

THE ARCHITECTURE OF WAR

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A Conflict Generated Architecture

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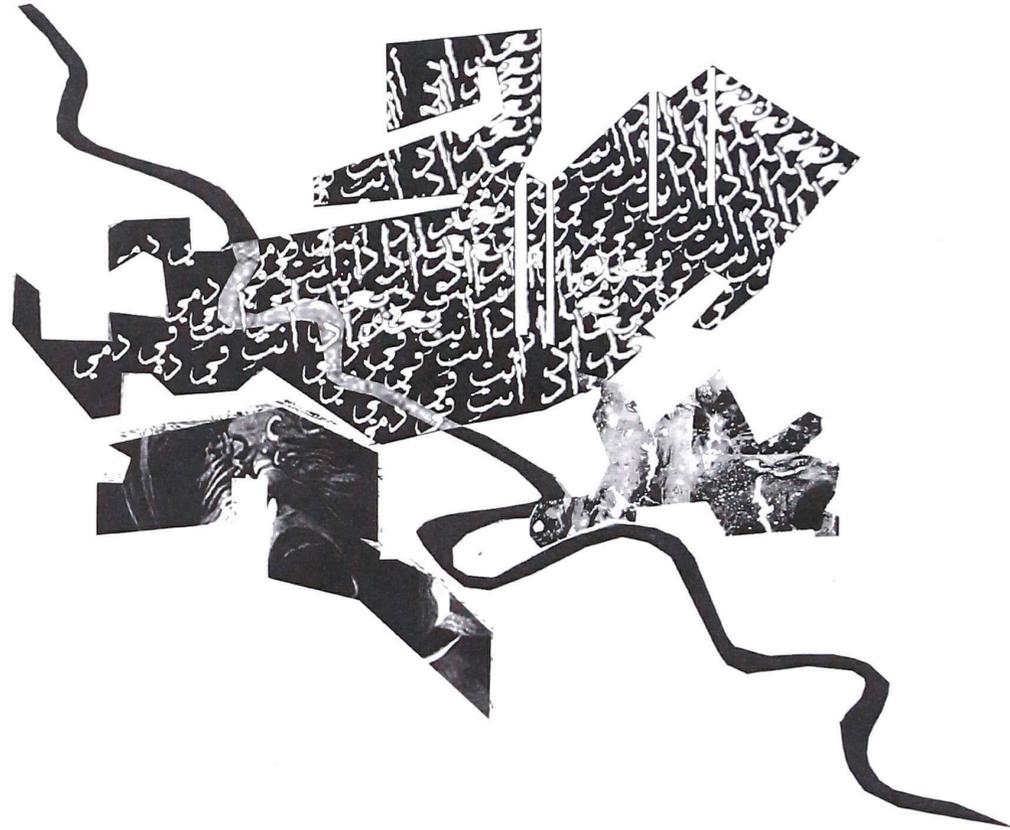
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CONCEPTUAL MAPPING OF BAGHDAD
AND THE TIGRIS RIVER. R.AL-RAWI

Prologue

As a child living in Baghdad, war was an undivided part of my living mentality. I was born into a time of war that lasted eight years and, not long after, the country entered another state of violence. For many of us the presence of that state became a given factor, it presents itself in the daily routine and forces us to factor it into our overall perspective of our changing surroundings. This became a strong reason for a superior sense of nationalism and pride, which is usually elevated between those affected during the state of war and uncertainty.

Many memories are forcefully present when recalling the events of war, but one of the most powerful one is the bombing of Shelter No.25 in Amiriya district in 1991. The news was heard through the radio (the only source of news at times of attack alerts and electricity cuts) as the shelter was bombed one day after the celebration of the Religious Holiday, Eid Al-Fitir, at 4:30 am, February 13th 1991. Two GBU-27 laser guided smart bombs weighing 2000 pounds were each dropped on Public Shelter No. 25 by two USAF (United States Air Force) Stealth Bombers F-117. The first bomb, which was especially designed for bunker structures, managed to penetrate the ten foot thick reinforced concrete ceiling, while the second bomb followed the penetration path minutes later to enter the structure without resistance. As a result, the civilians residing in the upper floor died of heat incineration, while those on the bottom floor were killed by the three feet

rising boiling water emerging from the explosion of stored water tanks.¹ Due to the protective design of the shelter, the exit doors were locked automatically when the first bomb hit the roof, leaving those who did not die immediately from the first explosion crying for help behind locked doors.² This calculated scenario of death played out in a few horribly measured minutes, takes us from Al-Amiriya as an alternative social gathering and shelter space to a dry concrete box that existed merely as evidence of this horrifying attack. It is now a numbered memorial, housing hundreds of its former inhabitants, in the form of photographs.



AMIRIYAH MEMORIAL. BY PAUL KITAGAKI JR. [www.seattlepi.com]

¹ Atkinson, Rick. 'Crusade: The Untold Story of the Persian Gulf War' 1993, p. 284-285.

² Baroud, Ramzy. 'Horror Chamber: Inside the Al-Amiriya Shelter'. March 29th, 2003.

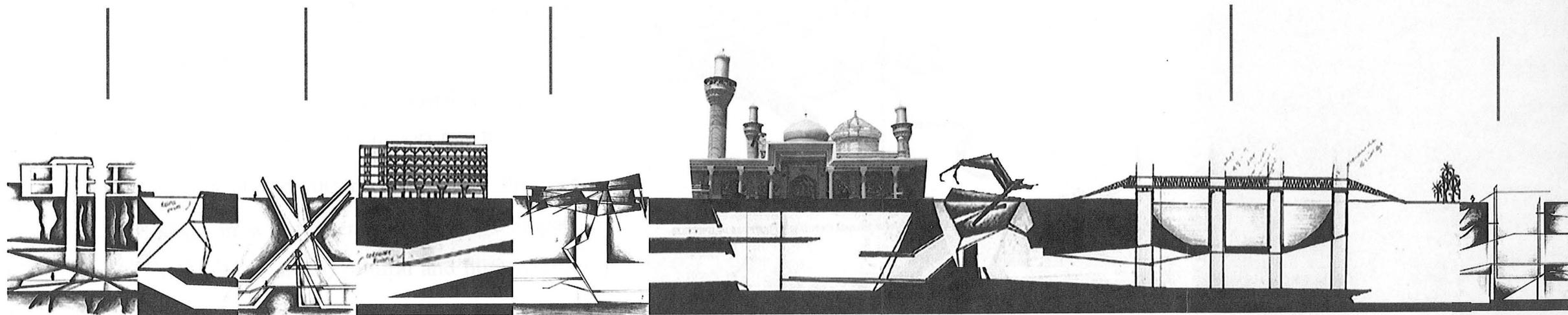
SHELTER NO.25
RE-ATTACHMENT
SITE 1

RE-ATTACHMENT
SITE 2
LIGHT COLUMNS

RE-ATTACHMENT
SITE 3
CORTEN PLATFORM

TIGRIS BRIDGE

RE-ATTACHMENT
SITE 4



UNDERGROUND SPACES
10-20 M DEEP
TO ALLOW FOR POST-CONFLICT
UNDERGROUND TRANSPORTATION

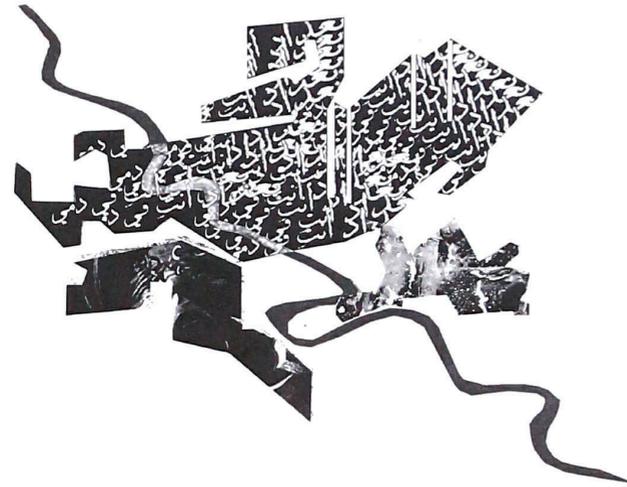
PENETRATION OF CORTEN
TO THE UNDERGROUND SPACES
AS A SHELL TO THE CONCRETE
TUNNEL STRUCTURES

NATURAL LIGHT SOURCES
AT RE-ATTACHMENT SITES
TO THE UNDERGROUND SPACES

RE-ATTACHMENT SITES
MARKING THE HIGH RISK
DISTRICTS OF BAGHDAD

Abstract

In cities of conflicts, the damage of war has become the visual common denominator that defines the region of destruction and vulnerability. According to Jonathan Budd, “the term ‘Warchitecture’ describes the condition of war waged specifically as the destruction of architecture.”³ But the visual impact of such destruction is only the first stage in a long series of negative impacts which have social, cultural and humanitarian consequences. When the visual contact, or rather ‘touch’ with such conditions is made through the remains of destroyed architectural structures, it becomes understandable that it is architecture itself which is then responsible for the renewed existence, or the lack of, necessary elements that each society needs to restore and regenerate itself.



CONCEPTUAL MAPPING OF BAGHDAD AND THE TIGRIS RIVER. R.AL-RAWI

³ Jonathan Budd, ‘Warchitecture’. <http://www.worldarchitecture.org>

It would be useful at this stage to offer some working definitions useful for the developing argument:

War: The action of military armed attacks waged against humans and structures, in this case like many others, does not always apply or abide by rules or ethics.

Conflict: Violent opposition between major forces causing widely spread, long term damage socially, culturally and architecturally.

Demolition: The result of an action or an event that transforms an object to fragments of complete destruction.

It should be possible then, and has become urgent around the world within the last decade, to explore the influence of *war* on architecture and vice versa, exploring the usability and conditions of architecture under the state of war and post-war environments. Initially this could be achieved by researching and investigating a site, for example, in Baghdad, subject to a condition of constant *conflict* throughout its modern history. From this one could chart the conceptual effects previous structures had on life in the city under conditions of war, siege and *demolition*. This could be researched from both the macro city level, and from the micro built-fabric level. The city of Baghdad therefore offers a case study at the macro city level, and Public Shelter No. 25 offers the equivalent on a micro level, the latter a *shelter* which was used during the First Gulf War as a family shelter for the residents of the Al-Amiriya neighbourhood in Baghdad. Public shelter No.25 was bombed in 1991 by US Forces smart bombs causing the deaths of over 400 people.

Shelter: An architectural structure that is known to provide a safe environment from external attacks. In this case; also an alternative to temporarily suspended social, and cultural, activities.

Erasure: The act of transforming an object/person from the state of physical vital existence to the state of complete deletion and disappearance.

Detachment: The state of being physically, mentally or emotionally detached from people, places or events. For this state to exist, it must follow its opposing state of complete attachment.

Nostalgia: A mental idealistic recreation of past conditions, places and events that are often, due to the time factor, impossible to return to.

By exploring the efficiency of such structures and how they are used under constant conflict conditions we can then consider the contribution of such structures and the need for a new thinking in urban architecture – new site-specific structures - for cities having to live under this new age of conflict architecture. A more detailed look at the experiences of Shelter No.25's victims, through their last, well documented, interaction with the architecture containing them, it should be possible to explore an architecture which, in this case among many others, acted as a form of *death container* that played a unique symphony during this mass execution. It is the potential transformation of such experiences into a space of renewal within the city which could play an important role in *erasure* and *detachment*; two poetic values of the city's crucial and vital memory. The goal of such site specific architectures would be to propose strategies and architectures which could maintain the positive social and cultural aspect needed to recreate a new urban fabric, whilst performing under the pressures of attacks. War and conflict produce serious cultural and historical shifts.



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Bibliography

Acknowledgment



GULF CONFLICT. IMPERIAL WAR
MUSEUM, LONDON



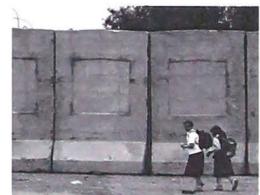
BULLET WALL, ADHAMIYA, BAGHDAD
[rebellionation.blogspot.com]



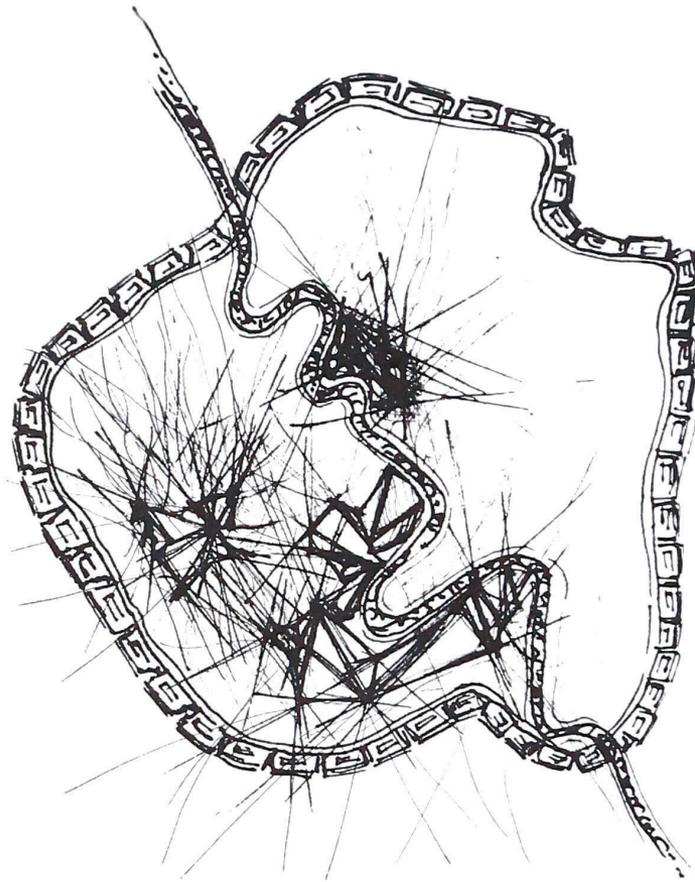
DEMOLITION OF CENTRAL MEMORIAL
STRUCTURE. BAGHDAD



AMIRIYA SHELTER WALL
[alamriya.blogspot.com]



WALLED ADHAMIYA DISTRICT, BAGHDAD
[rebellionation.blogspot.com]



ATTACKS ON THE CITY OF BAGHDAD. MENTAL MAPPING. R.AL-RAWI

Chapter 1
Baghdad – ‘Context & Conflict’

Conflict: A prolonged armed struggle/ an incompatibility between opinions or principles.
OXFORD E.D

It is useful to consider the official terminology as defined by the Oxford English Dictionary:

War: A state of armed conflict between different nations, states or armed groups/ a sustained contest between rivals or campaign against something undesirable

Detachment: The state of being objective or aloof/ the action or process of detaching

Demolition: The action or process of demolishing or being demolished

Nostalgia: Sentimental longing or wishful affection for the past

Shelter: A place giving protection from bad weather or danger/ shielded condition protection

Focusing on the city of Baghdad as a site of repetitive conflict in modern history while examining how negative events affect its context and vice versa, could lead us to an understanding of this city’s need for new architecture; a form of architecture that reacts to the constant states of war, attacks and social irregularity. The careful consideration of the roles of accidents, constant casualties and residents’ displacement due to high risk changes within their home environment, offer keys to understand the connection between Baghdad’s conflict and its impacts on what the city contains through its rich historical layering.

1A Accidents and Casualties Negative events can quite possibly create positive outcomes; precisely accidents of war and conflict attacks can generate the un-expected, or even reveal elements in the city fabric not previously known. Simultaneously, they could also produce even worse outcomes than war itself, by generating the unexpected through different tools that help in achieving those unforeseen accidents. Paul Virilio declares weapons of war as one of those instruments that carry out accidents in states of conflict and uncertainty as accidents become a form of military operation.⁴ In Baghdad, negative accidents of war have left the city in a constant

⁴ Virilio, Paul & Sylvère Lotringer. ‘**Crepuscular Dawn**’. Semiotext(e), 2002. P.147, 154, 173

state of hesitation, where commonly expected human relations and forms of communication, that the city thrived upon prior to the 2003 attacks, become impossible. If accidents of war achieve such an obvious negative impact; is it clear what effect this has on the city? Results of such accidents reveal the very basis of society and its woven threads. When the vital and basic elements of communications are cut, all life forms are altered and isolated, leaving a weak social mesh. This mesh is further affected by permanent threats and temporary disputes, such as the recent sectarian differences that have begun to change the capital's map of inhabitation. On the other hand, the positive outcome from such warfare accidents might be represented in realizing the need for a new alternative of dwelling and being within the wounded city. This realization could represent the possible creation of the new layer added to the damaged city and to the rich historical mesh of ancient Baghdad.

The main indicator of such altering needs is the number of casualties over the conflict period. This can offer us a relational-scale of how heavy the strains of the conflict are on the city inhabitants. Over time, we see that the amount of casualties in every major war increases according to how recent that conflict is. A simple comparison would be the 54 million casualty increase between the First and Second World Wars.⁵ And in a city like Baghdad which went thorough constant intervals of war and destructive occupations in its modern history, starting



BAGHDAD 2003 [reformation.org]

with the British Occupation in Mesopotamia in the 1920s up to its recent occupation by the Coalition forces, the death toll of civilians (unengaged in war activity) rose dramatically due to the increase of military air strikes and firefights.⁶

Rather than thinking of casualties in terms of a number gathered from different sources, it is perhaps more important for architecture to consider these numbers as experiences which occurred in the presence of three elements combined at one time. The formula of death in states of war consists of three parts 1 the human presence 2 architectural existence and 3 the impact of the accidental instruments which create the moments of destruction.

What then do these experiences imply when considering the architecture of the past and the architecture of the future? Can architecture help protect future accidents of war and conflict? In Baghdad, one must understand the social, cultural and historical fabric in order to analyse new structural formations new continuous forms, as tools of liveability under the uncontrollable events of deadly aggression where inhabitants (whether intended or not) become the main targets along with the structures that contain them.

⁵ Virilio, Paul & Sylvère Lotringer. 'Crepuscular Dawn'. Semiotext(e), 2002. P.139

⁶ Gregory, Derek. 'The Biopolitics of Baghdad: Counterinsurgency and the Counter City'. Department of Geography: University of BC. Vancouver.



BAGHDAD: MAPPING THE VIOLENCE.
BBC NEWS [news.bbc.co.uk]

1B Risk Mapping

Since the Coalition forces' attacks and occupation of the capital of Iraq and then the rest of the country, there has been a noticeable shift in the risk mapping of the city. The color coded zones came to existence to express the danger levels of different districts around the capital. The Green Zone was safe enough for political operations due to the complete control of military forces over its surroundings. The Red Zone represented the rest of the broken-up city. Baghdad quickly became a map of borders; soldiers and military forces created rings in and around the city to control circulation and movement. As a result, the main roads leading to the city exits, as well as the closure of inner central districts, all fed the increase of sectarian violence since 80 percent of it occurred within a 30 miles radius from Baghdad's centre.⁷ As Derek Gregory points out "Baghdad is almost completely dissected by a feral matrix of informal checkpoints, sniper alleyways, car bombed corridors, networks of micro insurgent-urbanisms; it is the city re-engineered by endless duelling barricades of postcolonial control; it is, above all, a scrappy imperial abyss. Baghdad's guillotined real estate is a stage for indiscriminate slaughter, for militant dominance – blood trails in the streets mark a kind of demographic authority as much as they do the absence of an authority altogether."⁸ The main reasons behind such fractured districts are the endless risks associated with movement and public flow between the neighbourhoods on both sides of the Tigris River; the river which divides the city into two halves. The current

⁷ Gregory, Derek. 'The Biopolitics of Baghdad: Counterinsurgency and the Counter City'. Department of Geography: University of BC. Vancouver.

controlling forces created other dividers within the inner city borders to administer and control public flow for obvious political reasons. Thus, when the main city arteries are blocked, the social fabric starts to malfunction, eventually clustering into separate neighbouring fragments. These fragments become independent from one another in issues of survival and safety. Migrating or moving from one cluster to the other might mean death by accident or, in Baghdad's case, even 'planned' accidents. Risk in Baghdad is at a stage of randomness; total chance is a situation that has emerged from planned military tactics and execution. This is randomness every city dweller must live with.

