

90 Lines: Decoding Liminal Space

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Both the urban and rural are driven and shaped by internalized processes, from the turning radius of the plow, to the angle of fall needed for gravity fed storm drains. Space is created at the gaps between the boundaries where these two systems meet - the intersection of two sets of internalized processes that do not fit because they are driven by their own processes to create boundary conditions. *90 Lines* explores and decodes one such liminal space created between urban and rural systems. The site used in this project is a space appropriated between a naturalized storm sewer and neighboring farmland, containing a walking path. This paper will explore the process of analysis used to capture this space, as well as the parallels for this type of work in process-driven art and music. Within both art and music, there is a history of composers/artists exploring composition invested in its own process, from the crossover of land art and minimalism to stochastic or indeterminant music. These forms of expression bleed together trying to fully comprehend how the making of the thing (and the time it takes) creates the thing itself.

ON PROCESS AND SITE

Robert Smithson, discussing process relative to art, states:

At the low levels of consciousness the artist experiences undifferentiated or unbounded methods of procedure that break with the focused limits of rational technique. Here tools are undifferentiated from the material they operate on, or they seem to sink back into their primordial condition.¹

He was challenging the art world to confront the boundaries we impose on the techniques to create art – paintbrush, canvas, clay, etc. – with materials like asphalt, glue, and dirt that he poured or piled. He is also framing his own process, where the tools and material are undifferentiated through the act of pouring or piling. At

the limits of architecture, the process – how it is made – must be whittled down to the actions and acting details that play a fundamental role in the architectural space. Like Smithson's description, the methods of procedure begin to break down in this primordial condition, allowing an un-differentiation between design and construction, site and architecture.

The project *90 Lines*² is a work that operates to reveal the limits of architectural space. It was not a scientific experiment with a clear hypothesis and rigorous data refinement, but the methods employed were logical and analytical; it is a work of art in the sense of understanding the scope of production to express specific intent, and the scope was wrapped up in the activity of its making, its own process. It is a means by which to understand the layers of space created by occupying the gaps between boundaries - the leftover space created by process-driven systems that are independent and yet respond to each other in close proximity. The boundaries that define this space are a remnant of the Mercator mile-by-mile grid, outlining rigidly straight abstract homesteads on the landscape that have encountered the realities of the topography where both natural, urban and rural systems collide to warp and transform those lines to the land. Two distinct human-made systems developing over time have utilized the land in a wholly dissimilar capacity, but they both are subject to the abstraction of the survey projected onto the land, and they both are invariably shaped by internalized processes – processes that are essential to their creation and maintenance. Over time, these spaces are transformed, in the same manner as a ruin, by repeated use, neglect, reinvigoration, and the gradual sedimentation into the patterns of the internalized processes that shape these environments. In this sense *90 Lines* is also a work in process and about process.

Smithson's work with *Nonsites* was especially relevant to the conceptualization of *90 Lines*, because for Smithson the definition of the site is both an architectural and artistic act, and its abstraction and delivery to the gallery challenges viewers' perception of the nature of art and space. He described these "indoor earthworks" as "...a three dimensional logical picture that is abstract, yet it represents an actual site...."³ The relationship between the actual site and the representation of it is perceptual, so by appropriating and translating

