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# EROSIVE CARTOGRAPHIES

**KARL WALLICK**

University of Wisconsin-Milwaukee

## DECAY ALL AROUND US

“There is nothing constructively edifying about our project. It is, instead an attempt to bring closer whatever wrecks projects as well as edifices. Rather than outline a structure, we hope to follow and bring into play a crack that frustrates plans and shatters monuments.”

<sup>1</sup>Dennis Hollier

“Dirt is matter out of place”<sup>2</sup> Mary Douglas

Decay is ever-present. The perpetual modification of our constructed fabric is legible in the detailing of joints for amendment, remediation, or erasure. The work from this studio investigates the positive potential of decay in the production of architectural joints through layered drawings with special emphasis given to marginal details. Marginal details are authored by the non-architect participants that engage with our built environment. Qualities such as stains, time, erosion, vandalism, decay and general wear are all types of marginal details. Potentially, such details can register continuity within a site's fragmented historic episodes of wear. Manifesting strategies of improvisation and multiplicity, these fragments define contemporary issues of reuse and renewal and may range in scale from the micro to the room to the city-landscape.

How do we make the invisible forces of physical and cultural decay visible as productive tools for architecture? We grapple with these issues through intuition. Dreams, the discourse of late night conversations are realms for fantasy to fly unchecked. There is of course, unlimited possibility for engaging the imagination in various forms of cultural conversation; fantasy can run unchecked in non-material spaces of the mind and word. However, making those forms of creative enterprise visible and productive in the civic realm is the challenge for architecture. This paper identifies both tactical design processes and possible architectural programs that engage with the challenges of decay and erosion not as romantic memories but as active sites of optimistic productivity for architecture.

## UTILITY OF SPECULATION

“The taste of the apple...lines in the contact of the fruit with the palate, not in the fruit itself; in a similar way...poetry lies in the meeting of poem and reader, not in the lines of symbols printed on the pages of the book. What is essential is the aesthetic act, the thrill, the almost physical emotion that comes with each reading.”<sup>3</sup>

Jorge Luis Borges

Speculative drawings with indefinite endings are hardly new tools for investigation. Leonardo DaVinci, Piranesi and Boullée filled archives with experimental observations and fantastical worlds. More recently, the drawings of Libeskind, Eisenman, and Zenghelis (with Koolhaas) marked out intellectual territory with polemical graphics and jump-started entire practices. It is hard not to become excited by the quality and quantity of speculative drawings flooding blogs and competitions. There is a tremendous range of techniques and topics of experimentation coming especially from The Bartlett School and practices such as Francois Roche, Perry Kulper, Smout-Allen, and many others.

But what are these drawings useful for? Are they trapped in the realm of artistic inspiration with ideas never really useable for any sort of architectural product? Are these instruments of intuition that are legible only to their authors? What do we take from them - how can they be useful for realms of inhabitation or are they more likely to populate museums and gallery walls? What is the utility of speculation? What would be the point of proposing such impossible or melancholic futures?



Figure 1. Romantic or tragic vision of antiquity and weathering? Trajan Arch by Piranesi.

Piranesi's romantic visions of antiquities (fig. 1) or his somewhat detached point of view in the Carceri (prison) series implies a passive observant role: are these spaces in the process of decay or

has construction merely been paused? Still, while the purpose of a prison is clear for the detainees, program and use for the observer are inexplicit in this drawing series. Clearly, such worlds meant to stimulate an emotion not to prefigure construction or assembly. These works are meant to keep neglected intellectual terrain foregrounded while the rest of us struggle with gravity and economy. Still the question of how to make such provocations real and explicit is useful territory for architects so in our studio speculation accounted for only one half of the academic quarter.

