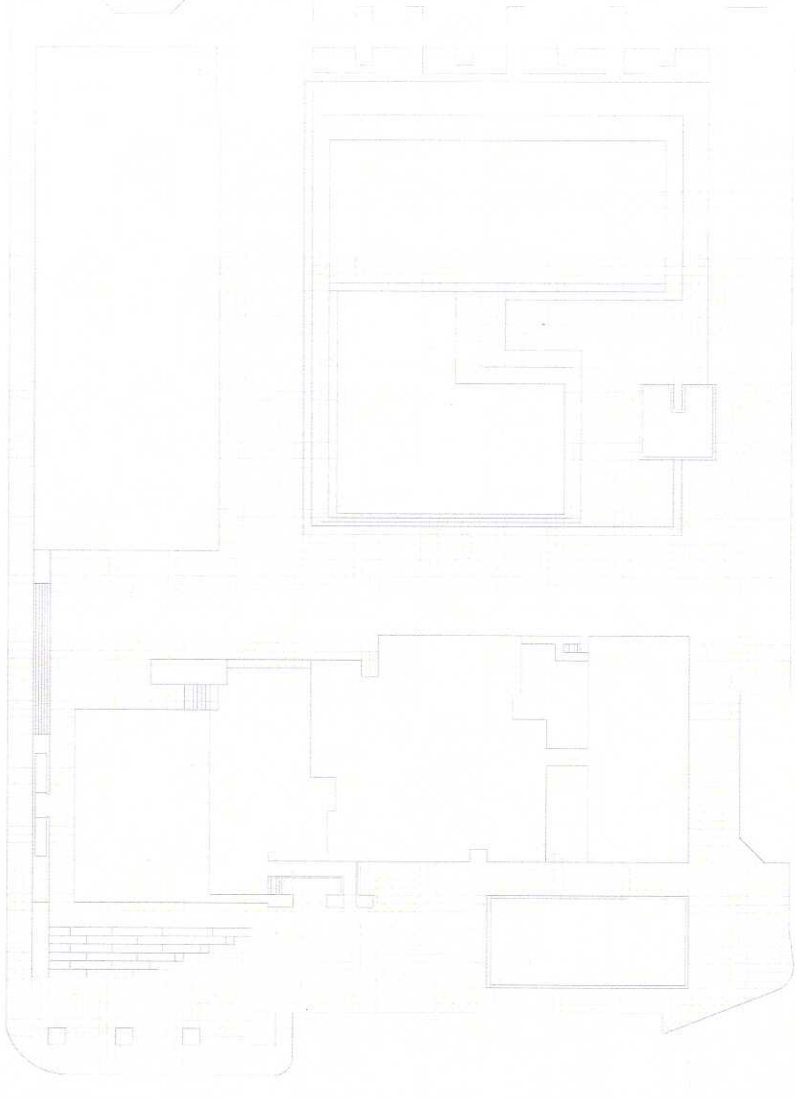
Spring 2009

Replacing the Plaza

Timothy Jeremiah Nolan

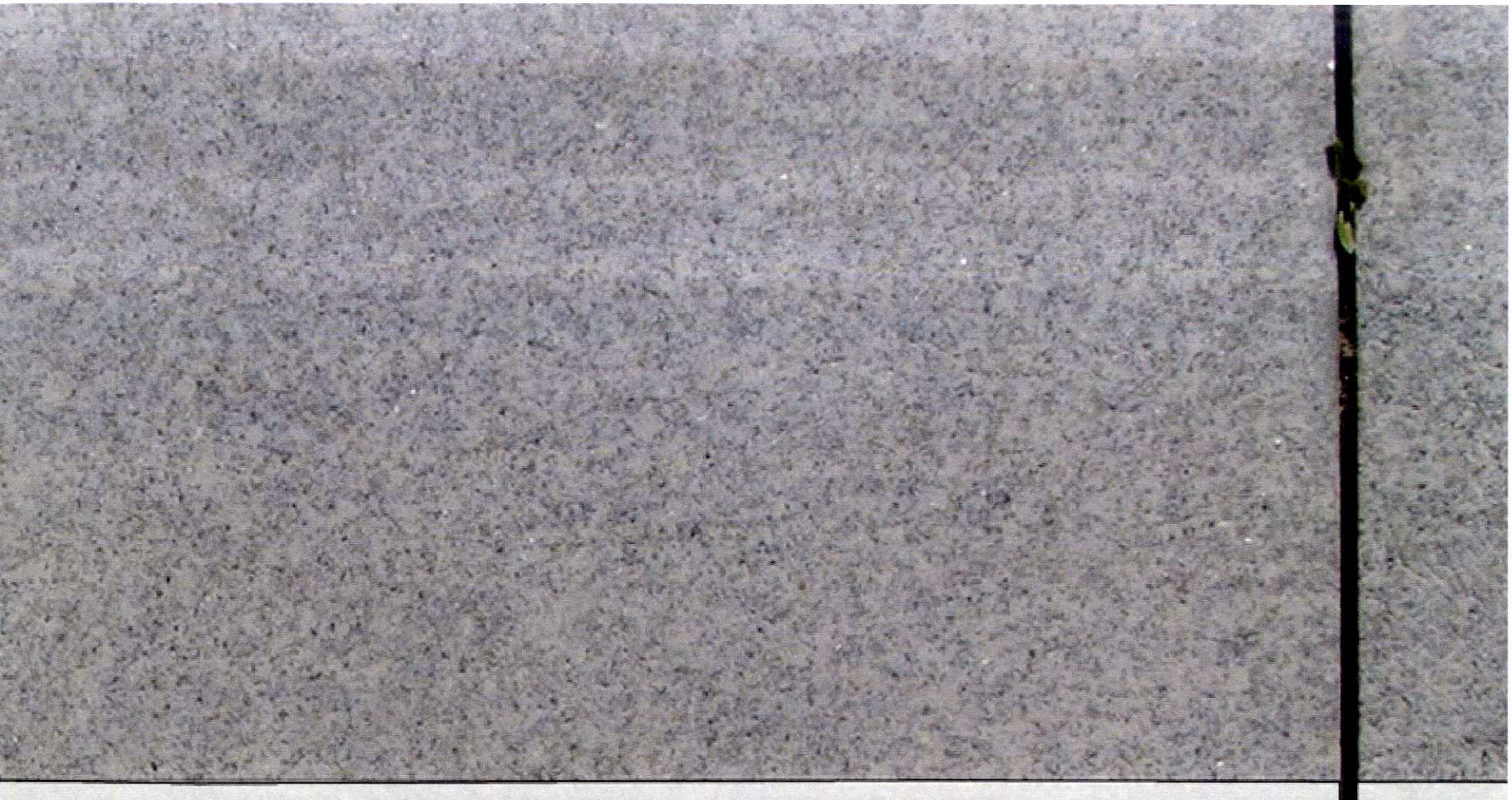


Replacing the Plaza

Timothy Jeremiah Nolan

Thesis submitted May 29, 2009 toward completion
of a Bachelor of Architecture degree

Advisory Committee:
Jonathan Massey
Anda French



provocation:

"I think that the influence my work has on other people is based on its rational quality. Anyone can make use of it without becoming an imitator because it is completely objective. I think that if I myself found something completely objective, I would make use of it. It is irrelevant from whom the work originates."

- Mies van der Rohe

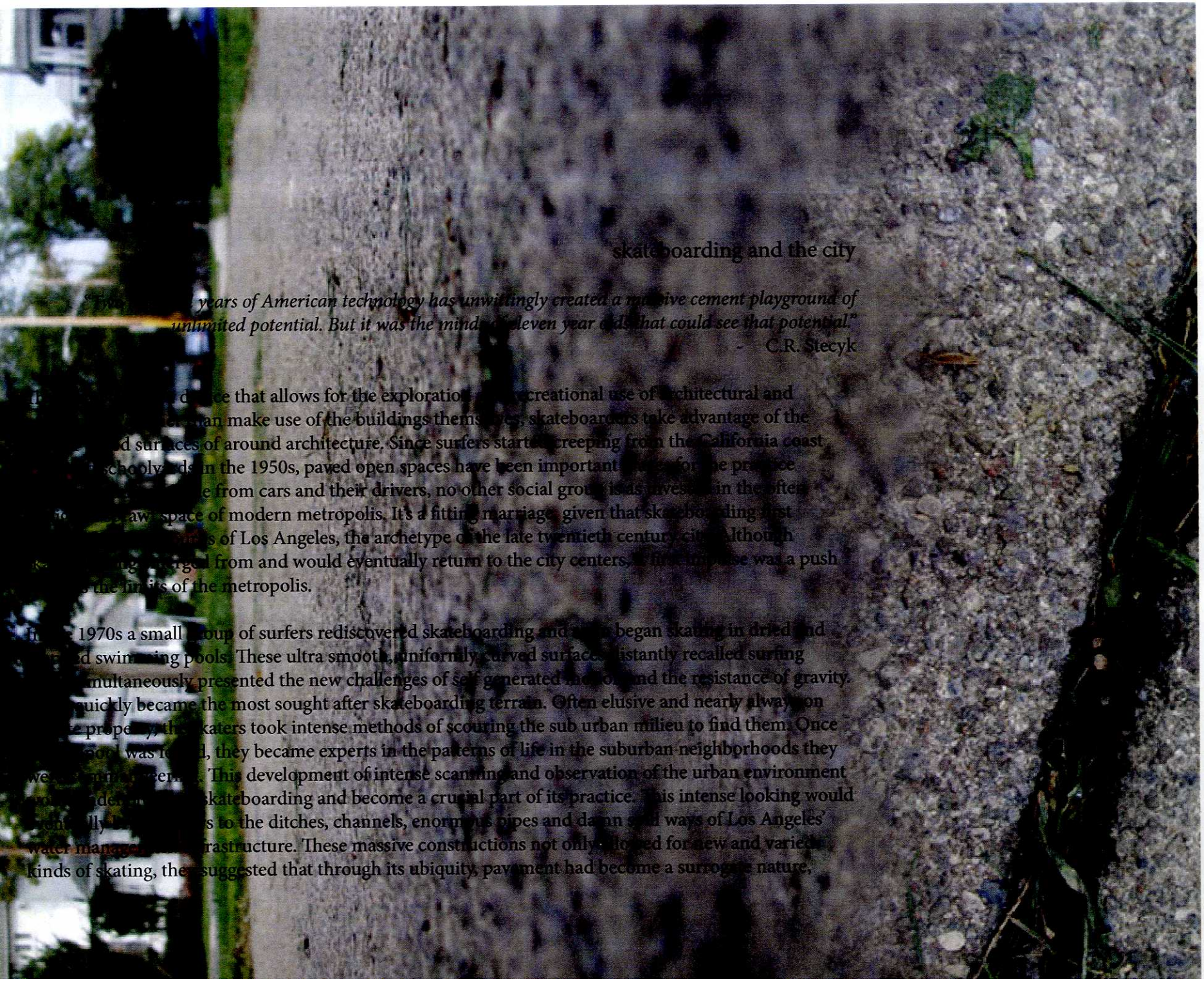
thesis statement:

The modernist plaza is a site of multiplicity. Through intense and informed scanning, alternative orders latent with in these constructions are revealed. This project uses these latent orders to propose a series of alternate realities that find productive potential in the failures of modernist architecture to fully manage factors such as construction, weathering and occupation.

Skateboarders are extremely proficient at reading the modernist plaza. These open, paved spaces, largely dismissed by most, represent a nearly inexhaustible resource for the practice of skateboarding. Through the constant exploration and use of the urban environment and a highly developed sensitivity to surface and ground plane, skateboarders possess a unique understanding of the modernist plaza. This sensitivity was the basis for an intense investigation of the surface of the plaza to the north of I.M. Pei's Everson Museum. The investigation resulted in a model that delaminates the tangle of orders within the plaza into discrete realities. These realities are then reorganized in order to create three distinct scenarios that draw from the alternate potentials latent within modernism to create a set of new possible architectures.

Drawing from the above mentioned orders latent within the Everson Plaza, these three scenarios recast the Everson Plaza as a site of production, occupation and destruction. Respectively, the scenarios proposed are the plaza as algaculture farm, the plaza as a collection of occupiable cells, and the plaza as a concrete digestor. It is understood that these scenarios are only three out of an array possibilities.

Drawing from the accidental biotopes created by the plaza's drainage problems, the plaza re-imagined an as algaculture farm is capable of producing of 690 tons of biomass per year to supply gas to museum itself. The plaza as a collection of occupible cells draws from the dual nature of the occupation of the plaza. The public is allowed to occupy the surface of the plaza while various public officials who emerge from the county government complex that bounds two sides of the plaza have access to an underground story below the public surface. By using the plaza's aberrant paving logics, the cell plaza attempts to formally manifest the plaza's multi level occupation. Finally, drawing from the near constant deterioration of the plaza due to the freeze and thaw cycles and the phenomenon of sulfate attack, the concrete digestor intensifies the processes that cause the crumbling. Through a sulfate dispersal system coupled with corrosive admixtures in the concrete, the pavers crumble to reveal a gilded support lattice. This scenario attempts to poetically display process of the deterioration of the modernism.



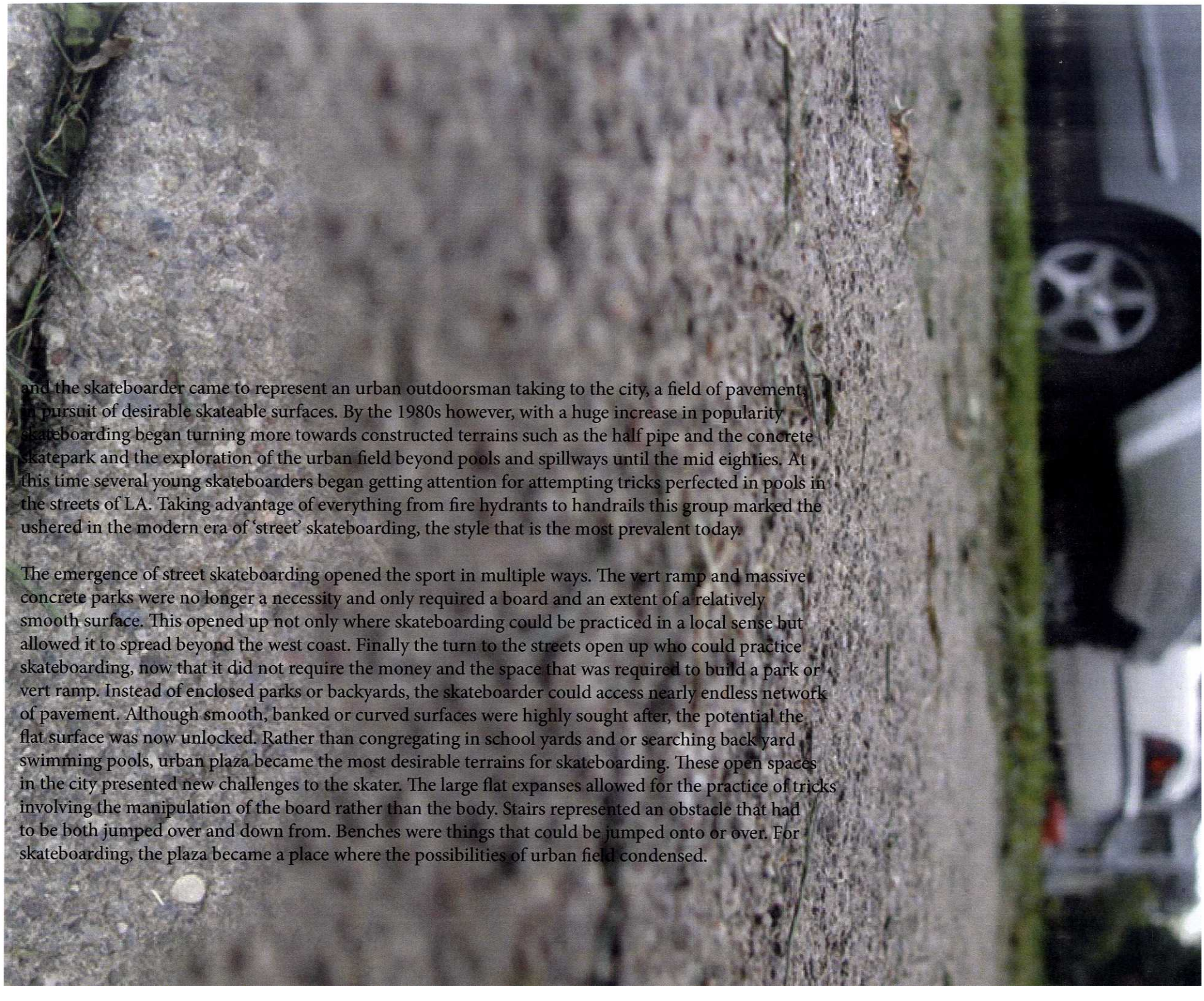
skateboarding and the city

"[...] years of American technology has unwittingly created a massive cement playground of unlimited potential. But it was the minds of eleven year olds that could see that potential."

- C.R. Stecyk

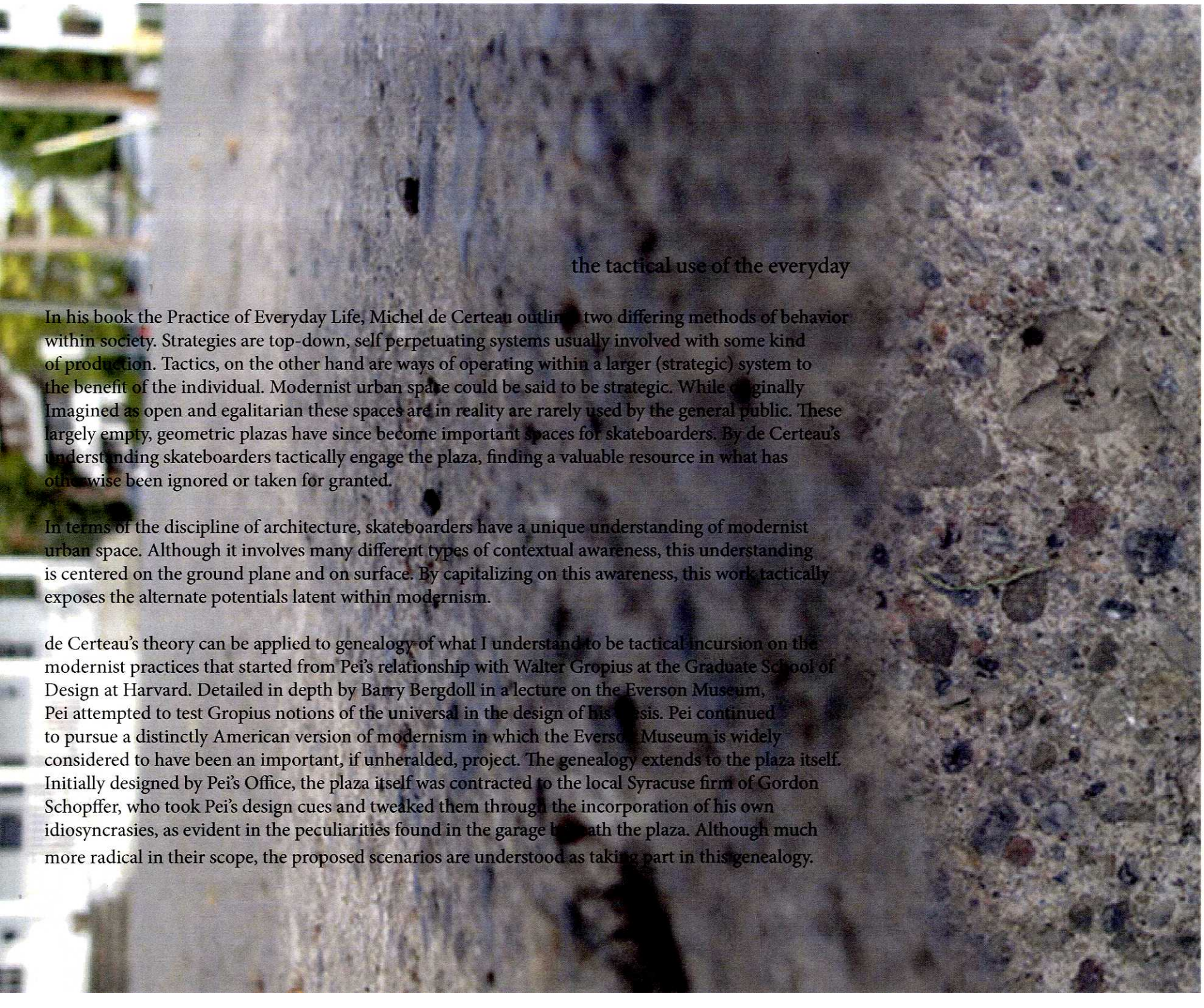
[...]ce that allows for the exploration and recreational use of architectural and [...]an make use of the buildings themselves, skateboarders take advantage of the [...]d surfaces of around architecture. Since surfers started creeping from the California coast [...]chools in the 1950s, paved open spaces have been important [...] for the practice [...]e from cars and their drivers, no other social group is as invested in the often [...]aw space of modern metropolis. It's a fitting marriage, given that skateboarding first [...]s of Los Angeles, the archetype of the late twentieth century city. Although [...]rged from and would eventually return to the city centers, its first impulse was a push [...]s the limits of the metropolis.

[...] 1970s a small group of surfers rediscovered skateboarding and [...] began skating in dried and [...]d swimming pools. These ultra smooth, uniformly curved surfaces instantly recalled surfing [...]multaneously presented the new challenges of self generated momentum and the resistance of gravity. [...]uickly became the most sought after skateboarding terrain. Often elusive and nearly always on [...]e property, the skaters took intense methods of scouring the sub urban milieu to find them. Once [...]ool was found, they became experts in the patterns of life in the suburban neighborhoods they [...]. This development of intense scanning and observation of the urban environment [...] skateboarding and become a crucial part of its practice. This intense looking would [...]s to the ditches, channels, enormous pipes and dammed ways of Los Angeles' [...]rastructure. These massive constructions not only allowed for new and varied kinds of skating, they suggested that through its ubiquity, pavement had become a surrogate nature,



and the skateboarder came to represent an urban outdoorsman taking to the city, a field of pavement, in pursuit of desirable skateable surfaces. By the 1980s however, with a huge increase in popularity skateboarding began turning more towards constructed terrains such as the half pipe and the concrete skatepark and the exploration of the urban field beyond pools and spillways until the mid eighties. At this time several young skateboarders began getting attention for attempting tricks perfected in pools in the streets of LA. Taking advantage of everything from fire hydrants to handrails this group marked the ushered in the modern era of 'street' skateboarding, the style that is the most prevalent today.

The emergence of street skateboarding opened the sport in multiple ways. The vert ramp and massive concrete parks were no longer a necessity and only required a board and an extent of a relatively smooth surface. This opened up not only where skateboarding could be practiced in a local sense but allowed it to spread beyond the west coast. Finally the turn to the streets open up who could practice skateboarding, now that it did not require the money and the space that was required to build a park or vert ramp. Instead of enclosed parks or backyards, the skateboarder could access nearly endless network of pavement. Although smooth, banked or curved surfaces were highly sought after, the potential the flat surface was now unlocked. Rather than congregating in school yards and or searching back yard swimming pools, urban plaza became the most desirable terrains for skateboarding. These open spaces in the city presented new challenges to the skater. The large flat expanses allowed for the practice of tricks involving the manipulation of the board rather than the body. Stairs represented an obstacle that had to be both jumped over and down from. Benches were things that could be jumped onto or over. For skateboarding, the plaza became a place where the possibilities of urban field condensed.



the tactical use of the everyday

In his book the Practice of Everyday Life, Michel de Certeau outlines two differing methods of behavior within society. Strategies are top-down, self perpetuating systems usually involved with some kind of production. Tactics, on the other hand are ways of operating within a larger (strategic) system to the benefit of the individual. Modernist urban space could be said to be strategic. While originally Imagined as open and egalitarian these spaces are in reality are rarely used by the general public. These largely empty, geometric plazas have since become important spaces for skateboarders. By de Certeau's understanding skateboarders tactically engage the plaza, finding a valuable resource in what has otherwise been ignored or taken for granted.

In terms of the discipline of architecture, skateboarders have a unique understanding of modernist urban space. Although it involves many different types of contextual awareness, this understanding is centered on the ground plane and on surface. By capitalizing on this awareness, this work tactically exposes the alternate potentials latent within modernism.