1C Post-Occupational Living Conditions When we look at the abrupt changes of the living conditions due to war, we must first explore the state of freedom that was experienced prior to such major shifts. According to the architect Lebbeus Woods, freedom allows us to choose from the options available at hand at a specific time under specific circumstances.⁹ Freedom for the Iraqi people before the military occupation of 2003, a freedom of choice based on the availability of choices present at the time, allowed for the normal living conditions known to us all.

⁸ Gregory, Derek. *The Biopolitics of Baghdad: Counterinsurgency and the Counter City*. Department of Geography: University of BC. Vancouver.

⁹ Woods, Lebbeus. *War and Architecture: Pamphlet Architecture 15*. Princeton Architectural Press, 1993. P.8

These conditions are now lost and only remembered. These earlier privileges included the ability to educate and be educated, social interactions, safe work and living conditions, flexible mobility and many other aspects of a life now declared nonexistent.

Currently, David Gregory argues that freedom stops in Baghdad when the risk of death becomes dependant on being loyal to the wrong political party or direction.¹⁰ Naturally, the way of life and living quality in the capital changed dramatically under strong and sudden attacks. Sources within Baghdad state that approximately 146,000 residents of the capital were displaced from their original neighbourhood districts between the months of February and December, 2006. Thus, the sudden shift in political power in Iraq after 2003 showed clearly the displacement of residents towards other districts within the city. This was a means of seeking refuge in a safer environment, the main impact of ethnic and sectarian cleansing; a form of separation within the social Iraqi scene that was never experienced prior to the recent occupation of the country. These speedy changes to the social fabric of the occupied capital draw a new territorial map of Baghdad. After witnessing the most advanced instruments of violence known to man, they bring back the original meaning behind the word 'territory'; a word derived from 'terror' as a means of displacement due to danger and fear.¹¹ These massive shifts in living conditions determine the city's future social

¹⁰ Gregory. op-cit.

¹¹ Gregory. Ibid.

and cultural mindset. It is the priority of Baghdadi residents to expect the worst and act accordingly. Displacements from original to foreign environments (even within the military controlled city borders) in the presence of war means the disconnection from the known and the familiar. This becomes a fight between those who are unarmed and untrained in order to survive the distances and the untried ways of acquiring safety. Entire families deal with sudden changes of the very minimal, rooted in their very own process of living. Gregory continues: “The post-occupation Baghdad has witnessed a profound contraction of the horizons of the life has become a dismal commonplace, and the wretched conditions under which most Iraqis live in Baghdad (and elsewhere) have been detailed in endless, eviscerating accounts of the hopelessly inadequate provision of public utilities like electricity, water and sewage disposal.”¹² In addition to lost vital services, most important is the freedom of circulation that has been erased in the new divided map of the city.



MAP OF DIVIDED BAGHDAD.
[healingiraq.blogspot.com]

Families (one million of them by the end of 2007) were dislocated from their ‘mother’ districts towards what they imagined as safer neighbourhoods. Even with those migrations within the city borders, circulation between the different city districts on both sides of the Tigris took hours due to multiple checkpoints and closed main roads. Ordinary activities that used to include the short trips from one point to another inside Baghdad were not taken at all due to major military

¹² Gregory. op-cit.

restrictions. Re-routing to avoid certain districts due to fears of sectarian violence became common. Here, the usual is altered and changed, transformed into a new state where every simple task is modified by military and safety constraints.¹³ This forces us to consider this situation, like many others before in history, as the mass imprisonment of an entire city and country. Re-routing the mass movement of inhabitants and closing off certain public flow channels as well as entrances and exits, while opening others plays an important tactical role in the game of war and occupation.

The city as a massive site becomes a mental map divided by threads while the main areas are marked as red boxes waiting for attacks. This is a chess-game approach controlling the previously free citizens, offering them a bounded freedom to move only within allowed limits. Even these limits have become never safe enough to be relied on.



AL AMIRIYAH SHELTER Victims, BAGHDAD 1991 [al amiriya blogspot]

¹³ Gregory. op-cit.



SITE: AMIRIYA PUBLIC SHELTER NO.25
& SURROUNDING RESIDENTIAL AREA

AFTER THE SUDDEN ATTACK ON THE
NEIGHBORHOOD PUBLIC SHELTER
THE AFFECTED SITES AROUND THE
TARGET WERE QUICKLY IDENTIFIED
BY AMIRIYA DISTRICT INHABITANTS

INHABITANTS OF THE RESIDENTIAL
DISTRICT FOUND REFUGE IN OTHER
SITES WITHIN THE AREA TO ESCAPE
THE AFFECTS OF ATTACK AFTERMATH

- CONFLICT AFFECTED SITES
- POSSIBLE RELOCATION SITES
- POSSIBLE FUTURE ATTACKS

STUDY OF SOCIAL POST-ATTACK IMPACT ON AL-AMIRIYA SHELTER NO.25 SITE AND THE SURROUNDING RESIDENTIAL AREA. R.AL-RAWI



CONCEPTUAL REPRESENTATION OF WAR IMPACT ON BAGHDAD. R.AL-RAWI

Chapter2
Conflict – War

War: A state of armed conflict between different nations, states or armed groups/ a sustained contest between rivals or campaign against something undesirable
OXFORD E.D

In *Thinking Past Terror* Susan Buck-Morss discusses the fast paced change of the world's values by stating "We are in the same boat pulling against each other and causing enormous harm to the material shell that sustain us"¹⁴ The world is quickly becoming more populated with targets of invasion, control and destruction. Justification of achieving such goals is no longer an important



RAMADI, IRAQ 2007. PHOTO BY: EROS HOAGLAND. [www.battlespaceonline.org]

element of giving the green light to peruse required actions of violence and intrusion, instead, justification of such action becomes an introductory paragraph to long narratives of action-filled news headlines. The question of 'just' reasons behind such movements is quickly forgotten as it blends in with the surrendering tone of no-action on the part of the receiver; observing and occasionally posting opinions become the norm as opposed to taking counter action.

2A Impact During the 2nd annual lecture in Amsterdam on 'Warchitecture', Rem Koolhaas argued that "War, painfully enough, is good for architecture"¹⁵, and Rick Dolphijn reflects on that same statement by representing the visual image of the war-affected sites as big canvases ready for the new additions architects are aiming to make¹⁶. This kind of image urges us to focus on the effects under the continuous state of conflict and war. It



CONCEPTUAL REPRESENTATION OF WAR IMPACT ON BAGHDAD. R.AL-RAWI

forces those involved to change life styles, social and cultural movements, in order to adapt and survive under such uncontrolled external power. All known routines of daily life are altered; the unusual becomes the expected and the un-explored inventions of emergency survival methods become necessary. Casualties tip the balance on either side of the conflict; every life form is a target, and structures are the shelters of life forms. Structures are targets of high priority.

¹⁴ Buck-Morss, Susan. 'Thinking Past Terror: Islamism and Critical Theory on the Left'. Verso, 2003. P.6

¹⁵ Koolhaas, Rem. 'Warchitecture'. 2nd Annual lecture, Amsterdam. Nov. 2005.

¹⁶ Dolphijn, Rick. 'Warchitecture'. 2nd Annual lecture, Amsterdam. Nov. 2005.

The impact of arms and weapons in the state of war, to paraphrase Paul Virilio, targets the very being of man, and to reach the destruction of that target it seeks to deconstruct the shell that contains him. The destruction of the architecture and the circumstances it provides to the human condition is the same as destroying the very layer of clothing that protects the human body. Ultimately, to destroy man's habitat is to destroy the human body itself.¹⁷ As a result, former spaces of living and interaction destroyed by attacks are immediately transformed into raw volumes of instant forms created with no regard to time or architectural evolution. Those spatial volumes are not meant to fit within their surroundings, but to stand as proof of old and new, safe and dangerous, past and present.¹⁸ The question has to be asked. With such strong destruction upon people, buildings, the urban mesh and all aspects of life, could not the remains of conflict and war-made forms be used to the advantage of survival and continuity instead of further social, historical and mental deterioration? The persistent physical voids and urban scars could, over time, acquire the necessary elements of a vital existence, as well as the necessary means of living during the different phases of pre-and-post conflict conditions. In turn, these moving targets within the city networks could offer refuge by evolving from spaces of former inhabitation to spaces of the uncommon. Under such conditions of adding commonly used spaces to the hit list of rapidly increasing targets from the armed attackers, safety is paradoxically found in the

¹⁷ Virilio, Paul. **'Bunker Archeology'**, Princeton Architectural Press, 1994. p.38

exclusion away from the norm and the usually inhabitable. Creating new breathing spaces within the conflict city, in Virilio's words; "exactly, the right to exclude oneself from an incarcerating world. Exclusion becomes a psychological necessity that implies a new relation to bodies, to the terrestrial bodies of the geographic habitat, but also to the social body of geopolitical societies, and finally to the animal body of an individual caught in mass individualism."¹⁹ This new found relation between the body and new spaces in a new danger-filled environment keeps proving that, throughout many years of modern war, we are being forced to increasingly desire the closed and the unseen. This leads to a macro architectural world of closed boxes made for protection and the need for continuity.²⁰

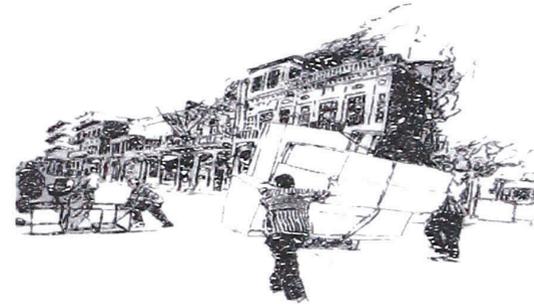
The need to survive under such hard and unusually violent attacks threatening many targets on the ground forces us to consider obvious alternatives. If the surface of the earth and everything on it is inescapably threatened, along with all life styles and forms that thrive within it, then the next step for any survival seeker is to turn to the *not-yet* targeted settlements. Yet, we must also consider what made the impossibility of living possible. Technology brought the means to those willing to use violence in many shapes and forms, and paradoxically technology is also what allows us to find alternatives to our inhabitable environments. Virilio clearly explains the

¹⁸ Woods, Lebbeus. **War and Architecture: Pamphlet Architecture 15'**. Princeton Architectural Press, 1993.

¹⁹ Virilio, Paul & Sylvère Lotringer. **Crepuscular Dawn**. Semiotext(e), (2002). p.83

relationship between the machine and the human inhabitation condition in 'Bunker Archeology'; "If man has no need for the machine to live in his natural environment, he needs the machine to survive in a hostile one. Now, during combat, the surface of the earth became uninhabitable and the simplest of gestures became impossible."²¹ He continues to explain that violence under war conditions is due to the availability and the direct use of technological development. To implement attack tactics and methods against the human existence, throughout the global war scenarios, has become commonplace.

War, even after it is over, leaves behind frozen time fragments. Those who experience war and its post condition are confused on the point of its continuation and its end. The period of time following direct attacks extend to a time where peace and war are interconnected, another status of unease and chaos starts to wage attacks of its own on the *urban mesh* of the *conflict city*.



'LOOTING IN BAGHDAD': CHELSEA CRAWL. [<http://simplisticart.blogspot.com>]

²⁰ Virilio, Lotringer. op-cit. p.79

²¹ Virilio, Paul. **Bunker Archeology**. op-cit. p.41

“It is not only a military image. It is also an image of the war waged on civilians - an anticipation of the post-war years when one could no longer tell war and peace apart.”²²

When war and uncertainty merges within the wounded city, paradoxically destruction becomes financially rewarding. Turning the post-conflict stage into a time of uncertainty in the eyes of the inhabitants, takes advantage of abused city spaces, not necessarily as a means of reviving the desired past, but to continue the status needed to generate new centres of power and decision making. As Virilio reminds us,“ destruction became a form of production, war expanded, not only to the limits of space but to all of reality. The conflict had become limitless and therefore endless.”²³ How does architecture behave under such conditions?

²² Virilio, Lotringer. **Crepuscular Dawn**. op-cit. p.24

²³ Virilio, Paul. **Bunker Archeology**, op-cit. p.58

2B The Role of Conflict-Born Architecture Jonathan Budd notes; “in the first instant, architecture is understood as the material environment of the city, and in the second, the extension of civilization. The complexity arises when we realize that it is at the very moment of the erasure of architecture as an ontological category that it operates as an icon of power and identity in the politics of war.”²⁴ In cities of conflict - where war has become an indivisible part of a city’s history, memory and existence- architecture must take not only the role of shelter, but the responsibility of combining the tools and the means necessary for longer, safer existence during and after the destructive attacks. Under such conditions, war maintains architecture while architecture maintains life forms. This kind of contrast hybrid needed to combine both the purpose and form of such structures creates the connection vital for life and continuation. These are the same links discussed in Tom Vanderbilt’s 2003’s ‘*War as Architecture*’ as he describes the connection between war and architecture as complex threads of associations, the meaning of the architectural shelter, site specific solutions and the use of symbols in the cultural context of cities. Vanderbilt also sees war as the extension of architecture by other means.²⁵ Such associations lead us to the importance of interconnectivity between war and the architecture it targets. It could be said that war is pushing architecture to transform itself into a new program of usability. Through the changes of time and history, architecture is forced to offer both *symbol* and *shelter*, both

²⁴ Jonathan Budd, ‘**Warchitecture**’. <http://www.worldarchitecture.org>

workable under the historical and cultural pressures of any city. Such shift can be seen as a natural progression of the life span of existing structures in their specific sites under their specific circumstances. And such progression of time, and the ideas behind the war-influenced architecture, force architects and inhabitants to realize the un-broken connection between constructing spatial structures and the constructing of time phases.²⁶ This dual role cannot be divided under such conflicted conditions. The lack of one or the other will cause the deterioration of the already scarred, social mesh. It will damage further the city's layered continuity. These forced circumstances also imply a transformation of the understanding of urban planning and organization of cities under normal conditions, "the unbuilding of cities-and the construction of buildings"²⁷ Such a massive shift in the city's mental and social image –in this case Baghdad-brings us back to the original purposes of architecture offering sheltering structures. Sylvere Lotringer in '*Crepuscular Dawn*' reinforces this when she states that "architecture is no longer in an earthly dwelling, but in an escape vehicle that sticks to the body like a space suit, the clothing that you carry with you."²⁸

²⁵ Vanderbilt, Tom. **War as Architecture**. University of Minnesota, 2nd May (2003).

²⁶ Virilio, Lotringer. **Crepuscular Dawn**. op-cit. p.47

²⁷ Sterling, Bruce. **Warchitecture**. Volume issue II 'Cities Unbuilt', June 25th (2007).

²⁸ Virilio, Lotringer. **Crepuscular Dawn**. op-cit. p.90

Accordingly, in cities of constant conflict and social crisis, it is necessary to treat structures as containers for living, as opposed to stylistic buildings in other more fortunate cities. The built becomes the vital vessel for existence. The strategy must appropriate the site for its safe placement and, later, expand to accommodate what previous models could not attain, due to exterior forces and imposed destruction.



CITY OF BAGHAD UNDER ATTACK 2003 [www.reformation.org]

2C Usability We are now left to explore our question. How can architecture under such external forces be transformed, in order to maintain the required normal everyday life, with as little interference from the impact of war as possible? And how is this architecture used? In an age of war and global conflicts, it is essential to explore a new kind of architectural project that allows the natural continuation of development and renewal no longer possible under such powerful technology-driven physical and historical pressures. In reality, such projects have promising elements. Site availability provided by war demolition becomes places of re-birth. Attacks of previous structures provide sites for a new function to architectural program. Any new 'work' holds sentimental and re-usable building values. As the needs of survival under such conditions develop and become more demanding, the new structures in question can include many newly-invented (much needed) elements which could enhance liveability during and after the war. Every structure should include the relevant factors needed for its success, be it public gathering spaces where social activities and intimacy is mostly found, private dwellings or other service areas such as schools and working environments. Taking into consideration the local building techniques and materials, the design could allow further changes and enhancement through its inhabitation of risk and usage. Ultimately, this program could recognize architects' play in transforming architecture to influence the impact of war in response to the impact of war

on architecture.²⁹ An interchangeable relationship between architecture and the war condition, provide equation elements that thrive on one another, involving birth and re-birth depending on the given status of the space and the requests of its inhabitants. The changing of each influences the other, creating new unpredictably safe structures in the many layers of the city in war and peace.

Architectural precedents exist supporting this program: Bernard Khoury's B 018 underground structure in the Lebanese capital of Beirut is one. Built where attacks destroyed the surrounding areas in the 1970s, the architect describes the survival of the underground structure through its continuous use and interaction between the building and those who inhabit it: "B 018 was built as a temporary structure," Khoury says, "it was only meant to have a five-year life span, but 2003 came and went, so I suppose what I wanted to say is it is still relevant today."³⁰



B 018 BEIRUT, LEBANON. BERNARD KHOURY 1998. (<http://Yalibnan.com>)

²⁹ Woods. *War and Architecture*. op-cit. p.24

This night club underground structure illustrates a possible escape to places otherwise abandoned. It allows city dwellers to carry on activities that dictate the speed of a city, in this case the youth culture, leisure and relief in the capital's afterhours. This is a living precedent for developing areas, offering physical, cultural and social refuge in a post- conflict city. This also brings a committed narrative to an open area otherwise remembered for the central point of destruction and chaos.

³⁰ Lewis, Tom. 'The Architecture of an Identity Crisis: Bernard Khoury is an architect, an inventor and a storyteller'. Ya Libnan, July 15th, 2008.



