scales, I learned how to deprivilege traditional architectural modes like the typology, the massing, and the plan towards an interdisciplinary, perspectival, plural knowing of space. Through the case study, I learned how challenging and rewarding it could be to move theory towards praxis. Through the narratives, I learned how to centre community and stakeholder identity as a pre-political act in the design process. Throughout, I have developed a democratic position towards drawing, language, and institutions.

In addition to these sweeping lessons, I have developed critical tools in renewing language through writing, communicatively illustrating this writing, and performing the spatio-textual whole.

Writing or Language

Amidst the scrolls, I created an ethical vocabulary to advocate for the **sociocultural health** of cities. Often, I have intentionally treated nouns as adjectives or verbs, multiplying and opening each for citizen textual activation and agency. Perhaps most significantly, I co-opted *post-Internet*. Commonly associated with a graphic and typographic design aesthetic, I re-associate the post-Internet to be a frame to reveal contemporary ethics – disuse, disinformation, and disassociation – often concealed by digital re-mediations of reality. A selection of other terms includes *Code, Page, Codex, Archive*, and *City as communicative events, substrates, unit structure, discursive infrastructure*, and *placeable superstructure; vectors, points*, and *fields as relativities*; and *deep reading, counter-environment, shadow library*, and *solidarity* as ethical specificities. I continuously updated this glossary to reflect research

Sociocultural health

wellbeing
beyond the
city dashboard;
citizen-based,
traceable stories
across vector
networks, point
institutions, and
field communities.



Illustration or Event

discovery until halted when submitting the document proof. This practice harmonised with my moral aims: I did not preconceive my terms top-down but uncovered and nuanced them iteratively per the discursive voices I encountered.

While the language I developed through writing allows new ways of knowing, as an architect, it is both my *métier* and my onus to **draw-on** knowledge as a way of seeing. Meanwhile, translating a series of abstract arguments and mass data into discrete pixels is inherently contestable. It is too easy to **sanction** surficial treatment or personal bias while pursuing aesthetic cohesion and marketability.

I employed complementary communicative approaches to ensure the drawings progressed rather than delimited the writing. For one, I illustrated the abstract with *specificity*. Most evident in Scrolls II and IV, I depicted choice nuances of language as recovered through peer-reviewed scholarship and peer-sited broadcast-ed narratives. Here, I compressed a high-resolution of qualitative data perspectives in the low-polygon forms of cube and facet.

I hope this drawing-on provides discursive lucidity. For two, I illustrated the definite with *ambiguation*. For instance, in the provocations for Scroll III, I left room for cubist, plural readings of the relativities to expose the subjective subsumed in supposedly objective practices like mapping quantitative mass-data. In noising the urban as diffuse lines, the vector provocation could engender an interlinking of idea tangents. In recycling server and modem models, the point provocation could prompt retrieval of digital data spaces. In confusing top-down, empire-driven narrative drawing, the field provocation could bare an Anthropocentric reality conflating the constructed and the topographic. I hope this drawing-on ensures discursive co-option.

Thus, I asked citizen decoders (like you, the reader) to access the encoded drawing space on proliferated substrates, whether paper or glass; I foregrounded their (your) heterogeneous projection

Draw-on
(to) palimpsest,
illustrate,
uncover, red-line,
and collectivise;
see materialise.

Sanction
(to) (dis)allow.

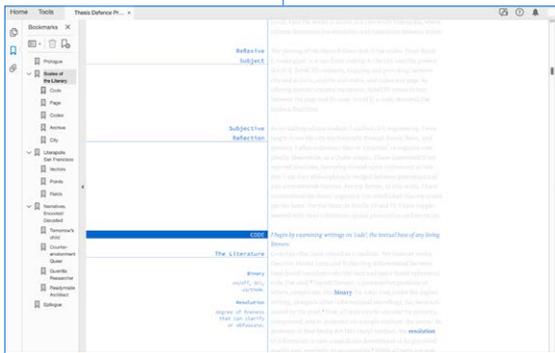
and interpretation of the drawing subject, whether alone or as a community; and I enfranchised their (your) literary and spatial agency by allowing the images themselves to take on agency. In precisely ambiguously illustrating, I furthered the value system expounded by and embedded in the scrolls.