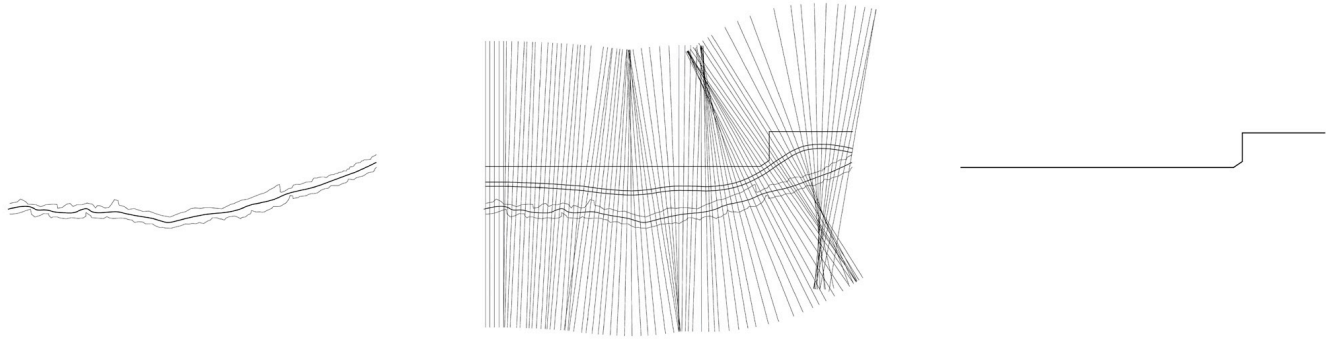
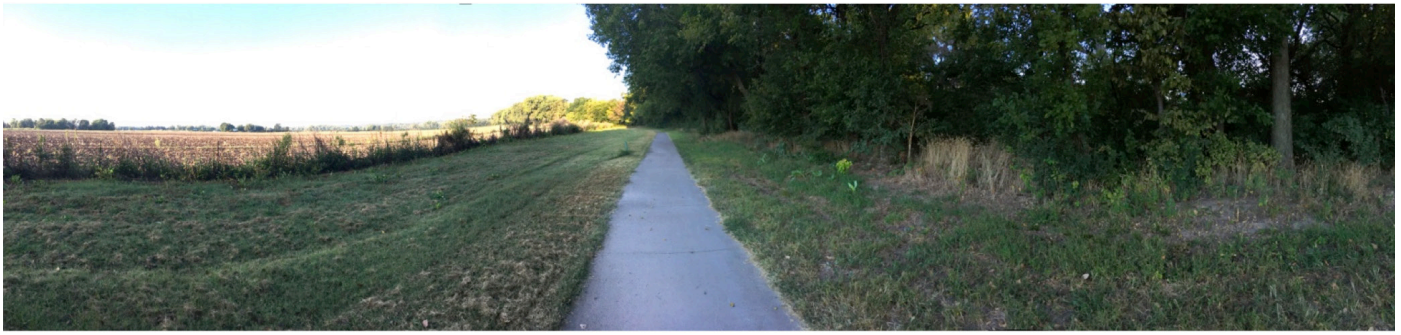


Figure 1: Site for *90 Lines*, showing the trees/stream urban boundary, the fence line rural boundary, and the extensions of the control joints.

these sites to the gallery he could create “...a space of metaphorical significance.”⁴ Similarly, architecture begins as perception. Looking at an archeological ruin in Rome or the Yucatan, most would describe these sites as architectural, but the intended space has essentially been destroyed and/or transformed far beyond the ‘architects’ original intention. We perceive this residue of order as architecture – the fragments left behind continue to create a space worthy of being called architecture. Robert Smithson proposes a similar approach to art:

The investigation of a specific site is a matter of extracting concepts out of existing sense-data through direct perceptions. Perception is prior to conception, when it comes to site selection or definition. One does not *impose*, but rather *exposes* the site – be it interior or exterior.⁵

Architecture, like art, can be conceived of as exposing the site through the extraction of concepts from our perception. The site *becomes* the architecture in this context.