CITY OF BAGHDAD, NOSTALGIC SKETCH. R.AL-RAWI

Chapter 3 *Detachment*

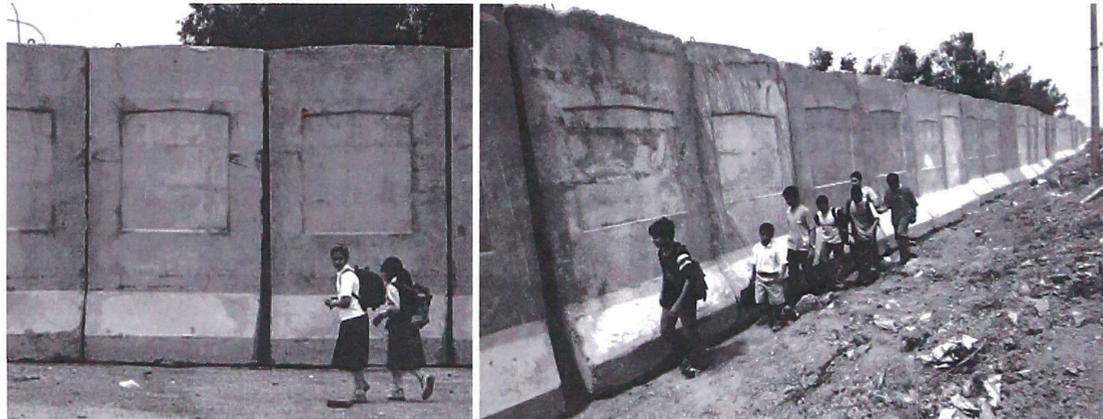
Detachment: The state of being physically, mentally or emotionally detached from people, places or events. For this state to exist, it must follow its opposing state of complete attachment

To be detached from a person, place or event, one must first experience the attachment and the importance of unity that contributes to one's source of social, cultural and historic identity within the given surroundings. Such high levels of attachment do not always lead to detachment and disappearance, but rather to a recreation and strengthening of the sense of identity by creating and occupying another image of the place or event. This is often due to the abrupt action of destruction or erasure of important elements that contribute to the overall identity of the city, including the image of the nation as a whole.

Detaching a district from its surroundings by setting up concrete walls; a method used by the occupying forces in order to control and limit unwanted activities from its residents by creating prison-like conditions at home.

(L) WALLED ADHAMIYA DISTRICT, BAGHDAD.
[rebellionation.blogspot.com]

(R) ADHAMIYA WALLED DISTRICT, BAGHDAD
[uruknet.de]



3A Poetics of Detachment

Nostalgic re-creation / The Spirit of Place Every city offers a sense of place to its inhabitants, a familiar comfort of knowing its elements, where they are located and for what purpose. Memory fragments involving those elements create an emotional attachment and ultimately become an undivided part of the total image of the city. Buck-Morss states: “The cultures that defenders of tradition look back with such nostalgia are the dream-form of the societies that gave them birth”³¹ Overall, nostalgic values exceed the visual, but are extended to include social, cultural and historical values that need each other to create the true spirit of that place. And the inhabitants add to it and maintain it by the continuous usage and movement through the layers of the known and familiar.



'CITY OF BAGHDAD'. NOSTAGIC SKETCH. R.AL-RAWI

³¹ Buck-Morss, Susan. *Thinking Past Terror*. op-cit. p.104

The result of the nostalgic memory could in many cases exceed the truth of the former existing condition; this exaggeration is a possible reason for the strong mental connections with such former conditions in their enhanced form and added value. When these elements are destroyed, the nostalgia for them remains by the layering of memory fragments as a means of recreating a space that no longer exists. But when the destruction of those spaces is done through acts of war, an even stronger nostalgic image results, due to the abrupt and sudden disappearance forced by un-natural and un-prepared-for acts of violence. Naturally, this leads to a strengthening of patriotism, which in turn, strengthens the attachment to the no-longer existent city elements. Examples of such elements could include symbols of nationalism like public gathering spaces or buildings that used to represent the unity within the city spaces; they could also be places of celebrating achievements enhancing the sense of belonging and pride of the inhabitants. Spaces, on the micro scale, that include monumental architecture provide objective and civilized thought to the citizens of surrounding areas, and can be carefully restored to their original shape and status. But when moving to the macro level of spaces destroyed by acts of war, spaces that include the old city fabric and make up, care should be taken not to repeat and recreate any exact original existence. Such acts do not always add to the social, cultural, historical or structural values of the city fabric, instead it can become a shallow interpretation of a pre-war state that does not



LIQA MONUMENT, MANSOUR
DISTRICT, BAGHDAD.
DEMOLISHED FEBRUARY 2010

communicate within the historical phases that occurred and changed that fabric. As a result such replica will only serve as a meaningless tourist attraction.³² This can also be applied to the micro levels of dwellings which are considered to be the generation point of the sense of belonging and fitting in socially and perceptually within a bigger environment.

For example in the case of the civil conflicts in the Lebanese capital of Beirut, an artistic project by Joana Hajithomas and Khalil Joreige rose through disrupting the picturesque familiar spaces of the city in the form of fire-damaged postcards. The images of the city's popular tourist destinations transformed into burnt ruins depicted the damage of the civil-war and its



WONDER BEIRUT. JOANA HAJITHOMAS & KHALIL JOREIGE

impact on the identity of the city.³³ This 'Wonder Beirut' project is a strong example of the layers of nostalgic fragments of the valued city images during and after the conflict phase of Beirut. On a larger scale, this artistic representation portrays the massive damage to the sense of nostalgia in the eyes of its inhabitants and visitors, ultimately detaching and affecting the site's sense of place.

³² Woods, Lebbeus. **War and Architecture**. op-cit. p.10

The city of Baghdad as a macro study offers us many examples of recreating the sense of patriotic attachment during and in post war times. Tom Vanderbilt explains this notion in describing the meaning and ways of re-use of the crossed swords monument in the capital;



CROSSED SWORDS MONUMENT, BAGHDAD. [www.globalsecurity.org]

“An absolutist regime produces absolutist architecture, after all, and nowhere was that better signified than in Saddam Hussein’s Crossed Swords Monument, fashioned from the melted metal of Iraqi weaponry, fastened with myriad helmets (some even functioned as speed bumps) taken from some of the one million soldiers who died in the Iraq-Iran War. Architecture or a gesture of war itself?”³⁴

A more recent occurrence of artistic additions in the capital is displayed on the 12 foot high concrete walls erected to divide and control the city. An image of public art is generated as a response to continuous, conflict-generating, armed control over places, people and events in the Iraqi capital. In this case of public art expression, overpowering concrete walls are camouflaged

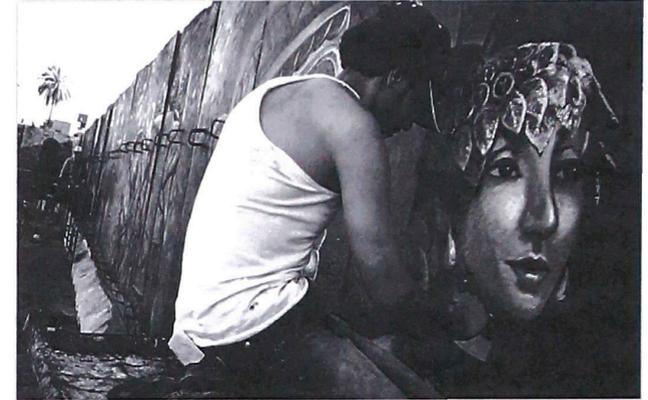
³³ Buck-Morss, Susan. **Thinking Past Terror.** op-cit. p.9

³⁴ Vanderbilt, Tom. **War as Architecture.** op-cit.



WALLED ADHAMIYA DISTRICT, BAGHDAD
[rebellionation.blogspot.com]

with images of Mesopotamian civilization history that is now Iraq, an imagery of temporary transition through the eyes of the passer-by that recharges the sense of nationalism and pride before quickly disappearing into the current reality of the conflict-filled city.



BAGHDAD ARTIST PAINTING ON THE CONCRETE DIVIDERS OF THE CAPITAL ALONG THE TIGRIS RIVER. [madsilence.wordpress.com]

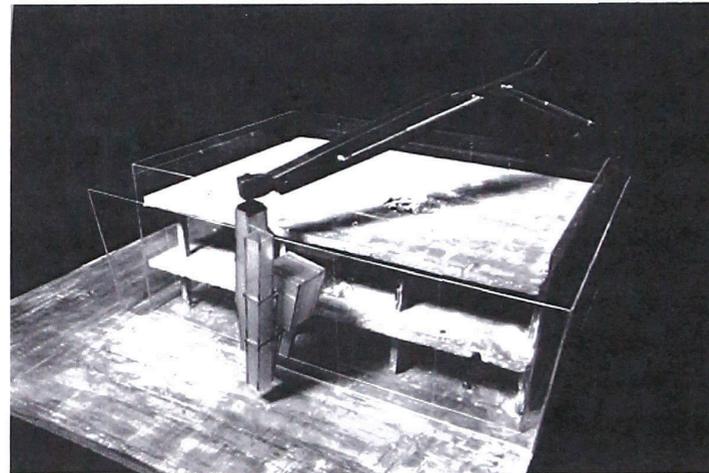
3B *Politics of Detachment*

Extent of Detachment

We have determined that it would be unwise to erase the destruction of 'war' through new historically disconnected structures for this could change people's perception of its meaning, eventually perceiving 'it' as a natural, justifiable act. Rather, a new form of architecture under the state of war could be embedded in the re-birth of the new structure as representing a previous time-line on the same site. The new phase could then be perceived as a natural progression to the development of the previously attacked site. Thus, architecture during war need not be an identical recreation in different conflict parts of the world, but could reflect every space taking into consideration its cultural and social history, while maintaining a culturally embedded sense through the duration of conflict and its future post war uses. For instance, a project of 'architecture of war' created to serve a residential area is different in program and

circulation from one that is developed for professional and service-based use. Even though this kind of design can maintain life and its development in a future context, it is important to recall that it is vital to maintain some retention of the conflict affected structures of cultural, social and historical importance to the city's identity.

A specific 1991 project geared towards post-civil war reconstruction in the Lebanese capital by Bernard Khoury, tests the extent of detachment between the conflict-affected structures and the choice of its re-inhabitation by those who experienced its destruction. 'Evolving Scars' is the translucent wrapping of buildings in Beirut that were damaged and partially destroyed during the

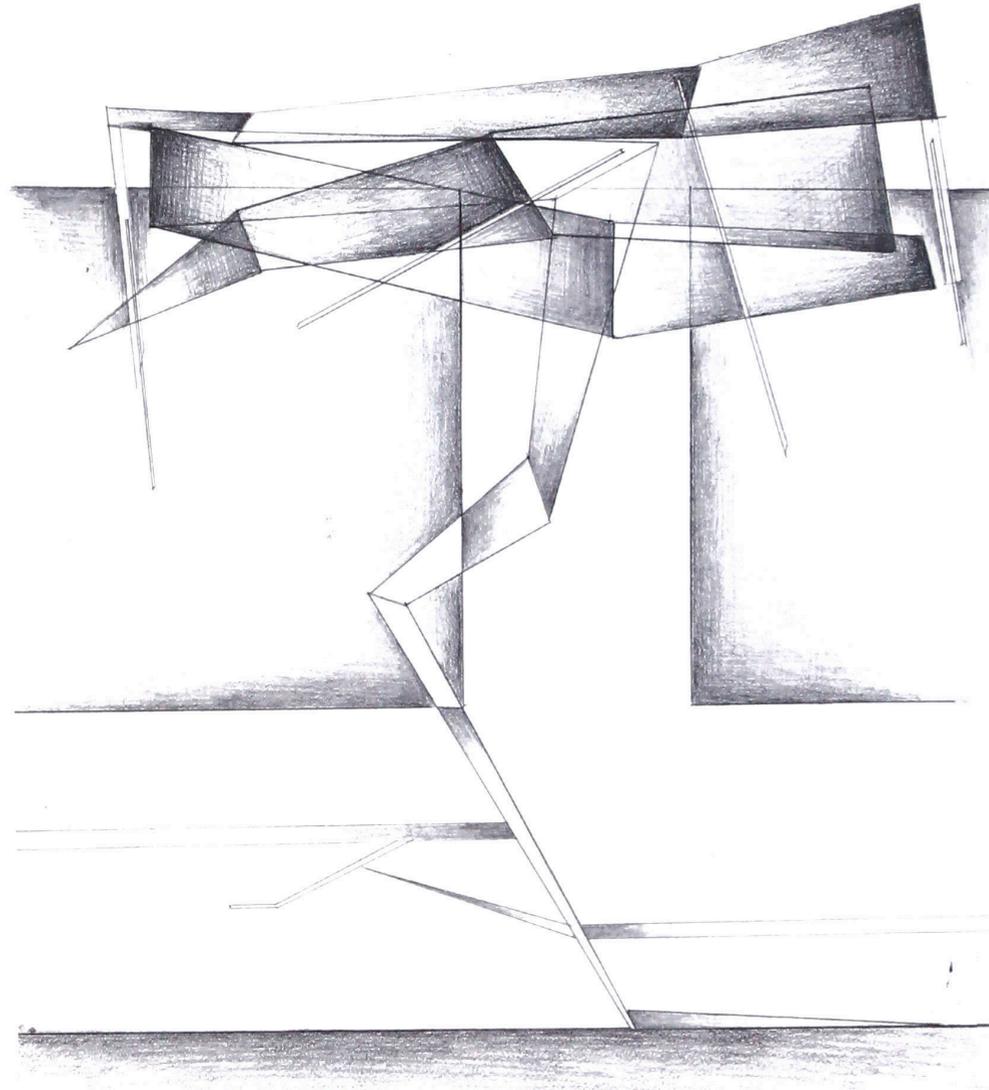


'EVOLVING SCARS' 1991, BERNARD KHOURY. (<http://yalibnan.com>)

civil-war, a notion which attends to history while the structure itself enters the new phase of post-conflict reuse. The architect explains "I look at buildings as devices, as active instruments that allow moments to happen, between people, between an individual and the built context he finds himself in."³⁵

³⁵ Lewis, Tom. *The Architecture of an Identity Crisis*. op-cit.

COILED COR-TEN PUBLIC OUT-DOOR STAGE.
RE-ATTACHMENT- 3, YARMOUK DISTRICT, BAGHDAD.
SECTION DRAWING. R.AL-RAWI



Chapter 4
Erasure

Erasure: The act of transforming an object/person from the state of physical vital existence to the state of complete deletion and disappearance.

Erasure is the act of transformation from the state of physical vital existence to the state of complete deletion and disappearance. This can be the expected outcome of detachment, or an operative and critical tool to achieve the final outcome of detachment. Regardless of the way it is perceived or used, erasure can produce many changing consequences for the society in conflict, its persons, places and events. Due to its flexible nature, erasure can vary from the erasure of parts of historical, cultural or social memory to the deletion



UNITED NATIONS COMPOUND BOMBING ATTACK, BAGHDAD, IRAQ 2003. STEPHANIE SINCLAIR.
[www.battlespaceonline.org]

of entire experiences, visual connections and identity, in order to serve another purpose. It would thus seem appropriate for us to derive the poetics of such erasure through the observation of processes that societies and buildings go through during such changing times.

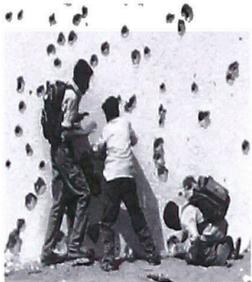
4A Poetics of Erasure

Poetics: The mental state affected by the psychological reaction towards forced erasure and detachment from the familiar elements of historical background, social perception and cultural identity.

Architectural Erasure Every civilization, when it reaches its peak, anticipates its downfall. Architecture is a strong element used to enhance and extend every civilization through history, by erasing the architectural conditions and elements. In this context war can bring on the beginning of the erasure of an entire civilization.

The architecture of cities can be seen as a power symbol or an indication of weakness and exile, depending on the peace or war conditions it is under. This can be translated, for example, by observing how photographs document *macro* and *micro* shifts through the years of conflict and attack. Mapping using such images show how urban fabric shifts to accommodate the exterior and interior, and impose new conditions. At the same time, there are records of how the structure was destroyed through the erosion of its ground condition. Thus, war can be an extension of architecture through its evolving time-line of peak and erosion, as it re-shapes new programs fitting the needs of that specific building phase and identity. This method of extracting the insides of the urban mesh architecturally becomes an operative means of renewal and continuity for both war and architecture.³⁶

³⁶ Virilio, Lotringer. **Crepuscular Dawn**. op-cit. p.26



BULLET WALL, ADHAMIYA, BAGHDAD
[rebellionation.blogspot.com]



CITY OF BAGHDAD UNDER ATTACK
2003 [www.reformation.org]



SHELTER NO25 ATTACK.BAGHDAD
[amiriya.blogspot.com]

Due to the destruction caused by war, the desire to erase the mental images of tragedy is a natural human reaction to the status of war and conflict. Efforts begin to create an urban fabric with regenerated interweaving threads of hope and unspoiled connections. Such desire however should be controlled so as not to exceed the limits of maintaining the layers of historical occurrences that must be maintained and age with the city itself. Otherwise, new renovations of the original city fabric and the necessary development of its events, can transform the planned into an inflexible cap of solid structures. These structures are then in danger of carrying no meaning or resonance of the place or its time.³⁷ The key to dealing with the abrupt erasure of valued city features and characteristics is surely to distinguish the required versus the possibly exchangeable within the effected city spaces. Through such filtering it is easier to maintain the many layers of development and history while pushing for the balance between the new and the old, the damaged and saved; between the necessary and excess.



DEATH OF AN IRAQI MOTHER [www.gettyimages.com]

³⁷ Woods, Lebbeus. **War and Architecture**. op-cit. p.8-10

Tom Vanderbilt discusses the strong visual and symbolic connection between imagery and architecture in his *War and Architecture*; “Imagery is another condition shared by war and architecture: just as most of us do not experience war, we often do not experience architecture, rather, we ‘know’ a building (through repeated transitions) via photography. But images do not just happen, they are created, and for a reason”³⁸. His approach to understanding the similarities between the imagery of architecture and the imagery of war for those who are fortunate, or unfortunate, enough to stay on the outer borders of such experiences, raises another question of the past and present states of architectural images and war images. How does such perception, through the visual, change and gain importance and, at times, a poetic significance as time passes? When the forgotten becomes remembered again, and looked at in a different light, when other elements of both architecture and war can be recognized and appreciated (perhaps even used to create the continuing phase of occupying such sites that contained those events of war and architecture) “what happens when imagery is removed? Left in the dark for decades? What happens when it is returned to light? ... it has been sanitized by time, rendered as a strictly historical document ... They saw in the blasts but (they never saw the ‘efforts’) - something else: perhaps a sublime beauty, felt perhaps an awed speechless and frightened reverence towards

³⁸ Vanderbilt, Tom. *War as Architecture*. op-cit.

mans' ability for self-destruction"³⁹ It is relevant to observe what is distant with a different light, as opposed to being actively involved and impacted with events and aftermath. Time, in this case, is the distance that offers the shift in perspectives and understanding of the scope of attack and recovery.

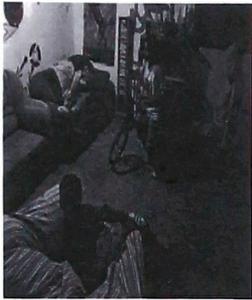
Such distance allows us to clearly compare the metaphorical connection between the shelter needed in times of conflict and how important such notions are to our existence. We see that daily methods to protect our own body from exterior elements using cloth can also be seen to transform into a thicker more durable materiality. This protects the same bodies from much more important elements, those of war and destruction. A comparison that finds a connection between a micro element like a drop of rain, and the other extreme macro elements like the acceleration of a deadly projectile.⁴⁰ Here the concept of the shelter in the broad sense relates to the specifics of our very own existence, where the architecture of protection becomes as necessary as the clothes we wear. In places of conflict, this type of architecture is mandatory and vital to the continuation of all the necessary aspects of living, be it physical, social, historical or cultural.

³⁹ Vanderbilt. **War as Architecture**. op-cit.

⁴⁰ Virilio. **Bunker Archeology**. op-cit. p.41-42.