Presentation or Performance

In developing the thesis, I fought against standardised forms of research dissemination. Notably, as explained in my *subjective reflections*, I questioned the formal and archival norms of the document itself in a post-Internet era. I asked, what is the codex as seen through our contemporary virtual spaces? I looked to website design as a partial answer: an unbroken vertical line and user-interface marginalia guide readers through each scroll's page. Similarly, the standard presentation design – explication of slides with drawings – would inadequately translate my writing and illustrations. To unite post-Internet form and content, I staged a born-digital performance.

discourse: scroll scrolling

As rescaling, I trimmed away margins and widened the aspect ratio to skeuomorph an Internet environment. As interface, I



co-opted Adobe Acrobat – hiding features and short-circuiting settings – to emulate one webpage. As presentation, I hit COMMAND + SHIFT + H to initiate auto-scrolling and modulated its progression to my speech by changing the scrolling speed or leaping between bookmarked in a sidebar menu. In effect, I scrolled the scrolls.

While this scrolling was convincing for my purposes, I note that the act can also fuel disaffection in deeply online life. For one, social media companies have learned the power of scrolling. To them, it is not only a mode digital text access but suggests the infinite array of monetisable content awaiting just off the screen. The bursts of auditory noise that exit from embedded videos or unwarranted ads further insinuate that this environment speaks,

that it engages the user in a constellation of conversations. This facsimile of conversation is a disservice to the oral tradition: it displaces the relationship between speaker and listener. I believe holistic discursion requires the bilateral integration of sociocultural knowledge with the wisdom of peripheries by an embodied community simultaneously through written and spoken words. While my text did not discuss orality as such – what is its data? – by performing to a concerned audience, I began to balance tensions between voiced and unvoiced engagement.

STEWARDSHIP

To reapply and expand the Literapolis, its ethical language must first be operationalised through many bifurcations. For one, in Scroll III, I developed maps and provocations through one methodology. Another writer may employ different codes and processes to navigate the scales idiosyncratically. This author would provoke an entirely different set of provocations with equal validity in producing their own maps. This will be important: as it stands, the provocations are my virtualities or speculations. Heterogeneous speculations must be developed from which to reimagine, reuse, and rebuild an accessible, participatory textual city. For another, Scroll IV only points to some archetypes of intersectional literaries. Actual born-digital texts must be aggregated and studied at the macro level of spatial data and micro level of urban wisdom.

Elsewhere

With its language well established, the most evident extension of the thesis is to use the scales and methods to analyse another urban context. In terms of post-Internet places, the leading global tech-industry cities, New York, Shanghai, Bengaluru, and Seoul, rise to mind.¹ Closer to home, the band of Canadian cities Toronto-Ottawa-Montreal is increasingly marketed as a data centre and tech hub.² The industry already benefits from Quebec's low-cost hydroelectric energy at the archival infrastructure scale. In a poetic textual turn, the fading newsprint literary represented by the Montreal Gazette printing plant has been transformed into a 10-acre data centre to host born-digital texts in the city's heart.³

This developing ‘Maple Valley’ must premeditate and circumvent the widespread disenfranchisement experienced in Seattle and the Bay Area. I see the Literapolis metaphor used by citizen advocates to assert ethics in Canadian urban developments.⁴

Para-urban
besides, alongside,
or beyond the
urban; the
periphery to
the centre.

