

Long Distance Architecture

My own suspicion of the enormous generative part played by architectural drawing stems from a brief period of teaching in an art college. Bringing with me the conviction that architecture and the visual arts were closely allied, I was soon struck by what seemed at the time the peculiar disadvantage under which architects labour, never working directly with the object of their thought, always working at it through some intervening medium, almost always the drawing, while painters and sculptors, who might spend some time on preliminary sketches and maquettes, all ended up working on the thing itself which, naturally, absorbed most of their attention and effort.

—Robin Evans, Translations from *Drawing to Building*

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What do we work on when we work on architecture, and what is architectural about this work? For a long time, the answer to the first part of this question might have been “the media of architectural representation,” and the answer to the second part might have been the “indirect nature” of an architect’s operations. Alternately described as a “translatory distance” and “notational gap,” the suspension between the architect and the object of architectural labor—namely the sited building—has been crucial in distinguishing architectural work from other, more direct forms of art making such as painting, sculpture and poetry and aligning it with “allographic” forms such as choreography and musical composition.¹

Architects have traditionally negotiated the distance between the immediate and the remote, between drawing and building, between native and foreign forms of expertise, and between modes of representation and the delayed yet tangible results of these projections. In his seminal essay on architectural method, “Translations from Drawing to Building,” Robin Evans describes this perpetual negotiation as a form of conveyance. Drawing becomes a kind of vehicle, taking on “peculiar powers in relation to its putative subject.”² The architect must first suspend critical disbelief in order to imagine an ideal translatory path. It is only then that one may be able to obtain “precise knowledge of the pattern of deviations.”

In surveying the contemporary landscape of art and architecture, we find a near inversion of this maxim, overturning a seemingly stable relation between the two. As architects have grown more adept at new forms of computation and fabrication that remove traditional obstacles from the design process, or more nostalgic for DIY construction methods that eschew specialized expertise and technical representation in the name of seemingly democratic “participation,” or more invested in traditional signatures of authorship and style in order to stand out in a broader realm of competition, the notational gap seems to be closing in from all sides.³ Meanwhile, we might wonder if the student art practices observed by Evans in the pastoral setting of Bennington, Vermont were representative of their time, or whether



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these craft approaches would have already been understood as regressive and parochial after Duchamp.

If architects desire to get closer to their own work, to leave their mark upon it, and to fully identify with it, are these not aspirations towards a model of the artist that has long since expired? Are the techniques of administration, delegation, and correspondence that have always been natural to architectural practice, not the very same techniques that artists have adopted as they moved out of the studio and into the office? If we abandon them, are we not also abandoning a broader scope of work and communication in favor of architecture that is nothing more than “small-batch”?

If architecture that is produced within the self-fulfilling environments of modeling interfaces, fabrication labs, and algorithmic scripts remains uninteresting, it is because the conditions of its success and failure have already been established at the outset or emerge through the interaction of familiar elements. Each completed cut, each snap of a piece locking into the next, each swooping arc of a robot arm, takes part in an ongoing ritual performance- a kind of apotropaic magic, meant to ward off the bogeyman of the middleman. As we are reminded in the titles of lectures and exhibitions and the breathless pronouncements of final reviews, this kind of work is “non-standard,” produced all at once through its own means in the service of its own ends, and therefore one that has left behind the conventions of notational practice.⁴

Even if this is an enabling fiction—and one that is easily unraveled through questions such as, “who made this robot?,” it is one that sets up a useful distinction for the purpose of this panel: that is, the distinction between the non-standard and the standard deviation. To deviate is not to abandon completely. Instead, a deviation represents an inflection from an intended course.⁵ Though standard deviations fall outside of the mean, they constitute a system of measurement in themselves, and can always be tracked back to their point of departure.

Let us consider the possibility that all architects involved in the production of drawings might be working at standard deviations from some average practice; a common enterprise, oceanic in its scale and yet precise in its dynamics. Could the whole project of architectural representation be understood, then, not as a gap or delay of the architect from the object of architectural labor, but as a massive shortcut- a heuristic device that allows for direct access to a history of shared knowledge, a social network of fluent readers and writers, and an

Figure 1: Gramazio Kohler, *Rock Print*, Chicago Architecture Biennial, 2015

inventory of graphic resources, corresponding to equipment, materials, and processes that extend beyond the boundaries of the digital window or the drawing board?