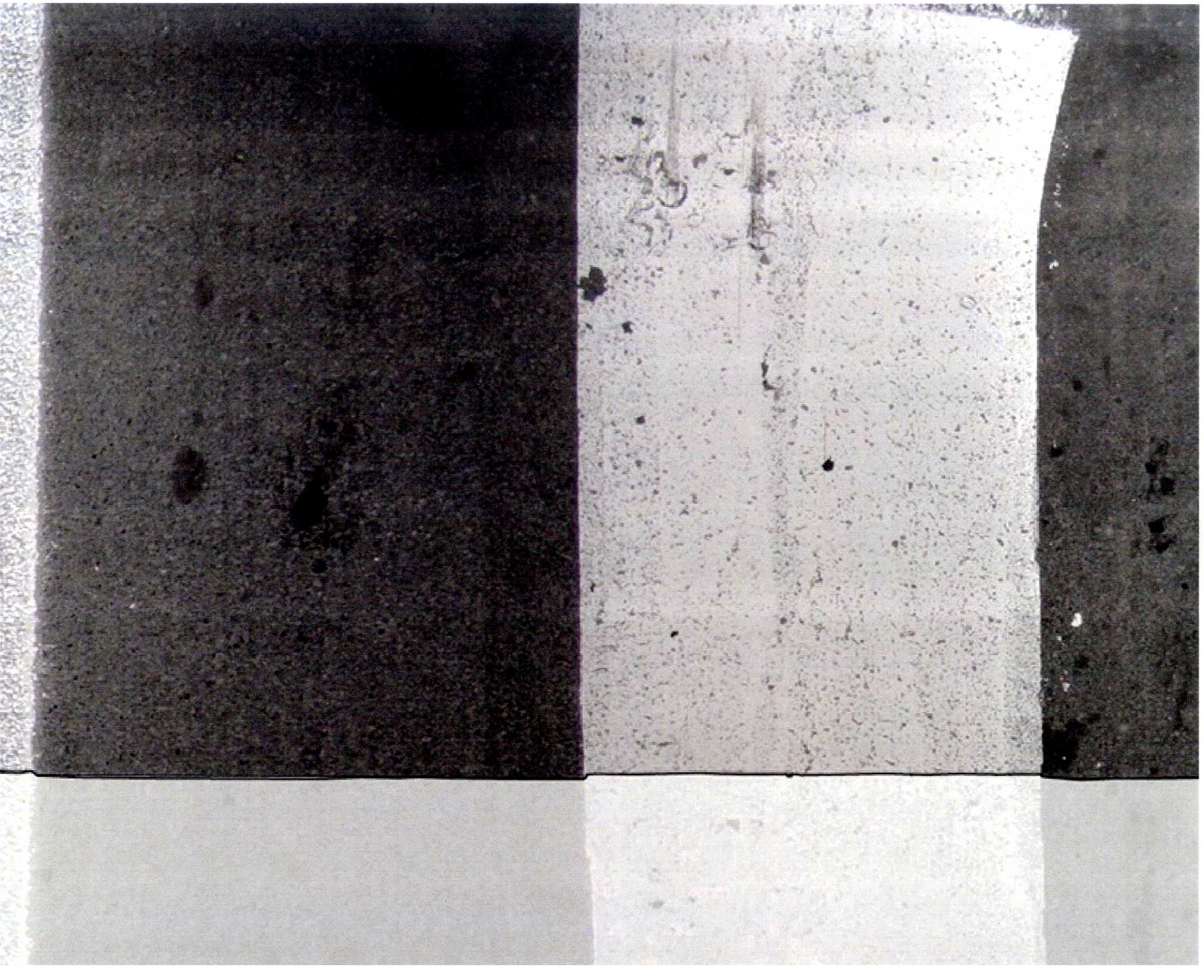
de Certeau's theory can be applied to genealogy of what I understand to be tactical incursion on the modernist practices that started from Pei's relationship with Walter Gropius at the Graduate School of Design at Harvard. Detailed in depth by Barry Bergdoll in a lecture on the Everson Museum, Pei attempted to test Gropius notions of the universal in the design of his thesis. Pei continued to pursue a distinctly American version of modernism in which the Everson Museum is widely considered to have been an important, if unheralded, project. The genealogy extends to the plaza itself. Initially designed by Pei's Office, the plaza itself was contracted to the local Syracuse firm of Gordon Schopffer, who took Pei's design cues and tweaked them through the incorporation of his own idiosyncrasies, as evident in the peculiarities found in the garage beneath the plaza. Although much more radical in their scope, the proposed scenarios are understood as taking part in this genealogy.

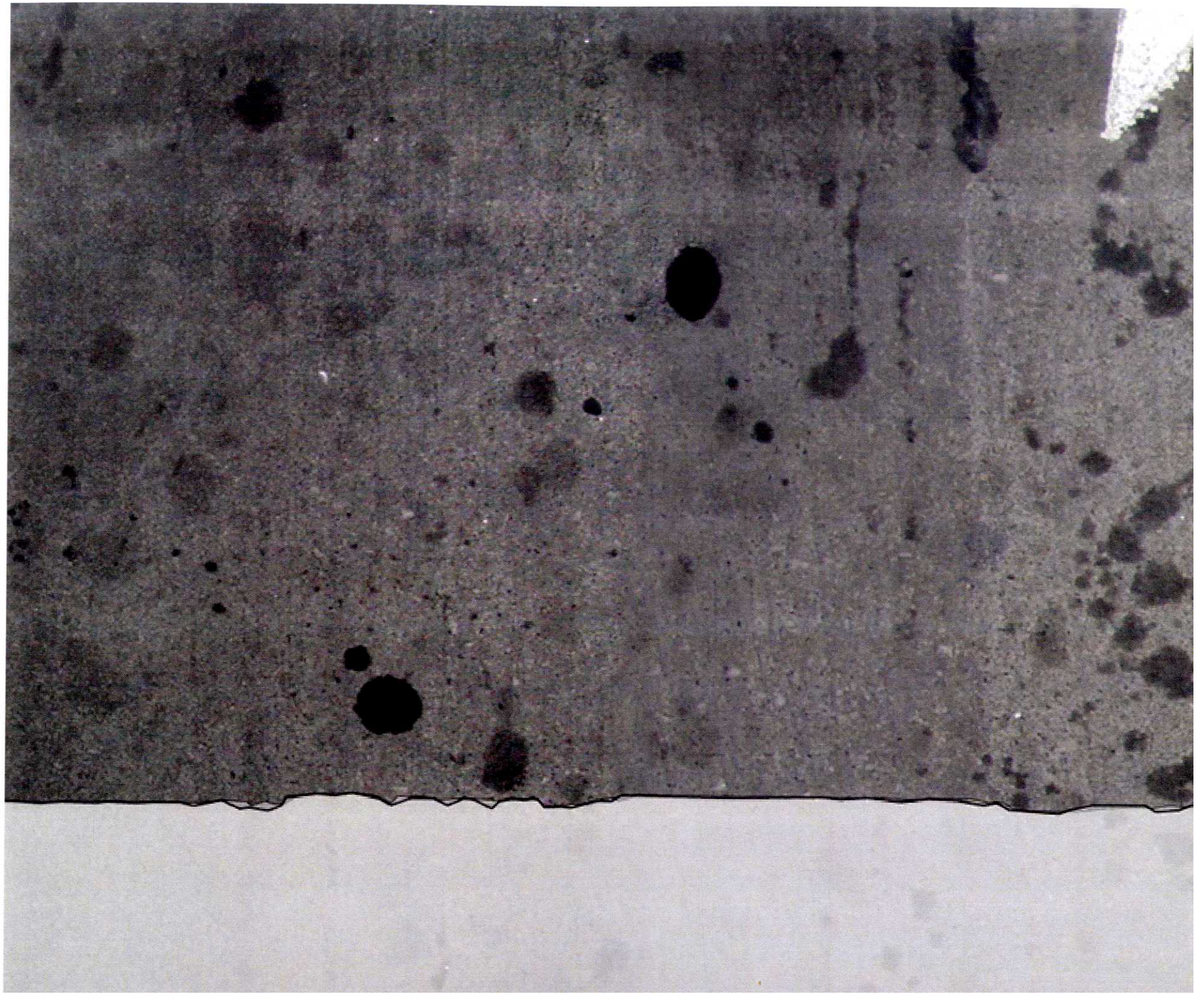
the field model

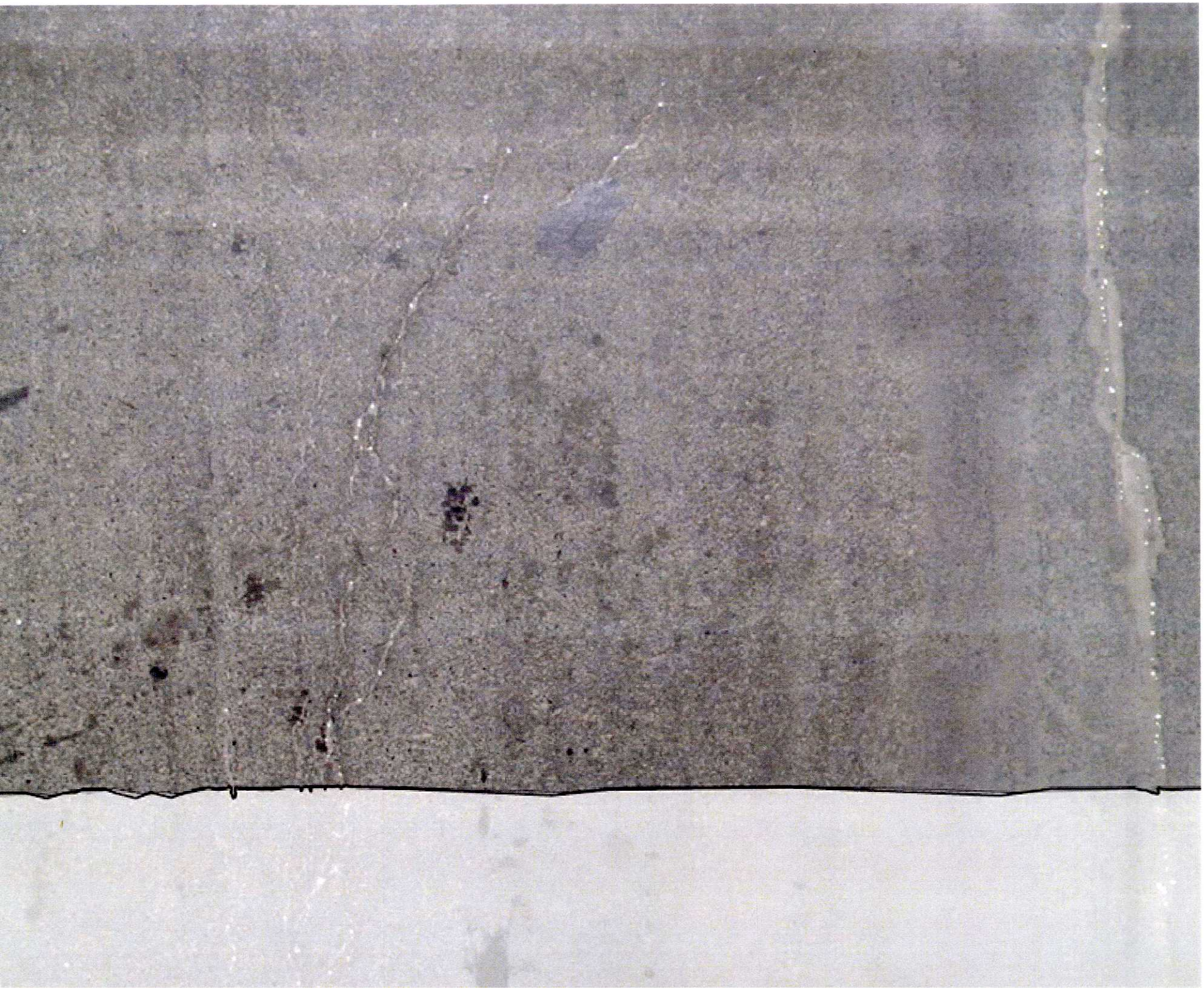
"Field conditions intentionally mix high theory with low practice."
- Stan Allen

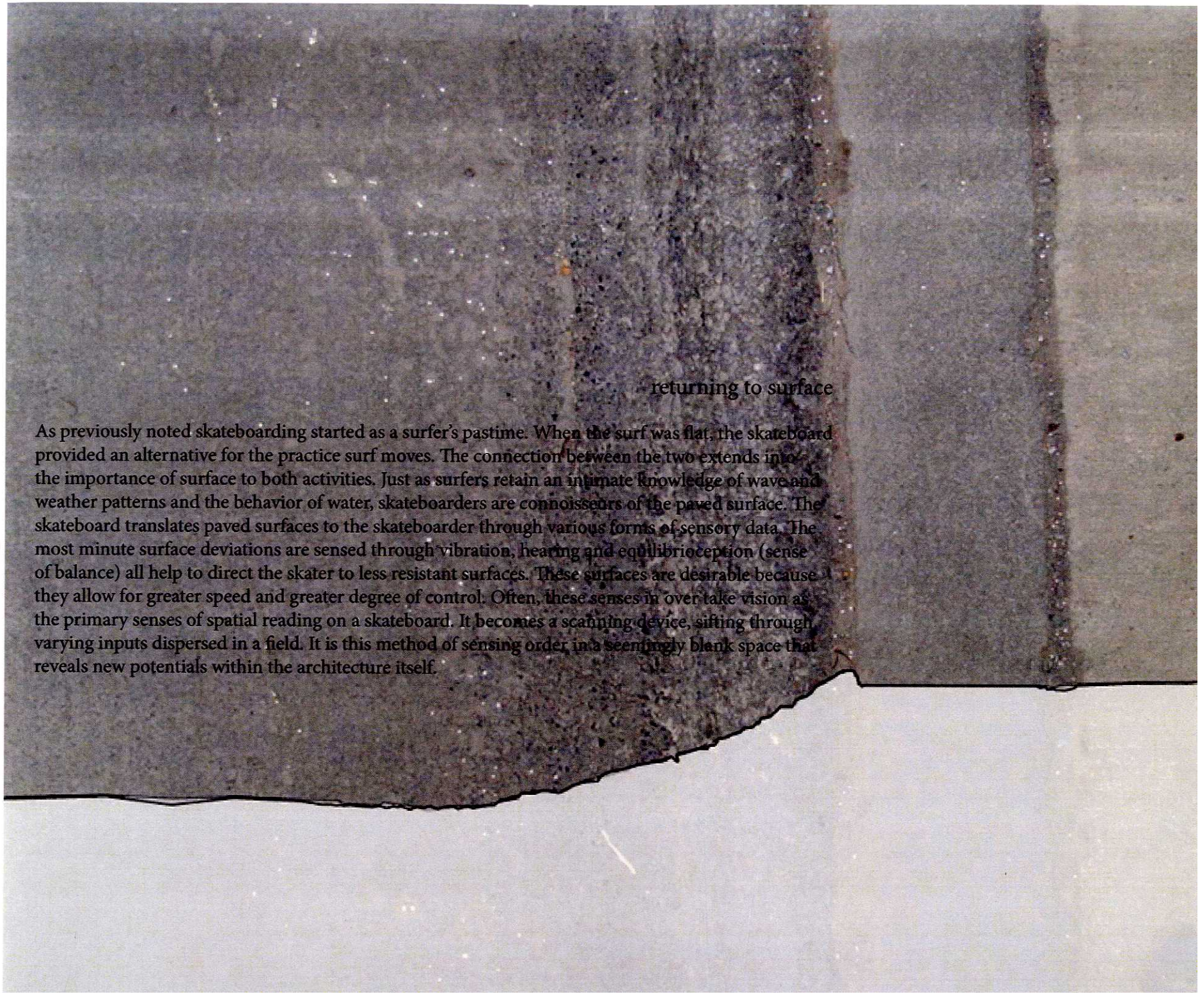
The understanding of the city as a field coded into the mindset of the skateboarder is explained by Stan Allen, in the article *From Object to Field*. He begins by describing field conditions are those which 'move from the one toward the many: from individuals to collectives, from objects to fields.' The argument is against of the discrete object in architecture. Allen argues that rather than understanding parts as fragments of a greater whole, they should simply be viewed as parts. When skating through the city, skateboarders are constantly scanning for architectural anomolies to engage with. Although these "spots" may be similar, each on is always understood on its own terms, as a discrete and distinct part of the urban field. To extend the argument even further, Allen notes that the two most important factors determining that determine the form of the modern city, the grid and infrastructural networks are both examples of the field model. It follow that skateboarders, as user who actively engage with these two aspects of the modern city, would by nature of their interactions with these spaces, begin to understand space in a manner that recalls the field.

The constant awareness of the micro and macro scales possessed by the skateboard is integral to the development of this project. The alternate orders of the Everson Plaza relate to this understanding through their relationship to both the part and the whole of the plaza. For instance, the lichen require moisture as well as indirect sunlight. The the troweled texture of the pavers provided a system for the collection of moisture, however only the deepest portion of the museums northern shadow provide the adequate lighting conditions. The designed scenarios attempt to perserve this through careful control of details that allow for variation across the system.



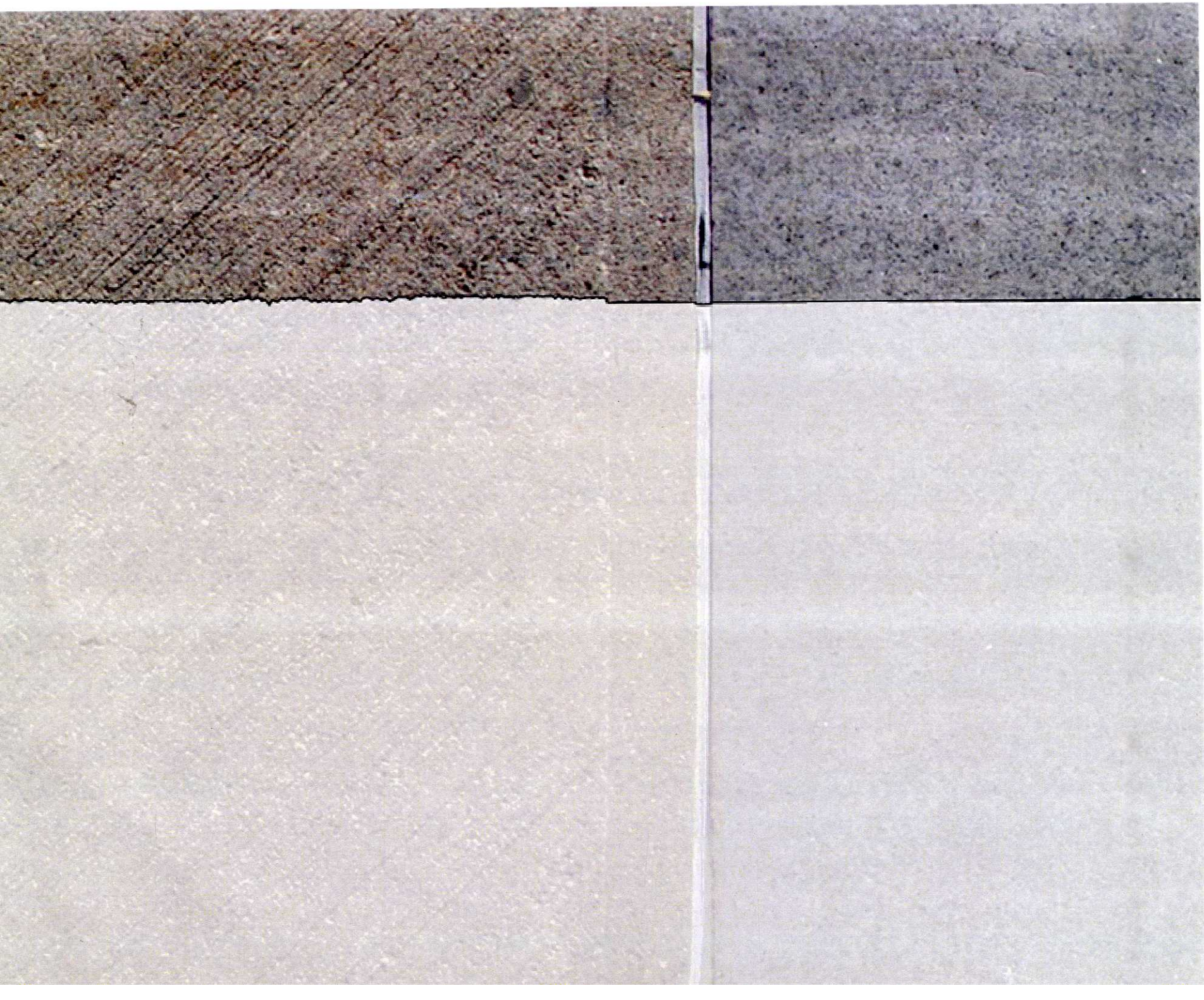


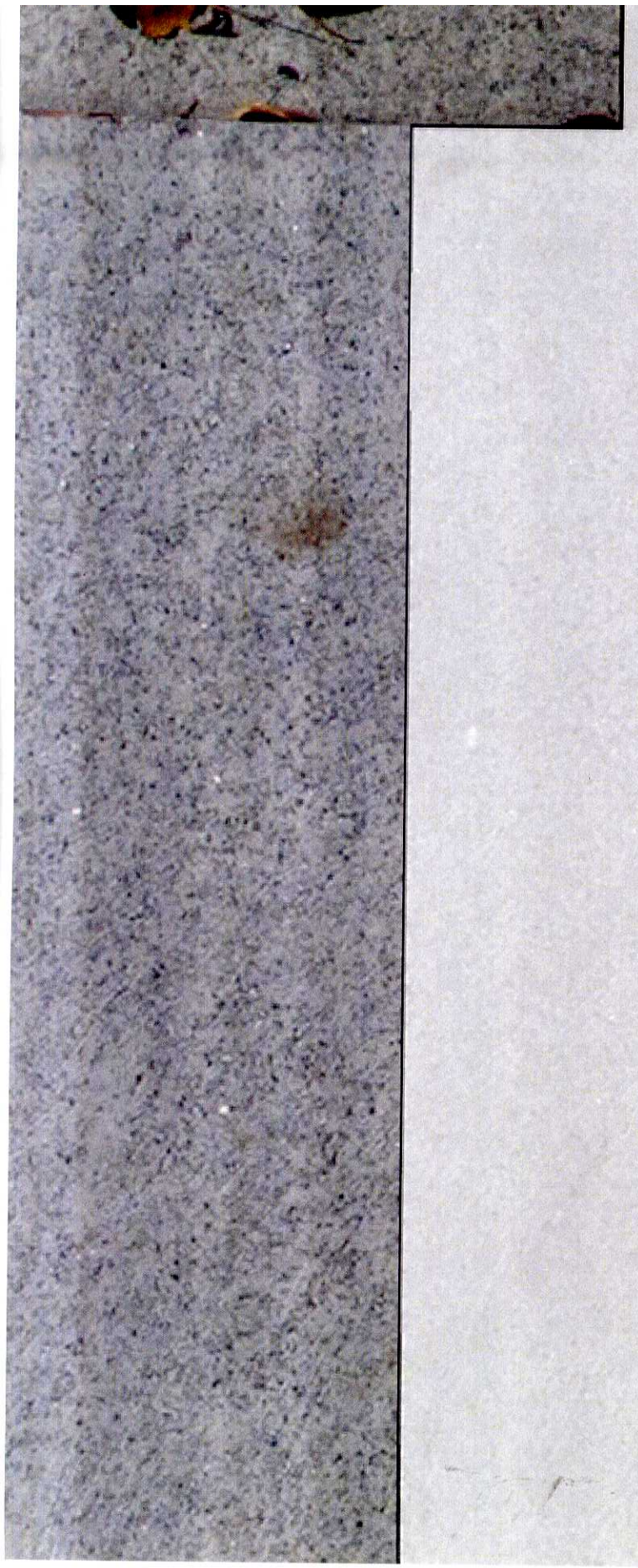


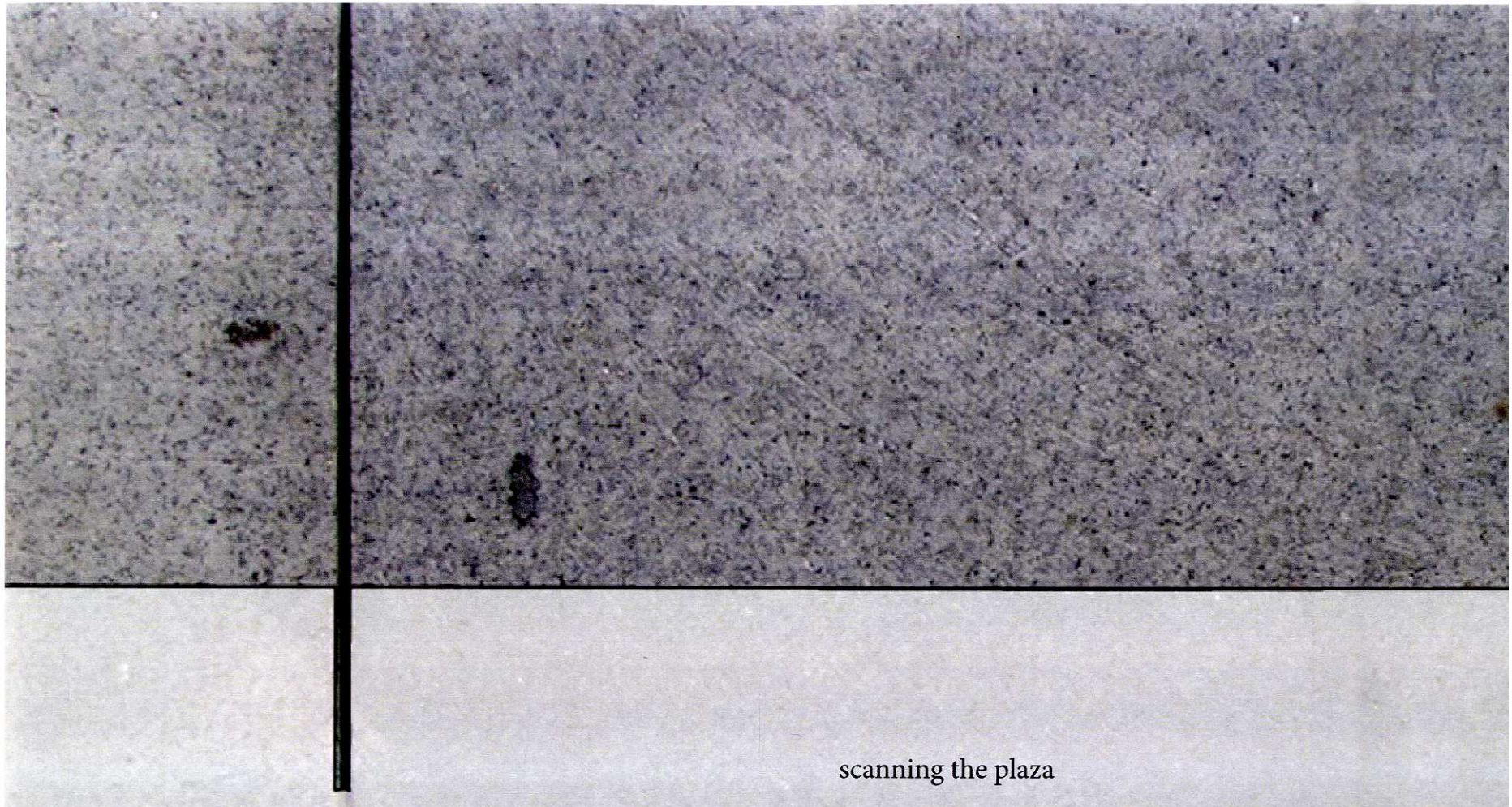


returning to surface

As previously noted skateboarding started as a surfer's pastime. When the surf was flat, the skateboard provided an alternative for the practice surf moves. The connection between the two extends into the importance of surface to both activities. Just as surfers retain an intimate knowledge of wave and weather patterns and the behavior of water, skateboarders are connoisseurs of the paved surface. The skateboard translates paved surfaces to the skateboarder through various forms of sensory data. The most minute surface deviations are sensed through vibration, hearing and equilibrioception (sense of balance) all help to direct the skater to less resistant surfaces. These surfaces are desirable because they allow for greater speed and greater degree of control. Often, these senses in over take vision as the primary senses of spatial reading on a skateboard. It becomes a scanning device, sifting through varying inputs dispersed in a field. It is this method of sensing order in a seemingly blank space that reveals new potentials within the architecture itself.