### STRUCTURE OF SPECULATION

“This is neither an objective or subjective construct, but a sedimentation of experience formed by matter and memory”<sup>4</sup> Marco Frascari

In this studio, we sought, depending on your point of view, to activate either the melancholic or romantic potential with explicit architectural value. This could take the course of a specific program conjecture, an amendment to a forlorn site, or the invention of new technical solutions to the management of erosive conditions and time. Our objective was to invent new techniques for observing, recording, analyzing, and synthesizing inexplicit histories of architectural weathering and properties of erosion. Linking the past to the present within the activated media of drawing is one way that architecture students can start to synthesize cultural aspirations about inexplicit content with the formal desires of architecture. The drawings from this studio show that it is possible to communicate ethereal and intangible qualities of erosion using the explicit media of architecture.

By seeking to challenge disciplinary assumptions about the instrumentality of decay we gradually uncovered a new aesthetic of sustainable ethics where the tangible and intangible are linked through the agency of slow drawing. Questions addressed included: what is the productive potential for decay? What is the effect of erosive properties on inner and outer worlds? Furthermore, how do we communicate the nature of such forces that many times are invisible or evident only over long periods of time? In terms of architectural consequences, the projects in this paper show that from the fantastic to the everyday, the destructive power of erosion can be harnessed for its productive potential.

### CARTOGRAPHIC TECHNIQUES

“All maps are spatial analogies in the sense that they preserve some of the spatial relationships of the world they depict, but navigation charts depict spatial relationships in special ways that support certain specialized computations. A navigation chart is an analog computer. Clearly all the problems solved on charts could be represented as equations and solved by symbol-processing techniques. In an external representation, structure can be built up gradually--distribution of cognitive effort over time--so that the final product may be something that no individual could represent all at once internally.”<sup>5</sup> Edwin Hutchins

A record of student research gradually accrued in a series of drawings that described and reconciled material, chronological, compositional, and programmatic differences in prominent and discrete

joints. Drawn at multiple scales, this drawing series was developed in a manner similar to the intentional and improvisational, the technical and conceptual, and the explicit and implicit qualities of eroded details (fig. 2).



Figure 2. Initial three drawings as individual layers of research. Topic extended definition of wear by investigating disputed borders and eroding political edges by Gail Borden.

Students used two types of design tools for this studio. Initially, three panoramic research drawings were developed in the first part of the quarter and in the second half, architectural proposals were developed. Both types of work are speculative, but the first is inexplicit and exploratory while the second is explicit and instrumental. Requirements for the research drawings were simple but specific: drawings were to be panoramic in scope and size (20"x60"), developed weekly, and capable of simultaneous readings of at least two different scales. In addition, some element of transformation: shadow, wear, decay, movement, form, program, time, etc should be evident. These research tools were to be heavily layered drawings that can be excavated for architectural content such as inhabitation, use, evolution, technology, space, etc. The excavation comprised the second half of our quarter. While the dimensions and techniques for research drawings were explicit, the means of representing architectural proposals in the second half of the quarter was much less constrained. Some students used the same layered hand-drawing techniques, others gravitated towards digital modeling methods.

Drawings are powerful intellectual joints that contribute to the synthesis of research and design as a single act. The architect's use

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of drawings as a way to generate knowledge instead of only documenting what is already known is the attitude that which activates architecture's most common tool. In addition to investigation in the primary theme of weathering, dialogue about the nature of sites and programs constituted an important element of the class research. Students were asked to develop new tools and techniques for measuring, describing, and anticipating forces of decay in our built environment. Invention of new graphic methods was encouraged - and there was much appropriation of thematically relevant imagery that pertained to the individual topic of research. Whatever the case, the drawings were to make visible issues which resist imaging: environmental complexity, alternative inhabitations, speculative technology, and resistive cartographies.