The site for *90 Lines* exists between urban and rural systems (fig. 1), delimiting an unfolding and malleable liminal space that adjusts to the ways these two systems work internally, their collisions with each other, and their interactions with already complex and responsive natural systems. Like a ruin, there is a residue of order perceivable from the collisions and interactions over time. This space is set on one side by an agricultural fence – this fence is laid on the Mercator grid, but it acquiesces to the waterway adjacent to it, creating steps in the fence line. The fence is not the strict boundary for the rural system beyond – this is better defined by the plow and the irrigators, which inscribe curves against the orthogonal nature of

the abstract grid applied to the landscape that leave wild unkempt zones between fence and field. The city’s street system defines the opposite wall of this space. Also bound originally to the Mercator grid, the streets deviate to accommodate the waterway on the edge of the town, stepping and dead-ending to allow the stream to follow its course. This urban system has also subsumed the waterway – it is the outlet for the city’s storm sewers and is dredged and partially channelized to keep the waterway in check. While appearing “natural” it is a part of this curbed asphalt and concrete system. Trees have taken root on the stream’s steep banks, creating a nearly impenetrable barrier for the city that again reinforces its “natural” appearance. Between the boundary of the fence and the trees exists a mowed zone with a meandering concrete path. This path does not conform to either system – instead it wanders between these two boundaries driven primarily by its own internalized order.

The liminal space in *90 Lines* is architectural – the tree canopy and boundaries provide a sense of enclosure, particularly relative to the open expanse of adjacent agricultural lands. It offers a sense of entry and exit, where you are aware of when you are in this space and have left it. The rudimentary program of this space is an invitation to move through it marked by the path, made more complex by the rhythm of its constituent elements. Not only does it have describable spatial/programmatic characteristics, it also has a primitive tectonic created through the functional nature of construction joints in the pouring of concrete. The internalized process of the path is construction in its primordial form, driven by control joints and formwork. (fig. 2) Subtle variations and compensations in the angles of the joints create the sidewalk, which then sets up a parallel condition with the rural system waxing and waning in proximity to this line on the one side, and the urban system on the other. This is a

space that exists in time – it is best felt by moving through it. The juxtaposition of two independent, internalized orders is metered by the control joints and can be read similarly to the three-dimensional complexity to the field condition and parallax felt at the Mosque at Cordoba.⁶ These lines provide a counterpoint to the linearity of the space, demanding rhythm to your passage through it as well as a kind of frame by which we can understand the relative oscillation of the adjacent boundaries along with the depth of field that runs perpendicular to this space. The control joints define a primitive/complex architectural DNA grown out of the happenstance of the environment and our basic interventions in that environment.

DECODING 90 LINES

Borrowing from Smithson, *90 Lines* begins with the extraction of concepts from the site through a methodical documentation – each control joint was processed photographically in relation to the

Beyond documentation, the focus became centered on the translation of this space into a legible form that would capture its complexities. To do this, traditional methods of architectural representation seemed less significant – the space is not static and the “built” elements of this space rarely see privilege on an architectural drawing. Robin Evans, discussing the translation from drawing to building relative to architecture, states: “Recognition of the drawing’s power as a medium turns out, unexpectedly, to be the recognition of the drawing’s distinctness from and unlikeness to the thing that is represented, rather than its likeness to it, which is neither paradoxical nor as dissociative as it may seem.”¹⁰ Musical composition as a translational system for the performance of music operates in a parallel fashion, but the notational system and conventions are tied to its relationship to time. This notational system, because of the rules it contains, can subdivide individual melodic strains so that, when played, these individual notations can coalesce



Figure 2: Control joint lines 40-49.

fence and the trees, and its profile measured. This photography was intended to elevate and call attention to each line of the system, making it the object of each photograph, but at the same time its serial nature places the lines in a group, a pattern, where no one object is significant within the overall composition and the technique is negated through repetition, unlike a traditional composition. This sensibility is one that an artist like Ed Ruscha or Dan Graham deployed recording objects and spaces without a stylistic regard for the camera or the resultant printed image. Dan Graham, exploiting this technique, did a series of photographs in 1966-1967 entitled *Homes for America*, examining the repetition of forms in suburban tract homes. Writing on Graham’s work, Dan Fogle states, “...the New Jersey tract homes he documented...were products of standardization that generated a particular kind of alienated effect in its disconnection from a grounding in the social.”⁷ The series of photographs in *Homes for America* are meant to read as a parody of the two-page spread photo essay.⁸ Ed Ruscha also builds on this almost subversive critique in his series of photo-books, done between 1963-1978. Ruscha was, “...very clear about not wanting any kind of stylistic narrative. When you turned the pages of the book, I wanted you to see something similar, a type, but each one being different.”⁹ Both these artists use the medium of the photograph as a kind of “low” form of documentation, building on the documentation process to examine and critique the conditions that would create the context of the objects photographed.