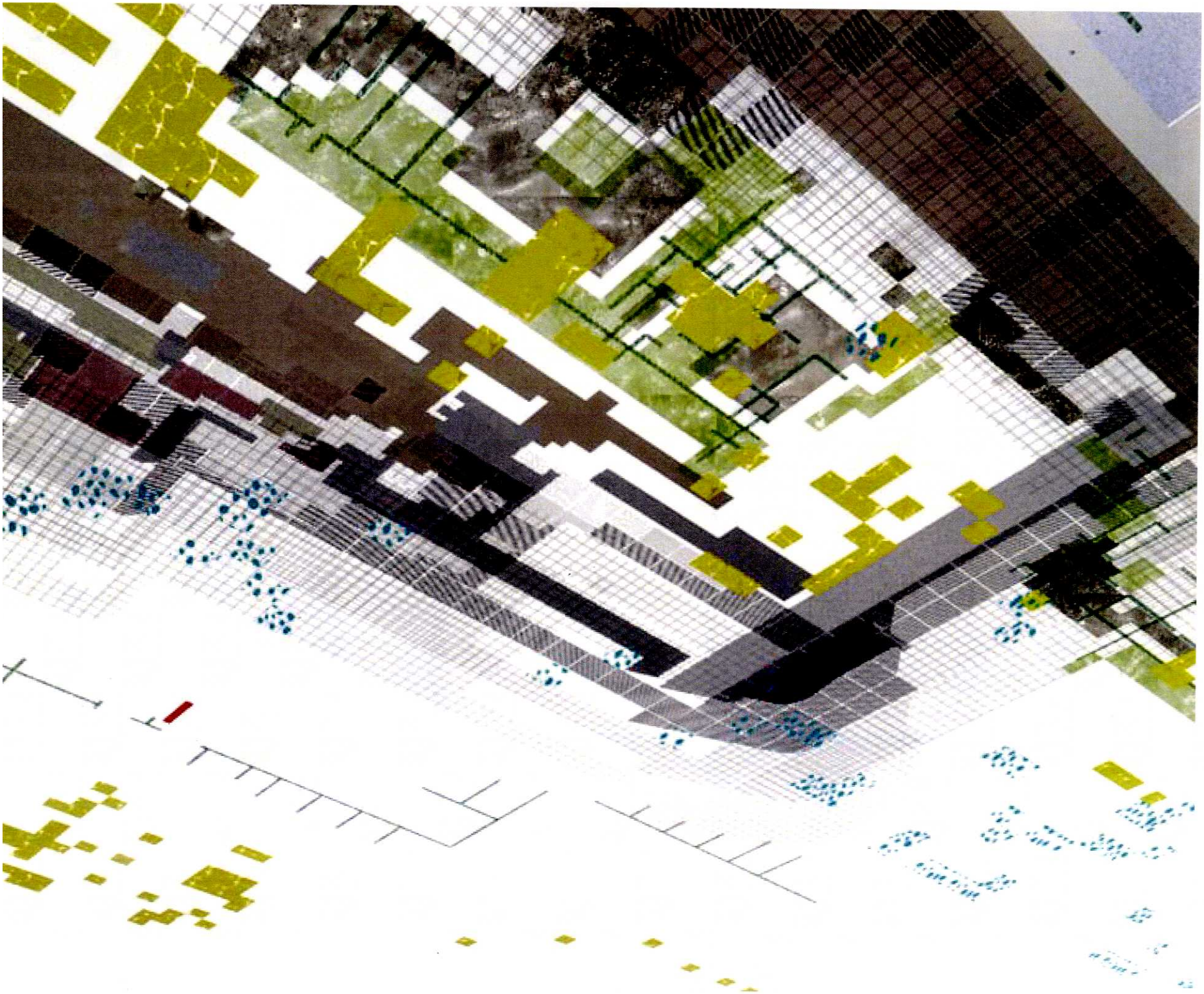






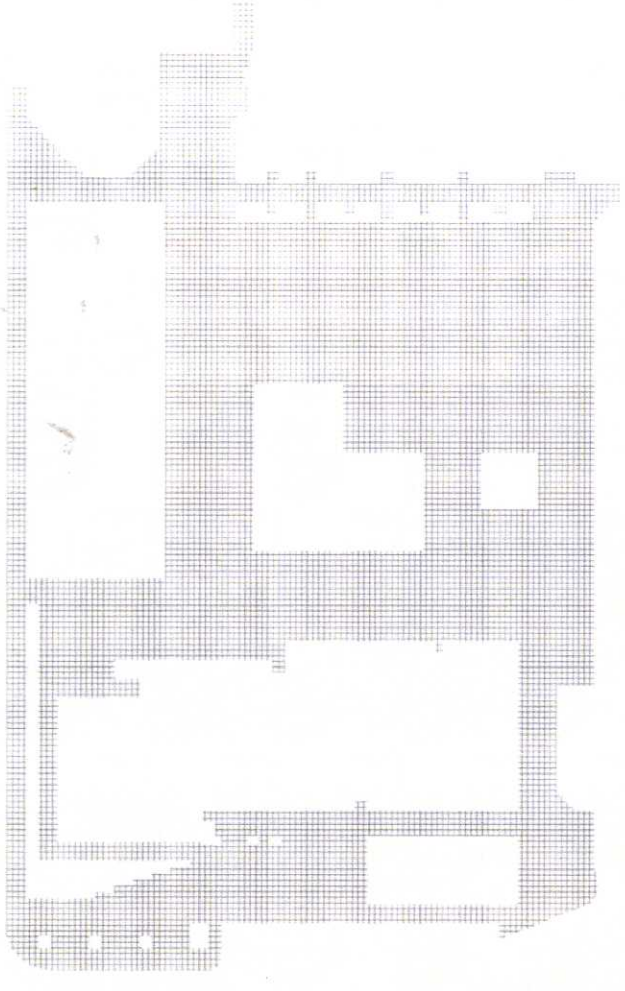
scanning the plaza

The following images were takein from a model of the Everson Museum Plaza in Syracuse, NY, designed by I.M. Pei. The model, although based on the built the plaza, is a delamination of existing realities of construction, weathering and occupation. By seperating these interrelated aspects of the plaza, the individual reality (e.g. reality of cracking, reality of occupation patterns of microorganisms) could be viewed as a discrete and wholy alternate reality to the plaza as it was concieved by Pei. As a result, their seperation allowed these realities to be overlayed in varying ways. This shuffling created a set speculative realities that recombined the everyday details of mid-century modernism into a set of potential realities latent within the current state of the Everson Plaza.