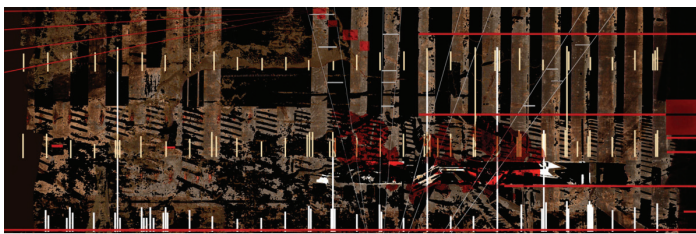


Figure 3. Part 1 synthesis of initial three research drawings into single speculative surface (above) Part 2 architectural proposal (below) for a self-constructing and self-destructing wall between Israel and Palestinian Territories by Gail Borden.

Sites, programs, and the scale of intervention for the final proposals were determined by students. Initial investigations sought to map such disparate themes as the process of erosion wrought by termites, the waxing and waning of political boundaries between nation-states (fig. 2), the nature of food production as a global enterprise, and the movement of oil spills in the Gulf of Mexico (fig.

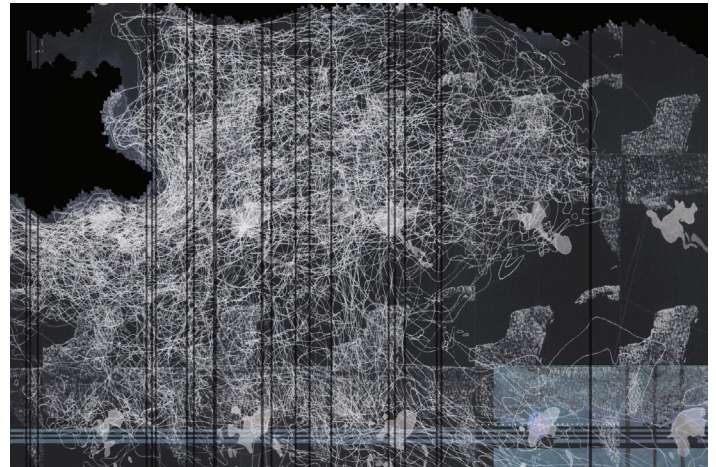


Figure 4. Meandering speculation on tidal flows and erosion in the Mississippi Delta by Kristen Flaherty

4). Given the wide range of the students' initial topical investigations combined with our term-long research into various drawing techniques and their use in making inexplicit conditions visible, it was unclear if we would be able to transition to making explicit architectural proposals. Another concern was that by effecting such a quick pivot from formal abstractions to conventional architectural criteria we would negate both the graphic and thematic speculation that was so strong in the beginning of the term.

However, the linkages between the inexplicit and explicit halves of the term were strong. The student investigating changing political boundaries proposed and designed a self-erecting/self-destructing wall to be located between the Palestinian Territories and Israel (fig. 3). Her proposal included a scenario by which this robot would respond to the positive or negative internet chatter to effect its building protocols. The wall could get thicker and thicker or optimistically would gradually whittle away at itself until populations were merged. The student tracking the movement of oil spills in the Gulf of Mexico proposed a sinking cemetery for the Mississippi Delta (fig. 5). Sited as an addition to an existing cemetery, this project was located along a bend in the Mississippi subject to perennial flooding and ultimately threatened by complete erosion. Her proposal sought to embrace what would otherwise be seen as negative site forces by confronting us with the notion of an aqueous burial that gradually sinks into the silt of the delta once enough bodies have been added to the mortuary spaces.

### PRODUCTIVE WEATHERING

In the studio, architects labor over multiple visions and iterations around a problem. The work seems dynamic and revolutionary while the pen or mouse skids about. Edifices are imagined to stand for eternity, but as soon as buildings come out of the ground, they start eroding. Our work and our world appears static once it leaves the drawing board. All around us the world seems heavy and im-