In these vital cases, inhabitants of such conflicted sites need to make a quick decision; they need to quicken the process of adapting within such conditions of war and destruction. The adaptation stages, from observation to reacting to such destructive attacks, should result in effectively transforming the state of dwelling to shelter using the structure and what structures can offer as an available instrument. This then works towards creating a defensive architecture that mimics protection layers from the external elements, while taking into consideration the time factor, in most cases the main factor in the war scenario.⁴¹ The intentional destruction of structures by war and the attacks on humans through acts of crime are similar. Both are seen as objects of terrorism. Both achieve a certain goal. Both are targeted to the point of weakness guaranteeing a definite end to their function. And both can be seen as safe environments (persons) or objects to be destroyed and manipulated. But the remains of attacked sites always remind the viewer or what used to be, and how suddenly it changed. The effect of post war (crime) scenes can sometimes be more powerful on the mind of the inhabitant than the original form itself.

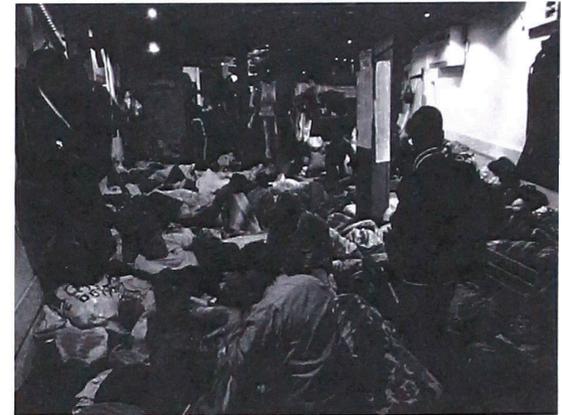
⁴¹ Virilio. **Bunker Archeology** op-cit. p.43.



BOMB SHELTER IN SOUTHERN TOWN OF NETIVOT, ISRAEL [ATLAS SHRUGS]

Dual use alternatives

Let us now consider in some detail the aspect of shelter, where the sole purpose is to shelter the most people in one structure and, at the same time, offers the maximum amount of security and safety under heavy war activity. When these shelters are crowded with those looking for safe inhabitation during the time between bomb warning sirens, it is then used, by



BOMB SHELTER, SDEROT, ISRAEL. DECEMBER 2008 [www.activestills.org]

default, as a social gathering space, a shelter of free communication and social activity between all ages, backgrounds and levels. Opinions are exchanged, games are played and food is shared.

In both examples of underground shelters and those above ground (Amiriya Shelter), after its destruction or its abandonment, remains of their structures and previous use become symbols, embedded with historical narratives. Some transform their rubble into memorials for those who lost their lives in structures that were meant to protect just that. This dual use continues even after their destruction, as erasure takes on the role of constructing a new sense of patriotism and remembrance. It is time for us now to ask this question, can it be taken further into participating in the renewal of the urban city fabric?



BASEMENT LEVEL. AMIRIYA PUBLIC SHELTER. BAGHDAD [amiriya.blogspot.com]

4B Politics of Erasure



GULF CONFLICT. IMPERIAL WAR MUSEUM, LONDON

Kill boxes & Media role

According to Vanderbilt; "Architecture, like war, is never entirely one thing. But a condition occasioned culture and history, mediated by time and opinion"⁴² Media plays an important role in influencing mass opinion, by displaying the actual as well as the collaged. But when the environment known to inhabitants is suddenly threatened and changed through the impact of attacks, not much time is given to understand thoroughly the reasons and complex justifications behind such destruction. Instead the angry observers of this environment tend to hold on to the singular image of stereotypes presented to them through the media. This image usually attempts to give back a sense of power and control as a reaction to the sudden threat and attack. Therefore, the role of the image in such circumstances becomes a dangerous introduction to a mass public stand, either encouraging ignorance towards others, or it then has the power to become a source of acceptance for global knowledge and understanding. As a result, such images can be the faulty justifications for more attacks abroad.

⁴² Vanderbilt. *War as Architecture*. op-cit.



THE NEW YORK TIMES – WTC REPORT [www.kiat.net]



SHOTS FROM THE MOVIE 'HURT LOCKER' 2009 BY KATHRYN BIGELOW

The images presented at times of attack and chaos embody animated cinematic properties, despite the real elements in their contents mixed with the already existing media-affected stereotypes. These offer the receivers a ready-made symbolic image in which to filter their anger and confusion.⁴³ In *'Thinking Past Terror'* Buck-Morss shows

that “when hegemony is under siege, when the imagined political landscape is under attack, there is little tolerance for complexity of meaning. But complexity is just what the diverse multitude in a global public sphere demands. Striking was the speed in which every image of the N.Y City disaster was reduced within a week to a single image: the American flag, and under it one caption; ‘The nation is under attack’. With brutal simplification, President G.W. Bush declared: ‘you are with us or against us’. Hundreds of thousands demonstrating for peace around the globe were simply ignored. Millions of critics of the US foreign policy at home and abroad were placed under suspicion.”⁴⁴ This sudden shift argues for a different form of erasure as the proper conduct of war and its considerations are disregarded in order to respond to sudden media ‘attacks’; as



AMERICAN SOLDIERS IN THE STREETS OF BAGHDAD, IRAQ.
[DEPUTY OF DEFENSE NEWS]

⁴³ Buck-Morss, Susan. *'Thinking Past Terror: Islamism and Critical Theory on the Left'*. Verso, 2003. p.26

⁴⁴ Buck-Morss, Susan. *Ibid*, p.27

Color-Coded

Security Threats:

After the WTC-911 attacks, United States Homeland Security produced a color-coded threat level advisory system to inform the public of future attack possibilities. The five part system ranged from (Severe) level in Red to (Low Risk) in green. www.dhs.gov

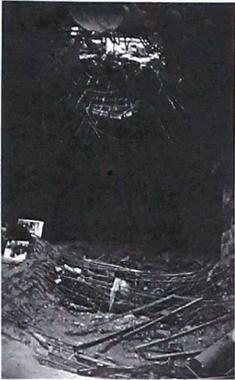
color-coded threat levels are forcefully projected through all the media outlets, brain washing the receiver into fearing constant threat from unknown sources. This transforms public opinion into a massive kill-box that would rather accept the targeting of another to save itself. Because the media combine both language and image, both necessary to be considered and used as weapons of perception and instruction, power polarises to control this media. It paves the way for quicker target approaches, regardless of the reasons behind such attempts. In recent modern wars, we see the difficulty of maintaining any consistent form of media reporting, due to the appearance of free communication networks which are not ruled by a higher political or influential authority. Therefore, ignorance is still a choice and maintaining it is quickly becoming inexcusable with all the available resources.



GIRL SCREAMING AFTER PARENTS KILLED BY AMERICAN SOLDIERS, TEL-AFAR, IRAQ.
[www.nytimes.com]

Kill-Boxes: Are areas as targets for external attacks by destructive weapons. The kill-box could vary from targeting persons, structures or entire cities as means for erasure.

But how do architects today see urban planning and how does it relate to the destruction of the urban fabric? Kill boxes, from a military point of view, are similar to urban clusters to planners when studying and designing city fabrics. There we notice a strong connection between the creating and destroying referenced by Virilio in relation to bunkers and the consideration of



SHELTER NO.25 BAGHDAD
[amiriya.blogspot]

careful design strategies used to avoid maximum threat as they hide within the landscape surrounding them.⁴⁵ A deeper meaning behind this retreat of inhabitation to the unseen and concentrated is seen as a reason for the increasing need of speed within the urban mesh. When cities exceed the expected velocity of any event, development or even under-development in any of the urban fabric elements, then automatically societies begin to retreat and be confined to architecture that protects them from the external attacks and speed of their impacts.⁴⁶ These attributes serve to create another metaphor (erasure) as those structures seek to erase their existence from the threatened surface or at least, temporarily detach themselves from the constant attacks. The way those city images are viewed and changed can apply to multiple sectors.

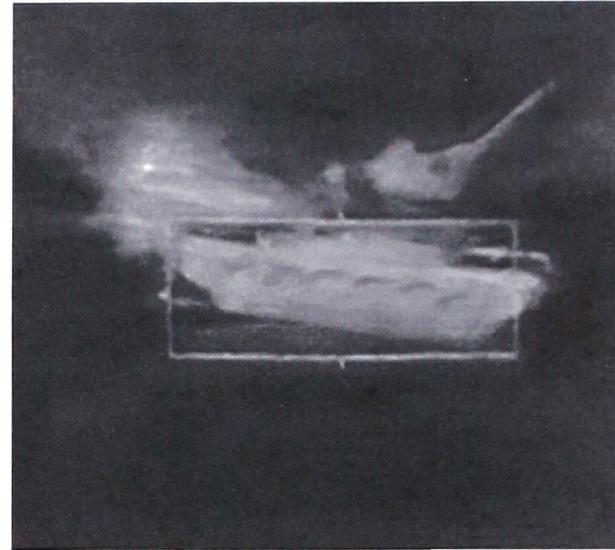
For instance, similarities can be found between war planning and architectural planning emphasizing the strong relationship between both their existences. When we observe the aerial plan of a neighbourhood block attacked by air military forces showing the target and its surroundings, we cannot help but notice an amazing similarity to the same scene shown by urban planners studying similar blocks of tightly-placed structures.⁴⁷

⁴⁵ Virilio, Lotringer. **Crepuscular Dawn**. op-cit. p.23

⁴⁶ Virilio, Lotringer. Ibid. p.150

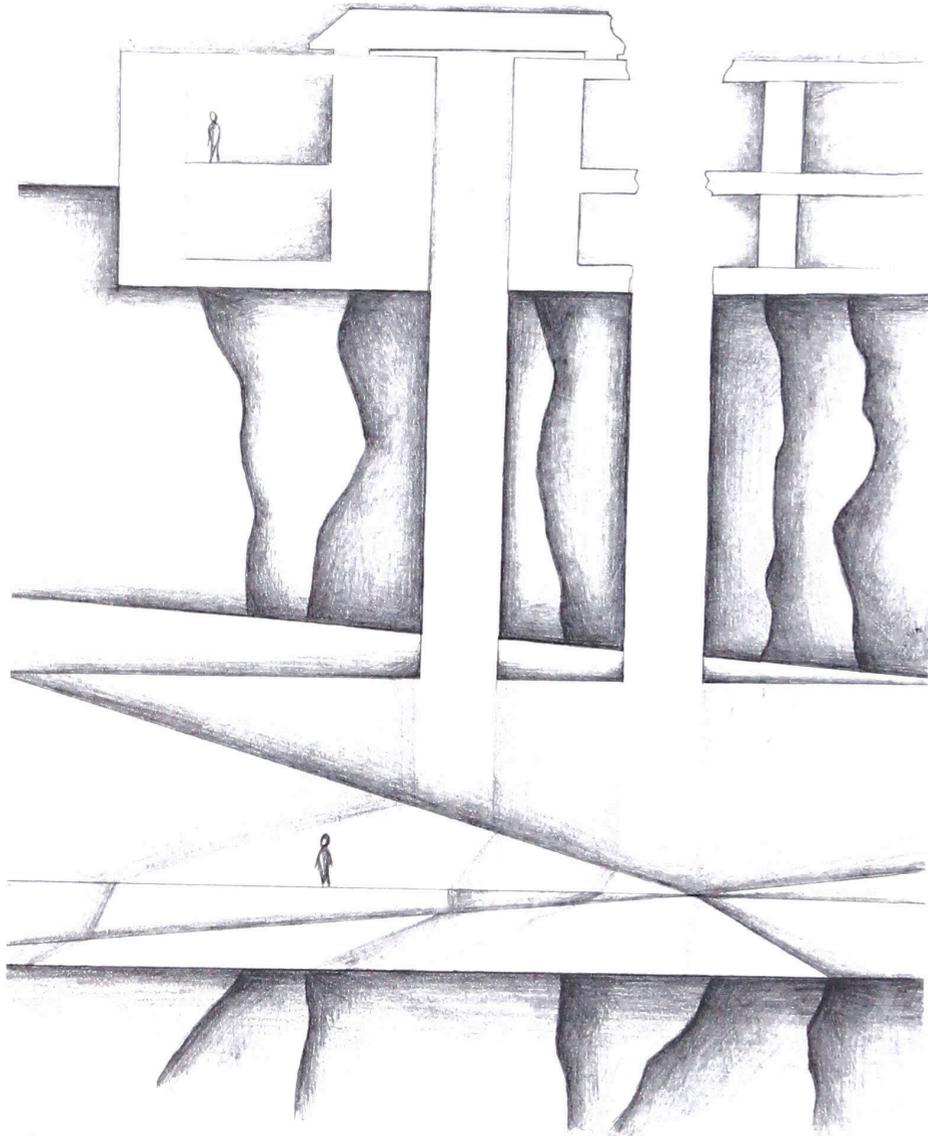
⁴⁷ Vanderbilt, Tom. **War as Architecture**. op-cit.

These similar approaches between architectural planning and its destruction directly affect firstly, the way we perceive the two extremes of the architectural role and existence and secondly, the media messages projected to those who are not directly involved, making the impact of war to the outer world less severe, merely targets to be destroyed like a computer game with scores escalating at the bottom of the screen. Those directly affected are cut from all sources of media; deeply submerges them in only the effects of the attacks.



'KILL BOX' JOY GARNETT, 2001, OIL ON CANVAS [www.artwyrk.org]

SHELTER NO.25 AND UNDERGROUND SPACES.
SECTION DRAWING. R.AL-RAWI

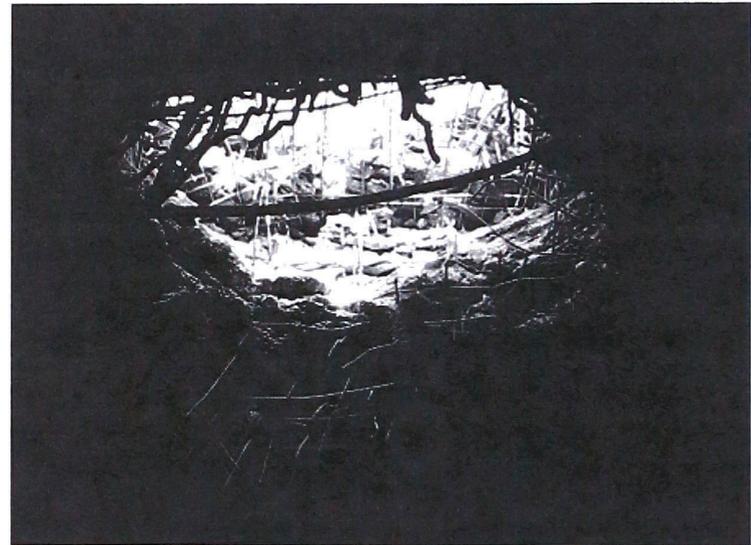


Chapter 5
Baghdad - Public Shelter No.25

The first bomb, which was especially designed for bunker structures managed to penetrate the ten feet thick reinforced concrete ceiling, while the second bomb followed the penetration path minutes later to enter the structure without resistance

“Destruction is no longer the outcome of blind rage, but increasingly a matter of meticulous calculation. Destruction has become an alternative architecture” Bouman, Ole. ‘The Architecture of Destruction’

5A The Place Al-Amiriyah Shelter, or Public Shelter No. 25, is a civic defence shelter located in the south western suburb of Al-Amiriyah in Baghdad, originally designed to take on any threat of nuclear attack on the Iraqi capital city. The shelter was used during the Iraq-Iran war and the Persian Gulf War by civilians, mostly the elderly, women and children. The square concrete structure is located in the heart of the Amiriya residential district, on a block along with a public school and the neighbourhood’s mosque.



AMIRIYA SHELTER CEILING. [Alamriya.blogspot.com]



STREET VIEW O SHELTER NO.25 SITE. [GOOGLE EARTH]

The purpose of the structure was recognized by the Human Rights Watch in 1991: "The Ameriyya Structure was plainly marked as a public shelter and was used throughout the air war by large numbers of civilians." HUMAN RIGHTS WATCH. www.hrw.org

For many residents of the district during the times of war, Shelter No.25 was a second home of safe refuge.⁴⁸ The lower floor of the shelter structure housed giant water tanks where cooking and washing took place, while the upper floors served as gathering and sleeping areas.⁴⁹



AMIRIYA SHELTER [SHELTER NO.25], BAGHDAD
[Alamriya.blogspot.com]

5B *The Event*

Tracing the smart bombs

On the 11th of February 1991, Al-Amiriya public civic shelter was added to the USAF attack list with the help of the CIA's National Intelligence Officer Charles E. Allen; a decision explained by stating that the structure was used as a bomb shelter. One day after the celebration of the Religious Holiday, Eid Al-Fitir, at 4:30 am, February 13th 1991, two GBU-27 laser guided smart bombs weighing 2000 pounds each were dropped successively on Public Shelter No. 25 by two United States Air Force (USAF) Stealth Bombers F-117. The first

⁴⁸ Asadullah, Ali. 'Remembering Al-Amiriya'. Feb.14th, 2000.

⁴⁹ Baroud, Ramzy. 'Horror Chamber: Inside the Al-Amiriya Shelter'. March 29th, 2003.

bomb, which was especially designed for bunker structures, managed to penetrate the ten foot thick reinforced concrete ceiling, while the second bomb followed the penetration path minutes later to enter the structure without resistance. As a result, the civilians residing in the upper floor died of heat incineration, while those on the bottom floor were killed by the three feet rising boiling water emerging from the explosion of stored water tanks.⁵⁰ Due to the protective design of the shelter, the exit doors were locked automatically when the first bomb hit the roof, leaving those who did not die immediately from the first explosion crying for help behind locked doors.⁵¹ Virilo's words remind us "The bunker is a kind of symbol of this century of concentration and elimination"⁵²; this calculated scenario of death played in few measured minutes, takes us from considering Al-Amiriya as an alternative social gathering and shelter space to a dry concrete box that existed merely as evidence of this horrifying attack.

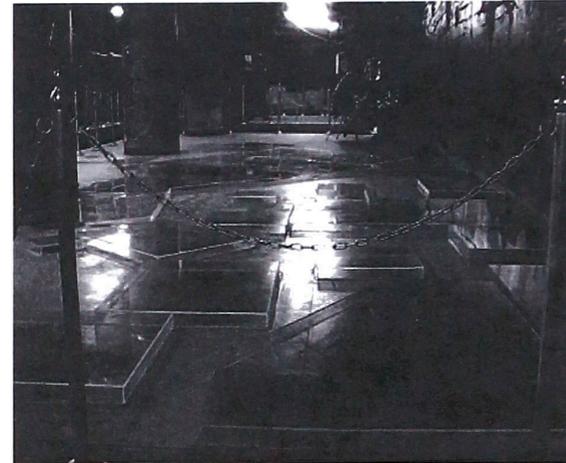


SHELTER NO. 25 RESCUE MISSIONS AFTER SMART BOMBS ATTACKS. BAGHDAD. FEBRUARY 1991. [amriya.blogspot.com]

⁵⁰ Atkinson, Rick. 'Crusade: The Untold Story of the Persian Gulf War' 1993, p. 284-285.

5C Post Event

The aftermath Today, Shelter No. 25 still stands and is a living display of the massacre. Currently, a memorial displays not only the framed pictures of those who lost their lives abruptly within it, but also human flesh impressions on the walls where victims struggled as died. The attacks on Shelter no.25 turn “the building into a shrine more visited than any architectural landmark known for its aesthetic merits”⁵³ Does this not prove the



HUMAN REMAINS ON THE AMIRIYAH SHELTER FLOOR. BAGHDAD, IRAQ.