into a whole work played together, providing coherence through notation. The act of “playing” a piece of music is not a translation in the precise definition of the word. Ambiguities are present in any composition, leaving gaps in understanding, or more importantly, potentialities in the ability of the performer to change the intentions of the music to suit their own purposes. This is similar to what Evans describes as, “...the locale for subterfuges and evasions that one way or another get round the enormous weight of convention that has always been architecture’s greatest security and at the same time its greatest liability.”¹¹ Notation, as it relates to both musical composition and the architectural drawing, has power because of its authority to translate and at the same time the power to subvert that authority through the act of performing/building.

We saw an affinity to Cage’s experimentation with notation and process, breaking boundaries in how we perceive composition with such works as *4’33”*, as well as what we perceive composition to be, as can be seen in his *Variations* series. These works challenged listeners and performers to reconsider the nature of composition and performance. *4’33”* asks the performers to be tacit – the accompanying notes with the score states that the original performance had the pianist open and close the piano to indicate the three parts of the performance but could be done with any instrument. The *Variations* series introduces an even more complex level of indeterminacy where there is an element of chance and selection built into every performance of each piece in the series. For Cage,

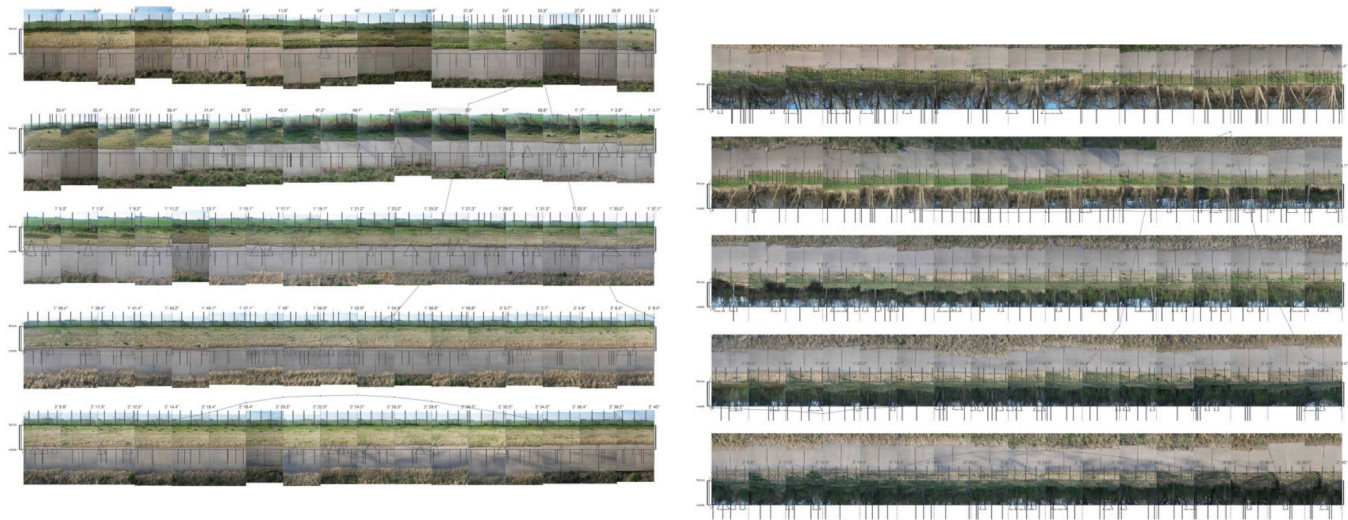


Figure 3: Translation process from photographic documentation.