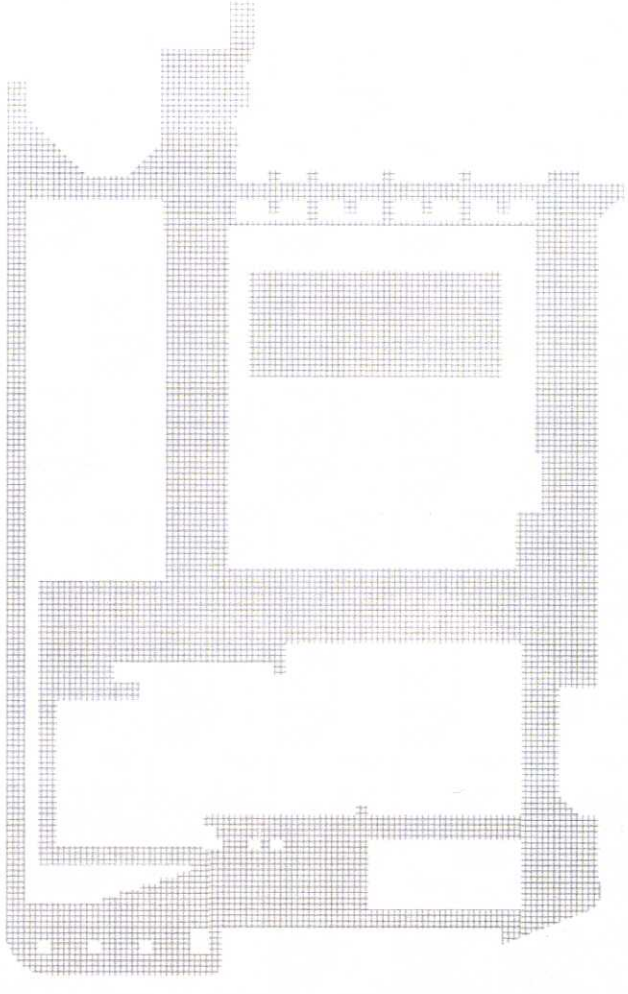


Onondaga County Community Plaza

Construction Logics



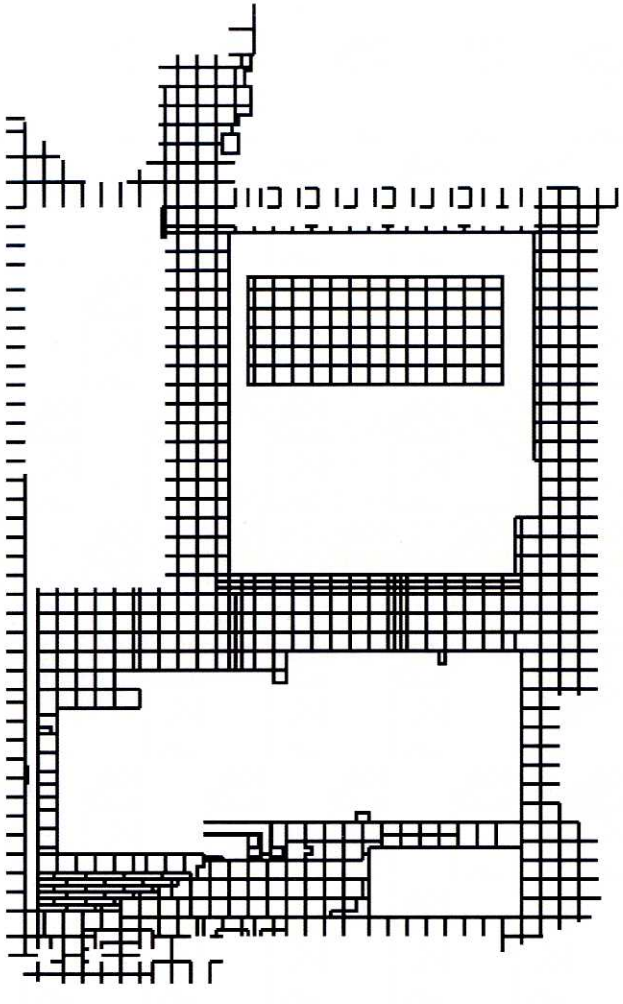
Control Joints

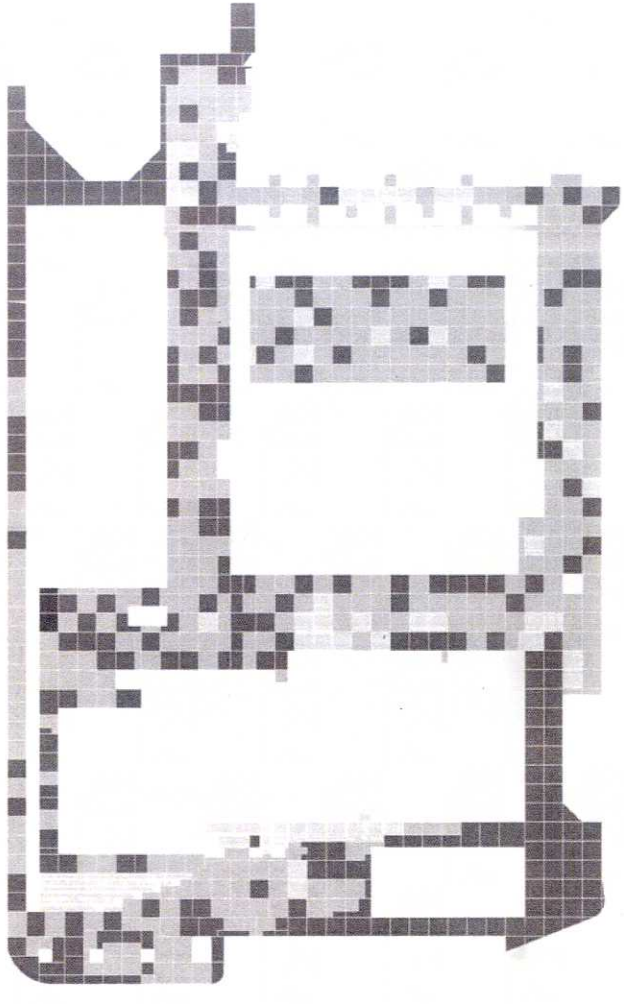


Smoothed Edges

Onondaga County Community Plaza

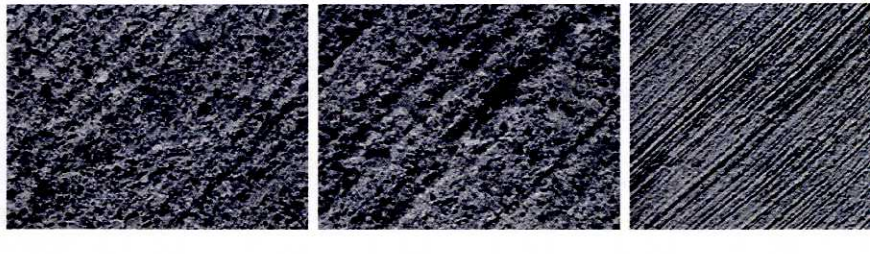
Construction Logics





Expansion Joints

Troweling Text

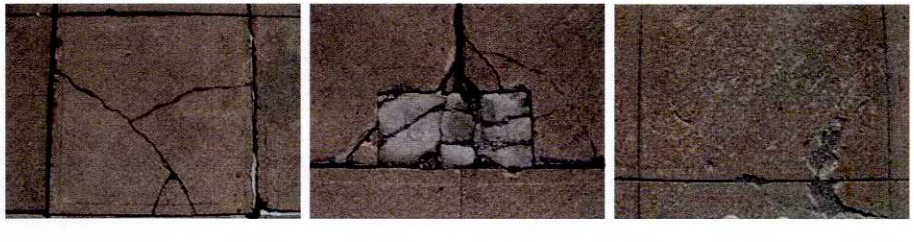


Onondaga County Community Plaza

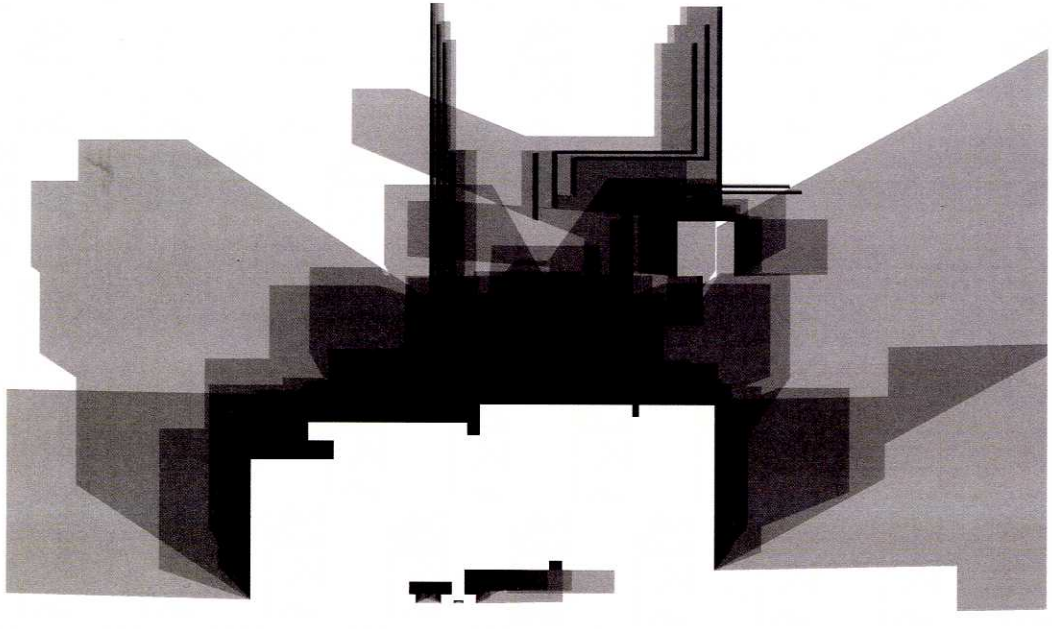
Weathering and Occupational Indexes

Discarded Gum

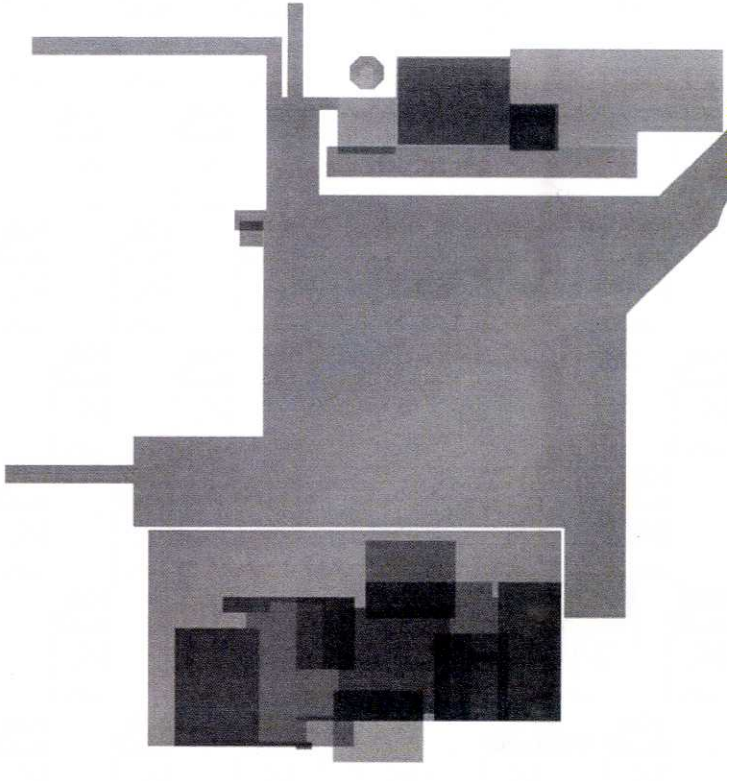
Cracked Pavers



Onondaga County Community Plaza
Weathering and Occupational Indexes



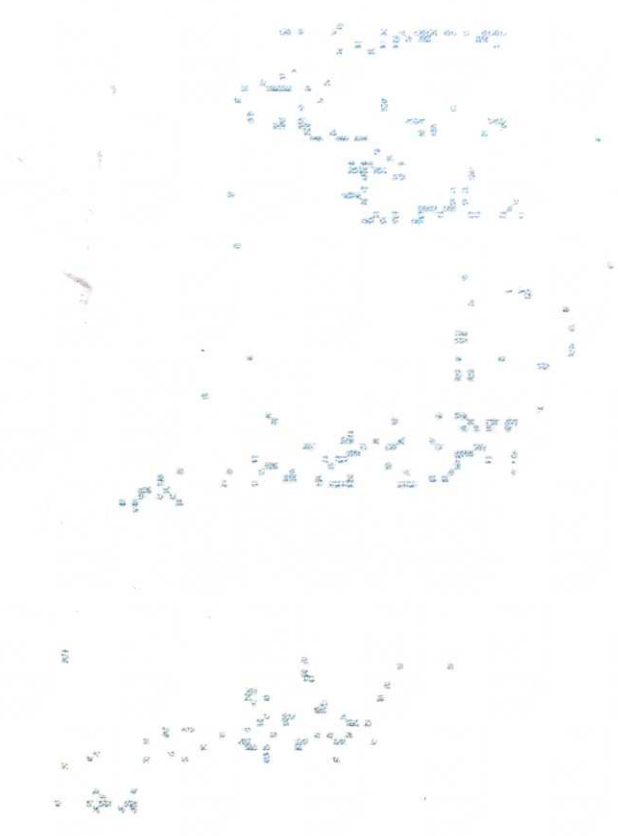
Shadow Plan



Architectural Cor

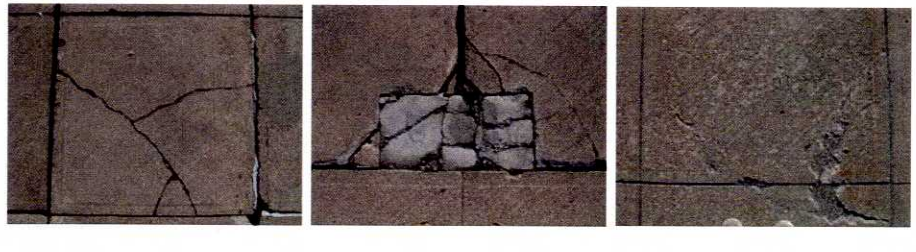
Onondaga County Community Plaza

Weathering and Occupational Indexes



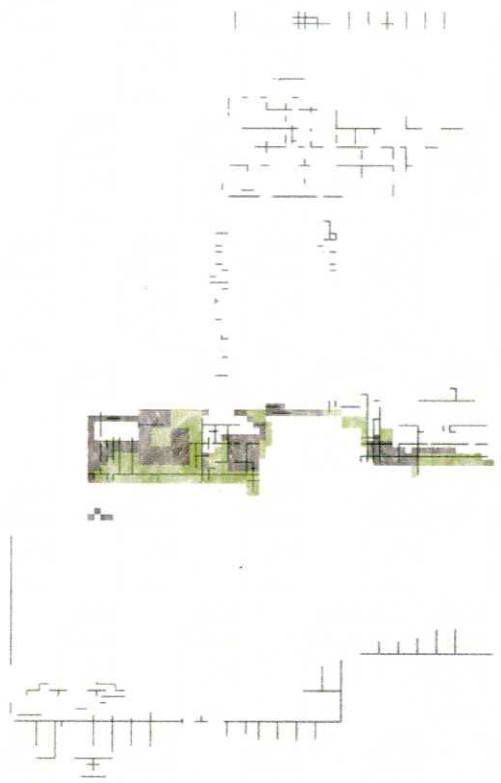
Discarded Gum

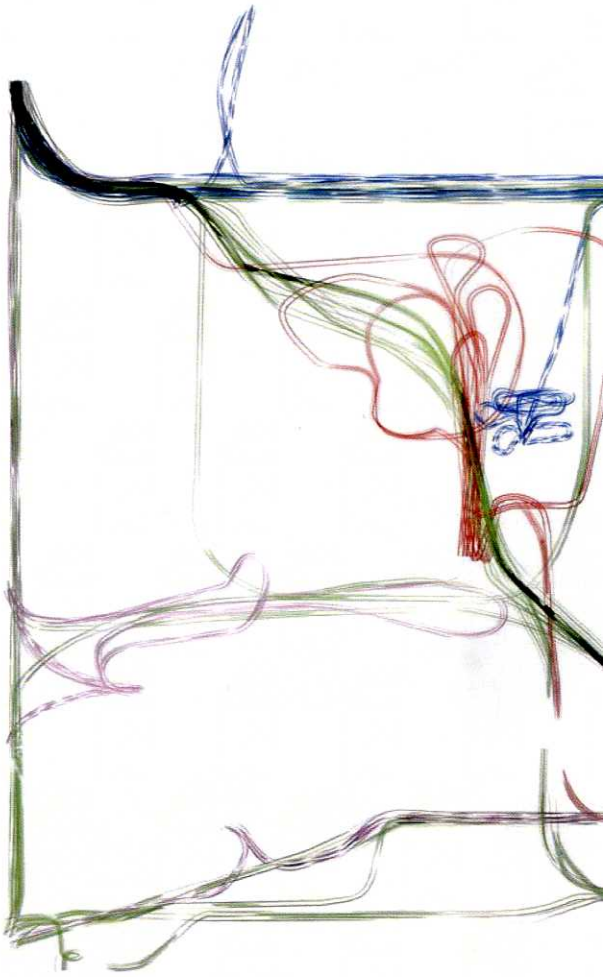
Cracked Pavers



Onondaga County Community Plaza

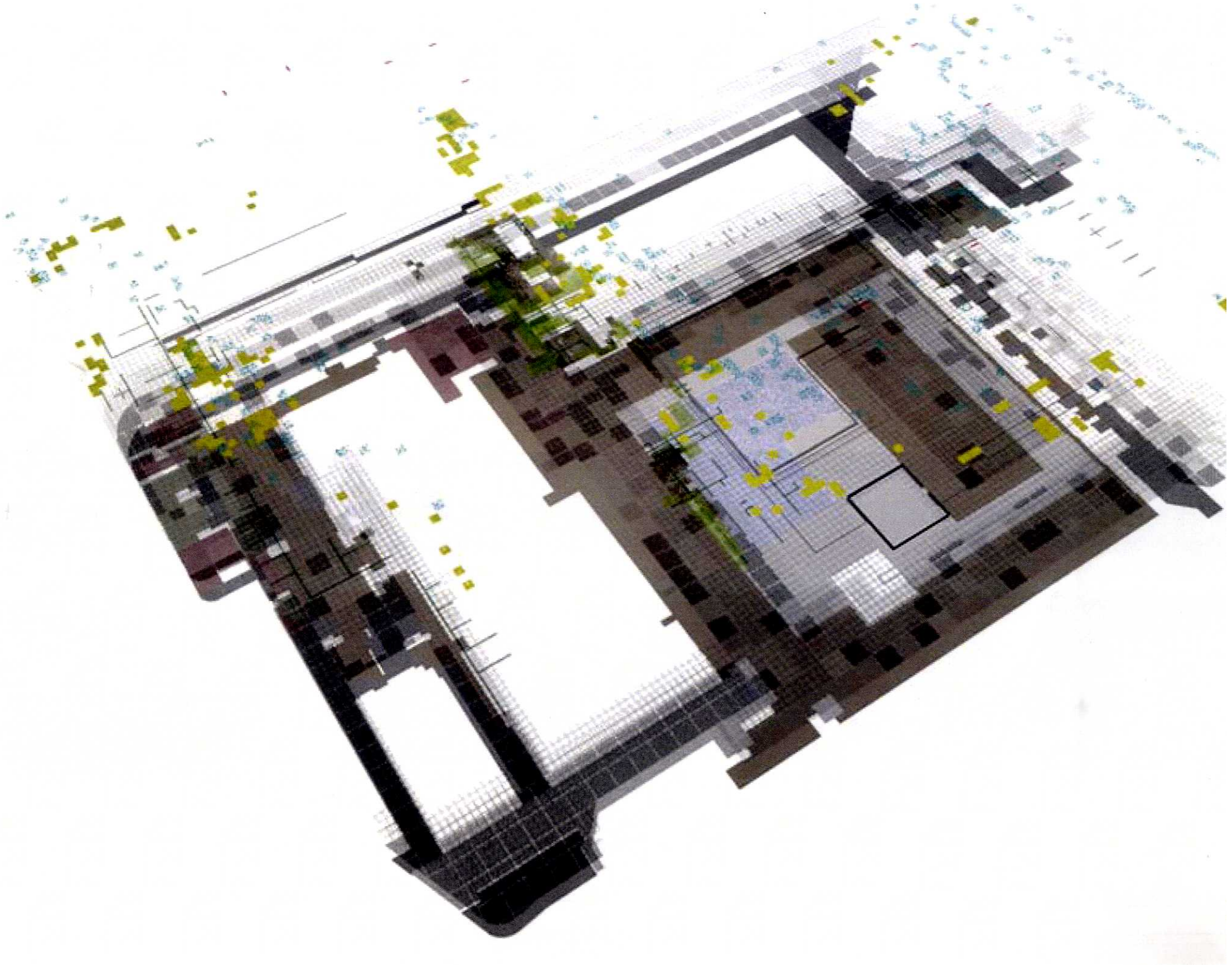
Weathering and Occupational Indexes

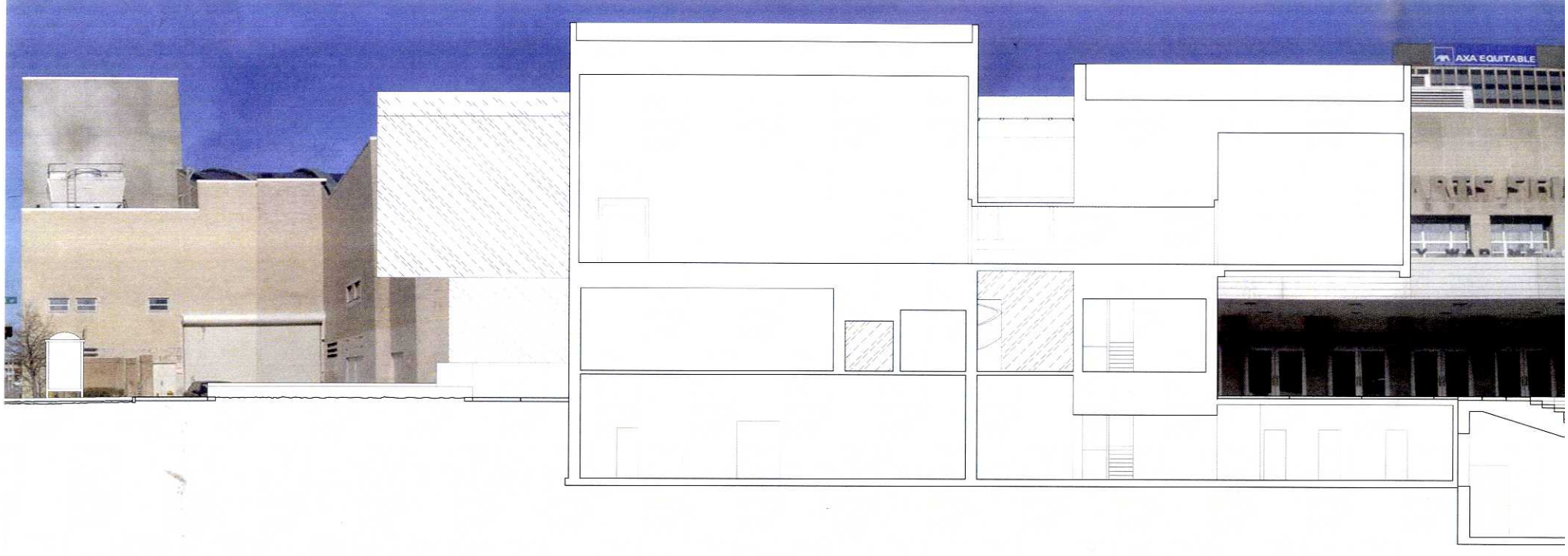




Microorganisms/Epiphytes

Use

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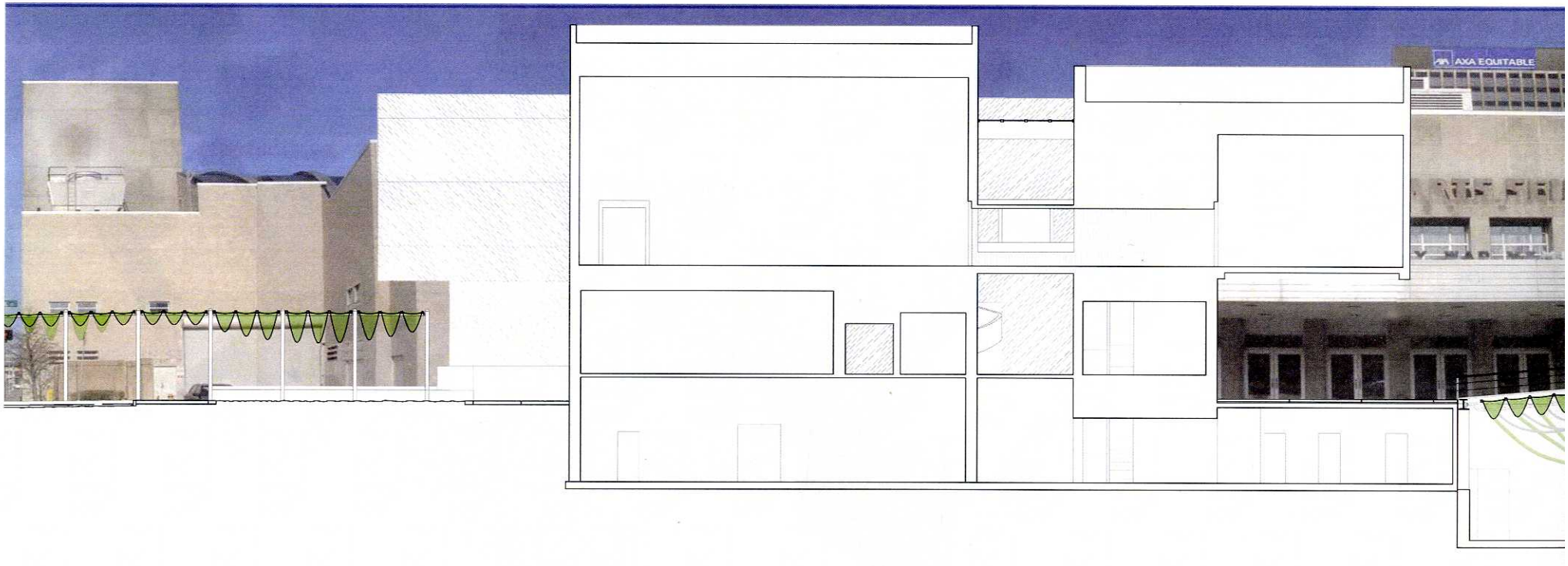
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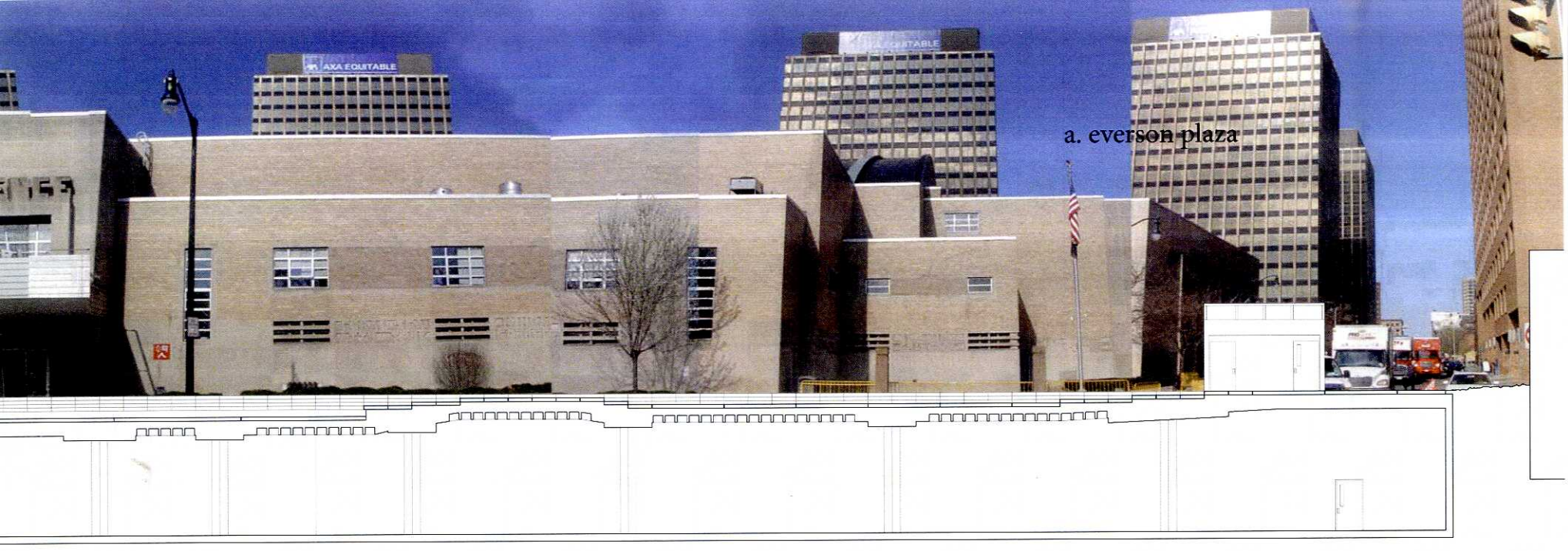
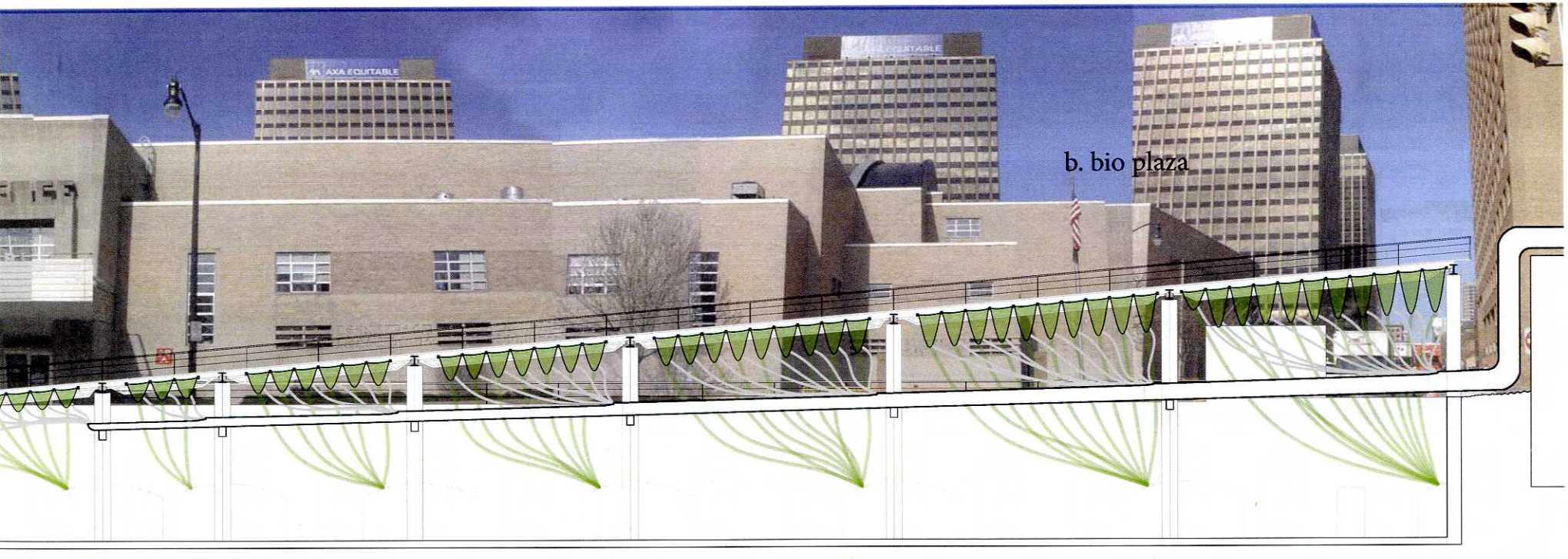
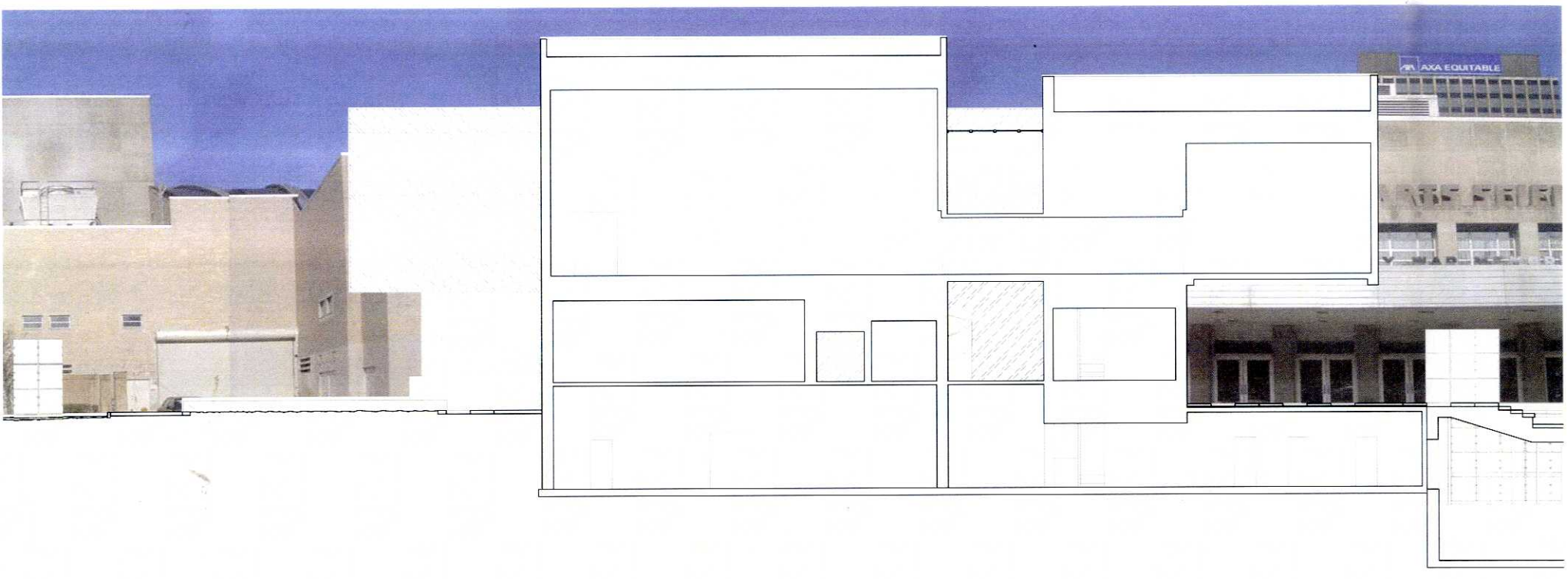


a. everson plaza



b. bio plaza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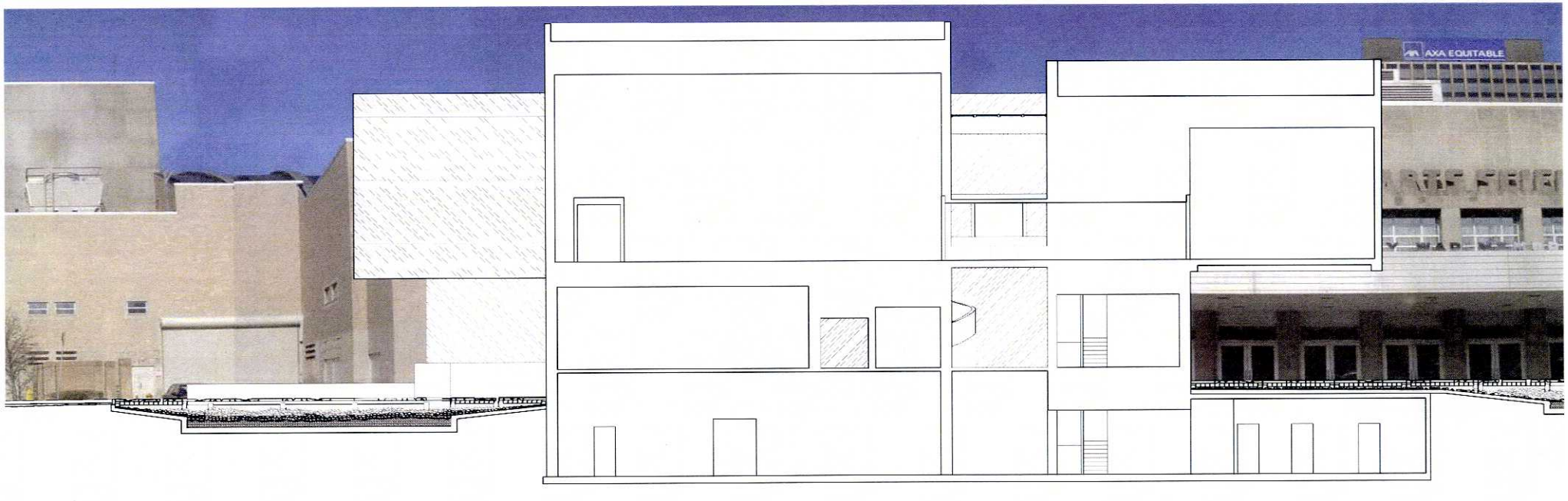
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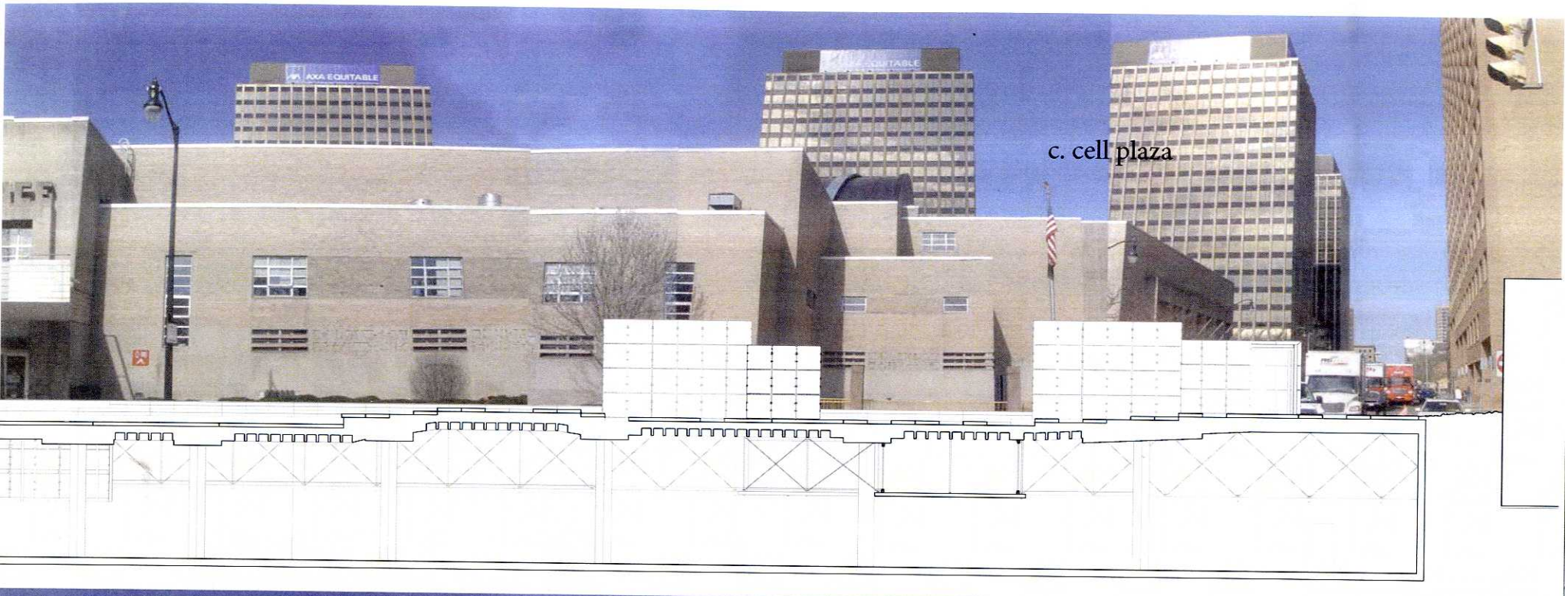
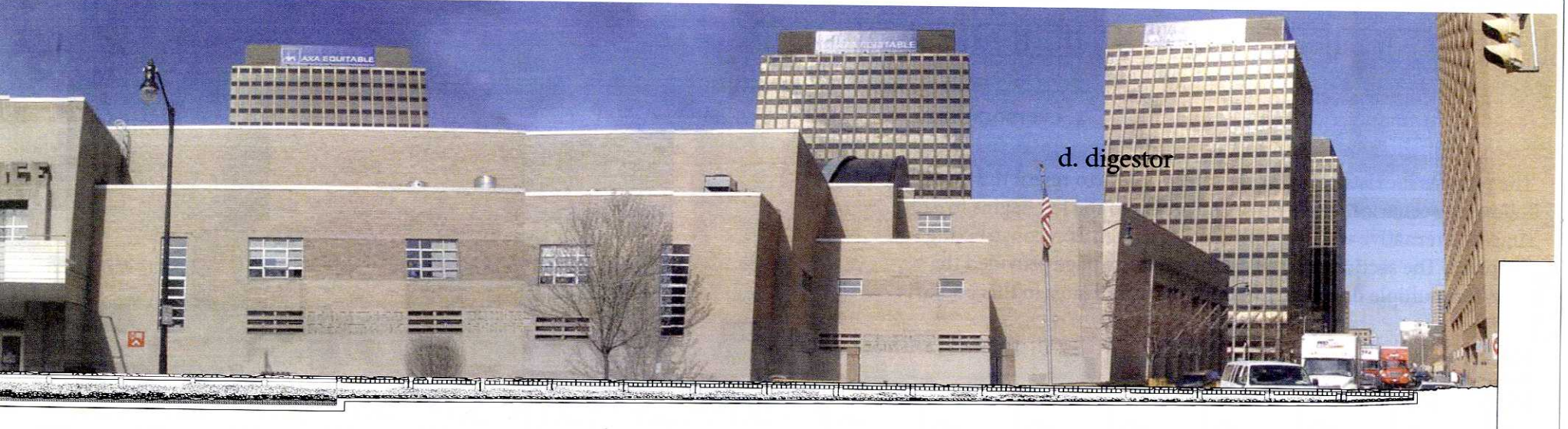
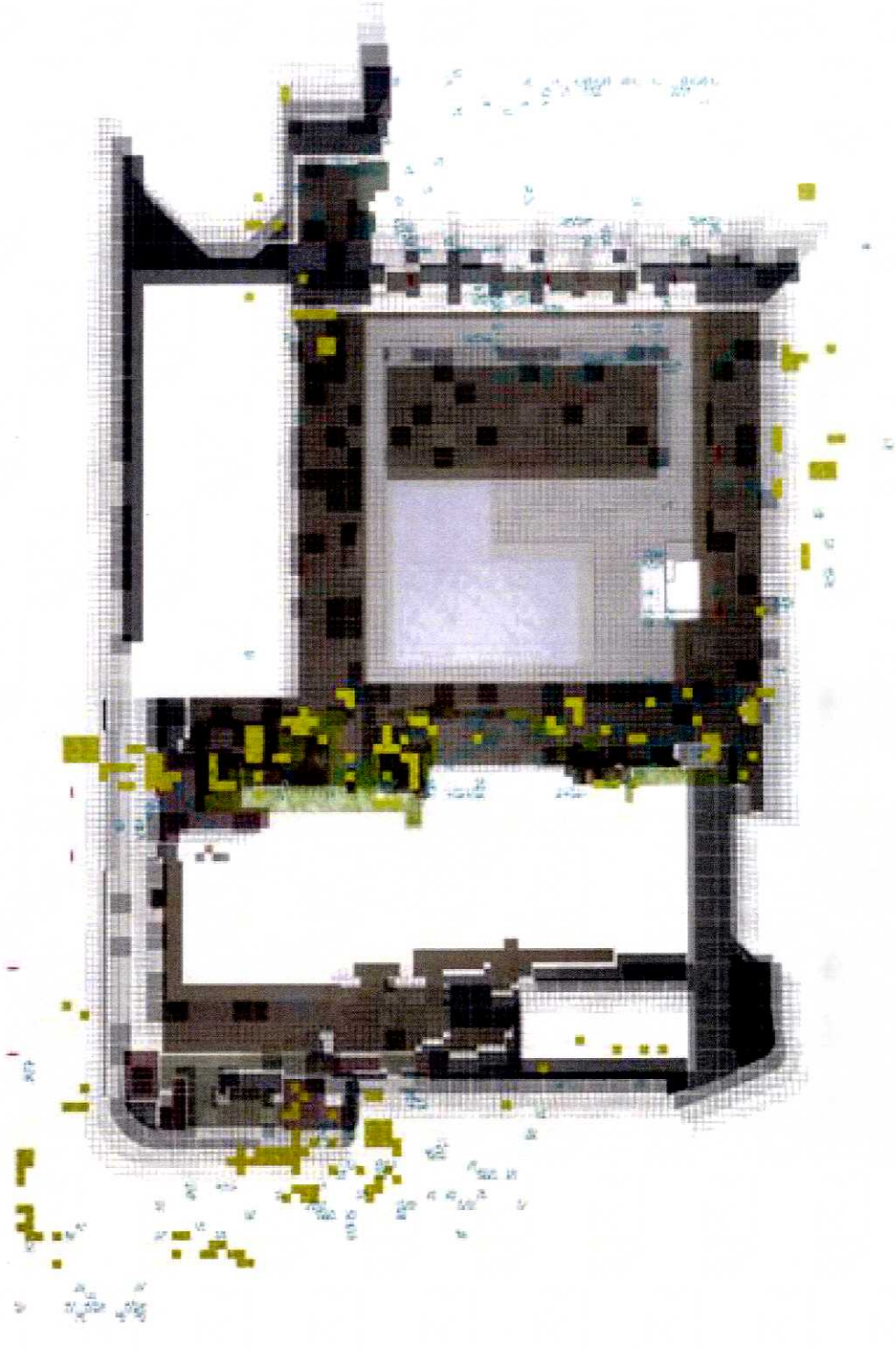