[Amriya.blogspot.com]

importance of past events and their impacts on the identity of the affected urban mesh? More specifically, does this not put pressure on the architecture as it contains valuable story lines, narratives that eventually become linking phases between the structure’s previous purpose and its living memory? An Iraqi woman who lost an entire family of eight children inside, maintains the memorial and often tours visitors who are (even during electricity cuts) guided by sun light from

⁵¹ Baroud, Ramzy. **Horror Chamber**. op-cit.

⁵² Virilio, Lotringer. **Crepuscular Dawn**. op-cit. p.24

⁵³ Vanderbilt. **War as Architecture**. op-cit.

the bomb roof hole inside shelter No.25.⁵⁴ The perception of the shelter during and after the attack poses the question of the means followed to achieve the bombing of this civilian target. Like the photographers and videographers lined up minutes before bombing Hiroshima with the deadliest weapon known at the time, one wonders what those who planned and executed such actions think of the process. Is it unreasonable to say that those who achieved historically devastating goals did not think of the humanitarian circumstances? And if they did, it couldn't have been an issue major enough to stop such planned disasters.

Buck-Morss explains the visual perception of the decision makers, executioners and some receivers of such actions; "to see a photograph as purely symbolic rather than as a trace of the real. Is a reductive visual practice-shall we call it visual fundamentalism? Of course this practice precisely describes the American reception of photographs of the Gulf War a decade ago; 'smart' bombs that exploded human vehicles, houses and bridges like computer game targets, retreating Iraqi troops massacred as they fled; Iraqi women sobbing in grief for family members lost in brutal US bomb-raid on Amiriya Bunker in Baghdad."⁵⁵ These scenes of grief address the disengagement of the human emotion toward such images; this might be due to distance, disconnection or the mental detachment of such situations, leaving only the strategic perception of

⁵⁴ Baroud, Ramzy. **Horror Chamber**. op-cit.

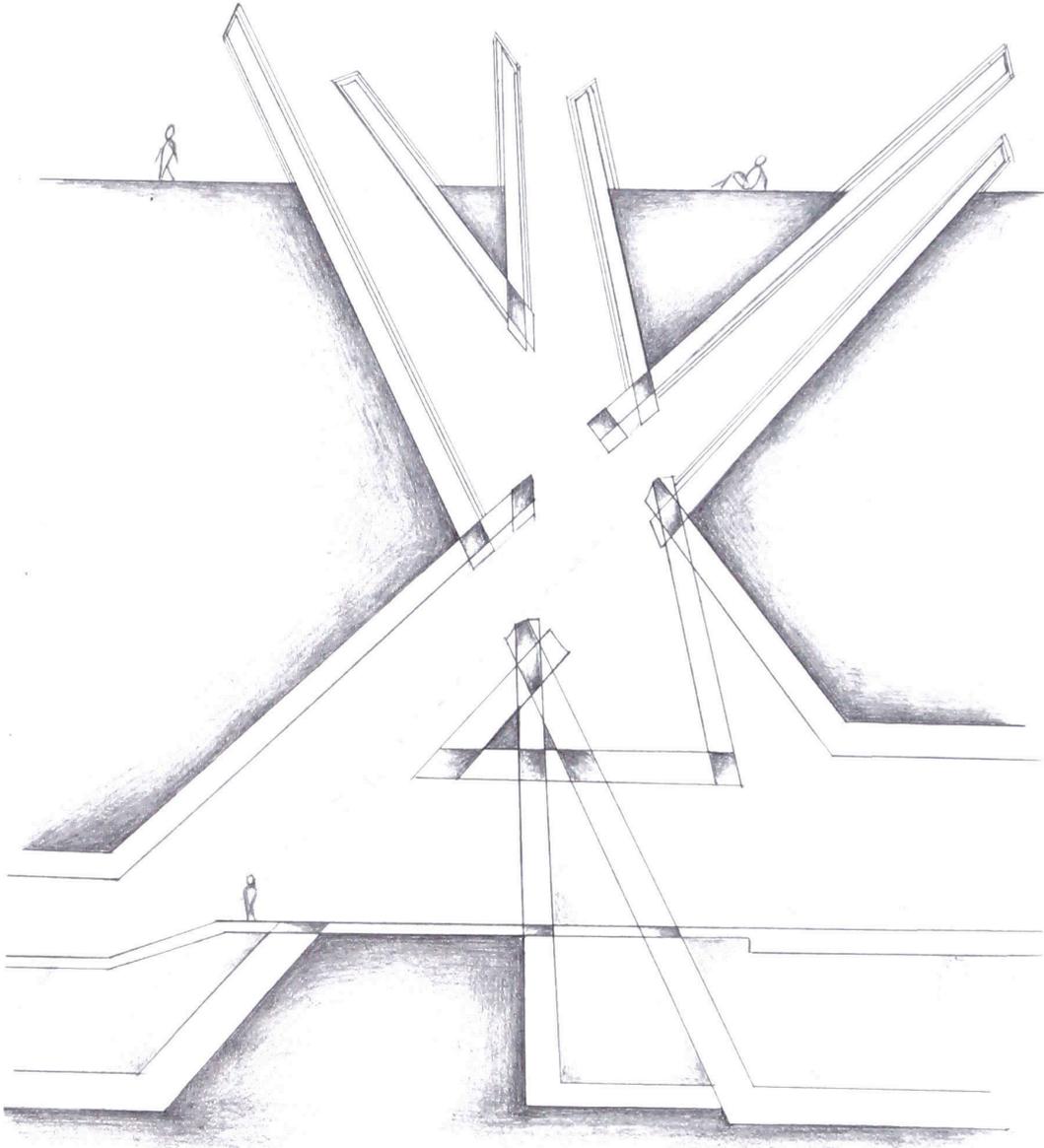
⁵⁵ Buck-Morss, Susan. **Thinking Past Terror**. op-cit. p.26

the political and military actions to be considered from the observers of war imagery. Using Virilio's detailed studies of bunkers where he explores the meaning of concrete bunkers in war time, even though Al-Amiriya bunker was inhabited by families who were in the position to make this structure a second home for living and social interaction, that did not stop the world from seeing what a bunker can really do in terms of confinement, and under attack; truly a modern container of testing the real war experience. "Let me remind you that the thinnest concrete wall of a bunker is five feet thick, and twenty feet of concrete for the submarine foundations. If there is one place where you're scared, it's a bunker. Virilio's studies of bunkers describe them as aspects of freedom, metaphors of fear and suffocation and a symbol of modern times.⁵⁶ It's not so much the density of the concrete itself that is frightening; it's the destructive power of the weapons used at the time. Concrete does nothing but translate the deadly power of contemporary weapons, tallboys, etc."⁵⁷ And Shelter No.25 did just that, a standing example of "total war" in all its meaning and outcome.

⁵⁶ Virilio, Lotringer. **Crepuscular Dawn**. ob-cit. p.23-24.

⁵⁷ Virilio, Paul & Sylvère Lotringer. Ibid. p.23

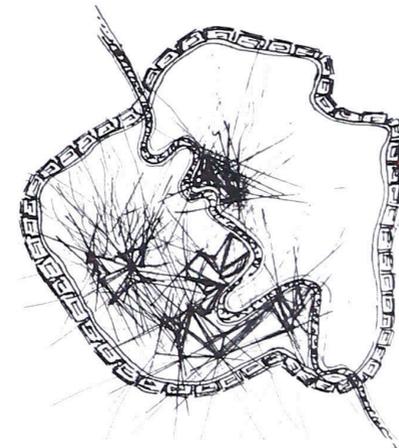
LIGHT COLUMNS SECTION DRAWING - RE-ATTACHMENT 2,
AL-MANSOUR DISTRICT. BAGHDAD. R.AL-RAWI



Baghdad Re-connected

The architectural manifestation of the *Architecture of War* translates on the large scale in the city of Baghdad through an underground layer of tunnelled spaces, cutting sections underneath the surface of the conflict-filled city. Such spaces can provide a safer refuge from major war attack methods (such as air strikes on ground targets) through creating open spaces for public use. Such solution can help with continuing the needed social and cultural functions that are hard and dangerous to carry on due to the lack of minimum security in Baghdad.

In consideration of the most destructive attacks on different districts of the city of Baghdad from the event of the bombing of Shelter No.25 in 1991 till today, a series of points start appearing in the macro mapping of the city, this project will attempt to start with Al-Amiriya Shelter No.25 site and continue from there to the rest of the city according to the mapped attack location. This *Scar Mapping* of the city helps determine the specific locations where the urban mesh can start establishing *Re-attachment Structures* on the city surface and underground, which help in restoring the city's architectural, social and cultural fabric.



CITY OF BAGHDAD ATTACK MENTAL MAPPING. R.AL-RAWI

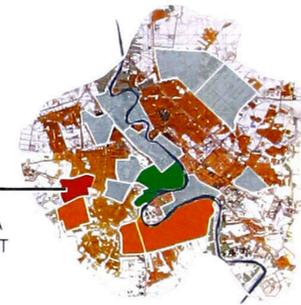
6A Site details & documentation



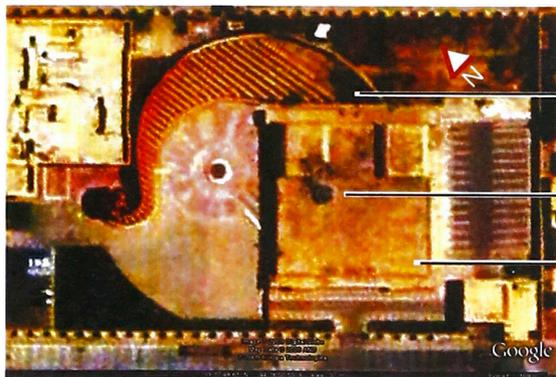
RESIDENTIAL SERVICE BLOCK



AMIRIYA DISTRICT



city of **Baghdad**



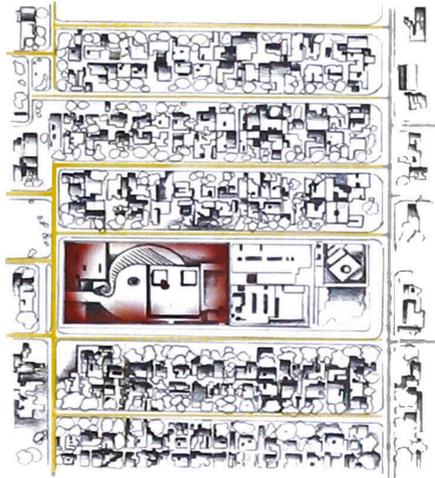
AMIRIYA SHELTER MEMORIAL

BOMB POINT OF ENTRY

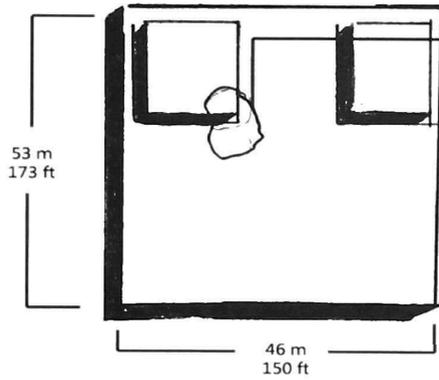
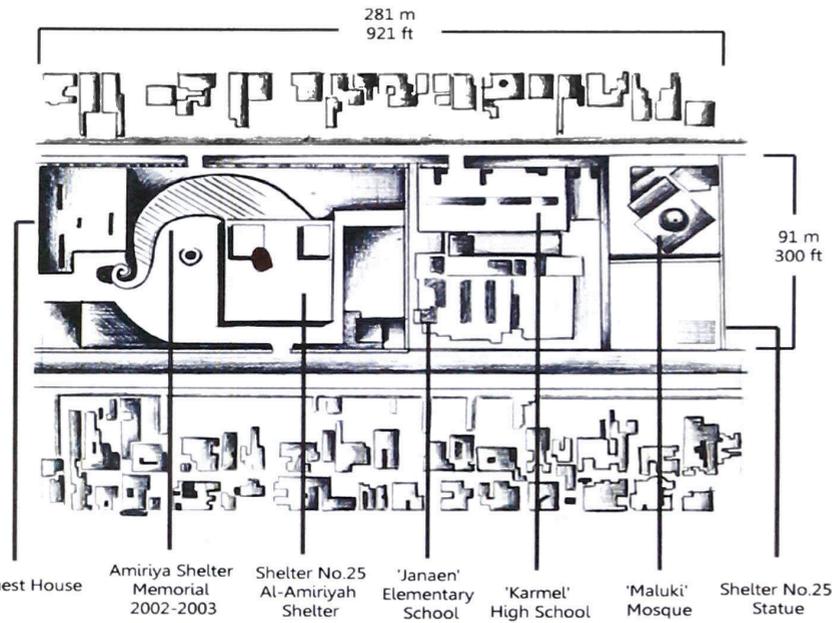
PUBLIC SHELTER NO.25



AL-AMIRIYA SITE ANALYSIS / SURROUNDING CONDITIONS [GOOGLE EARTH]

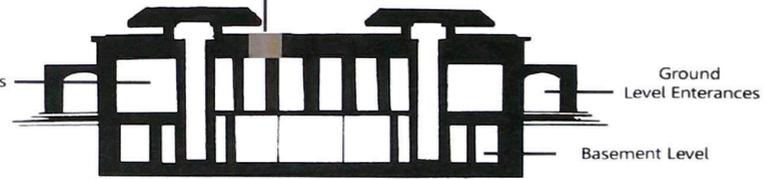


Al-Amiriya Residential District

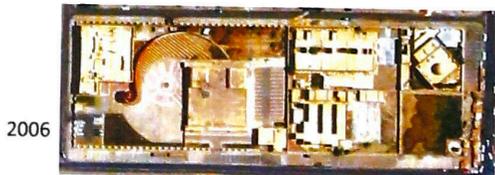
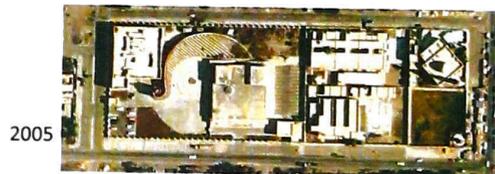
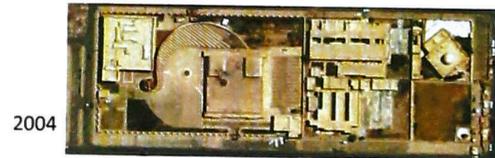


smart bombs
point of entry

Sleeping chambers
Main Level



THE AMIRIYA MEMORIAL / [SHELTER NO.25] IS LOCATED IN SOUTH-WESTERN BAGHDAD. THE TIGRIS RIVER AND CENTRAL DISTRICTS OF THE CAPITAL ARE TO THE EAST OF THE AMIRIYA RESIDENTIAL DISTRICT. THE MEMORIAL IS LOCATED IN THE HEART OF A RESIDENTIAL DISTRICT BLOCKS NEIGHBOURING PUBLIC SCHOOL BUILDINGS, AS WELL AS THE DISTRICT MOSQUE. IT IS IMPORTANT TO CONSIDER THE SITE OF THE SHELTER IN RELATION TO THE CIRCULATION GRID OF THE OVERALL CITY. AL-AMIRIYA DISTRICT IS BORDERED BY THE MAIN AIRPORT HIGH-WAY TO THE SOUTH, AND THE ROAD TOWARDS ABU-GHRAIB AREA TO THE NORTH. IT IS ALSO CLOSE TO MANY SOCIAL SPACES IN THE CITY, SUCH AS THE CAPITAL RACEWAY AND CENTRAL LOCATIONS TOWARDS THE TIGRIS RIVER.

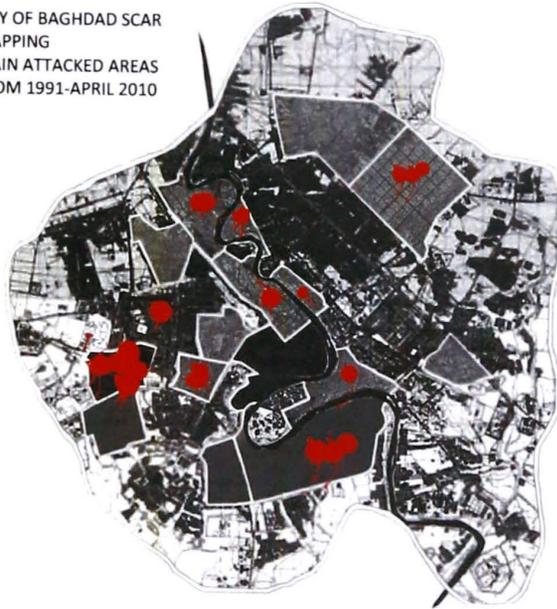


SHELTER NO.25 - EXISTING MEMORIAL TIME LINE STUDIES [GOOGLE EARTH]

6B Scar Mapping

Scar Mapping: Locating the areas of the city that are most attacked and affected by external forces of war and conflict.

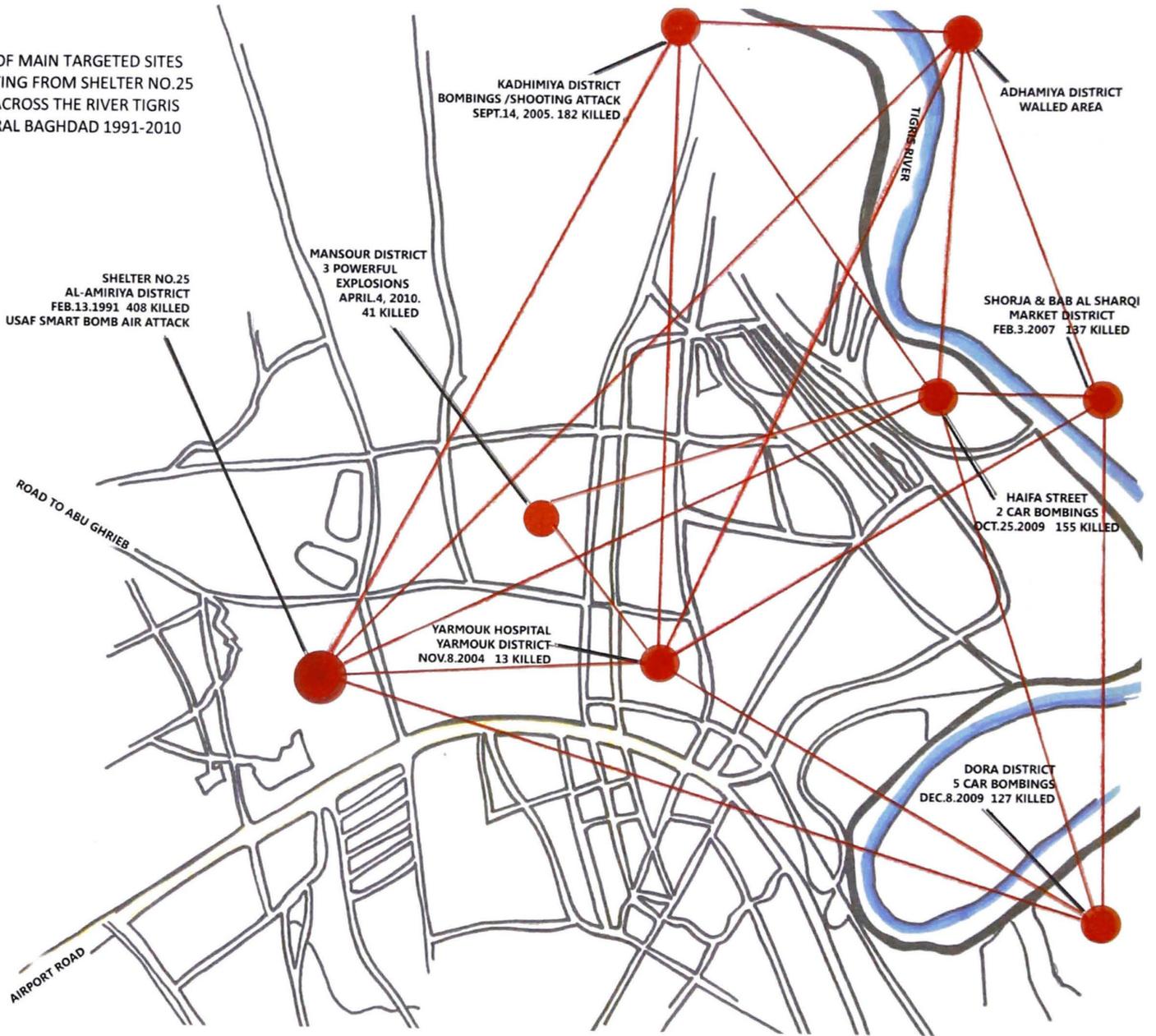
CITY OF BAGHDAD SCAR
MAPPING
MAIN ATTACKED AREAS
FROM 1991-APRIL 2010



SOUTH WESTERN BAGHDAD
KARKH DISTRICT
SCAR MAPPING: MAIN ATTACKED AREAS



WEB OF MAIN TARGETED SITES
STARTING FROM SHELTER NO.25
AND ACROSS THE RIVER TIGRIS
CENTRAL BAGHDAD 1991-2010



6C *Pre-emptive Architecture*

Re-attachment Structures: Are architectural symbols that mark the scar mapped districts of the city of Baghdad. Those structures mark outdoor multi-use public use areas and commemorate the past events of war attacks on their grounds. They are the centres of connection between the underground tunnel grids.