Beyond silicon valleys, the scope I delineated can and should be questioned. First, by placing the city at the centre, I do not investigate the rural or the **para-urban** periphery. It is essential to consider which codices – and communities – this has left out of the conversation. Second, I do not explore the sustained presence of analogue textual producers and publishers. We continue to handwrite, send postcards, and use typewriters and printing presses. Third, I subsume the oral by focusing on the living literary as a writing mode. Though I complicate the orality-literacy binary, the spoken Literapolis remains to be researched. Fourth, I have concentrated on three ethical concerns: agency, accessibility, and heterogeneity. Further studies might prioritise other moral framings of the post-Internet city. Finally, the citizen case studies I have offered remain a small collection of avatars; these require further specificity and pluralisation to touch the complexity of any city’s living literary. To realise Literapolis ethics, there must be advocacy for non-Euro-American, polyglot avatars’ accessibility and agency to embed their born-digital stories in their cities.

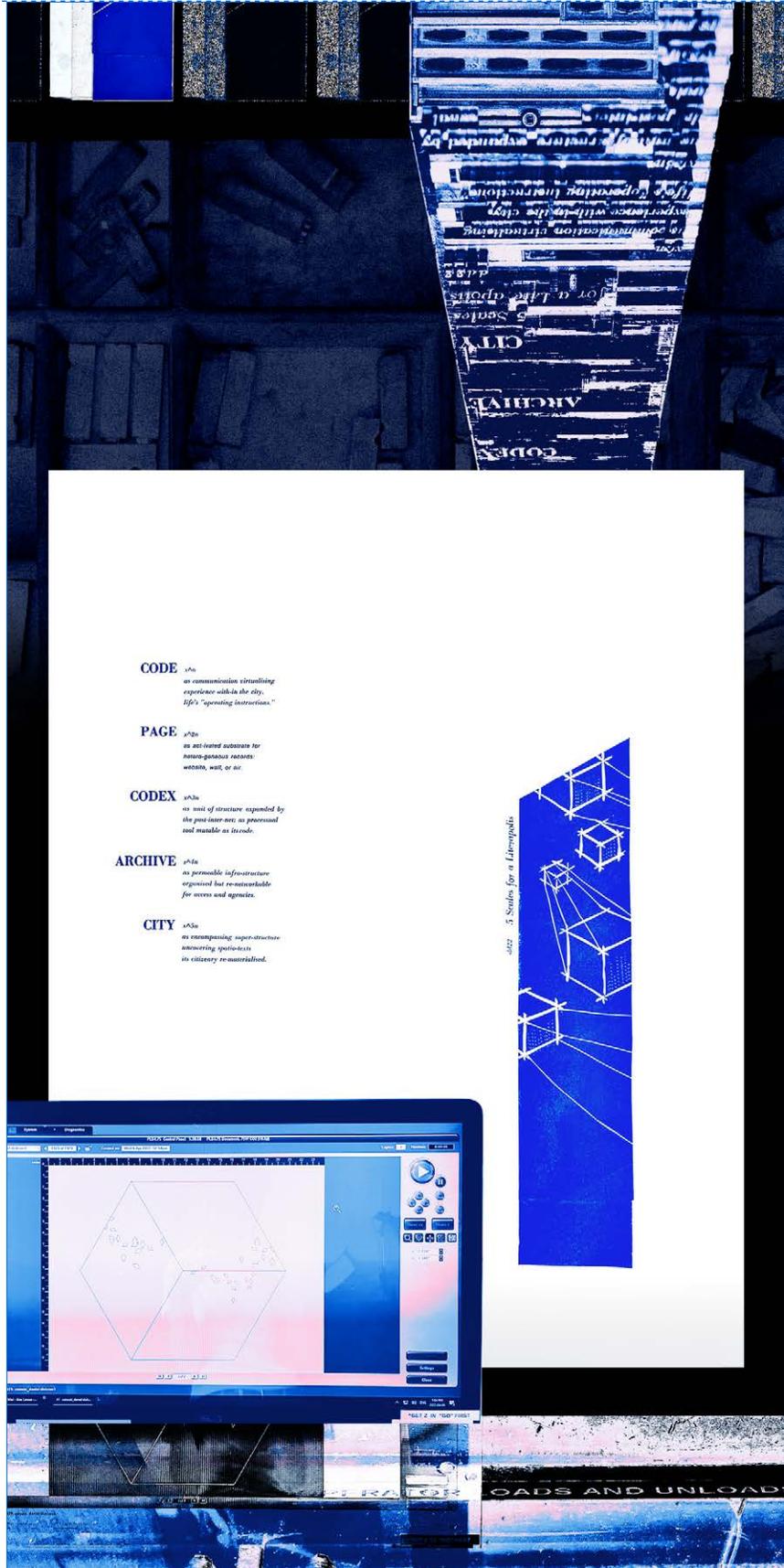
Final Page

As Andrew Steeves of Gaspereau Press notes, a critically local literary “can help [a] community to understand what is happening to it and through it, articulating what it’s like to be alive, here, at this time and in this place.”⁵ A Literapolis is only activated through stewarding subject specificity and contribution. To this, under the guidance of English Professor Jody Mason and Master Printer Larry Thompson of Carleton’s Book Arts Lab, I generated a final narrative page for my city, Ottawa.

*narrative:
literapolis fine
letterpress*

CODE *x^n*
*as communication virtualising
experience with-in the city.*

3. 'analogue'
homogeneous
letterpress page



4. 'digital'
heterogeneous
lasercut final page
(edition of 25)

6. disseminated to
form a discursive
field critically
tied to place



First, I countered the retort *that's just semantics*, that the meaning of words is a worthless discussion in contrast to another on ethical production. I did so by recoding my thesis' *ethical language*, gesturing to the scales in three-line, subjective poems. Then, I noised the analogue-digital production dichotomy. I laid out a page in proprietary software, only to recreate it with letter-by-letter analogue typesetting and handicraft linocut illustration. With most contemporary readers unaware the type was not set digitally, I began to reveal underlying questions of page control.

Second, I drew cutting vectors and directed the laser interface to cut each page from a different start point. Instead of my words on the screen and paper substrates being rendered equivalent, the result was a pluralised edition of twenty-five pages. Each page was further pluralised by inclusion in the **portfolios** of peers Adam, Bea, Brianna, James, and Jenna. Fragmentary and anthological, these collected codices re-networked my page through adjacency to diverse ethics. New interpretations became possible, exemplifying the heterogeneous virtualities embedded in the scales and the potential of the digital to reassert agency,