c. cell plaza

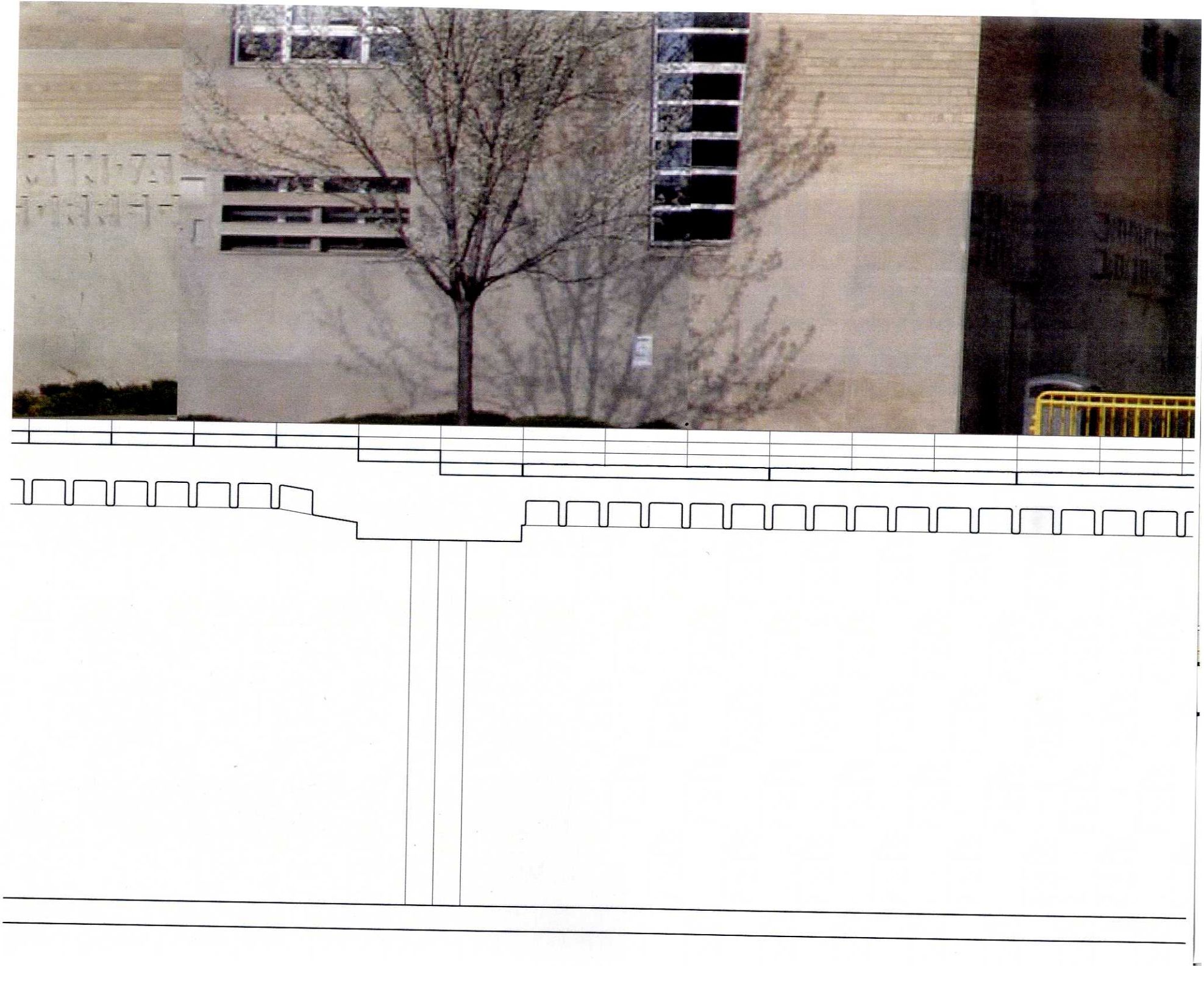


d. digestor



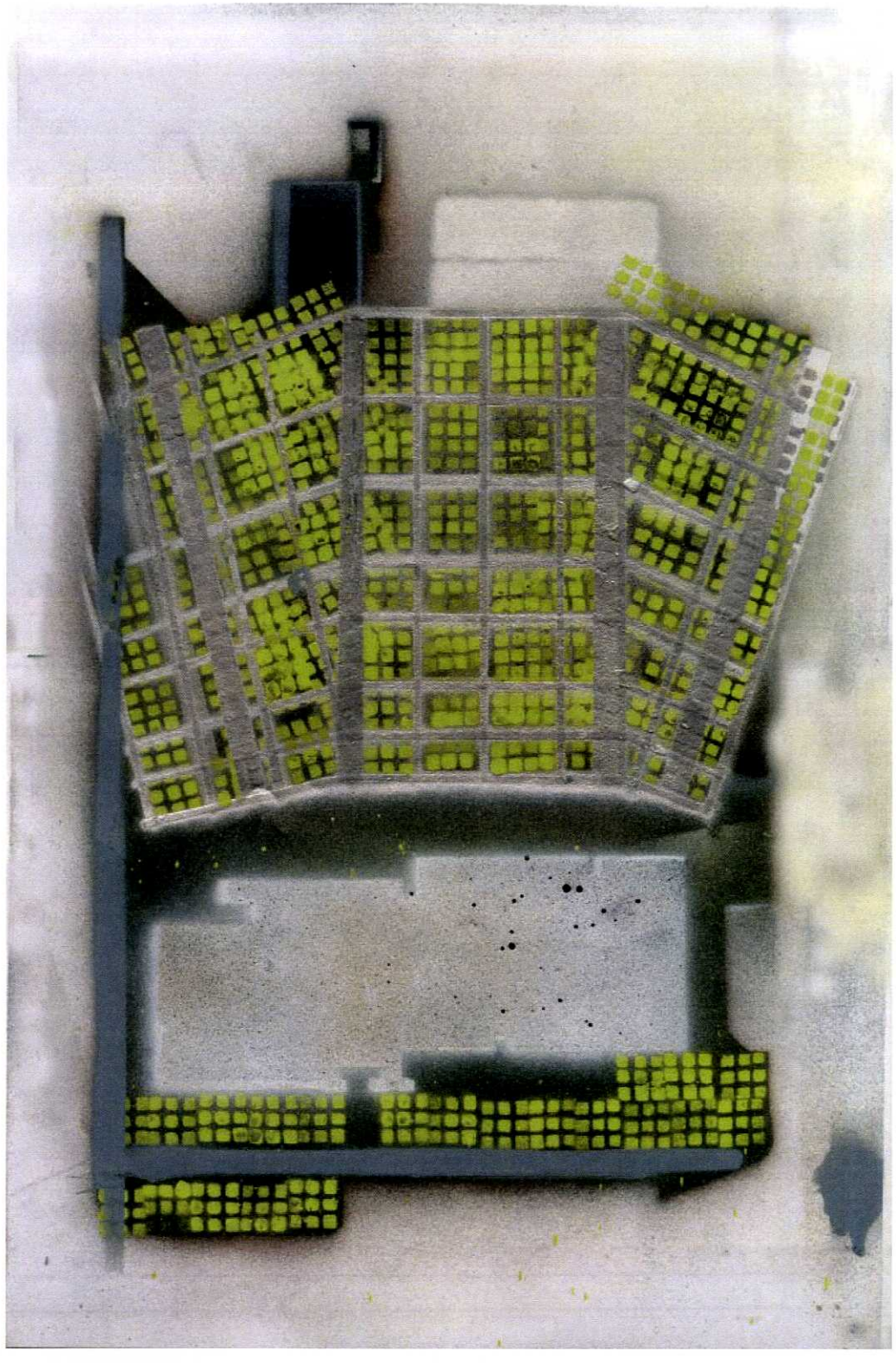
a. everson plaza

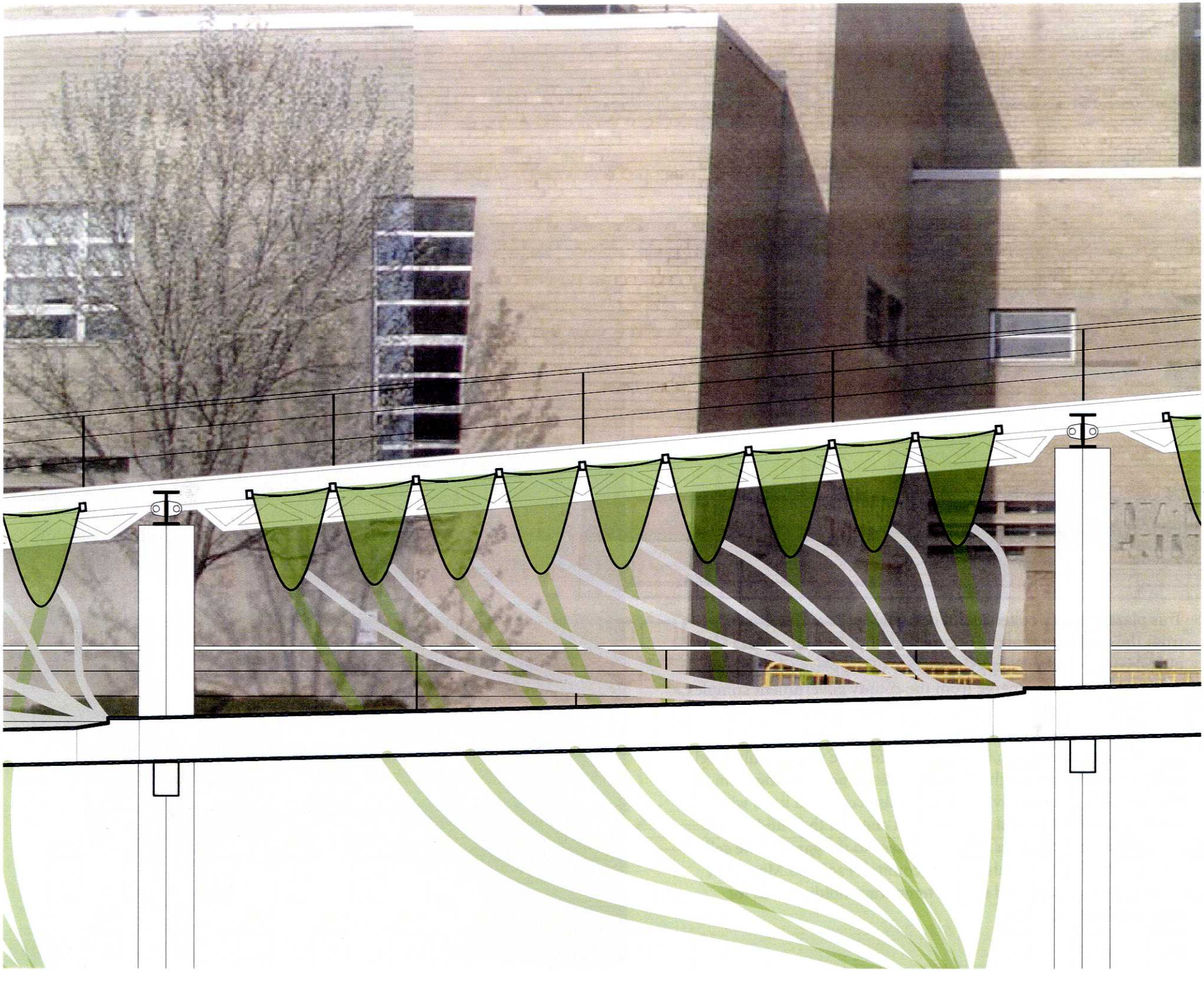
The plaza as it exists contains the latent orders to reveal the three following scenarios. The map of the orders to the left begins to suggest alternative ways of representing as well as reconstructing the plaza. The sectional detail on the opposite page provided the basis for multiple detail explorations discussed later in this book.



b. bio plaza:

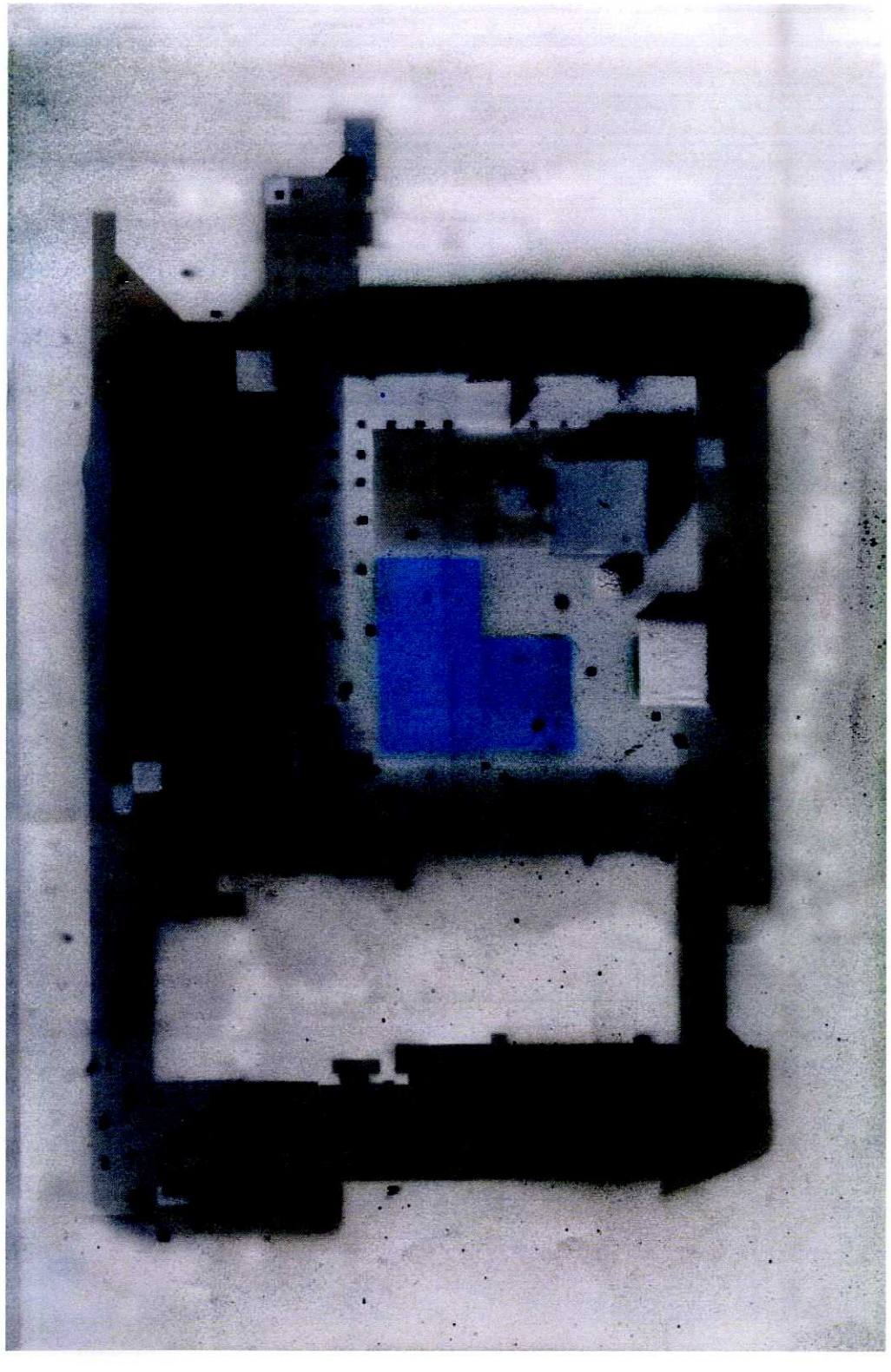
Drawing from the accidental biotopes created by the plaza's drainage problems, this plaza is re-imagined an as algaculture farm capable of producing of 690 tons of biomass per year to supply gas to museum itself. The 'plaza' becomes a collection of suspended photobioreactors which provide an environment optimize for algae growth. Using the sunlight and precipitation that naturally falls on the plaza along with flue gasses from the adjacent county steam plant, each bioreactor would allow a high yeild for a high yield of algea. Each reactor is able to be individually drained into the algal processing units installed in space that was formerly the garage. From here, the algae can be pressed into biodiesel for county's fleet of automobiles or processed further into a methane to provide gas power to the museum.

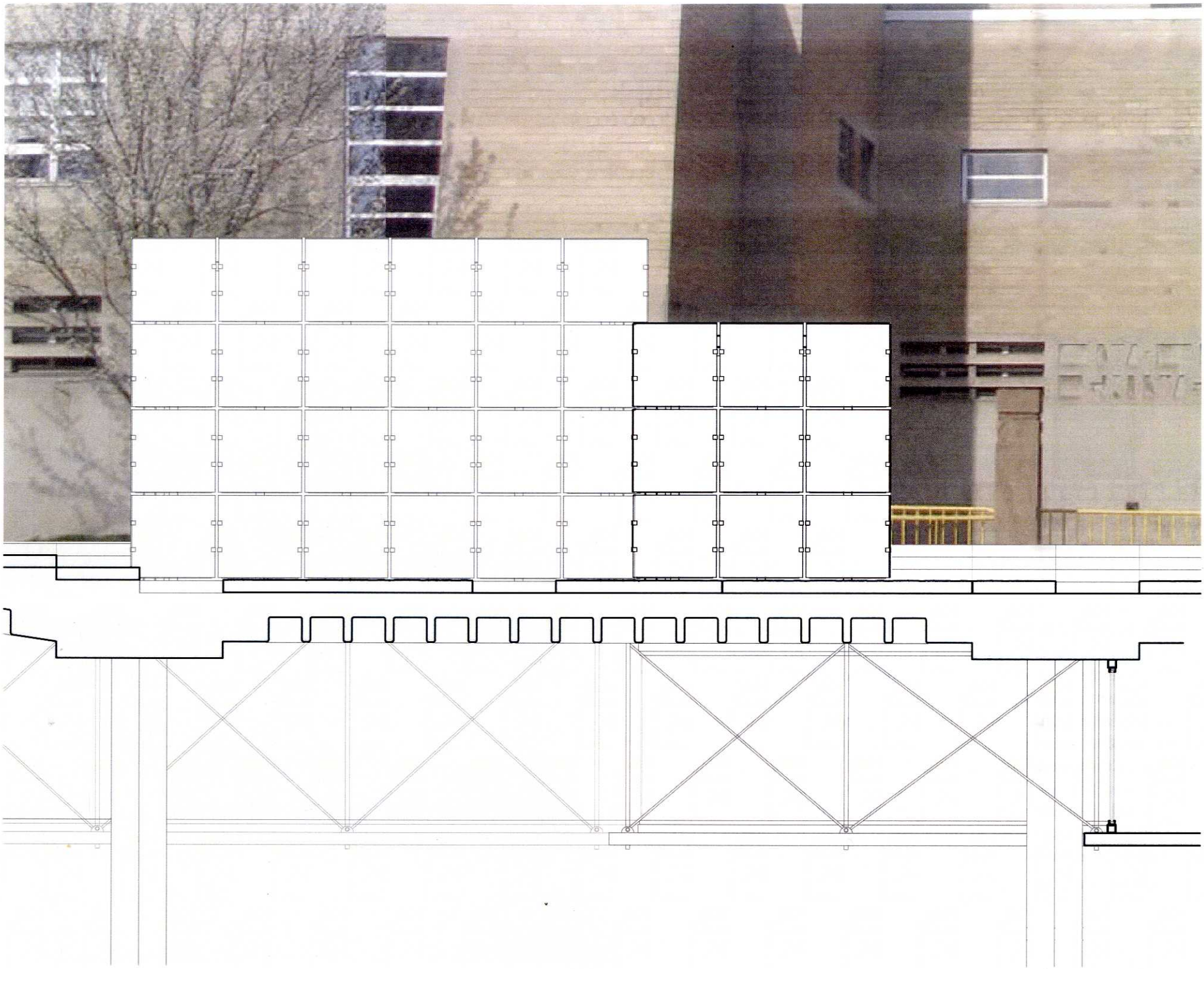




c. cell plaza

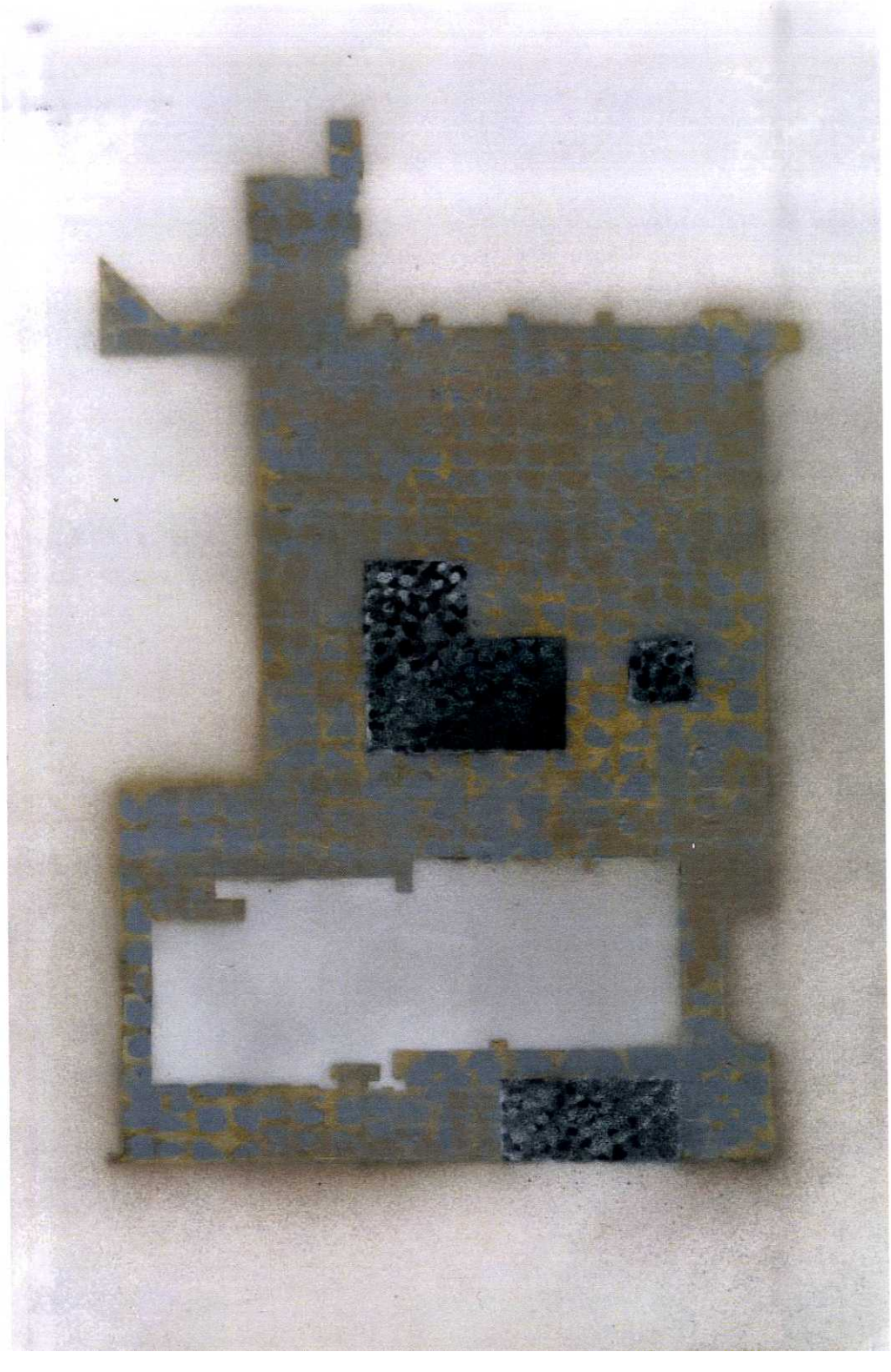
is plaza acts as a collection of occupible cells and is drawn
m the dual nature of the occupation of the Everson Plaza. The
blic is allowed to occupy the surface of the plaza while various
blic officials who emerge from the county government complex
t bounds the site have access to an underground story below
e public surface. By using the plaza's aberrant paving logics,
e cell plaza attempts to formally manifest the plaza's multi level
cupation. A light weight steel and glass structure hung from
e ceiling of garage provides to the cells access and links with the
twork of underground passages that connect the buildings of
e government complex and the musem to the garage. The cells
ntian offices for officials and the county's Facilities Managent
anch, a courtroom and several temporary holding cells for
soners on trial.