Web of vital paths intersecting at nodes of Re-attachment sites: Explored through centres that peak to the surface creating public spaces for multi-use purposes. Their roots are scattered underground, connected by corridors that pass through the shelter's site, creating, through it and around it, a much needed modern mesh of public spaces. While at the same time acting as shelters and testing the camouflage aspects of this kind of architecture, as it is disconnected from the exterior attacks and conflicts. These Re-attachment centres can draw their poetic properties from the bunker structure and its conceptual meaning.

Preservation of the shelter site with all its details: The detachment from the exterior conditions and demolition created by the corridors will be compensated by passing through the shelter no.25 site. Acting as an initial core to this specific site; the building and the experiences created within it will highly influence the design and public movement flow of the underground cluster.

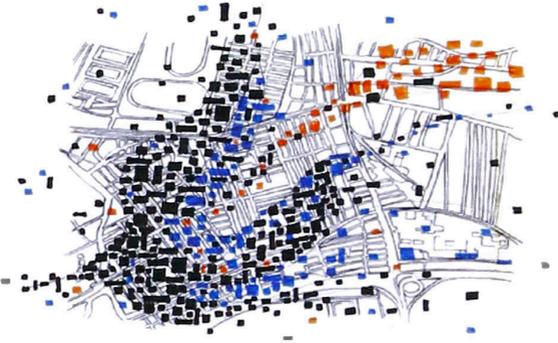
Cultural – 'nostalgic' spaces: Creating in the safer underground what is not possible on the targeted surface. In this conflict generated architecture, everyday activities that become hard to pursue can be mirrored and reflected in spaces of culturally familiar activity under the site and district grounds.



BAGDAD CITY MENTAL MAP / INTERPRETATION OF PUBLIC WEB MOVEMENTS AND CIRCULATION. R.AL-RAWI

AFTER THE SUDDEN ATTACK ON THE
NEIGHBOURHOOD PUBLIC SHELTER
THE AFFECTED SITES AROUND THE
TARGET WERE QUICKLY IDENTIFIED
BY AMIRIYA DISTRICT INHABITANTS

SOME INHABITANTS OF THE RESIDENTIAL
DISTRICT FOUND REFUGE IN OTHER SITES
WITHIN THE AREA TO ESCAPE THE AFFECT
OF ATTACK AFTERMATH

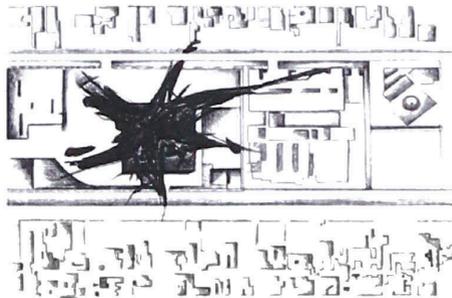


SITE: AMIRIYA PUBLIC SHELTER NO.25
& SURROUNDING RESIDENTIAL AREA

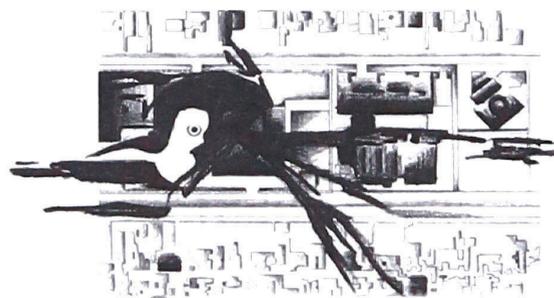
■ CONFLICT AFFECTED SITES
■ POSSIBLE RELOCATION SITES
■ POSSIBLE FUTURE ATTACKS

THE TWO SMART BOMBS TARGETED A SPECIFIC STRUCTURE WITHIN THE BIGGER RESIDENTIAL DISTRICT OF AMIRIYA IN SOUTH-WESTERN BAGHDAD

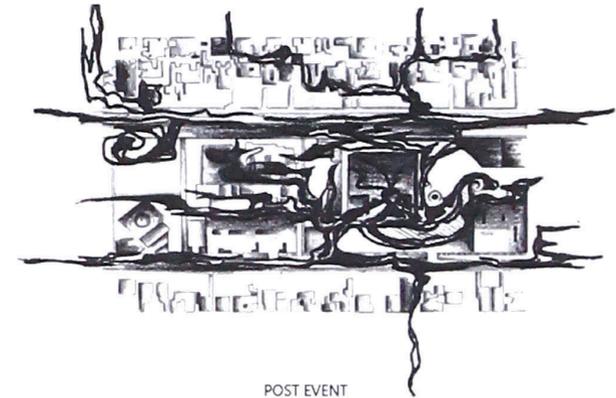
THE IMPACT OF THIS EVENT SEEPED INTO THE SURROUNDING RESIDENTIAL AREAS. THIS IMPACT INCLUDED PHYSICAL, MENTAL AND SOCIAL OUTCOMES DUE TO THE FACT THAT ALL THE WOMEN AND CHILDREN INSIDE THE SHELTER WERE RESIDENTS OF THE SHELTER'S AREAS, RUNNING AWAY FROM UNSAFE HOUSE STRUCTURES DURING THE LATE NIGHT/EARLY MORNING HOURS.



SHELTER NO.25 - EVENT



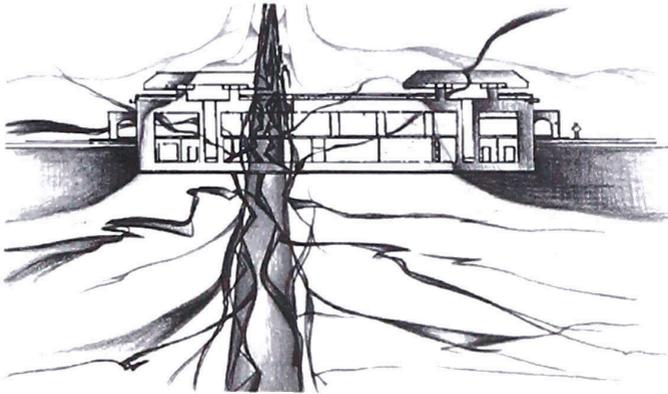
EVENT IMPACT



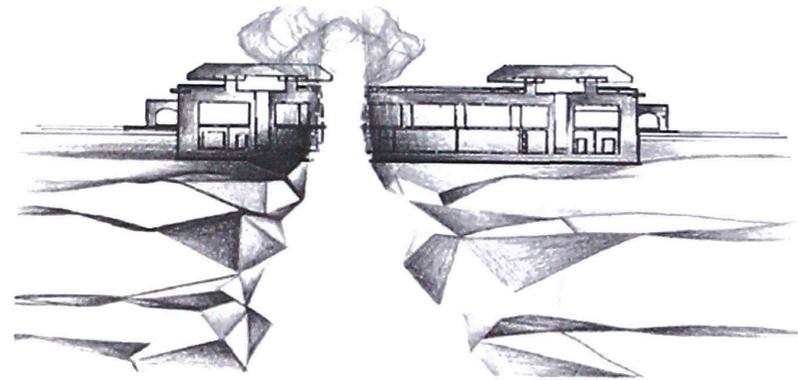
POST EVENT

THE EFFECTS OF THIS BOMBING HAS PENETRATED TO THE ENTIRE CITY OF BAGHDAD AND THE COUNTRY. AS ITS IMMEDIATE OUTCOME IS AN UN-DEVIDABLE PART OF THE CITY'S MEMORY.

THE ENTRY OF THE SMART BOMBS TO THE STRUCTURE OF SHELTER NO.25 CREATED A PASSAGE THROUGH THE CEILING TO THE TWO LEVELS OF THE BUILDING



SHELTER NO.25 SECTION: EVENT IMPACT SENARIO

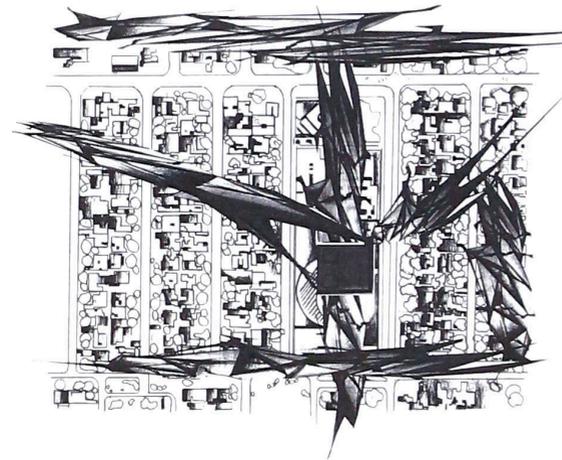


THIS EXISTING LIGHT PASSAGE THROUGH THE CONCRETE SHELL OF THE SHELTER ACTS AS A WITNESS TO THE LONG TERM IMPACT OF THE EVENT. IT SUGGESTS THE PENETRATION OF SUCH PASSAGE TO OPEN NEEDED UNDERGROUND AREAS STARTING UNDER THE SHELTER AND ADVANCING TO INCLUDE THE REST OF THE BAGHDADI CITY GRID.

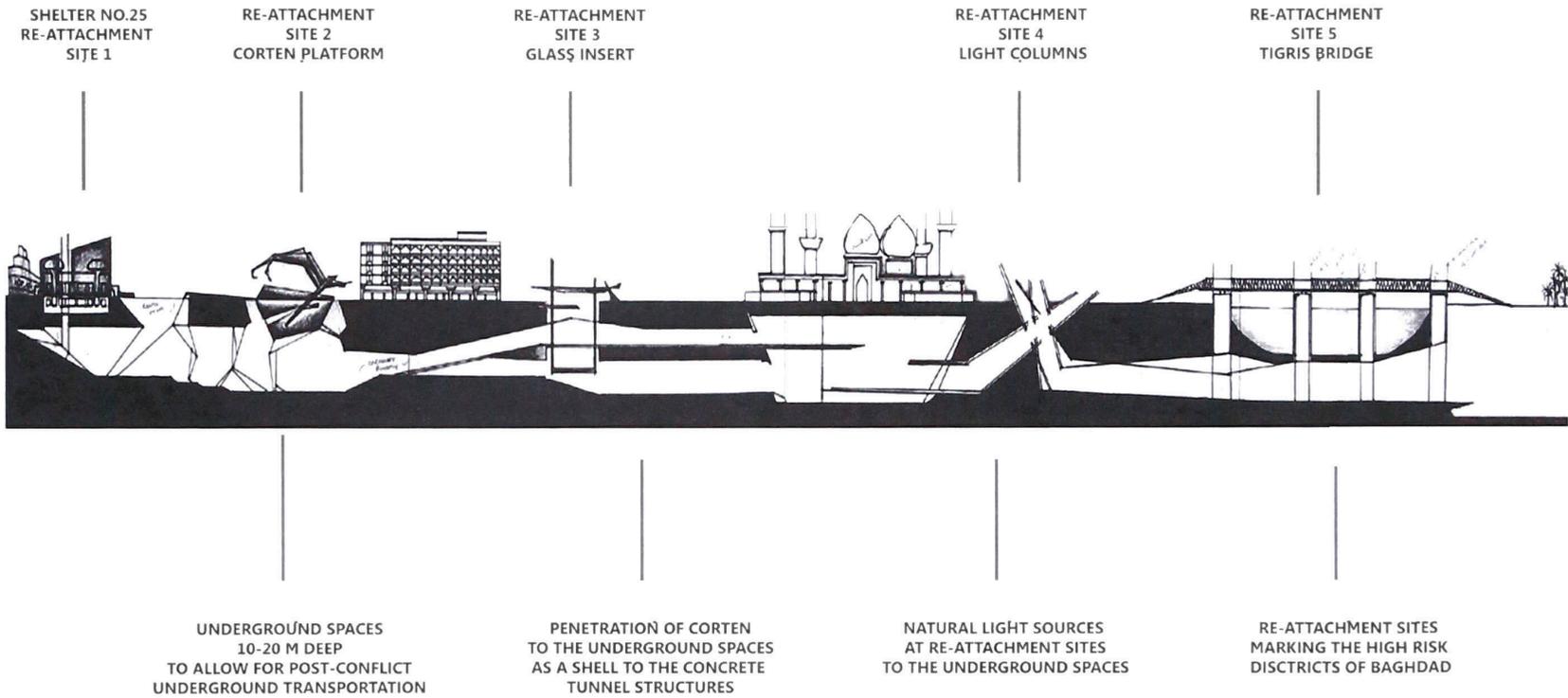
6D *Underground & Re-attachment Structures*

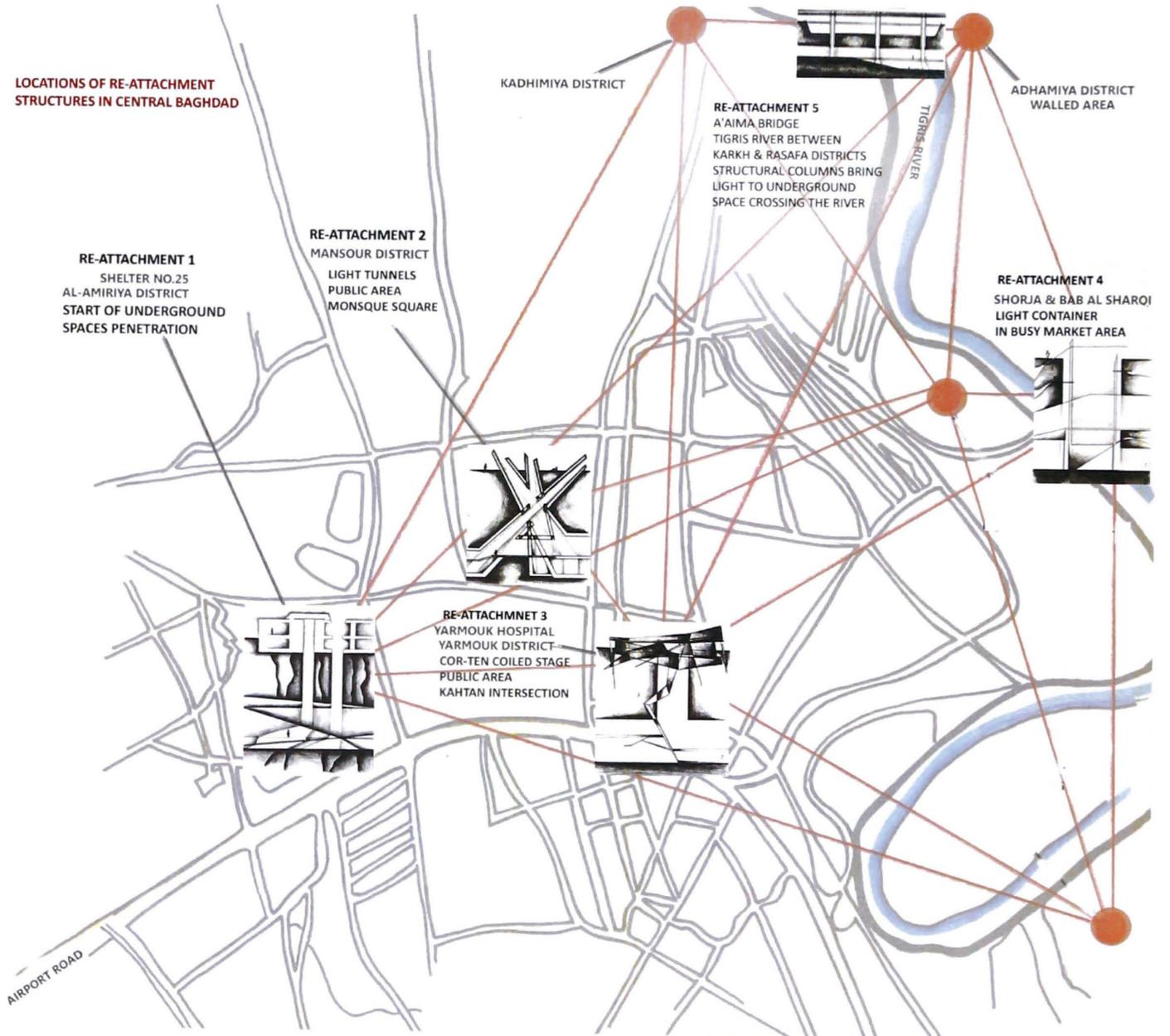


THE CONCEPTUAL DESIGN BEGINS WITH THE SHELTER NO.25 SITE AS THE CENTRAL CORE OF THE UNDERGROUND WEB OF ARCHITECTURAL CLUSTERS. WHILE MAINTAINING THE ORIGINAL MEMORIAL AS IS, A NEW FORM OF LIFE INHABITATION IS TO TAKE PLACE UNDERGROUND, STARTING WITH AMIRIYA SHELTER AND SPREADING OUT INTO THE EXISTING GRID OF THE CITY AS NEEDED.