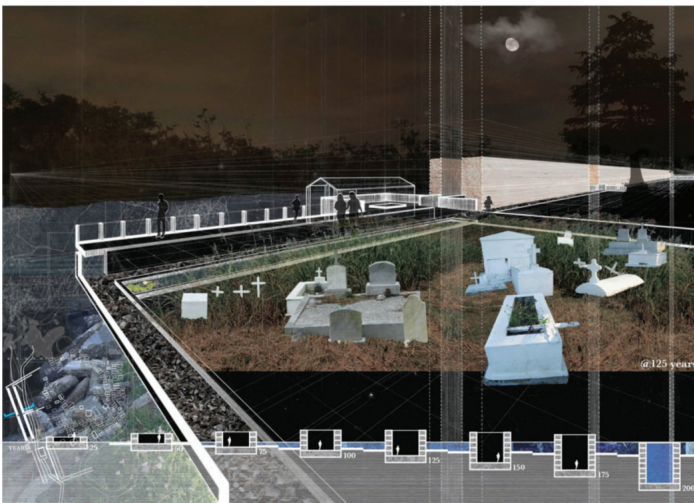
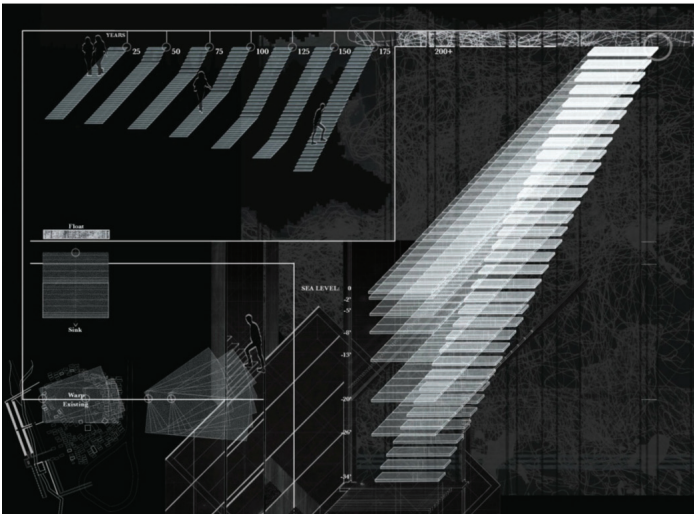
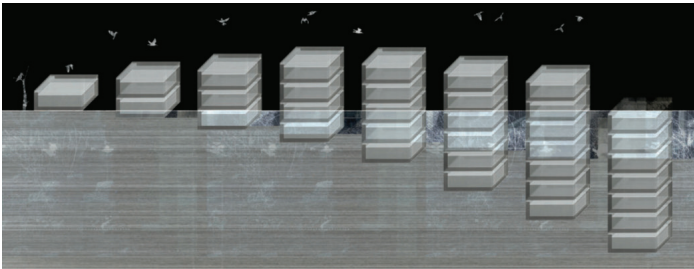


Figure 5. Proposal for a sinking cemetery by Kristen Flaherty

mutable but space and time are forever changing our heroic visions for inhabitation.

As a discipline, we need to redefine our way of engaging the cyclical nature of site, material, and culture. Much as the students in this studio saw the ephemeral conditions of existence as a circumstance to be embraced, we need to cultivate an optimistic and productive spirit for manipulating the daunting forces that are effecting us. Perhaps this could be considered a sort of cynical posture to take

in the face of climate change, cultural shifts, and time in general. Perhaps instead it is a form of architectural judo - channeling that which is directed against the stability of form into a force that is more productive for architecture and its inhabitants.

#### ENDNOTES

- 1 Dennis Hollier; *Against Architecture*; Cambridge: MIT Press; 1989.
- 2 Douglas, Mary; *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*; New York: Routledge; 1966.
- 3 As quoted by Juhani Pallasmaa in *The Eyes of the Skin: Architecture and the Senses*; New Jersey: Wiley; 2005.
- 4 Frascari, Marco; "The Compass and the Crafty Art of Architecture"; *Modulus 22 - The Architectural Review at the University of Virginia*; New York: Princeton Architectural Press; 1993.
- 5 Hutchins, Edwin; *Cognition in the Wild*; Cambridge: MIT Press; 1995.