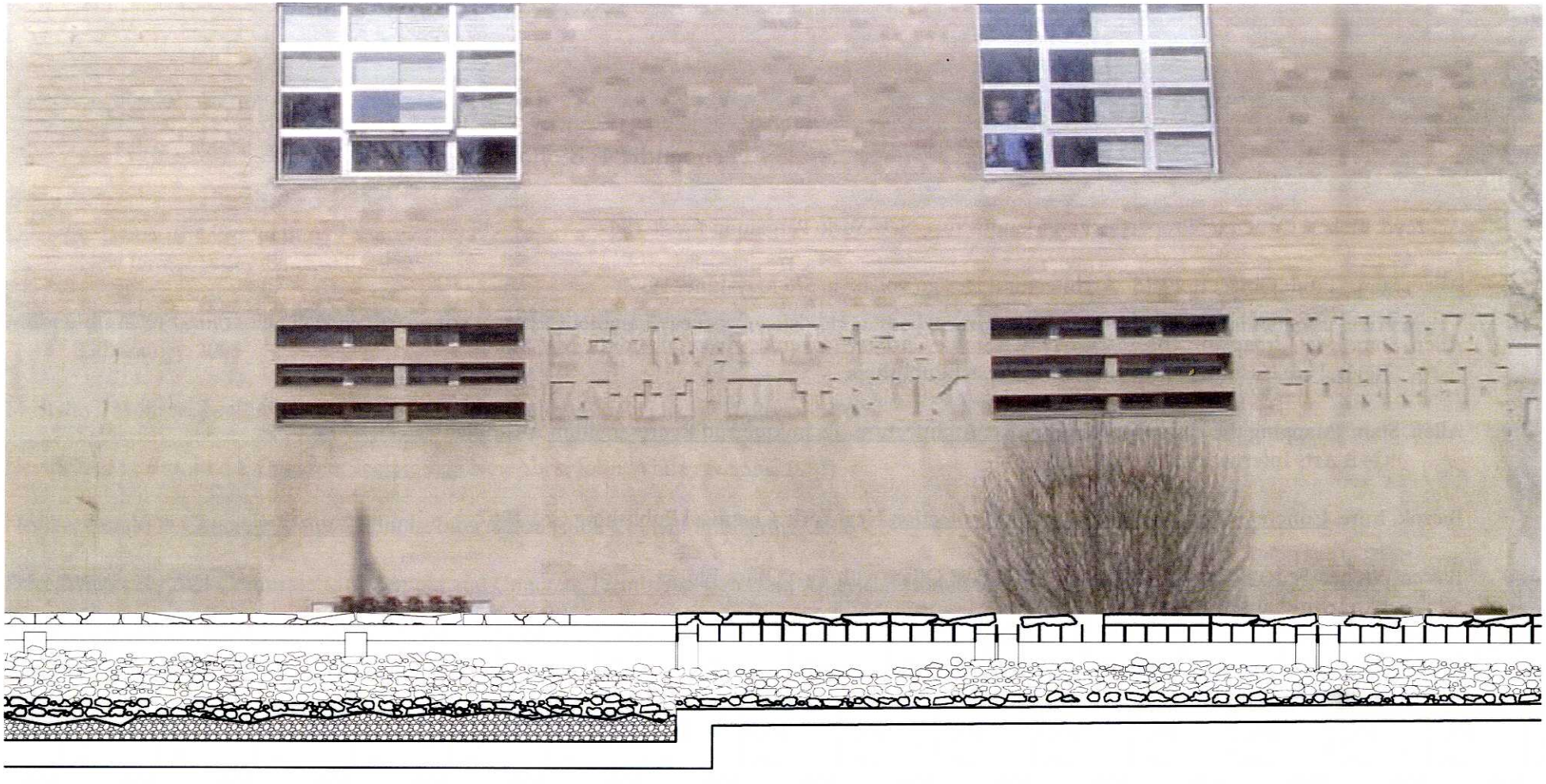




d. digestor

Drawing from the near constant deterioration of the plaza due to the freeze and thaw cycles and through the phenomenon of sulfate attack, the concrete digestor intensifies the processes that cause the crumbling. Through a sulfate dispersal system embbed within the supporting lattice as well as a method of concrete mixing that results in unstable product, the ensured deterioration becomes the main point of departure for the design. Corrosive admixtures such as sulfate based salts and glass would compramise the chemical structure of the concrete while entrained air would maximize the potential damage caused by weathering. As the pavers crumble, the gilded support lattice would be revealed, poetically displaying deterioration of the otherwise modernist space.





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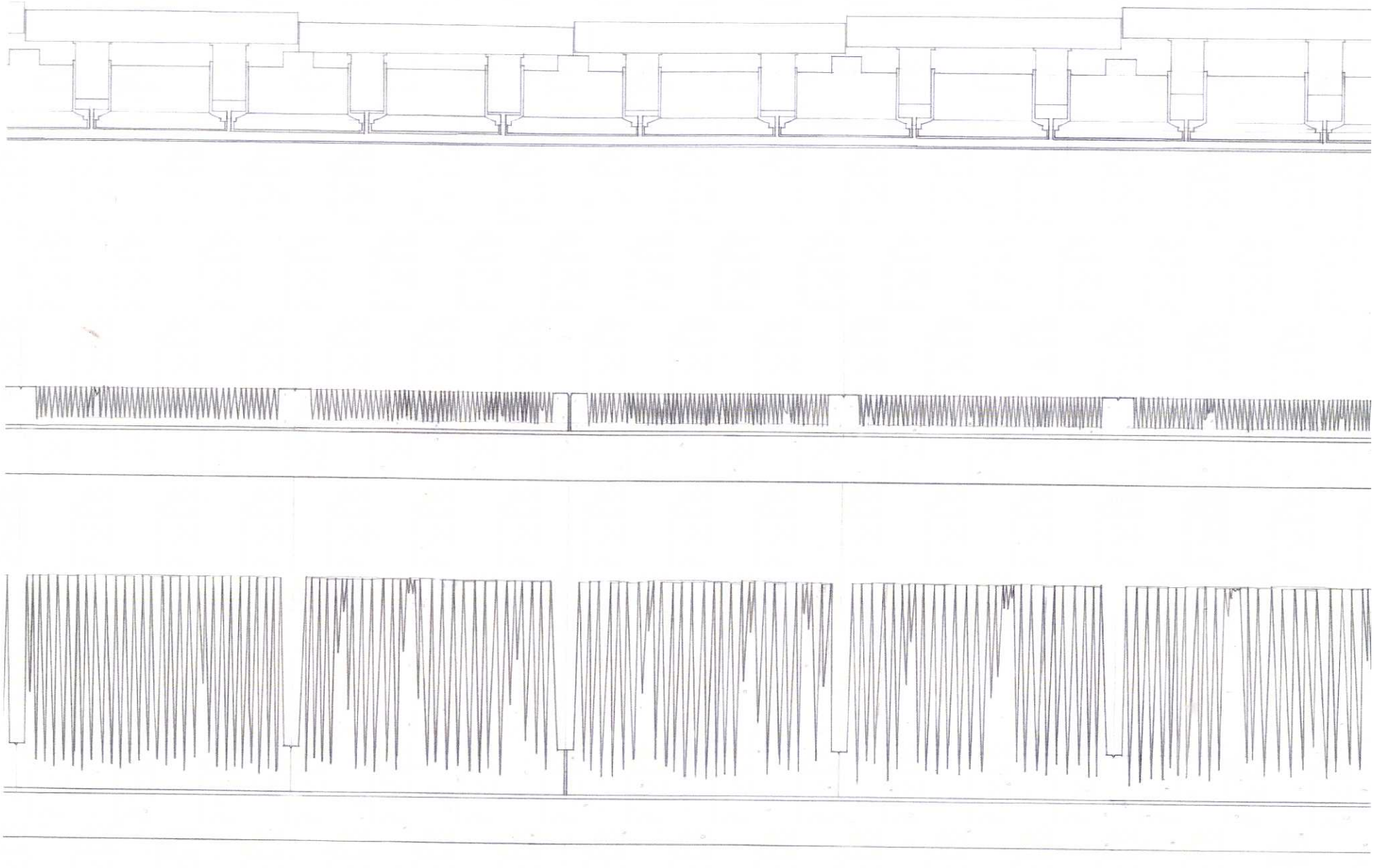
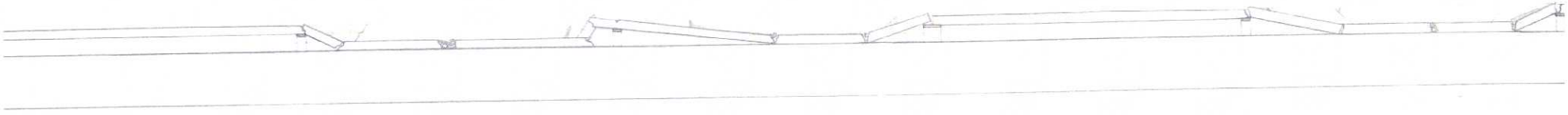
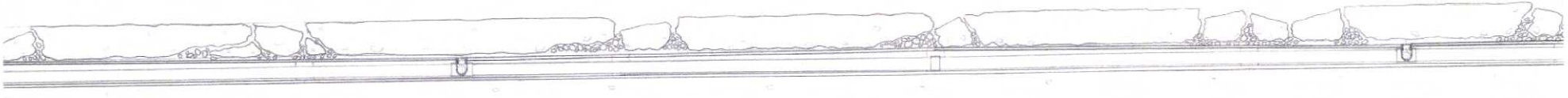
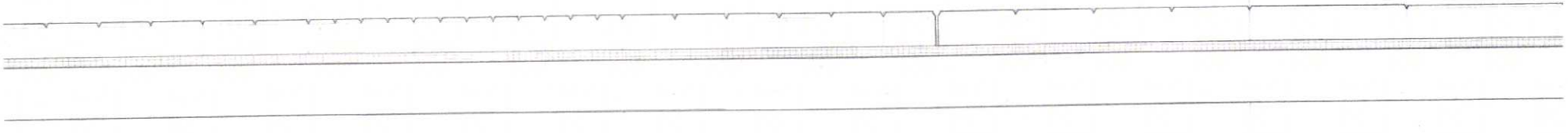
appendix 2: details

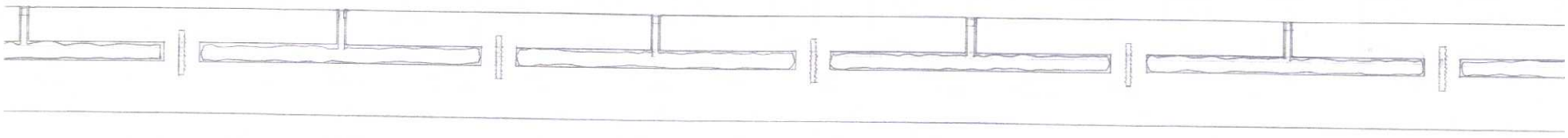
The following pages are a series of sectional details developed in response to some of the specific logics latent within the Everson Plaza. Through amplification and repetition, these details were investigation into the ability of the detail to define the larger system. These details are designed so that a uniform distribution of the specific detail would result in a differentiation that could not have been achieved through strict planametric control.

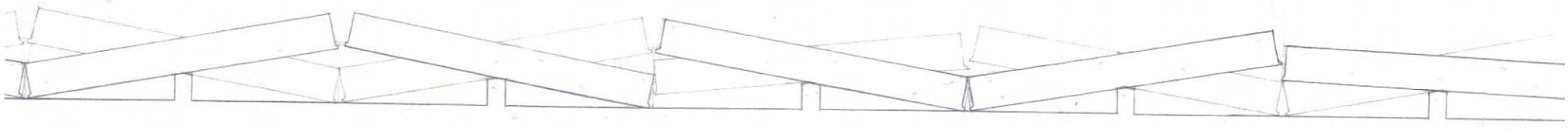


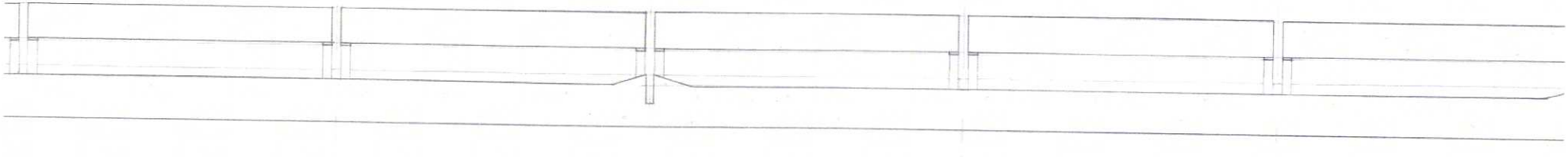


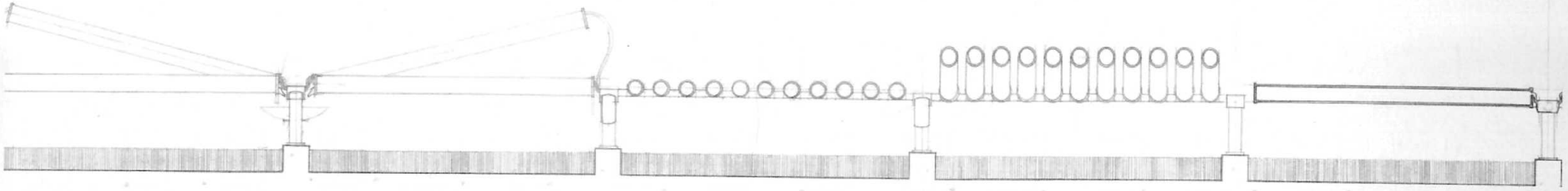


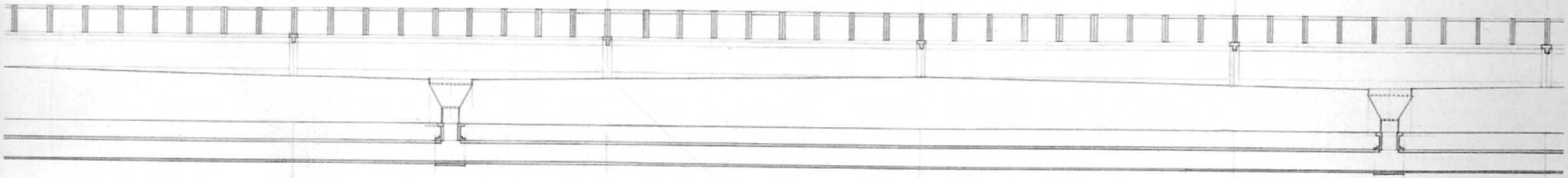








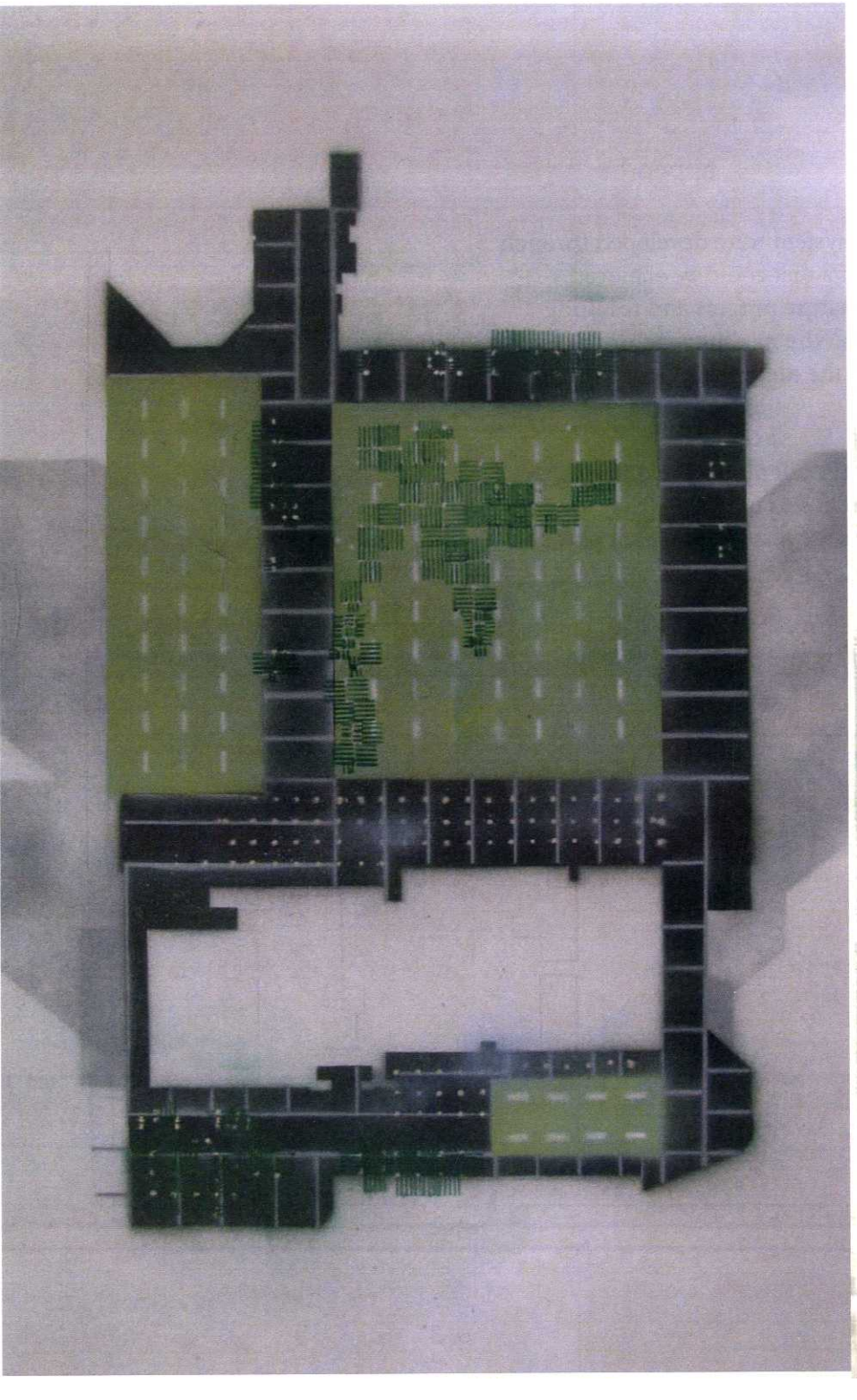


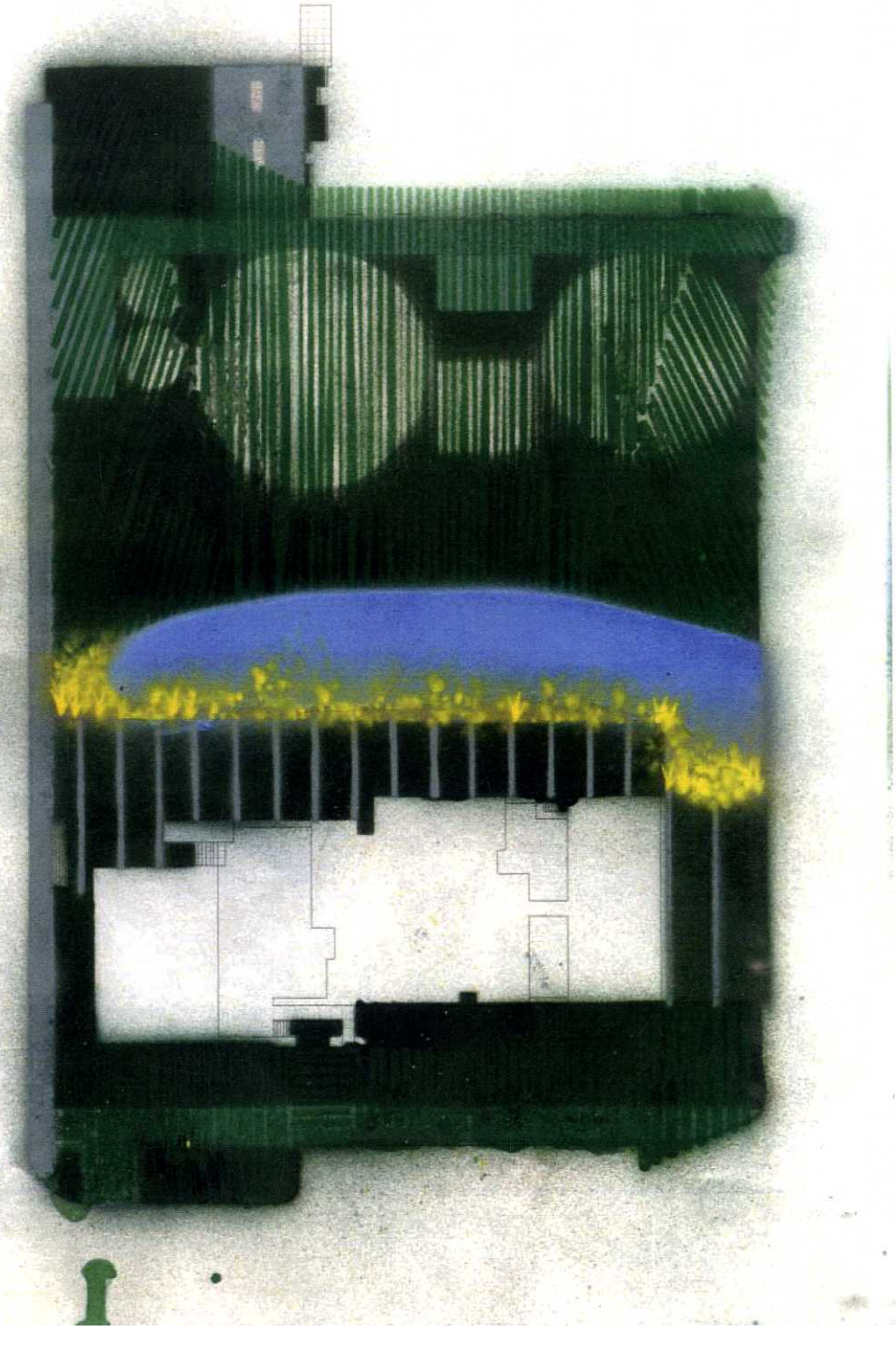


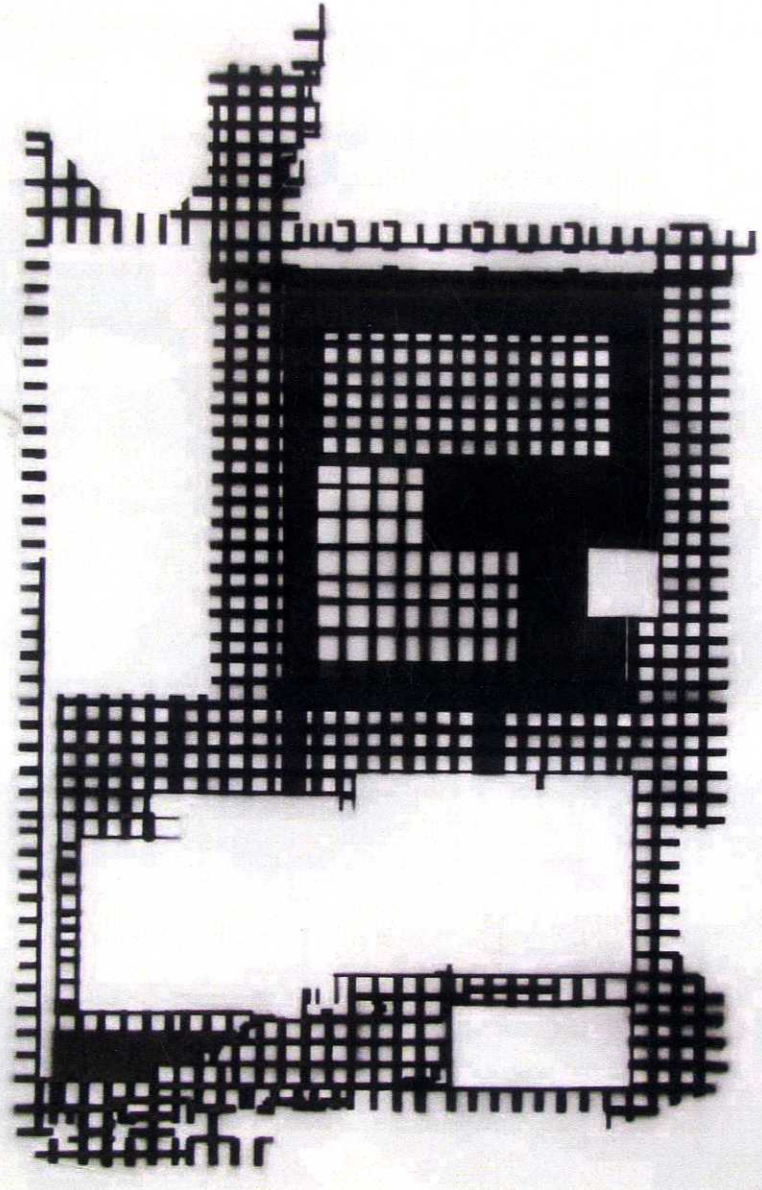
appendix 2: plans

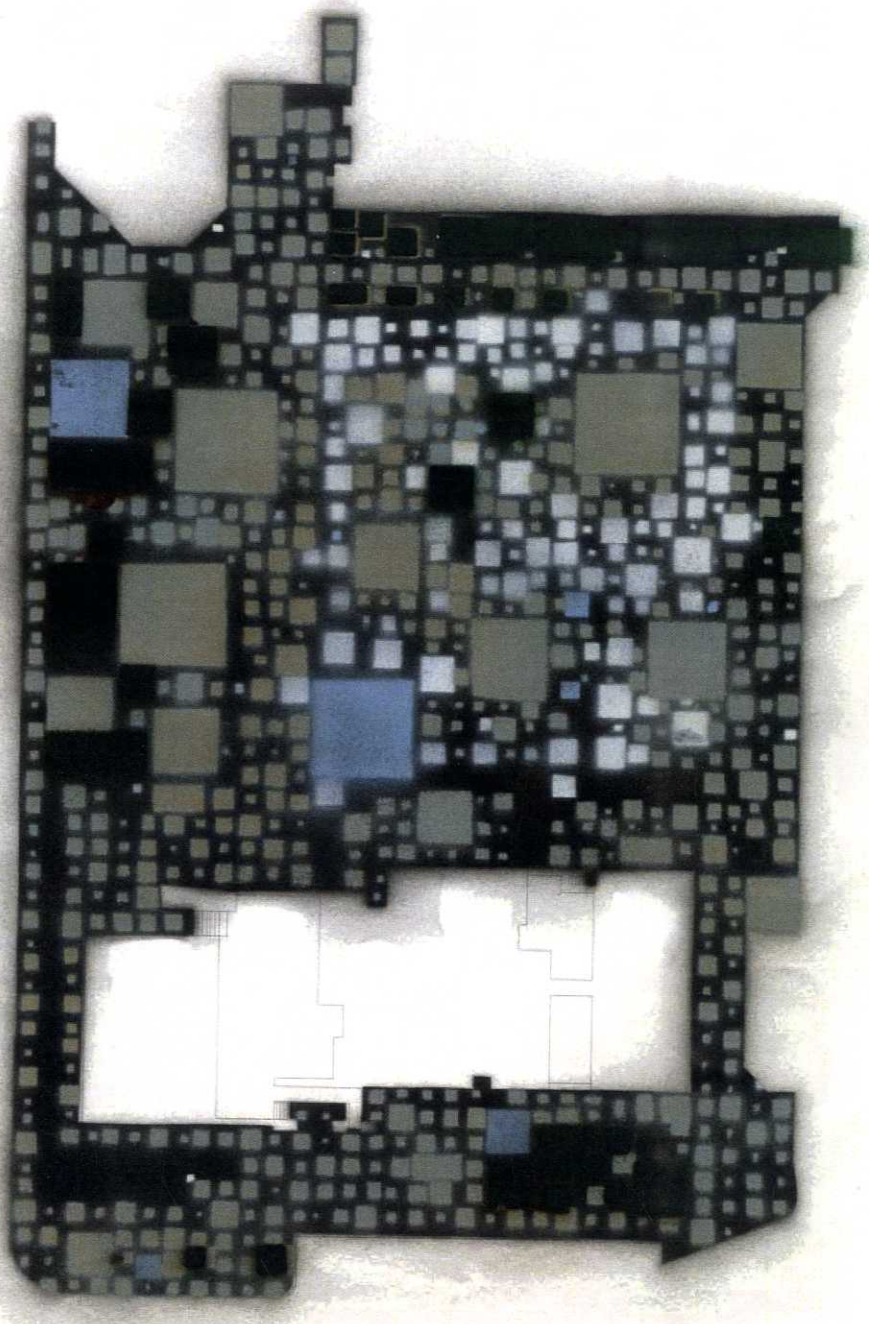
After the intense investigation of the detail, loose strategies for the larger system were developed through stenciling. This method allowed the masking and overlay of different effects that could be achieved through control of the detail. Stenciling was chosen because of the loose nature process and resulting artifact as well as its relation to the tactical nature of its typical application. The mediums nature as layering process and its relationship with surface served to further underscore the methodologies attempted in this project.