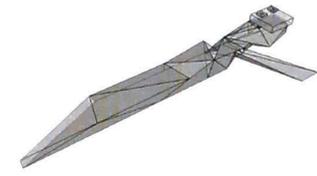
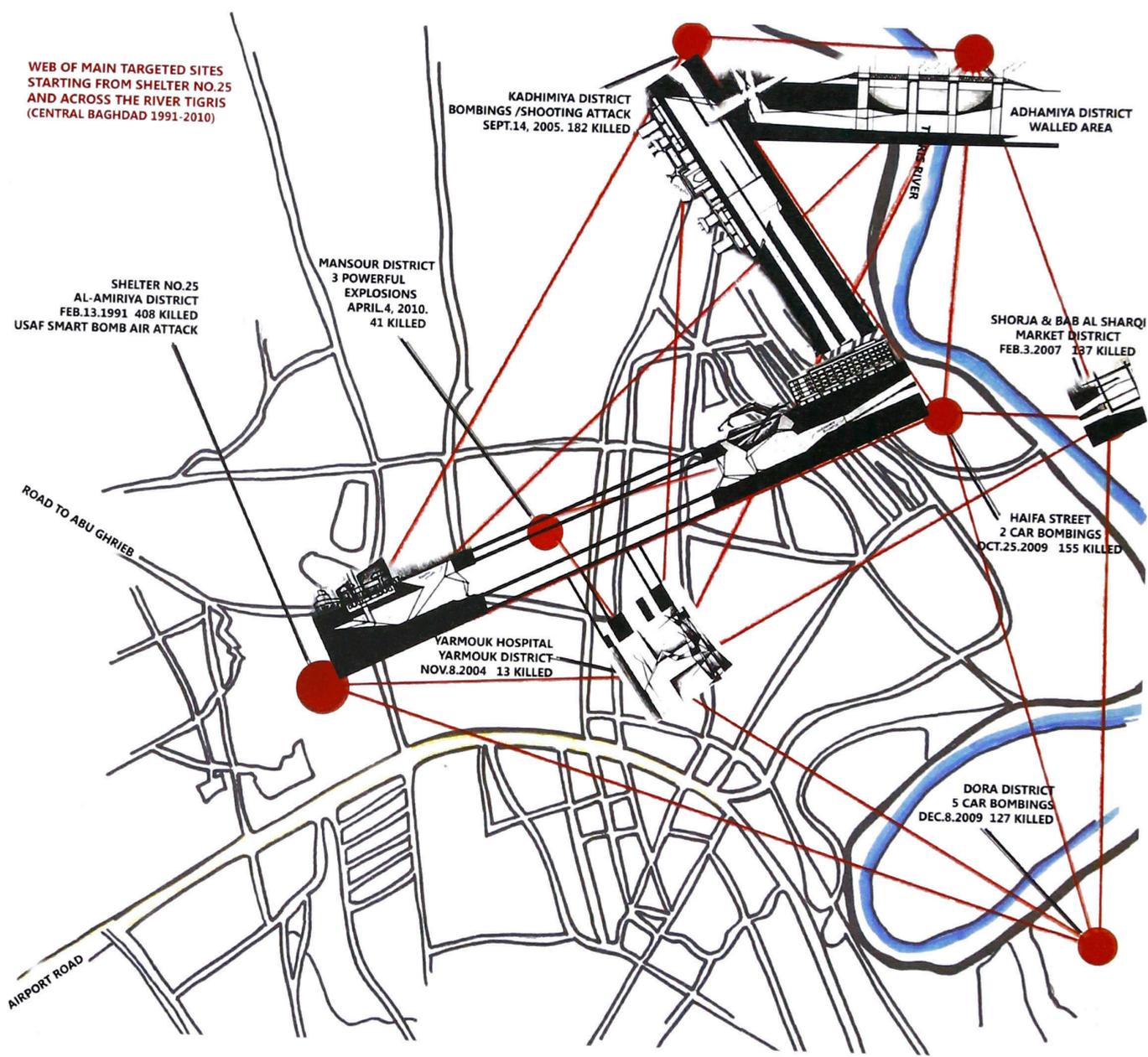


THE SURFACE GRID OF THE CITY ACTS AS A CAMOUFLAGE TO THE NEW UNDERGROUND CITY GRID, THE NEW FORM OF STRUCTURES ARE NOT TO FOLLOW THE EXACT LINES OF THE BAGHDAD GRID SETUP. BUT TO CREATE NEW WEB OF VIAS, MEETING AT THE VITAL POINTS OF EXISTING INTERSECTIONS.





RE-ATTACHMENT LOCATIONS ON CENTRAL BAGHDAD MAP. R.AL-RAWI

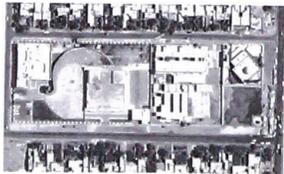
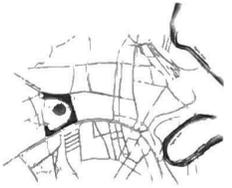
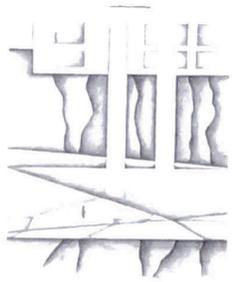


EXPLORATIONS OF UNDERGROUND STRUCTURES DESIGN

UNDERGROUND TUNNEL SECTION ON CITY WEB OF RE-ATTACHMENT SITE MAP, SOUTH-WESTERN BAGHDAD. R.AL-RAWI

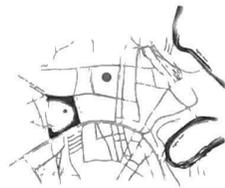
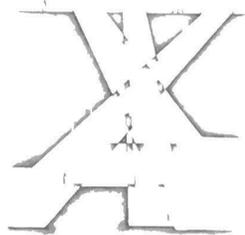
RE-ATTACHMENT 1
SHELTER NO.25
AL-AMIRIYAH DISTRICT

STARTING POINT OF UNDERGROUND STRUCTURE WHERE LIGHT PENETRATES TO THE SUB SPACES THROUGH THE BOMB ENTRY POINT OPENING



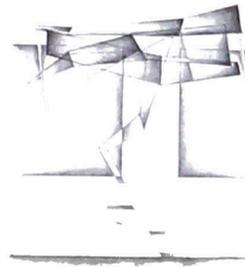
RE-ATTACHMENT 2
LIGHT COLUMNS
AL-MANSOUR DISTRICT

THE CONCRETE COLUMNS MARK THE SURFACE SPACE AS AN OUTDOOR PUBLIC AREA WHILE TAKING NATURAL LIGHT TO THE TUNNEL AREAS 20 METERS UNDERGROUND



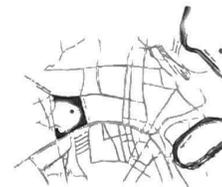
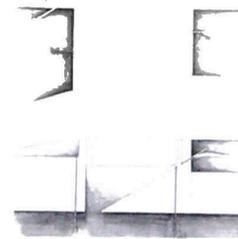
RE-ATTACHMENT 3
COILED STAGE
AL-YARMOUK DISTRICT
KAHTAN INTERSECTION

THE COILED COR-TEN STEEL STRUCTURE SITS IN THE MIDDLE OF A CIRCULAR ROUND-ABOUT IN A BUSY AREA OF CENTRAL BAGHDAD. THE STRUCTURE MARKS THE PUBLIC OUTDOOR SPACE AS IT AGES THROUGH MATERIAL TRANSFORMATION DUE TO WEATHER AND MULTI-USE



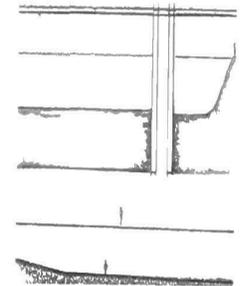
RE-ATTACHMENT 4
LIGHT CONTAINER
SHORJA DISTRICT

THE LIGHT CONTAINER HANGS FROM THE SURFACE TO THE TUNNEL SPACES TO MARK A POINT OF LIGHT ENTRY/ PUBLIC SPACE / AND A POINT OF UNDERGROUND TUNNEL MULTI-LEVEL INTERSECTION

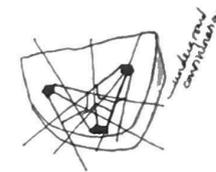
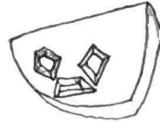
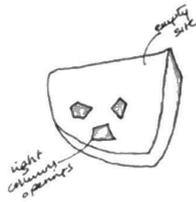


RE-ATTACHMENT 5
A'AIMA BRIDGE
ACROSS THE TIGRIS RIVER

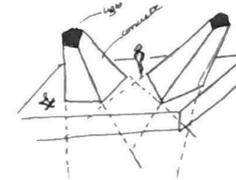
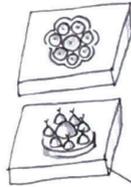
THE EXISTING BRIDGE CONNECTS THE 2 MAIN SIDES OF THE CITY (KARKH & RASFA) SPECIFICALLY LINKING KADHIMIYA WITH THE WALLED AREA OF ADHAMIYA. THE CONCRETE STRUCTURAL ELEMENTS OF THE BRIDGE ACT AS STRUCTURAL CONTINUATIONS AND LIGHT SOURCES TO THE UNDERGROUND SPACES CROSSING UNDER THE RIVER TIGRIS



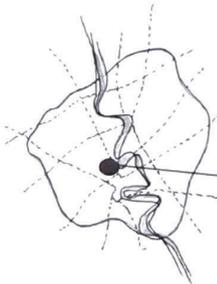
PARTIAL MOSQUE SITE IN MANSOUR DISTRICT WILL HOUSE THE LIGHT COLUMNS FOR THE CREATION OF PUBLIC OUTDOOR SPACE.



ONE OF THE 8 CONCRETE-CONSTRUCTED DOMES OF THE UNFINISHED MOSQUE, DESIGNED TO ALLOW LIGHT TO THE INTERIOR THROUGH SLITS WITHIN THE CONCRETE ARCHES, THE SAME CONCEPT USED THROUGH THE CREATION OF THE LIGHT COLUMNS TO ALLOW LIGHT TO THE UNDERGROUND SPACES OF THE CITY.



UNFINISHED SADDAM MOSQUE, PLANNED TO BE THE LARGEST MOSQUE STRUCTURE IN THE WORLD UPON ITS COMPLETION, INTERRUPTED BY OCCUPATION IN 2003.



RE-ATTACHMENT STRUCTURE LOCATION IN THE CITY OF BAGHDAD



RE-ATTACHMENT 2: STUDY MATRIX LIGHT COLUMNS

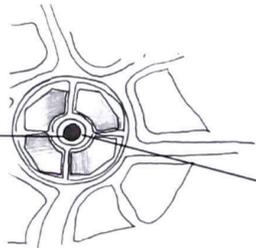
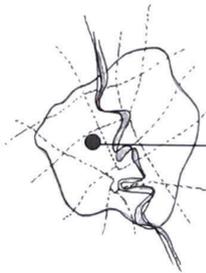
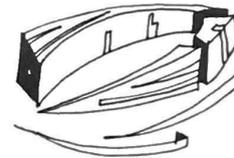
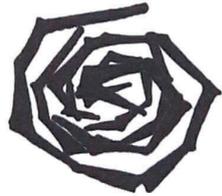
SITE: AL-MANSOUR DISTRICT, BAGHDAD
THREE CONCRETE COLUMNS MARK A PUBLIC OUTDOOR SPACE ON THE SITE OF THE UNFINISHED SADDAM MOSQUE. THE CONCRETE STRUCTURE PENETRATES TO THE TUNNEL SPACES TO BRING NATURAL LIGHT TO THE UNDERGROUND.



RE-ATTACHMENT 2 SECTION



THE COILED COR-TEN STEEL CAN TAKE ON MANY FORMS. THE RE-ATTACHMENT STRUCTURE CREATES A MULTI LEVEL STAGE FOR THE PUBLIC, NOT SECLUDED FROM THE BUSY TRAFFIC OF THE AREA.



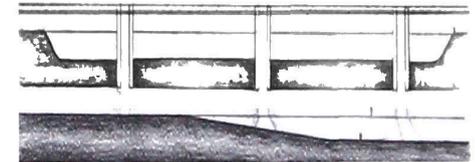
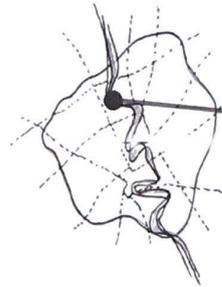
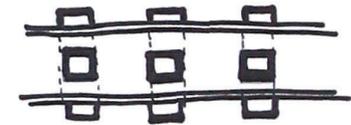
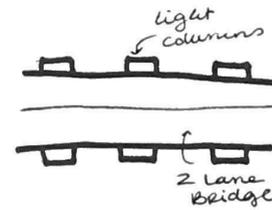
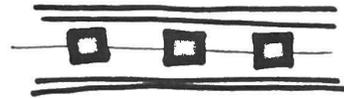
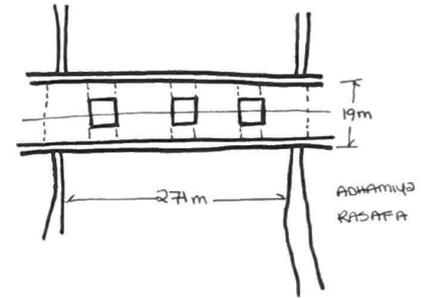
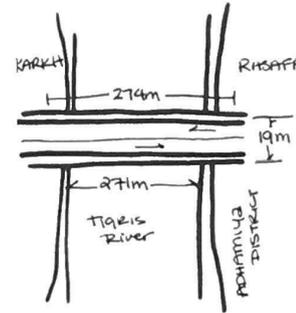
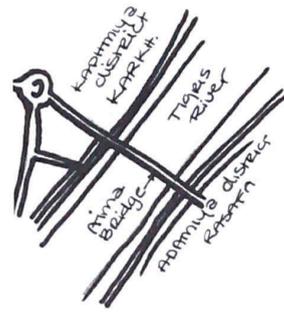
RE-ATTACHMENT STRUCTURE
LOCATION IN THE CITY OF BAGHDAD

**RE-ATTACHMENT 3: STUDY MATRIX
COILED STAGE**

SITE: AL-YARMOUK DISTRICT, BAGHDAD

COILED COR-TEN STEEL STRUCTURE SITS IN A ROUND-ABOUT (SAHAT KAHTAN). A BUSY CENTRAL AREA OF BAGHDAD WHERE IT MARKS AN OUTDOOR SPACE. THE STEEL AGES THROUGH TIME AN WEATHER CONDITIONS AND LEAVES ITS MARK AS THE COLOR STAINS PENETRATES TO THE UNDERGROUND SPACES.

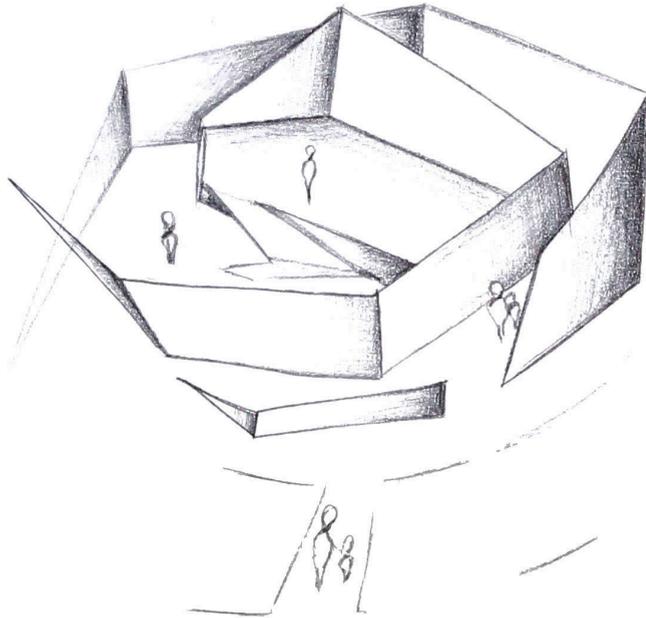
RE-ATTACHMENT 3 SECTION



RE-ATTACHMENT STRUCTURE LOCATION IN THE CITY OF BAGHDAD

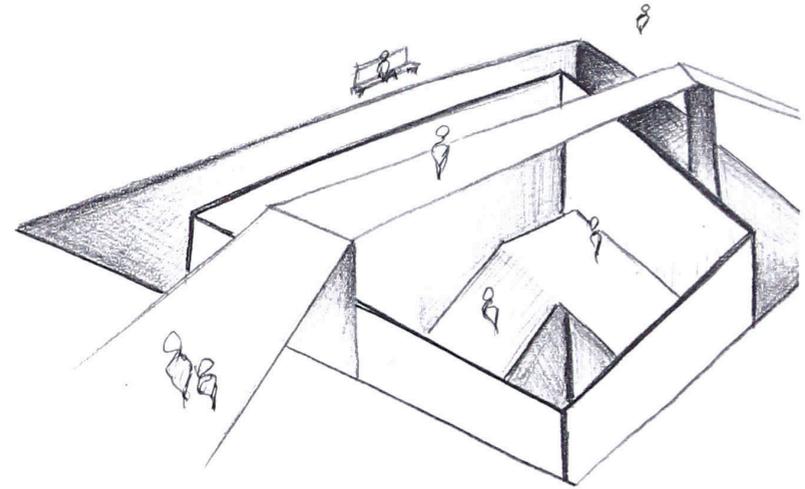
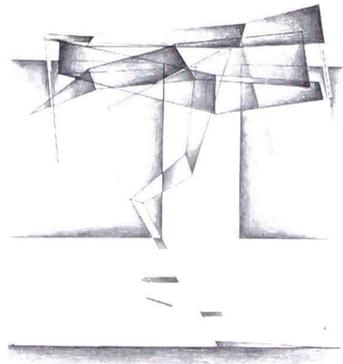
RE-ATTACHMENT 5: STUDY MATRIX
 A'AIMA BRIDGE ACROSS THE TIGRIS
 SITE: BETWEEN KADIMIYA & ADAMIYA, BAGHDAD
 USING THE STRUCTURAL CONCRETE ELEMENTS OF THE EXISTING 2 LANE BRIDGE TO SUPPORT THE STRUCTURE OF THE UNDERGROUND SPACES PASSING UNDER THE RIVER, AS WELL AS ALLOWING NATURAL LIGHT THROUGH THEM TO THE SUB-SPACES.