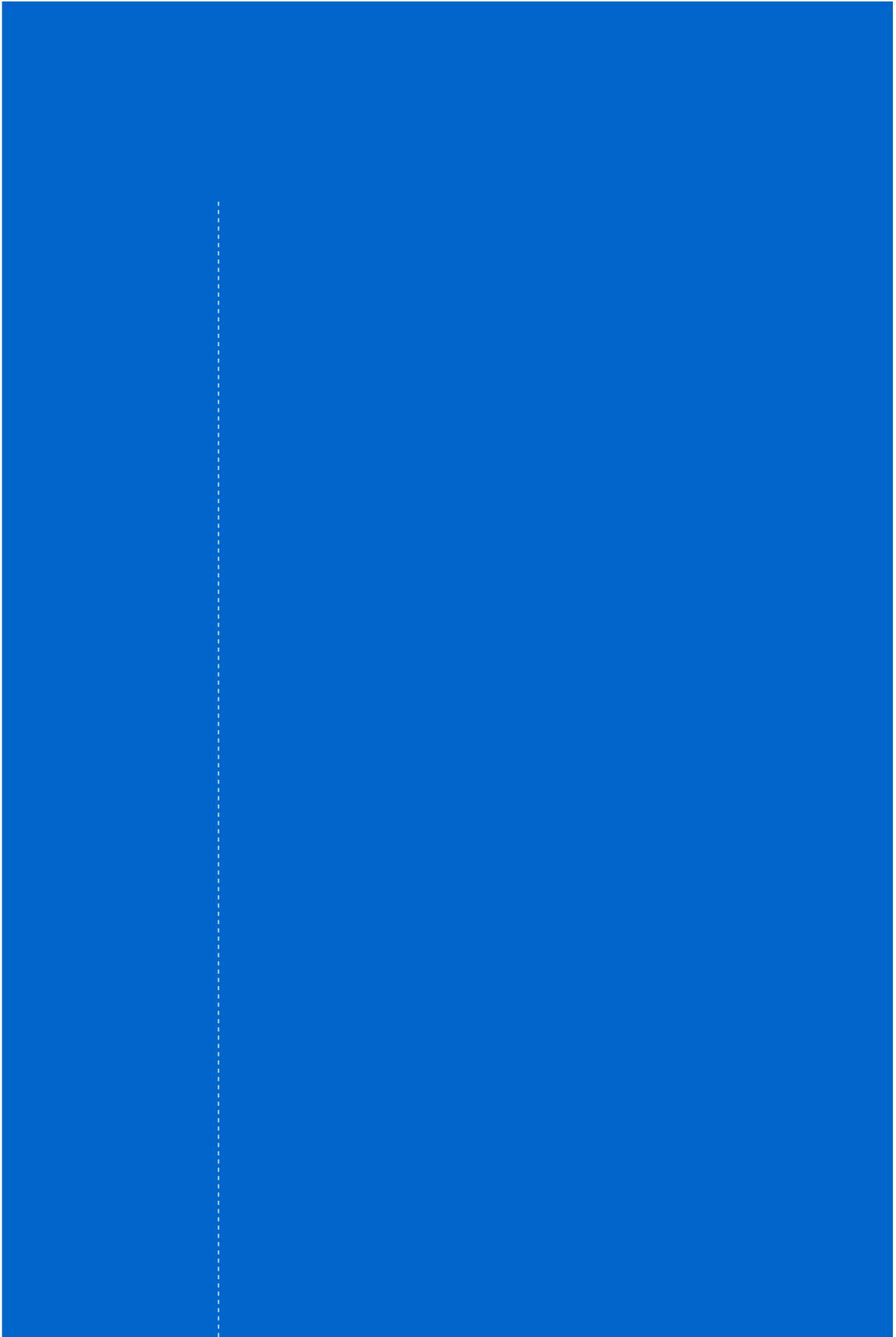
Third, while the five terms I printed created a discursive space, they had yet to be *placed* and so be activated as ethical language.

To this, I exhibited and accessioned the page at Carleton's post-Internet archive. Meanwhile, I turned to Ottawa's streets to make my page accessible in and across the city's archival infrastructure. I placed a page on a door in the architecture building. I placed a page in a flyer box at my bus station. I placed a page at my neighbourhood bakery, another at a nearby little library, and another in the hands of my roommate.

My spatial ethical language has entered the public domain of my communities. While these pages will inevitably be lost and decay, I hope their code is reborn in the digital texts of a newly enfranchised literary citizenry.

Endnotes

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- 2 For one, this city-circuit has been considered for a 'hyperloop', a dream of futurity further collapsing space and literaries. For the case of Toronto, see "The founding of Maple Valley: How Canada's unique research culture has aided artificial intelligence", *The Economist*, November 4, 2017, <https://www.economist.com/the-americas/2017/11/04/how-canadas-unique-research-culture-has-aided-artificial-intelligence>.
- 3 Wallace Immen, "Demand for storage space in the cloud creates a land rush," *The Globe and Mail*, May 25, 2021, <https://www.theglobeandmail.com/business/industry-news/property-report/article-demand-for-storage-space-in-the-cloud-creates-a-land-rush/>.
- 4 To begin, they might look to Susan Brown and Cecily Devereux, "Digital Textualities," *Studies in Canadian literature* 42, no. 2 (2017): 145–153.
- 5 Andrew Steeves, *Notes on Printing & Publishing Literary Books* [unpublished] (Kentville, NS: Gaspereau Press, 2022), 8.



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