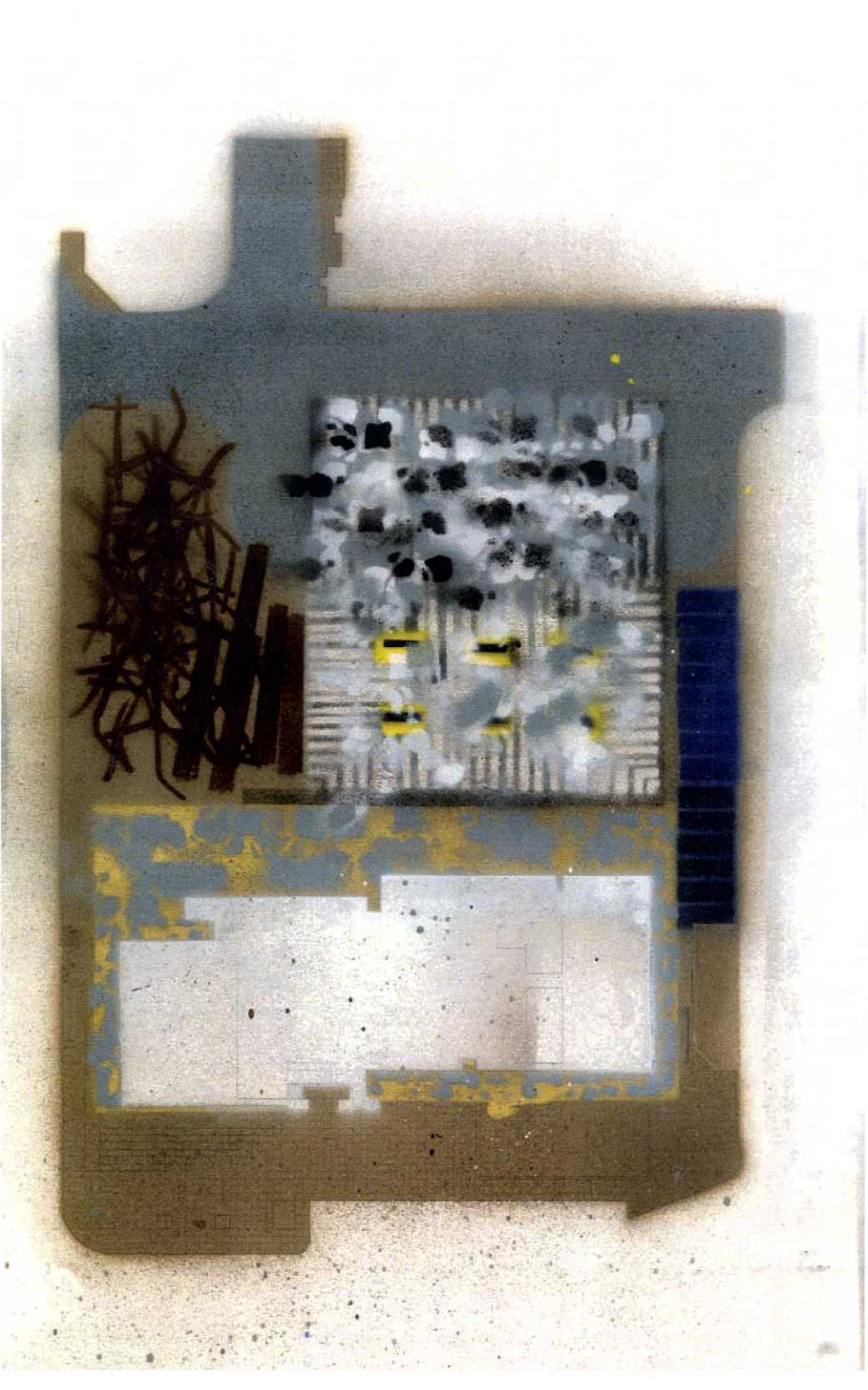
The following planametirc explorations are stops along the development of each plaza. The differing 'plans' were the results of tests of different strategies of layering and different sets of effects. They are included in this document to highlight my argument that the final scenarios are just a set that are part of a larger array of possibilities.

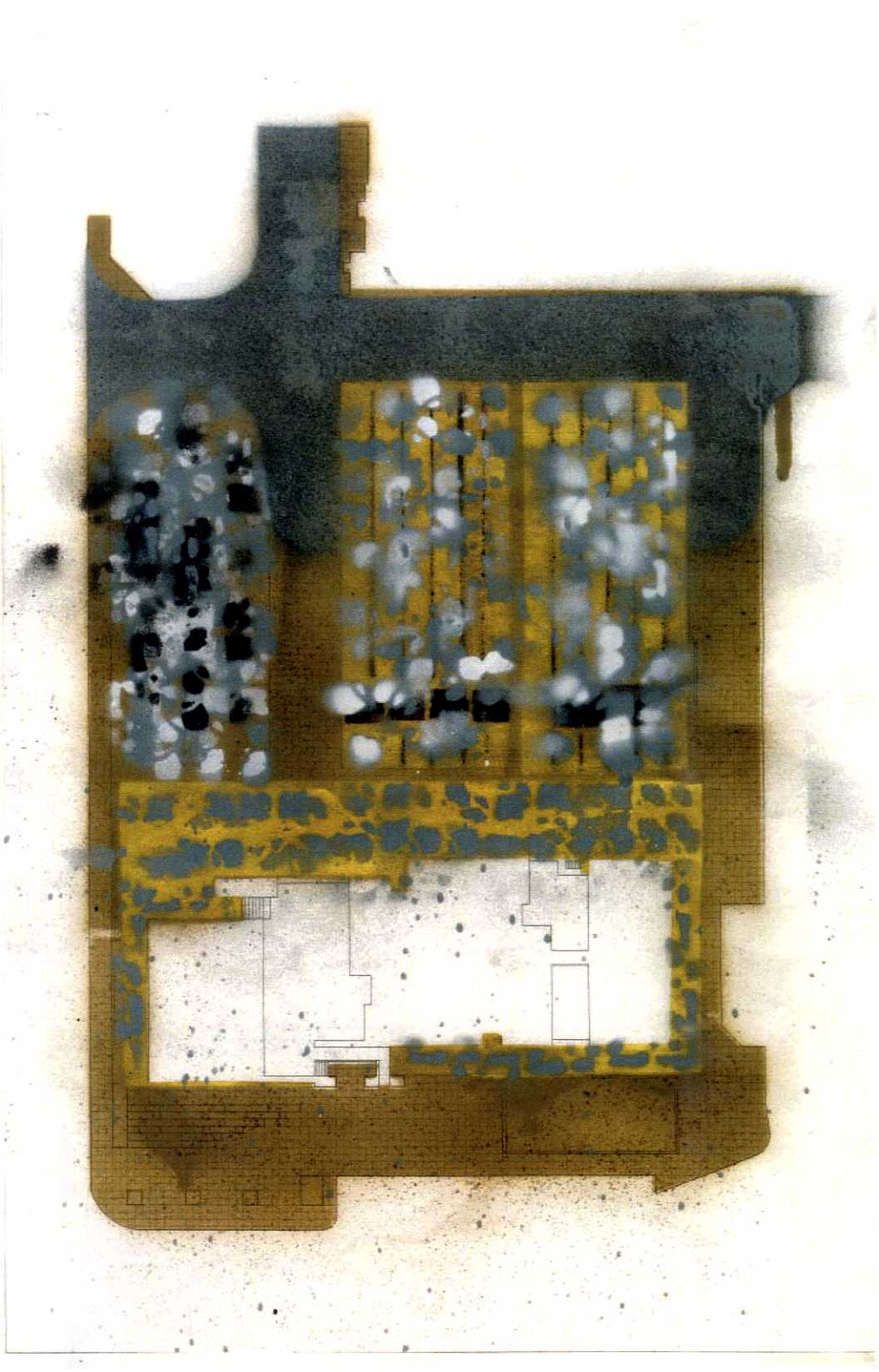






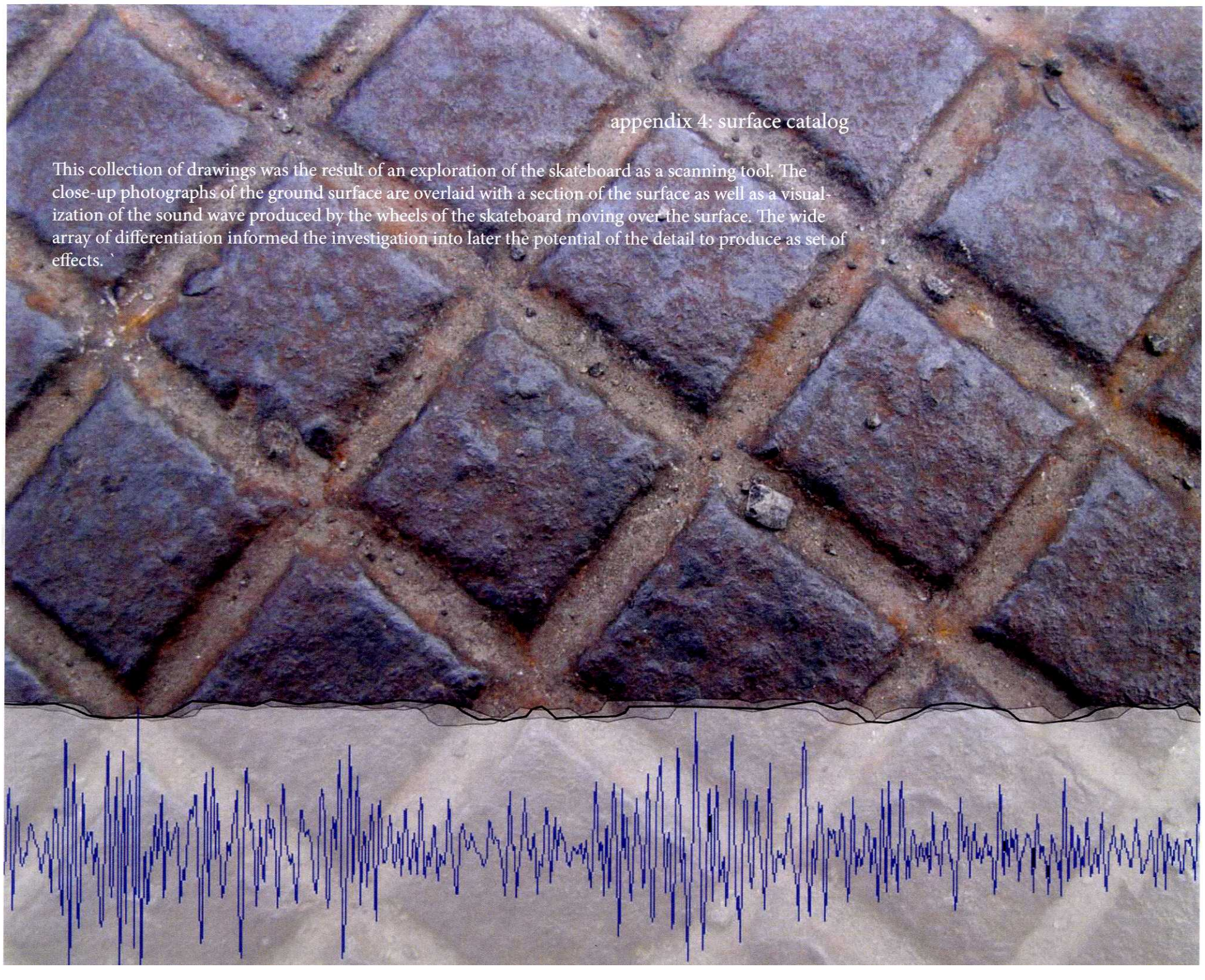


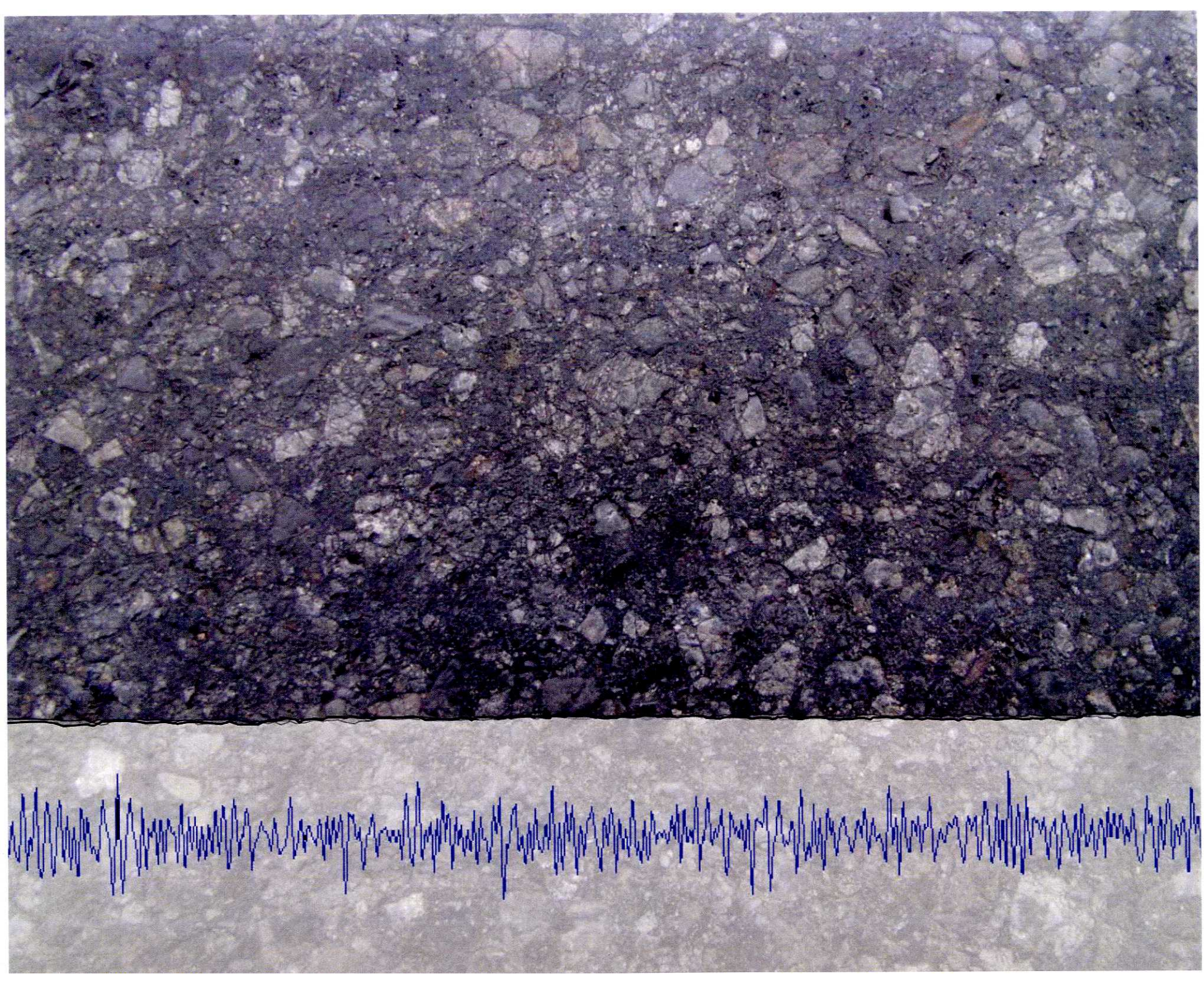


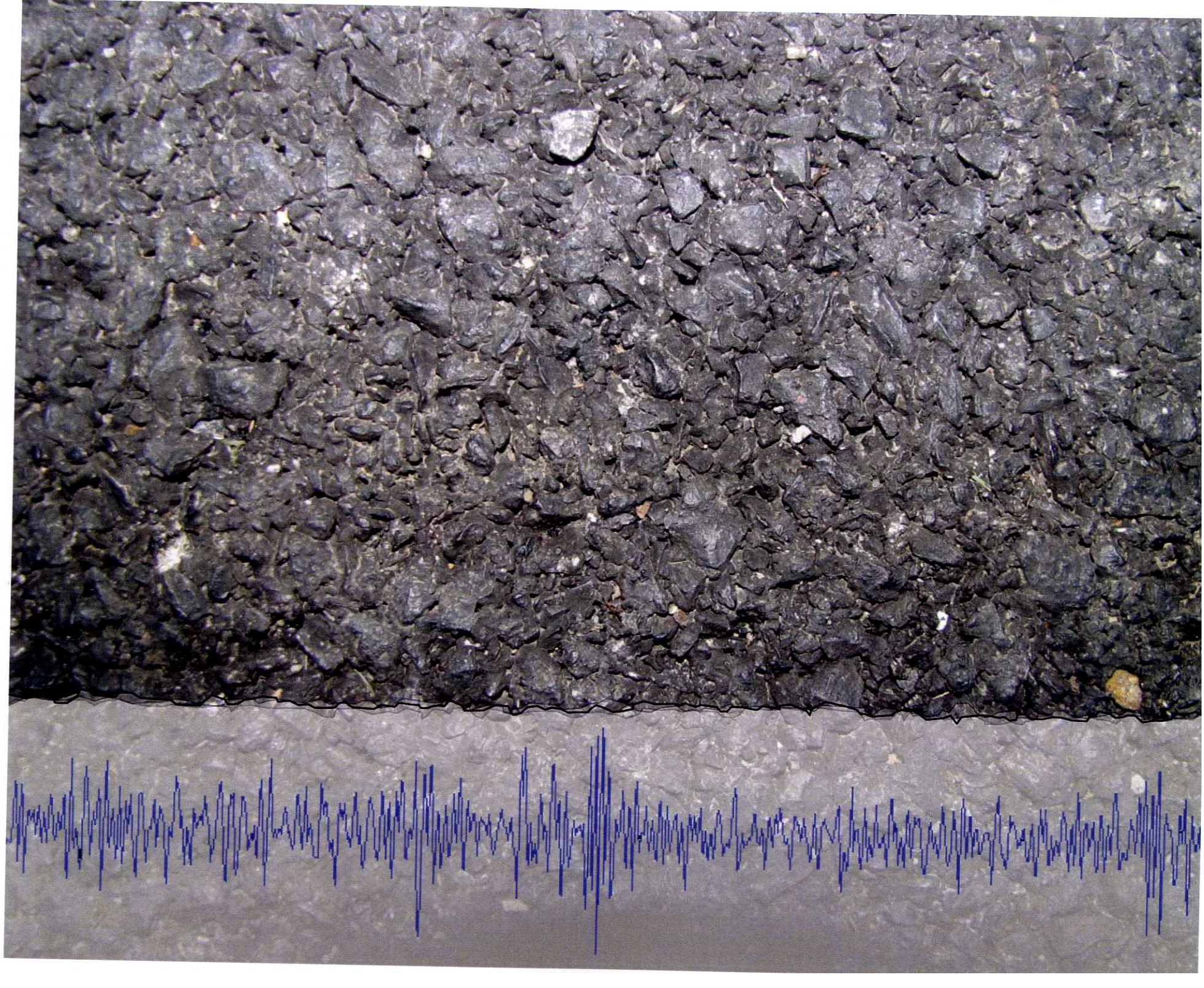


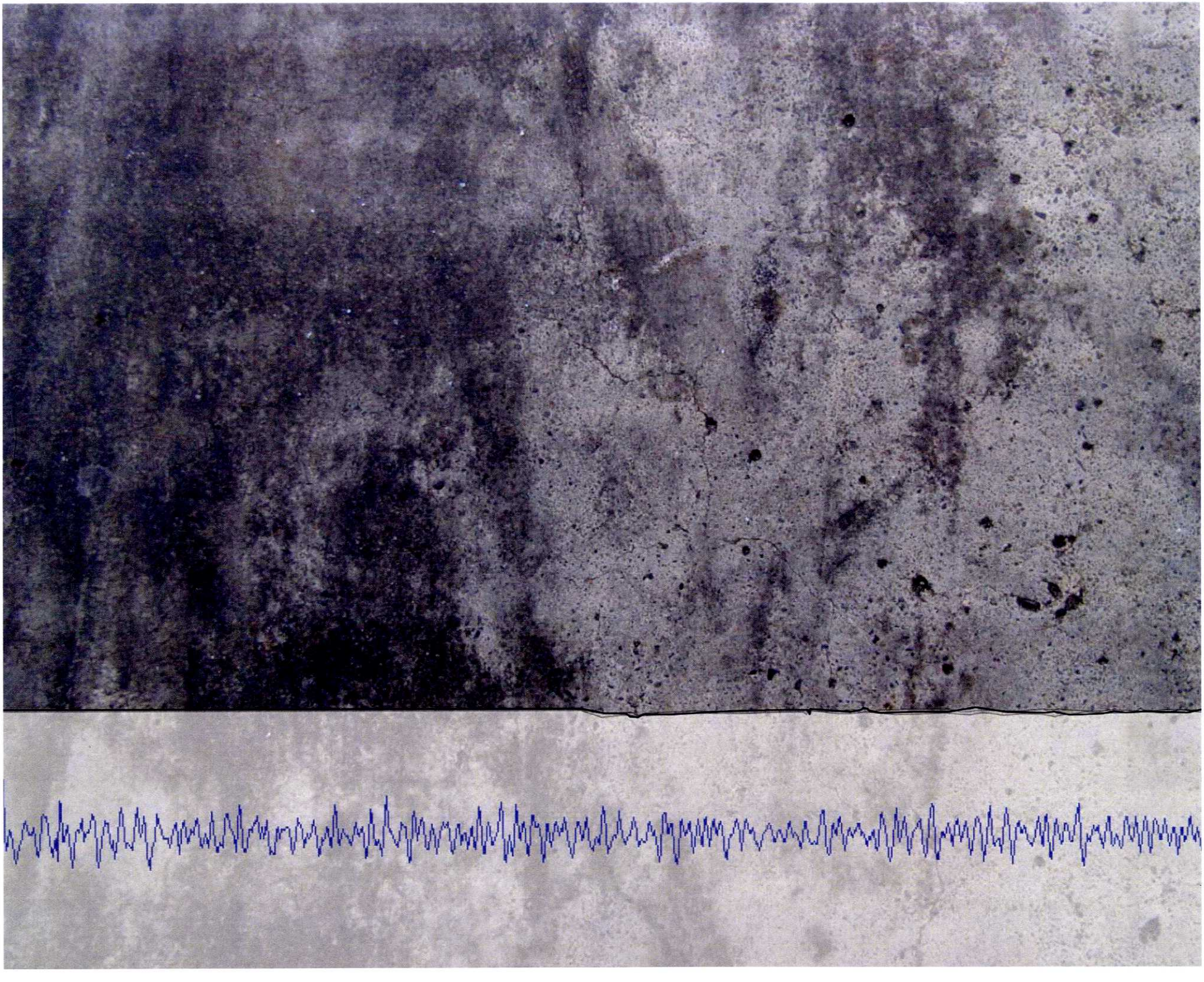
appendix 4: surface catalog

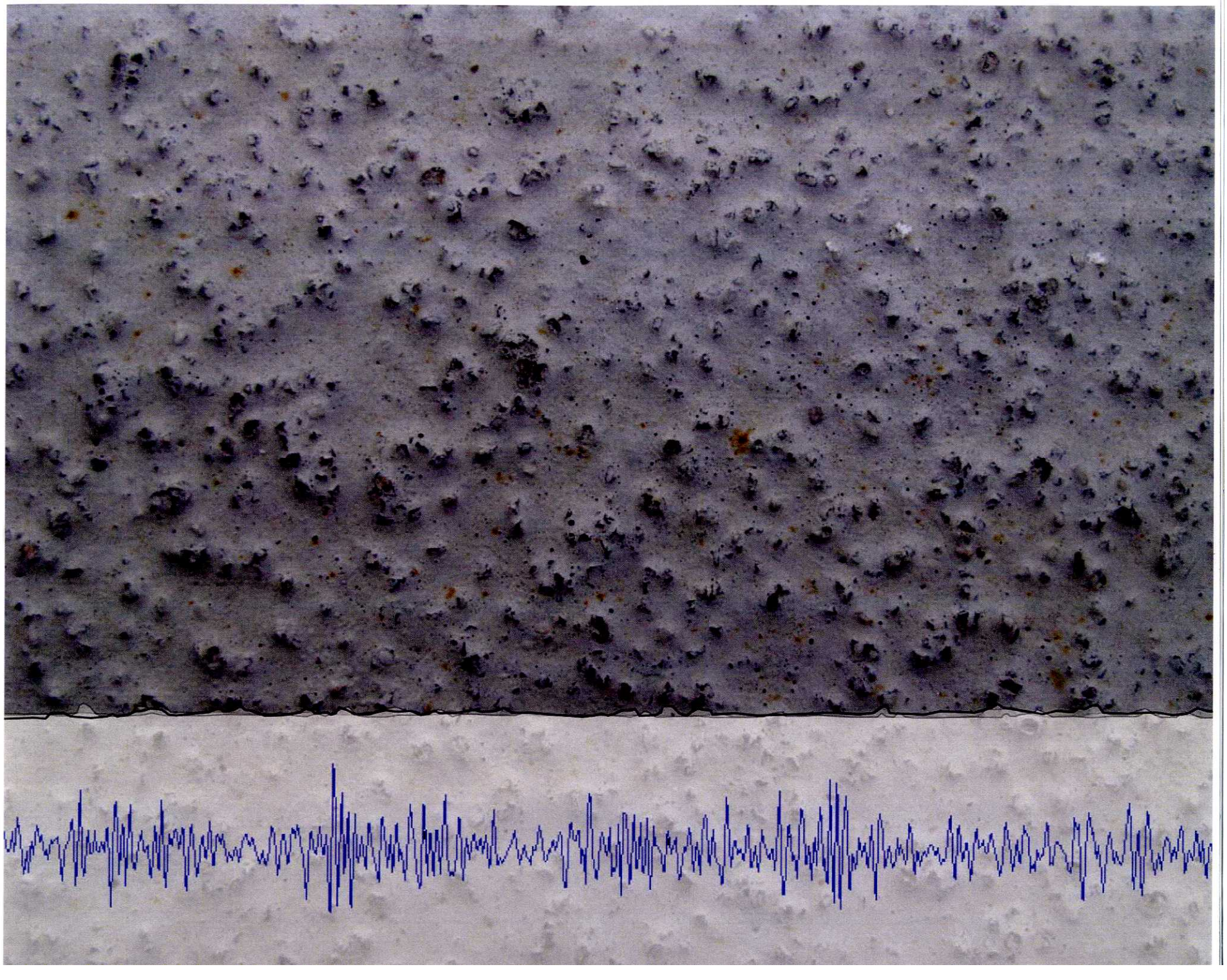
This collection of drawings was the result of an exploration of the skateboard as a scanning tool. The close-up photographs of the ground surface are overlaid with a section of the surface as well as a visualization of the sound wave produced by the wheels of the skateboard moving over the surface. The wide array of differentiation informed the investigation into later the potential of the detail to produce as set of effects. `