RE-ATTACHMENT 3 SECTION



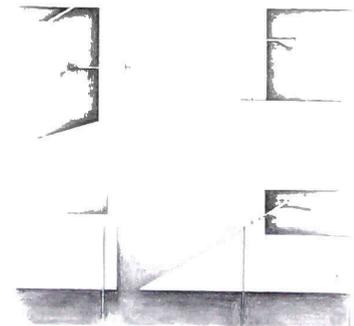
RE-ATTACHMENT 3 – COILED STAGE

LOCATION: YARMOUK DISTRICT
 OUT-DOOR PUBLIC COR-TEN STRUCTURE
 PERSPECTIVE & SECTION DRAWINGS

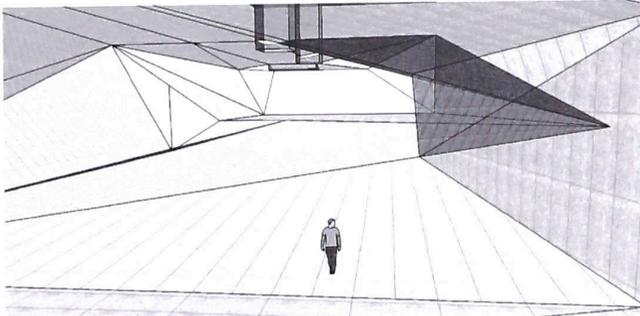
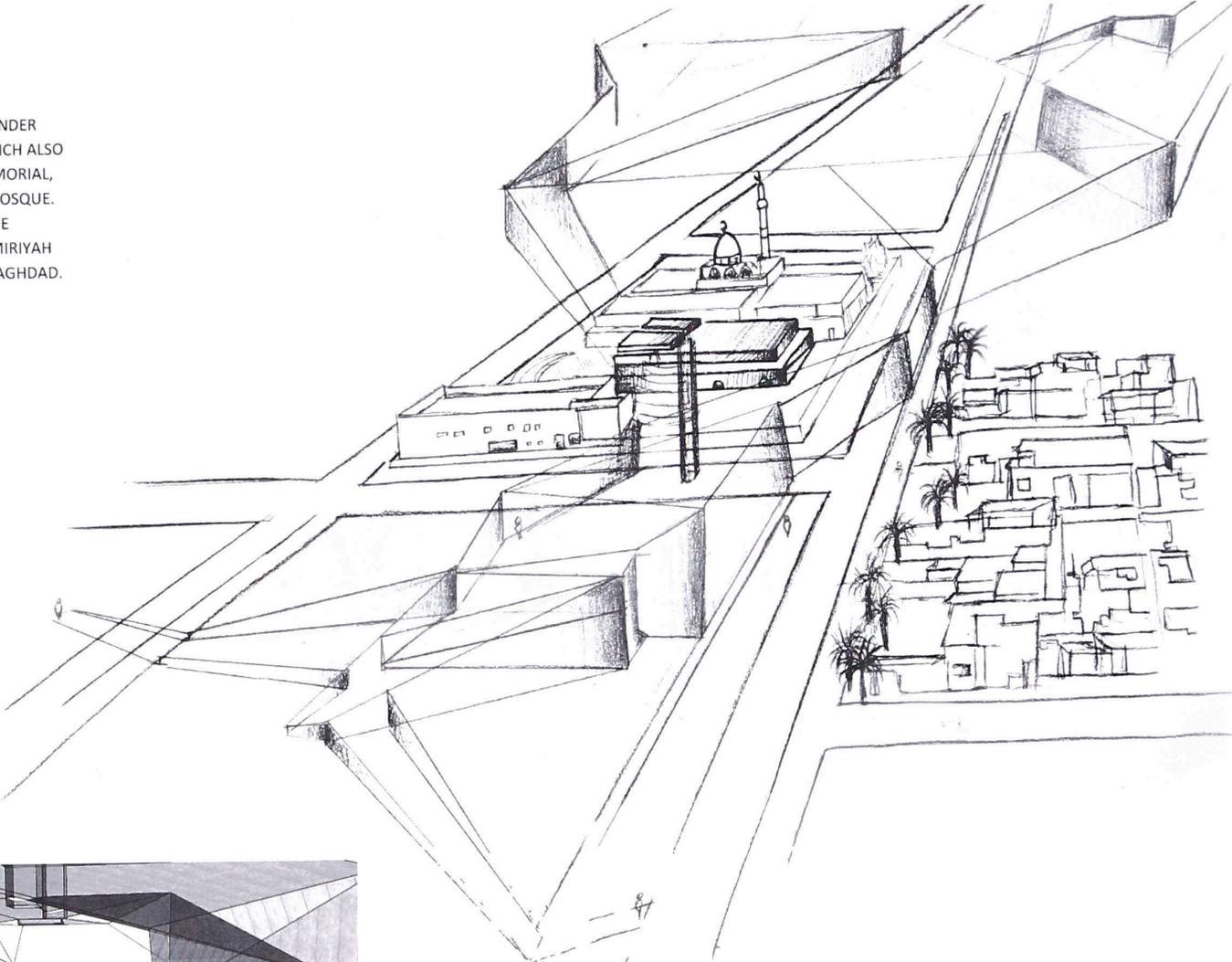


RE-ATTACHMENT 4 – LIGHT CONTAINER

LOCATION: SHORJA MARKET DISTRICT
 PUBLIC GATHERING SPACE
 PERSPECTIVE & SECTION DRAWINGS

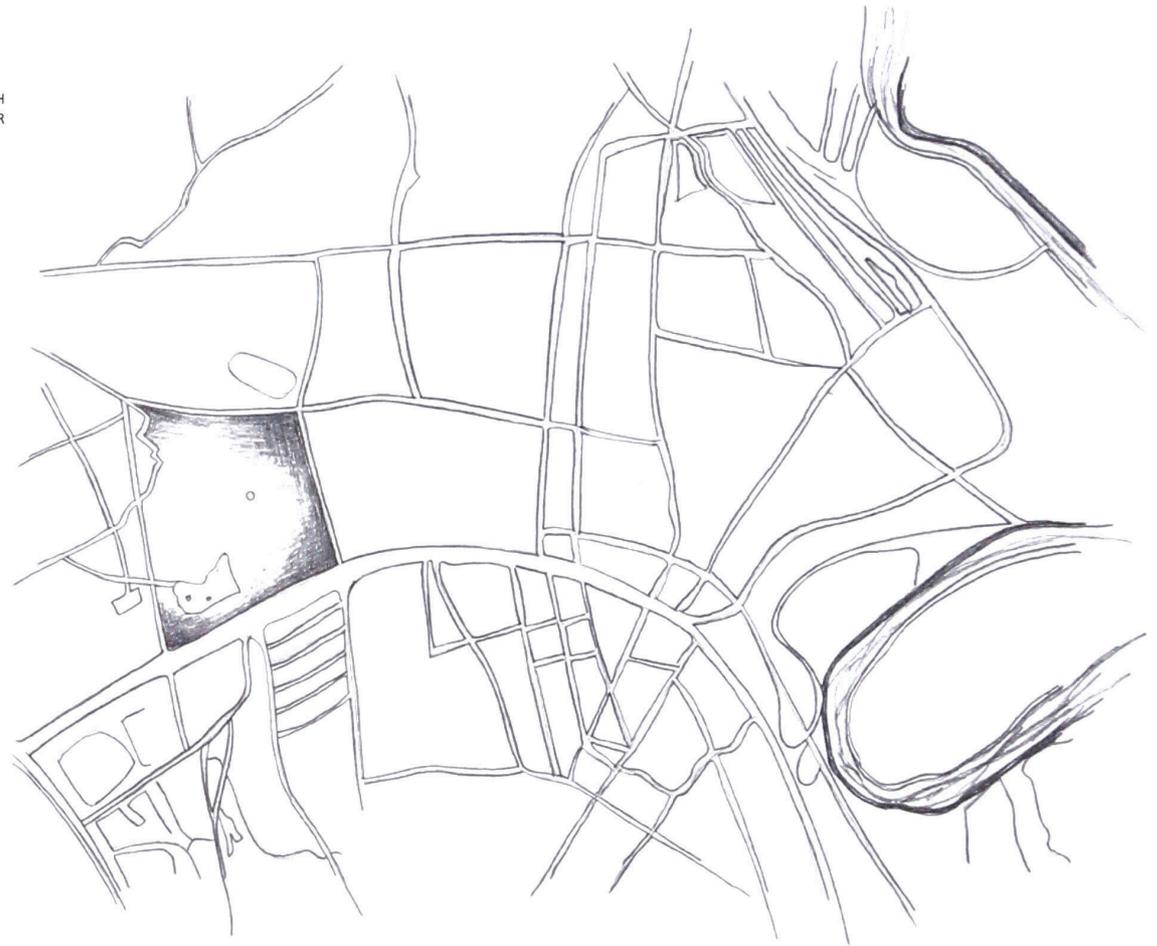


THE STARTING POINT OF THE UNDERGROUND STRUCTURES UNDER SHELTER NO.25 SITE BLOCK, WHICH ALSO INCLUDES A GUEST HOUSE, MEMORIAL, TWO PUBLIC SCHOOLS AND A MOSQUE. THIS CENTRAL BLOCK SERVES THE RESIDENTIAL DISTRICT OF AL-AMIRIYAH DISTRICT IN SOUTH WESTERN BAGHDAD.



UNDERGROUND SPACES UNDER SHELTER NO.25

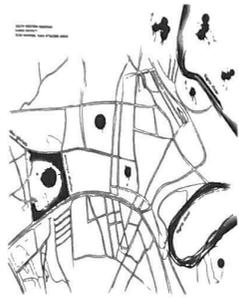
SOUTH-WESTERN BAGHDAD (KARKH DISTRICT) & THE TIGRIS RIVER



The Macro 'Conflict & Context' The *Architecture of War* represents a phase of history that is necessary to add a contemporary layer on the city of Baghdad as it rebuilds. Baghdad needs to generate its new skin of urban renewal. War remains are important to the uniqueness of the city and its inhabitants, preventing the city from becoming a picture perfect reconstruction of the past. In such a city – unlike many others - such structural souvenirs of war and conflict are not only welcome but blend with the movement grid and the overall civic personality of its inhabitants. Ultimately these are the events and factors that make or break great cities.

Making use of the proposed underground structures is a functional and operative tool to create a complex sub-web for the city of Baghdad according to the changing living conditions of a consistent conflict-aftermath. Such spaces can be efficiently used as a transportation web in the post-conflict era of the city in order to enhance mobility and circulation to and from the main city centres (through a future metro system as a post conflict plan).

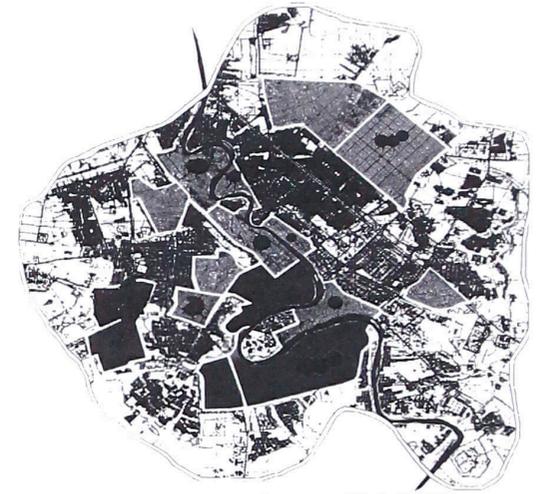
This approach will serve existing city needs as plans to construct an underground transportation system for the city of Baghdad were studied but never executed. In addition, such post conflict solutions can maximize the urban space needed for re-development as well as aid in the process of the new city construction. In addition these would prevent such underground spaces from becoming redundant when inhabitation becomes safe and functional on the surface once again.



SOUTH WESTERN (KARKH DISTRICT) SCAR MAPPING. BAGHDAD. R.AL-RAWI

The scar mapping of the city of Baghdad which determined the locations of the re-attachment structures is an on going process that can be developed continuously as the conflict resumes in the region as current signs indicate that the conflict will remain for some years to come. In turn, the overlapping of the scar mapping can effect the future ongoing development and endurance of the *Architecture of War*. The Re-attachments that peek outwards to the surface, as well as penetrating underground to accommodate circumstances of war and attacks, are structures of high risk for attacks due to their easy visual detection. In the case of their partial erasure, their remains and the resulting condition of their materials stand as a strong witnessing phase of nostalgia to the history of conflict and war in the city.

Architecture of War is a proposed architectural approach, directed towards cities of constant conflict, introducing a much needed *Provincial Architecture* mentality in design and subjected to planning architects of our time should start considering on *macro* city scales. Baghdad presents the perfect condition for this new form of practice due to the available social, historical and site conditions which provide elements for new architectural planning approach.



BAGHDAD CITY SCAR MAPPING [1991-PRESENT]. R.AL-RAWI

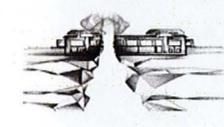
Epilogue

The complex conflict in Baghdad is definitely an ongoing one. Only a few days ago new media footage was released of US military air strikes against twelve unarmed civilians gathering in a public area in central Baghdad. The attack resulted in their immediate unjustified deaths. Seven destructive years passed to mark the newest war-filled era in Iraqi modern history which started on April 9th, 2003. The magnitude of loss and erasure surpassed all expectations, but the continuation of the current conflict is no surprise. In cities like Baghdad, it is our responsibility to adopt a new form of practice that advances by its treatment of the conflict-filled sites and proceeds just as fast and effective as advances in technology and urban planning implemented in many cities today. Such an *Architecture of War* as a new mode of practice is a necessity in order to adapt and continue under the imposed war situations. Instead of the negative affects of war on the inhabitants this architecture offers an approach for vibrant solutions to living under the condition of the unknown end of violence and war.

cluster of thesis structuring



joana hadjithomas and khalil joreiges -Wonder Beirut-



'Thinking past terror'
Susan Buck-Morss



'Warchitecture'
Koolhaas / Budd / Sterling

'Violence'
Slavoj Zizek

'Arch. of Destruction'
Ole Bouman

'Conflict in Cities'
Wendy Pullan

'The Biopolitics of Baghdad'
David Gregory

'War & Architecture'
Lebbeus Woods



working contents:
1 conflict - war
2 detachment
3 erasure
4 mapping - Baghdad
5 public shelter no.25

working vocabulary:
conflict / war / detachment /
erasure / demolition /
nostalgia / shelter

main ideas:

arch. of war = usable arch.
during state of war maintain
the needed normal everyday
activity / does not erase the
distruction of war or change
the perception of its meaning
to eventually justify it / erasure
of architecture by war / media
effect/imagery/nostalgia /
Amiriya Shelter/ site specific
architecture / cities of conflict;
Baghdad, beirut

Macro: Baghdad
Micro: Amiriya Shelter
[Shelter No.25] / bunkers
underground Shelters

Evolving Scars + B018
Bernard Khoury-Berlut



underground cities
Capadokkia+ swiss bunkers



influence of war on arch. & vice versa
usability of arch by the public /
specifically; a city of constant conflict
in its modern history /
the conceptual values of stuctures
under the state of conflict and demolition
macro: Baghdad
micro: public Shelter no.25: shelter
attacked by smart bombs '91-408 victims /
how can it contribute to a new form of arch.?

close look at the victim experiences inside pulic
shelter no.25 / transform these humanitarian
experiences into a new form of arch. usable
under war, erasure, detachment & demolition
while keeping existing memorial / site specific
to maintain the urban mesh that contains social
and cultural values need under constant shifts
and pressures



working contents:

- 1 Baghdad - context & conflict
- 2 conflict - war impact / role of conflict-born arch. usability
- 3 detachment poetics of detachment [nostalgic recreation / spirit of place] politics of detachment [extent of detachment]
- 4 erasure poetics of erasure [arch erasure / dual use alternatives] politics of erasure [kill boxes / media]
- 5 Baghdad - public shelter no.25 place/event/post event
- 6 post-script: the macro - conflict & context
- 7 project of architecture site details and future anticipated program



Esma Sultan Yalisi - Istanbul

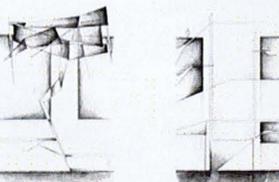
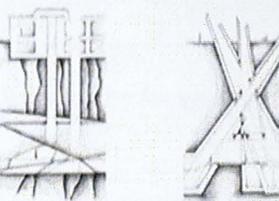
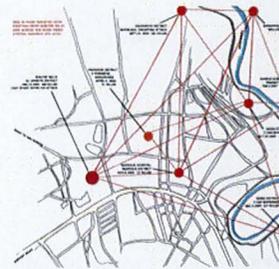
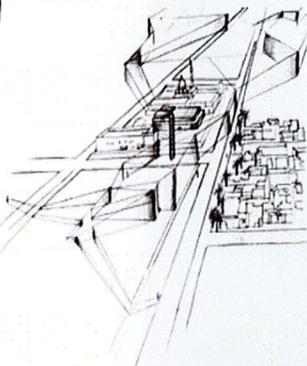
project of architecture
development cluster



Proposal & Strategy:
transform shelter no.25 site
into a new form of public
multi-use hybrid to maintain
development and activities
under lasting state of conflict-
war / protect historical
memory of the city of Baghdad



- Final Contents:**
- 1-Baghdad-Context & Conflict
 - 2-Conflict-War
 - 3- Detachment
 - 4-Erasure
 - 5-Baghdad-Pubic Shelter No.25
 - 6-Baghdad Re-connected
 - 7-The Macro-Conflict & Context



Architecture of War
conflict generated architecture

The project is to create a new centre
core - shelter no.25 - and extend out
to reach the rest of the city of
Baghdad across the Tigris river.

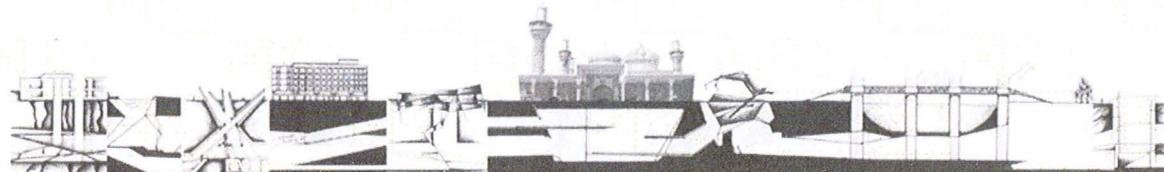


'Politics of Aesthetics'
Jacque Rancier

'Crepescular Dawn'
Paul Virilio

'Bunker Archeology'
Paul Virilio

'Spaces of Global Capitalism'
David Harvey



Bibliography

Buck, Morss, Susan. **Thinking Past Terror: Islamism and Critical Theory on the Left.** Verso, 2003.

Zizek, Slavoj. **Violence: Six Sideways Reflections.** New York, N.Y. Picador, 2008.

Harvey, David. **Spaces of Global Capitalism: Towards a Theory of Uneven Geographical Development.** Verso, 2006.

Graham, Stephen. **Cities, War and Terrorism: Towards and Urban Geopolitics.** Oxford; Blackwell, 2004.

Ranciere, Jacques. **The Politics of Aesthetics.** Continuum, 2006.

Gregory, Derek. **The Biopolitics of Baghdad: Counterinsurgency and the Counter City.** Department of Geography, University of British Columbia; Vancouver.

Gregory, Derek. **In Another Time-Zone, the Bombs fall unsafely...: Targets, Civilians and late modern war.** Department of Geography, University of British Columbia; Vancouver.

Koolhaas, Rem. **Warchitecture.** IIAS Annual Lecture, Amsterdam. 17th November, 2005.

Vanderbilt, Tom. **War as Architecture.** University of Minnesota. 2nd May, 2003.

Pullan, Wendy. **Conflict in Cities.** Research project. www.arct.cam.ac.uk/conflictcities/

Virilio, Paul & Sylvere Lotringer. **Crepuscular Dawn.** Semiotext (e), 2002.

Woods, Lebbeus. **War and Architecture: Pamphlet Architecture 15.** Princeton Architectural Press, 1993.

Virilio, Paul. **Bunker Archeology.** Princeton Architectural Press, 1994.

Gould, Peter & Rodney White. **Mental Maps.** Routledge, New York, 1992.

Ashworth, G.J. **War and the City.** Routledge, 1991.

Budd, Jonathan. **Warchitecture.** www.worldarchitecture.org

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Firstly, I am thankful to my thesis advisor Prof. Roger Connah for his valuable encouragement and guidance which allowed me to thoroughly understand and develop this thesis.

I also offer my sincerest gratitude to my dear family for their support, patience and understanding throughout the years of my education.

Last but not least, this thesis is a dedication and a token of appreciation to the city this thesis explored.

The timeless: Baghdad.