In this communicative realm of drawing, we find the architect in medias res, relying on shared assumptions and partial views of the whole, in order to both comprehend and transmit information within a restricted economy of time and graphic space. Unlike the expert fabricator and amateur student, who are both engaged in the self-fulfilling challenge of outputting an



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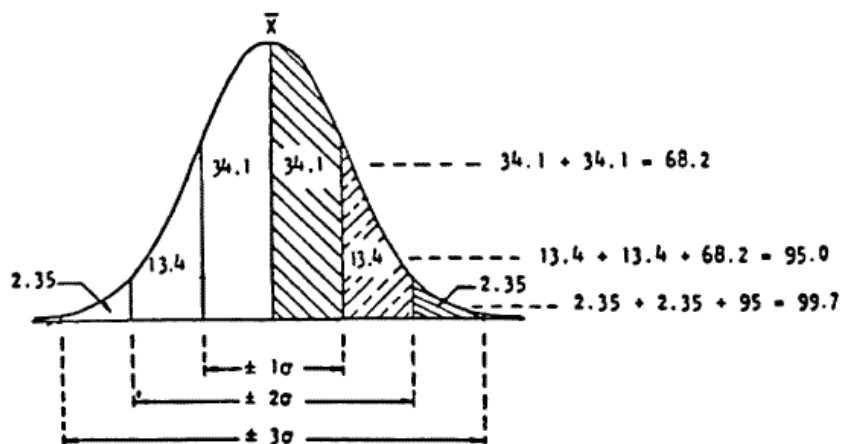
exact replica of a model, the architect in this social milieu must call upon a much wider array of practices, considering not only the most likely meaning conveyed by collections of foreign representations, but also alternative possibilities to a work that is still in formation.

In foregrounding this distinction, my intention is not to reinforce a well-known and oft-debated schism between teaching and practice; in fact, there are many contemporary firms that have professionalized student methods, and both recent and historical examples of architectural pedagogy that have found inspiration in the dynamics of the office. Rather, what is important is the difference between what might be described as an architectural idiolect—a private language that is invented on occasion and is intrinsic to the speaker—and an ordinary language of architecture—a set of practices that are not entirely universal, but which more closely align through the day-to-day production, exchange, and reception of drawings in the field.⁶ In this context, standards are not merely lowest common denominators, but “skeleton data,” which replace or stand in for more elaborate information.⁷ The graphic standard marks the limit between tacit and explicit architectural knowledge, signifying what it simultaneously brackets.⁸

Though these shared structures of expectation might seem to overdetermine the work from the very start, they could also be understood as a kind of loophole, allowing architects to escape the burdens of total representation through an increased reliance upon inference. I would like to suggest that this loophole leaves a great deal of room to maneuver, and that deviations within it might begin to inflect practice at a larger scale. In operating within and through the transactional channels of drawing, we might rediscover the pleasure of the text,

Figure 2: Dennis Oppenheim, *Untitled*, Art By Telephone, Museum of Contemporary Art Chicago, 1968

inventing new words and phrases that in turn push back upon the conventions of this shared language. In widening the notational gap to its farthest extent, we might establish new kinds of social relations between the stratified classes of “symbolic analysts” and “routine produc-



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ers” in the field.⁹ The farther our drawings are allowed to travel, the more likely it is that they will divert from their intended courses, entering larger and more contingent networks of commerce and global exchange.

Although I have thus far offered an argument for extending the distance between drawing and building, I want to conclude with an experimental project in which these claims were put into practice within the context of international outsourcing- the most exaggerated case of lateral exchange. Rather than attempting to fashion a projectile, that might slide, frictionless, through the relays of global practice, I tried to imagine a set of representations that would work more like a tumbleweed, picking up steam as they went along while increasing the amount of communication around them.

This tumbleweed, a spec house entitled *L’Auberge Espagnole*, allowed me to test the waters of international subcontracting- a realm of production that seemed, at least from distance, to be on autopilot. Working with my research assistant, Tony Yang, we first constructed a rough volume out of rigid Styrofoam, imagining that it could begin to stand in for a space of dwelling. The foam was not assigned any particular scale, nor did its surfaces correspond to any specific materials, nor was it possible to sort out a definite division of spaces and functions within its uniform mass.