it was more essential to compose, “...in such a way that what one does is indeterminate of its performance. In such a case one can just work directly, for nothing one does gives rise to anything that is preconceived. This necessitates, or course, a rather great change in habits of notation.”¹² This quality of indeterminacy was critical to the translation process of *90 Lines*: the notation created through the processing of the site could provoke an understanding of the architectural qualities of the space. Initially, the control joints defined in the photographic documentation became lines that were translated to plan, recreating the curvature of the path against the curvature of the waterway and stepped nature of the fence line. The point and counterpoint between fence posts, control joints, and trees could not be made visible in a two-dimensional drawing and the qualities of the three dimensional interrelationships were missing. Musical notation seemed the most appropriate method to capture this complexity. Using the photographic documentation as a foundation, the spatial relationships between fence posts and trees was marked using the spacing of the control joints as a kind of meter to the composition. (fig. 3) The curvature of the path and the moments of interference from both sky and greenery as they leak through each loose boundary into this space were overlaid against the two independent rhythms and malleable metering. (fig. 4)

In Cage’s later work, he would introduce “the action of method” (the note-to-note procedure) into the body of the structure, making the works’ duration indeterminate. For Cage, “If you liberate yourself from the measurement of time, you can’t continue to take structure completely seriously.”¹³ While the element of time is still fundamentally a part of the composition of *90 Lines*, the qualities of each “note,” including its duration, is indeterminate – what matters is its relationship to the opposing rhythmic line and its relationship to each measure or frame. It is also a space fundamentally without architectural structure as we typically ascribe it: the path as concrete supports itself, so it is neither foundation nor roof. As with Cage, the reliance on a “structure” is less important than

understanding the space created through the act of performing. This musical analogy provokes the question of the need to impose a higher order of structure from above rather than allowing the construction process and details to drive the space (akin to the urban and rural systems that bound the space of *90 Lines*). While this may be pushing the analogy between music and architecture too far by likening musical and architectural structure, Stan Allen, attempting to unpack the definition of notation systems, describes them as, “...‘abstract machines’ capable of producing new configurations out of given materials.... Each notational system articulates a specific interpretive community, a loosely bounded collective domain. The abstraction of notation is instrumental, and not an end in itself.”¹⁴ By deliberately imposing the convention of musical notation onto this space, the process creates opportunities to capitalize on the ambiguities created by the system of abstraction and the freedom to act independently outside of the rules imposed.

The freedom produced through the system of abstraction in notation does not imply that architecture (or music) collapses. Composer Iannis Xenakis used a slightly different manner to describe his approach to indeterminacy within a composition: he, “...used the word ‘stochastic’ to express the idea of masses tending towards a mean or a goal such as a stable state....”¹⁵ Rather than the subversion of structure creating an explosion into chaos, he likens this to a progression towards stability. Returning again to Robert Smithson, his work also revolves around a similar subversion of the discipline, then stabilization based on continual erosion: the concept of entropy. Entropy, for Smithson, was a fundamental aspect of the world that connected all things: this is the “primordial condition” that he refers to discussing material and technique – it framed his work conceptually but it also framed his directive to break down or literally induce an entropy of material and technique through his own artistic process: “There is no escaping nature through abstract representation; abstraction brings one closer to physical structures within nature itself. But this does not mean a renewed confidence in nature, it simply means that abstraction is no cause for faith. Abstraction is only valid if it accepts nature’s dialectic.”¹⁶ The physical structures