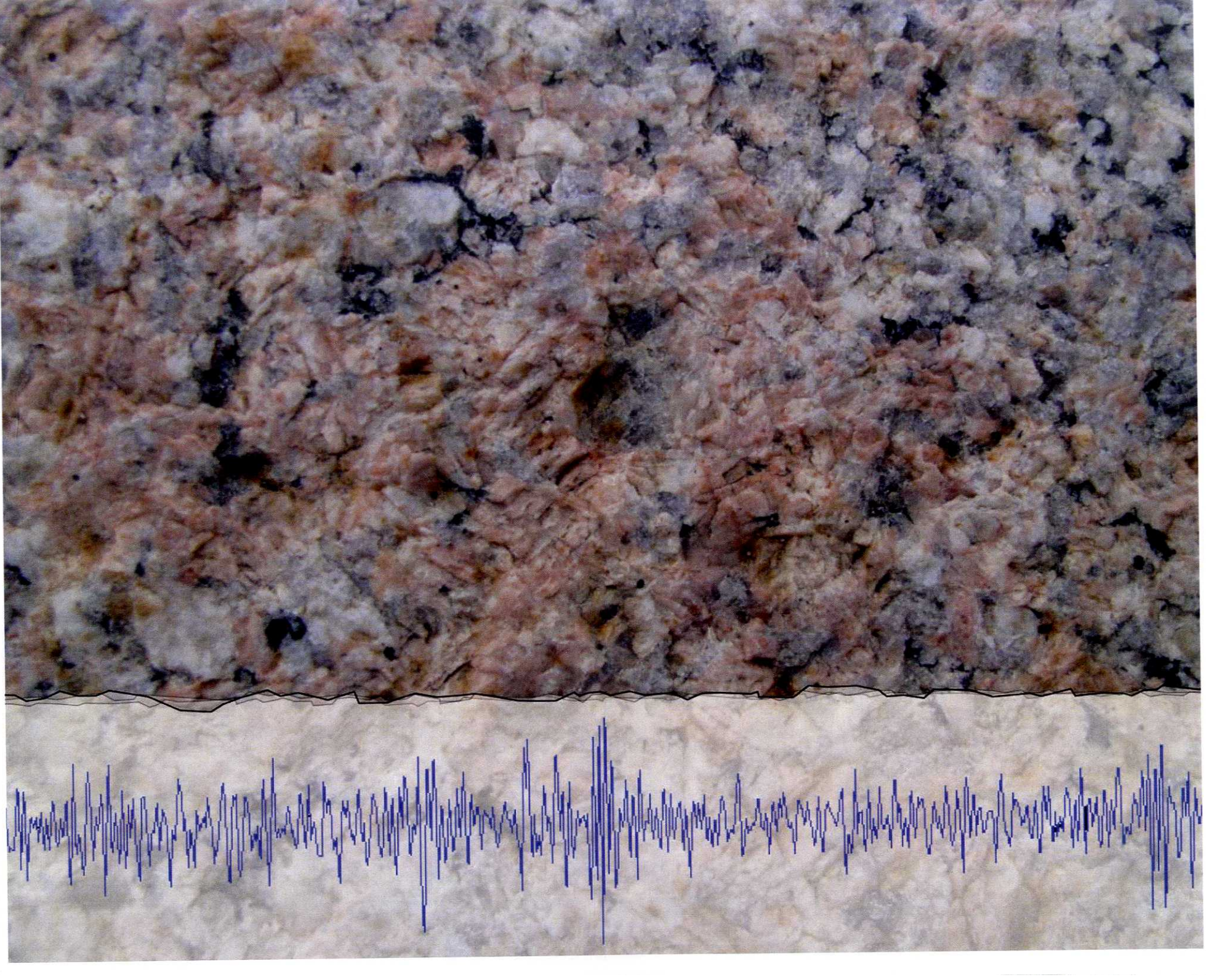


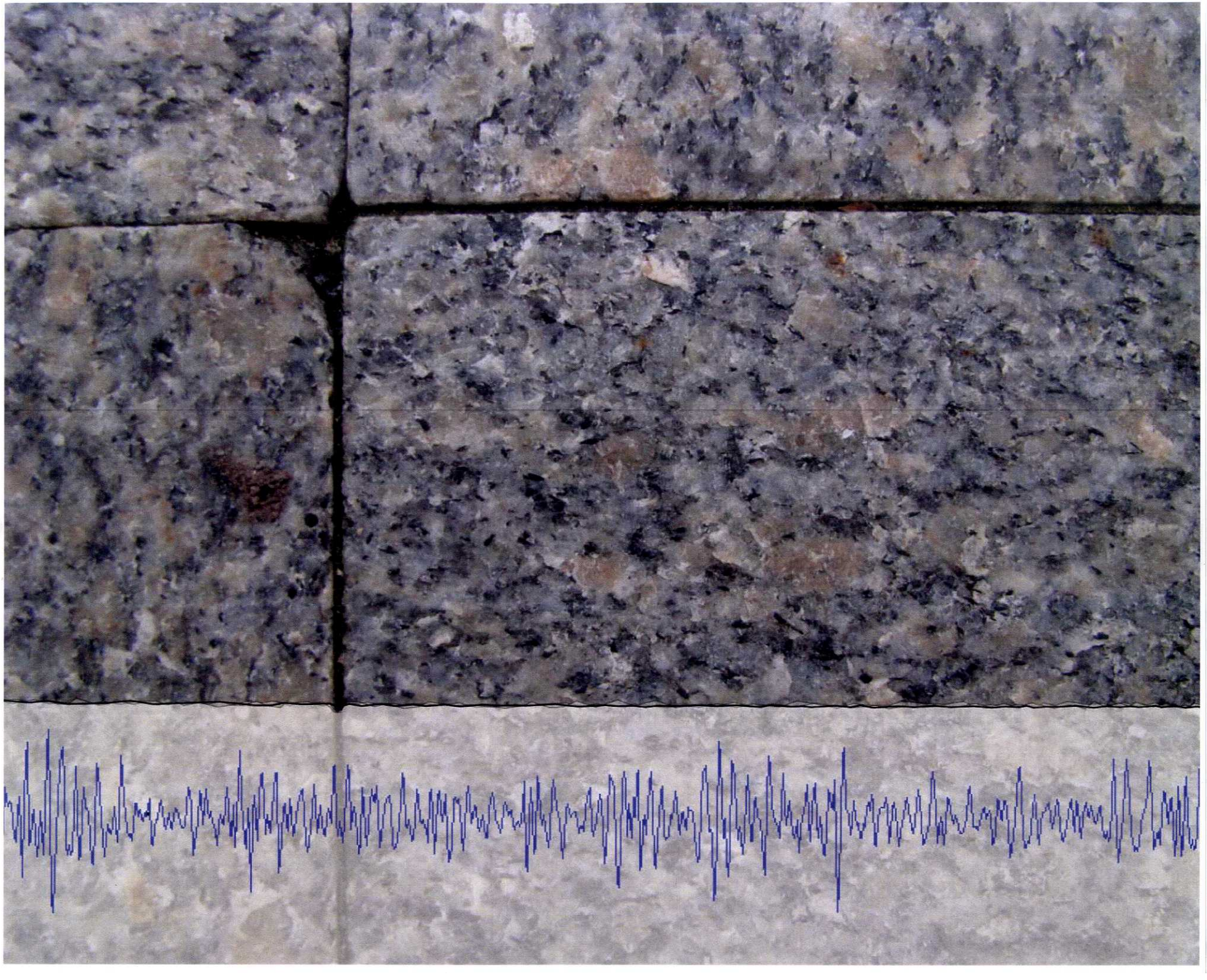


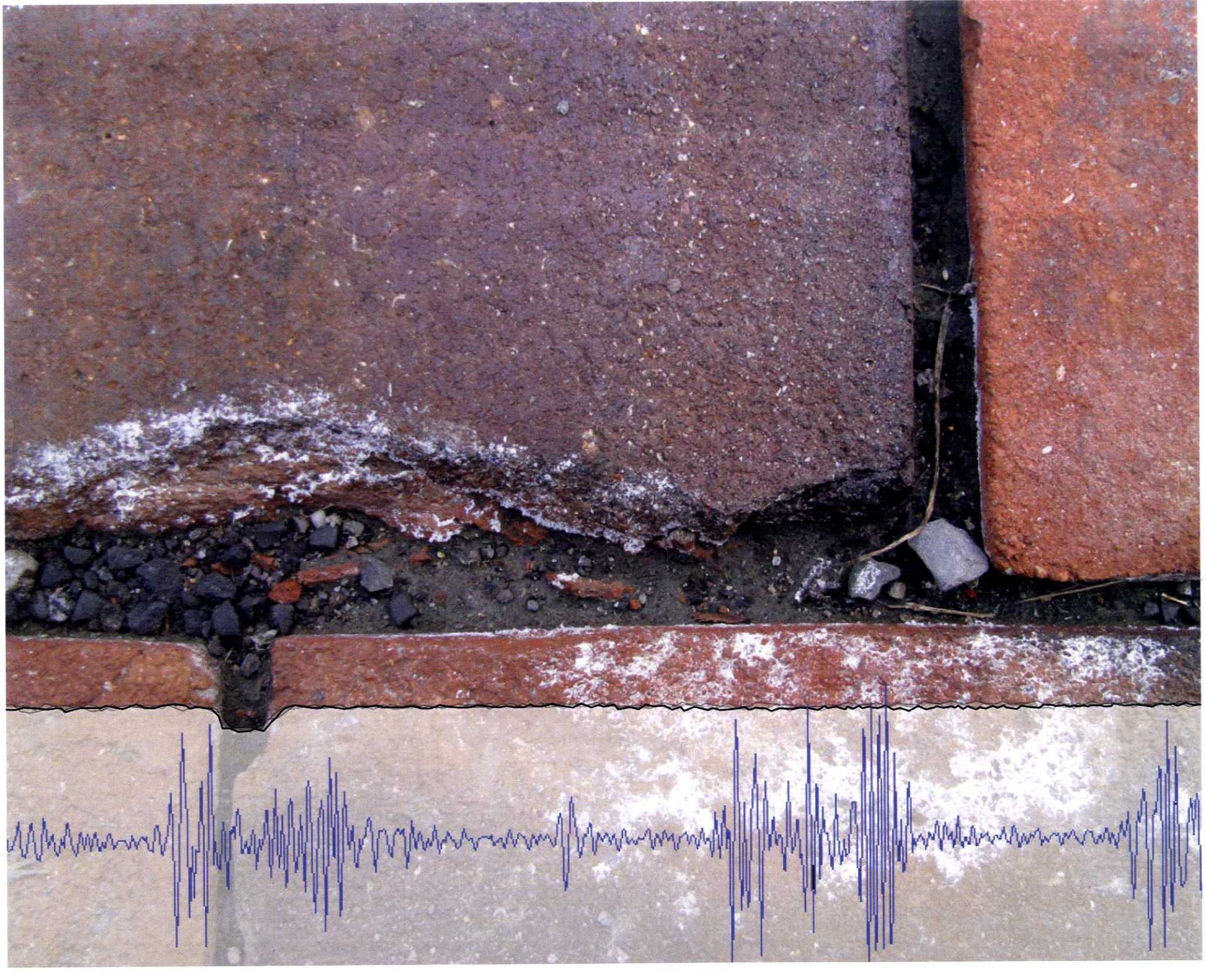


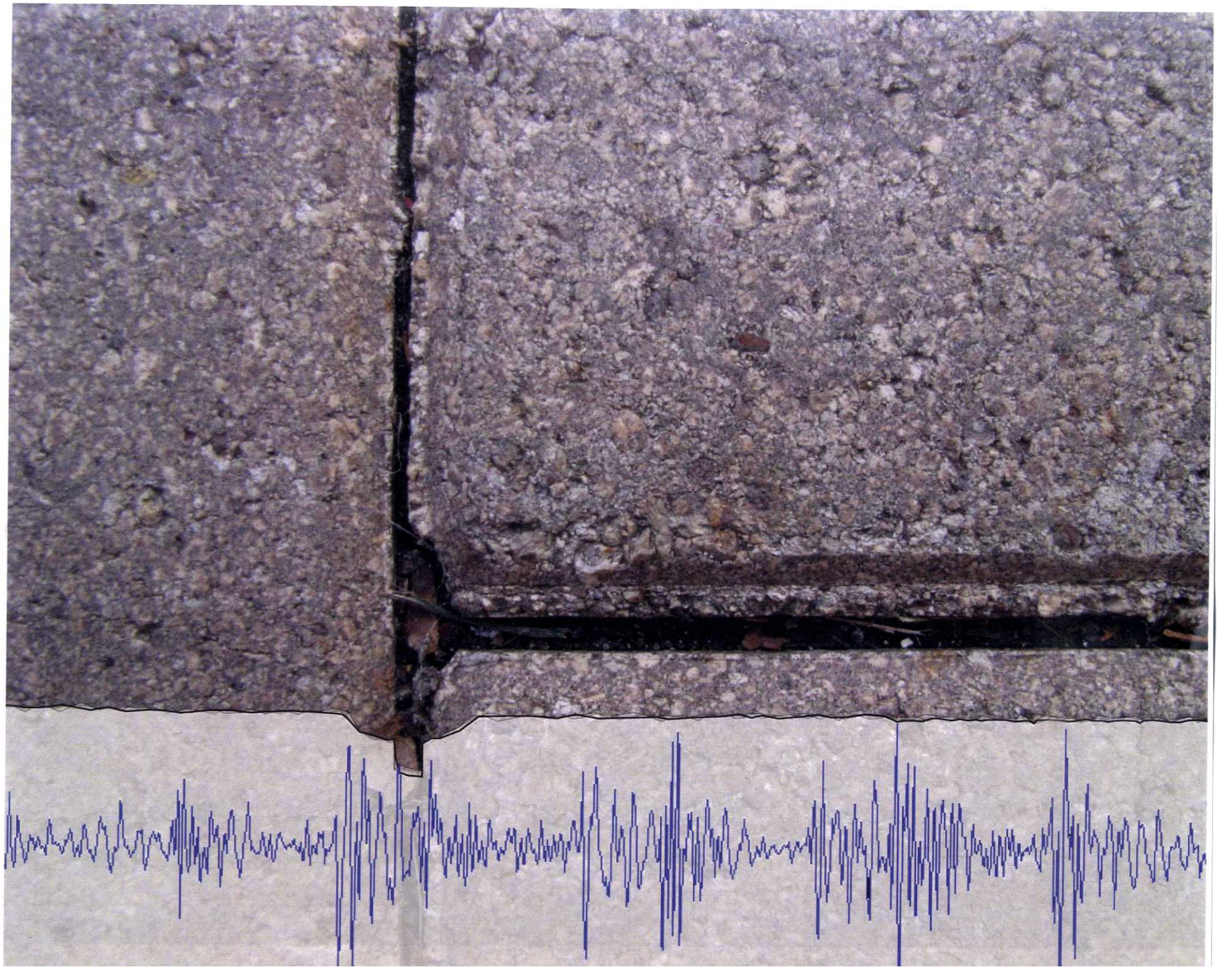


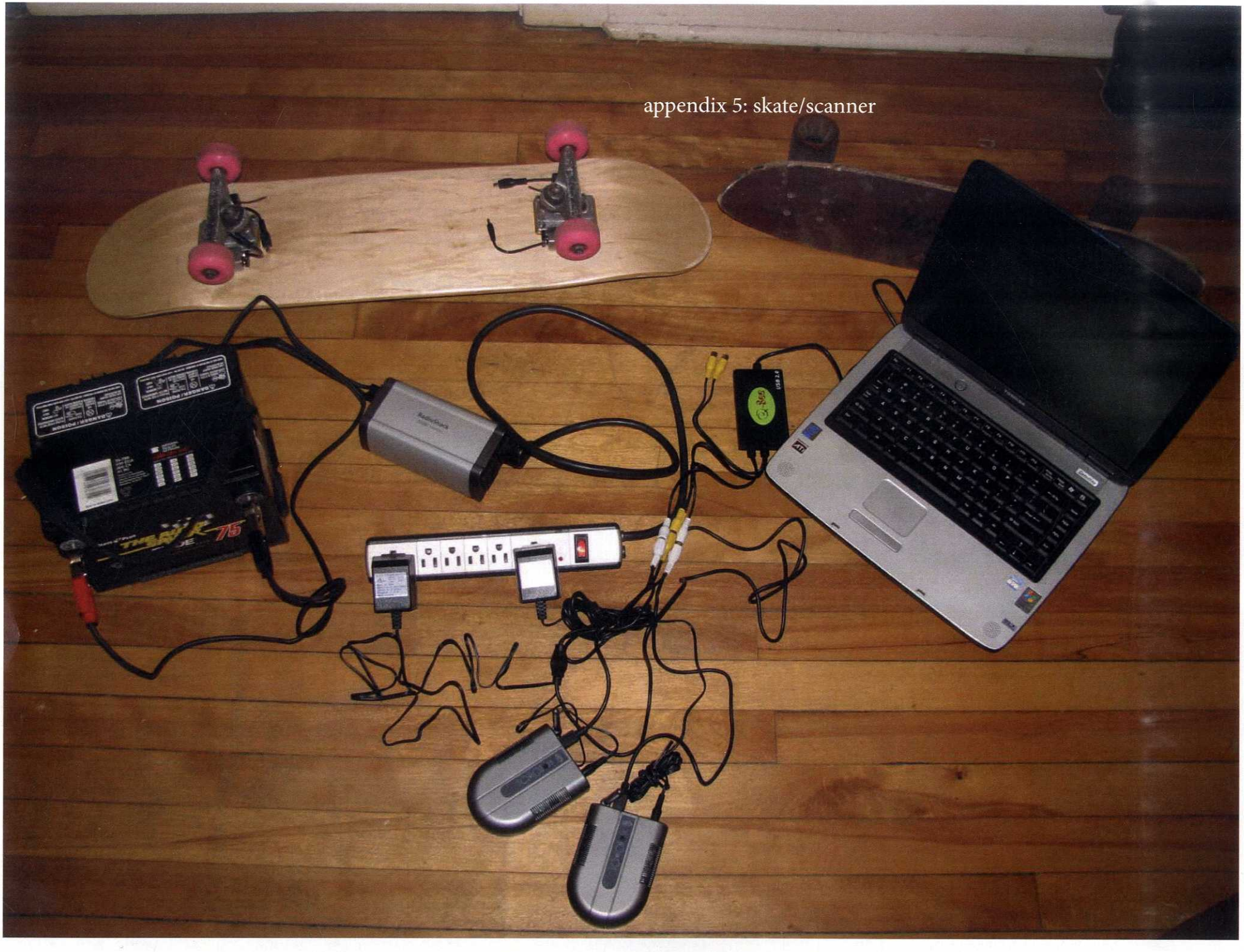


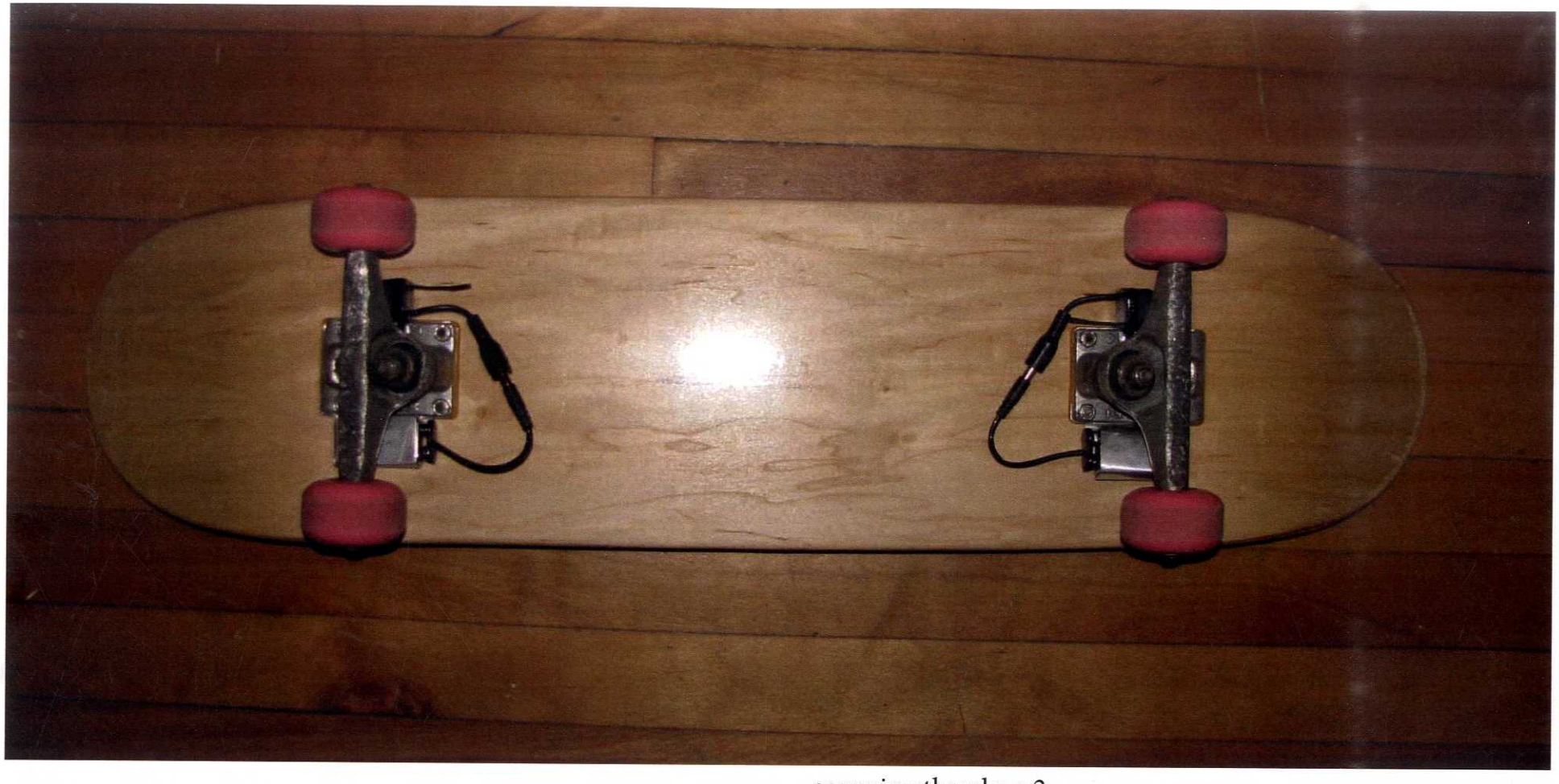









appendix 5: skate/scanner



scanning the plaza 2

As part of the project of scaning the Everson Plaza was actaully skating the plaza with a skatboard out-fitted with mini wireless cameras. The photograph to the left depicts all that is required to receive and record such an operation in the field. Above is the skateboard ourfitted with cameras. The following images are still from a video using this device. The following images, still from video produced using this instrument, serve to emphasize the saclar understanding of architecture in which this porject is heavily invested. These images attempt to erradicate the boarder between the micro