Over the course of an informal conversation, Tony and I came up with a backstory, deducing an internal series of imagined spaces from our external impressions of the foam. The goal was not to fulfill all of the requirements that the design of a house demands, but to produce an object that might be interpreted as a representation of a house by others. I intended to pass the model on to a dispersed array of consultants in order to test the hypothesis that it would be possible, via outsourcing, to immediately leap from cool to hot media, or from forms of representation that require a great deal of participation to “complete” visualizations of a possible architecture.¹⁰

Withholding a determination of the exact layout of rooms, the structure, the mechanical equipment, or anything beyond our cursory narrative, I allowed the development of the project to remain in suspense. There were, however, definite features of the model- its shape and

Figure 3: Standard Deviation Graph Percentages

Figure 4: Bedroom, *L’Auberge Espagnole*, 2014 (next page)

Figure 5: Perspective Section, *L’Auberge Espagnole*, 2014 (next page)



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ENDNOTES

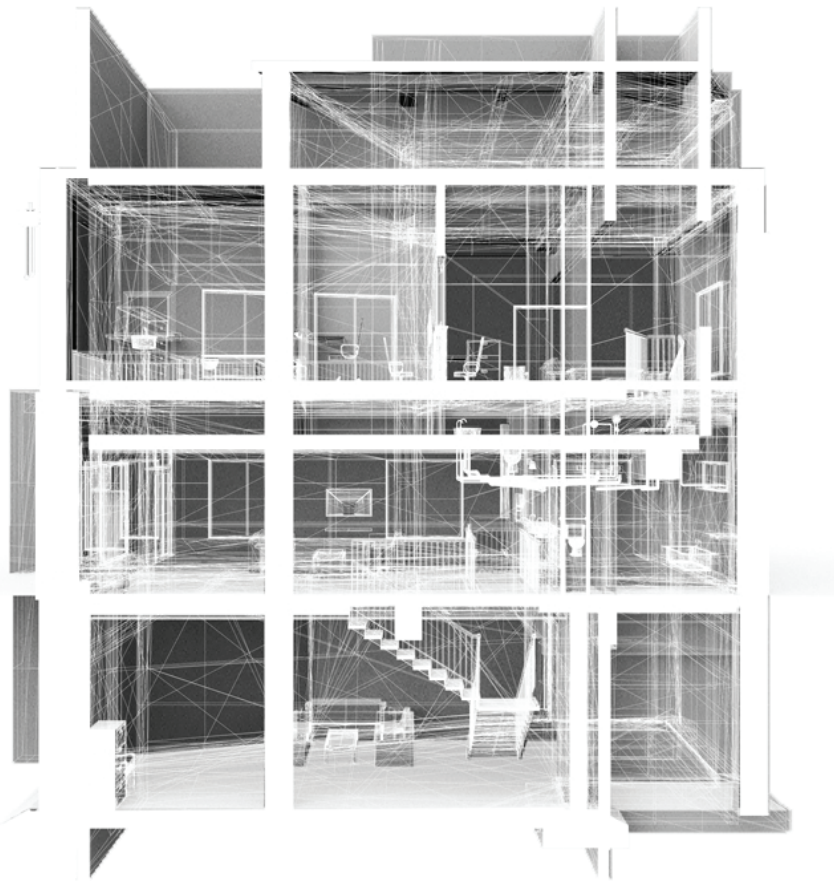
1. Nelson Goodman. *Languages of Art: An Approach to a Theory of Symbols*, 2nd edition (Indianapolis: Hackett Publishing Company, 1976).
2. Robin Evans, "Translations from Drawing to Building," *AA Files*, no.12 (1986), 3.
3. Declaring an end to the "Albertian Paradigm," Mario Carpo credits recent developments in CAD-CAM technology with creating "a seamless process of creation and production." Mario Carpo, *The Alphabet and the Algorithm*. (Cambridge, Massachusetts: MIT Press, 2011).
4. Bernard Cache and Patrick Beaucé have outlined strategies for a non-standard architecture in their 2003 manifesto, "Towards a Non-Standard Mode of Production," while attempting to separate this "mode" from the architect as artist model: "In its three strategies the 'non-standard' amounts to saying 'original' or 'complex', but here we remain stuck in a Fine-Arts state of mind which seeks to turn the work of architecture into a work of individual creation." Patrick Beaucé and Bernard Cache, "Towards a Non-Standard Mode of Production," in *Objectile: Patrick Beaucé and Bernard Cache*. (Vienna: Springer, 2007), 28.
5. In establishing the "standard deviation" as a form of indeterminacy (as opposed to the overdetermination of the non-standard) we could think here as well of Lucretius' proto-quantum physics in Book II of *De Rerum Naturae*, when he describes the unpredictable "swerve" (clinamen) of atoms in motion.