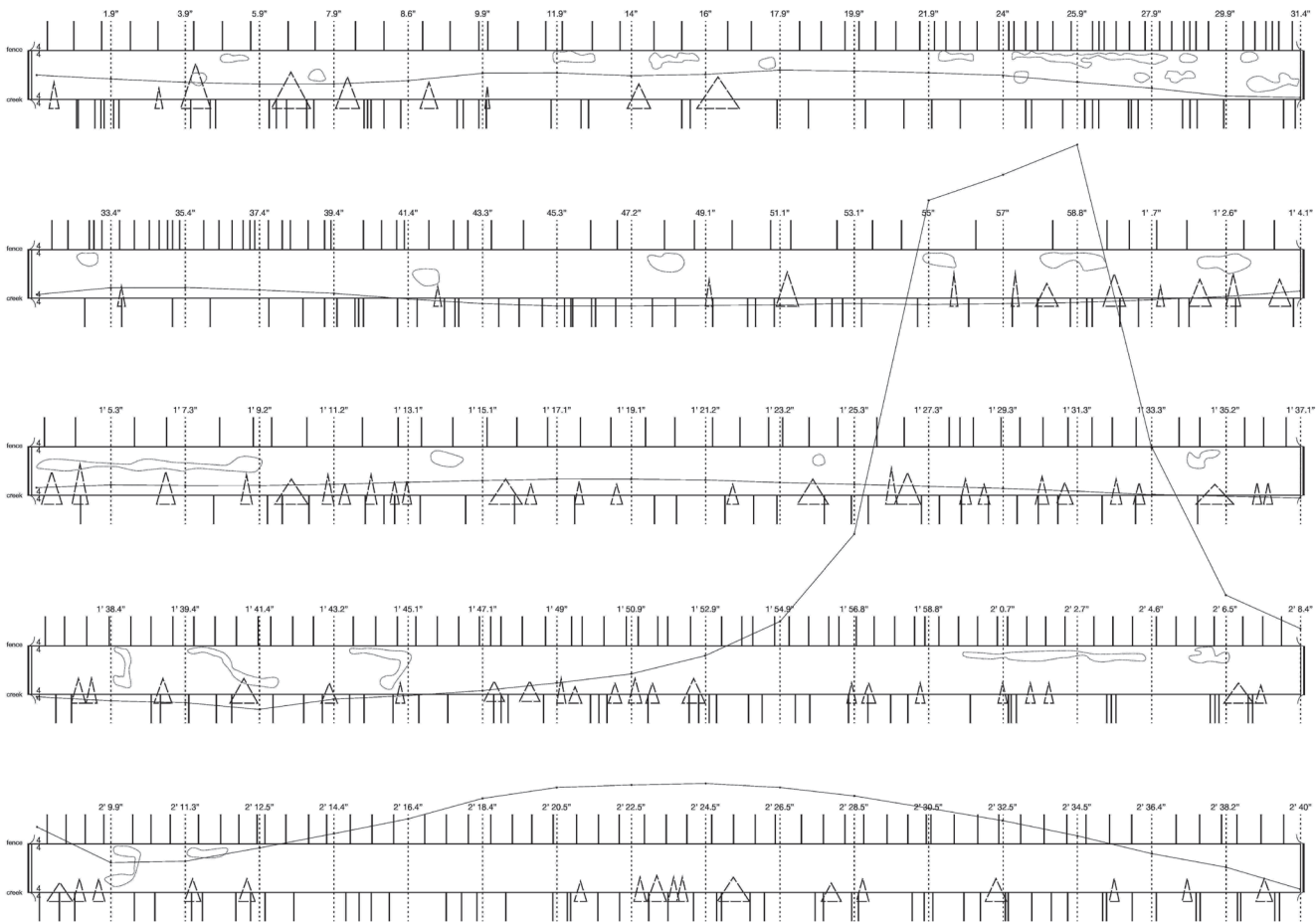


Figure 4: Boundary counterpoint.

Smithson is referring to are always moving towards an entropic state – that is nature’s dialectic. For Smithson, as with Xenakis and Cage, entropy is a state of change – it is a (stable) state of indeterminacy. Entropy worked for Smithson on several fronts – it was a conceptual core to his work, and it provided a strong rationale to working in the land by tying abstraction to nature, not just conceptually but quite literally by bringing an artifact of nature into the gallery and working into the land.

CONCLUSION

Indeterminacy as to the outcome or meaning generated by art does not mean that the artist is without intent. Artist Bruce Nauman describes this process in his own art, particularly his early work:

My conclusion was that I was an artist and I was in the studio, then whatever it was I was doing in the studio must be art.... It became a question then of how to structure those activities into being art, or some kind of cohesive unit that could be made available to people. At this point art became more of an activity and less of a product.¹⁷

Part of Nauman’s intent is to break down the perception of art as a finished product and describes his work as an “activity” – something cohesive but also defined by an open-ended relationship with time. He is not trying to remove intent from the perception of his activities, but he is challenging viewers to accept that his work *is* art. Nauman’s video work encapsulates his activities, and their presentation within the gallery allows the viewer to confront their perception, or perhaps even preconceptions. He uses the film process to alter your mindset and make his activities cohesive; for instance, *Setting a Good Corner* (2000) captures Nauman driving a fence post on his ranch in Galisteo. The art in this piece lies somewhere between the function of operating a ranch where the fence post is actually placed, capturing the process on film, and the viewer watching this process.

For *90 Lines*, like much of Cage’s work and Robert Smithson’s, the challenge is to first accept it as architecture, art or music. The perception of architecture, in a similar manner, can and should be challenged. As a discipline, it is much easier to declare what is not architecture than to define what is. This dilemma sets the stage for the rhetoric surrounding *90 Lines*: from the site defined in the mind of the architect/artist delivered to the user/viewer to perceive the work. Rosalind Krauss highlights this challenge within the discipline

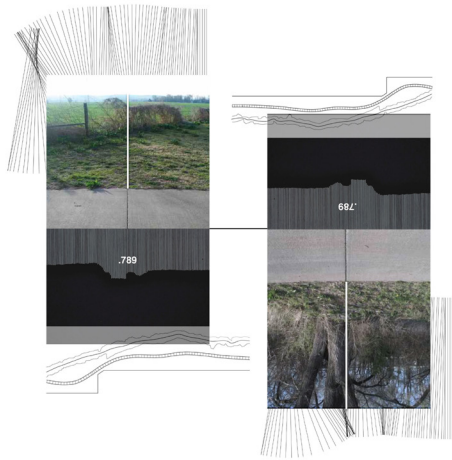


Figure 5: *90 Lines* - composite drawing with individual line depth, line extensions of control joints and context.

of sculpture in her essay, “Sculpture in the Expanded Field,” by stating, “...to think the complex is to admit into the realm of art two terms that had formerly been prohibited from it: landscape and architecture.”¹⁸ Architecture, like art and music is caught in the interplay between viewer/user/performer and artist/architect/composer, and the meaning of the work, is this interplay. In Marcel Duchamp’s work, he defines this interplay through the idea that “The spectator makes the picture.” For Duchamp, “... the artist is never fully aware of his work: between the intention and the realization, between what he wants to say and what the work actually says, there is a difference. This ‘difference’ is, in fact, the work.”¹⁹ Duchamp’s concept of difference recognizes the lack of control one has over meaning; instead, “A work is a machine for producing meanings.”²⁰ This can be seen particularly in works such as *3 Standard Stoppages* or *Network of Stoppages*, where the element of measurement is deliberately distorted while still preserving its identity, opening the door to experimentation using the new tools of measurement created. The role of perception to create difference (and therefore meaning) is tied to a level of indeterminacy inherent in the arts.

The purpose of the project *90 Lines* is to seek out opportunities and potentialities by expanding the limits of our conventions, as a notational system and as a spatial/programmatic system. By letting go of the conventional perception of architecture as object applied to a site, and looking to the site to extract concepts, the conventional way of considering building enclosure and structure is less static, undifferentiated from the site. The relevance of process in the creation of space is tactical, not strategic, to borrow from de Certeau.²¹ These tactical processes are entropic, seemingly indeterminate yet approaching a stable state and appearing at many levels – at the scale of what we ascribe to be “urban” or “rural” and at the scale of the construction worker laying formwork and placing control joints. By challenging the drawing to be perceived through time by borrowing from musical notation, complex space can be proposed, again

divorced from the rigidity of the static plan. From documentation to creation, a kind of tactical process (from serial photography to the subversion of the plan through musical composition) can lead to new ways of perceiving architecture. At these limits we understand what is at the heart of the discipline – not its origins in a historical sense, but the tipping point where we read a space into the environment.

90 Lines is an experiment at the limits of our conceptualization of architecture considering a site of edges, whose interaction and interference pattern sets up a unique spatial condition. (fig. 5) This place, while unique in both its circumstances and its specific context, could be considered a repeatable condition and the translation process introduced as a kind of reading device for the spatialization of architecture. *90 Lines* seeks membership within the family of artists and composers presented here, confronting how we define architecture – through its site, its tectonics, its specific space, and their composite delineations.

ENDNOTES

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2. Completed in my collaborative practice, *Dual Ecologies*, with my partner Bruce Johnson.
3. Robert Smithson, “A Provisional Theory of Non-Sites,” in *Robert Smithson*, (essay orig. pub. 1968), 364.
4. Smithson, “A Provisional Theory,” 364.
5. Robert Smithson, “Towards the Development of an Air Terminal Site,” in *Robert Smithson* (essay orig. pub. 1967), 60.
6. Further discussion on the spatial impact of the Mosque at Cordoba can be seen in Stan Allen, “From Object to Field: Field Conditions in Architecture + Urbanism,” in *Practice: Architecture, technique and representation* (Amsterdam: G+B Arts International, 2000), 219-220.
7. Dan Fogle, *The Last Picture Show: Artists Using Photography, 1960-1982*, ed. Dan Fogle (Minneapolis, MN: Walker Art Center Publications, 2003), 14.
8. Jeff Wall, “Marks of Indifference,” in *The Last Picture Show*, 38.
9. Ed Ruscha, “Street Talk with Ed Ruscha,” in *Ed Ruscha: Road Tested* (Fort Worth & Ostfildern: Modern Art Museum of Fort Worth & Hatje Cantz Verlag, 2011), 47-50.
10. Robin Evans, “Translations from drawing to building,” in *Translations from drawing to building and other essays* (Cambridge, MA: The MIT Press, 1997 (essay orig. pub. 1986)), 154.
11. Evans, “Translations,” 186.
12. John Cage, *Silence: Lectures and writings* (Cambridge, MA: MIT Press, 1967), 99.
13. Cage, *Silence*, 18.
14. Stan Allen, “Mapping the unmappable: on notation,” in *Practice*, 32.
15. Nouritza Matossian, *Xenakis* (London: Kahn & Averill, 1986), 94.
16. Robert Smithson, “Frederick Law Olmsted and the Dialectical Landscape,” in *Robert Smithson* (essay orig. pub. 1973), 162.
17. Bruce Nauman, “Bruce Nauman Interviewed, 1979 (October 1978)” with Ian Wallace and Russell Keziere, in *Please Pay Attention Please: Writings and Interviews*, ed. Janet Kraynak, (Cambridge, MA: MIT Press, 2003) 194.
18. Rosalind Krauss, “Sculpture in the Expanded Field,” in *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, MA: MIT Press, 1985), 284.
19. Octavio Paz, *Marcel Duchamp or The Castle of Purity*, trans. Donald Gardner (London and New York: Cape Gollard Press and Grossman Publishers, 1970) 39.
20. Paz, *Marcel Duchamp*, 39.
21. Michel De Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1984).