extents- that could be faithfully recorded in drawing form. We spent the next few hours slicing the foam in straight sections with a hot wire and tracing the profiles of these cuts on flat sheets of paper, which in turn became a kind of sparse drawing set. This exercise served, in effect, to freeze the form and to transfer what was previously a three-dimensional idea into the currency of drawing exchange. I was acting on a hunch that this would be enough to set in motion a process of documentation, via third party producers, that would see the project through to completion.

Overnight, I sent these marker drawings to a company in Manila called Architectural Overseas Outsourcing, that specialized in the BIM modeling of facades. In return we received a model, resembling a windowless bunker, in which the wobbly marker lines had been straightened, all of the rooms had been named, and the building had been anchored into a virtual topography. Rather than correcting the Filipino model, I sent it out once again- this time to an interior design company in Gurgaon, a structural engineer in Chongqing, and a group of Costa Rican plumbing experts. Over the course of several weeks, and numerous email exchanges during which I generally attempted to evade requests for information, I eventually completed my business with these companies- paying them in full for models that had been designed in part

When I opened all of the files at once, the image of synchronization that I had imagined since the first messages to Manila was soon dispelled. It was replaced with a chaotic scene of beams running through walls, sinks hovering outside of windows, and stairways leading to nowhere in particular. Not only did the models misalign in plan and section; they seemed to be oriented in completely different directions, perhaps in a gesture towards their scattered origins. The plumbing, which is normally relegated to the background, transporting waste and water through the hidden cavities of floors and walls, here roamed freely across the carpet of the downstairs living room. On the second floor, a thick concrete column passed clean through one end of an empty plastic tub, leaving little room for conventional bathing.

Though it was difficult to locate anything in the model that resembled a Chinese, Indian, Filipino, or Costa Rican vernacular, real transactions had taken place, both graphic and financial, between sites that were far from contiguous. The sheer distance of these relays was



evident in the daily rhythm of emails, which tracked the working hours of four different time zones. Unlike the children's game, Telephone, which involves the sequential distortion of a message as it travels, surreptitiously, from mouth to ear, the work was always directed back to Houston before being sent out again. In the course of these transmissions, a building had taken shape that was as contingent upon shared assumptions as explicit instructions. Everyone seemed to know what to do, even though much was left unsaid.

By adopting a *laissez-faire* approach to the coordination of this work, trusting only in the common format of BIM to provide any semblance of a synthesis, the house could ultimately be interpreted as a cursory portrait of global design conventions—a kind of fisherman's catch with a bait made of foam. Ironically, the superimposition of grids, fragmented walls, and inversion of mechanical equipment to the facade recalls highly authored strategies from the late 20th century, which sought to turn conventions of design on their head.¹¹ Here they take on a slapstick quality— the result of a representational assembly line that has hit the skids.¹²

In less dramatic ways, these kinds of accidents happen every day in the production of architecture. As buildings become more complex and specialized, architectural work turns into a kind of rote maintenance; the architect tries to hold the object together even as its network of participants expands. In place of the artisan architect, who manages every aspect of a building's fabrication, or the systems designer who brackets out the middlemen while offering arrays of customizable options, I am interested in ways that architects can make the most of being in the middle—in the midst of equipment, and social relations, and possibly in a diminished or at least more embedded form of agency.

6. Here, I do not wish to revive a general analogy between architecture and language, which has recurred at various periods in architectural history as both a form of interpretation and a genesis for experiments in design. Although the working representations of buildings consist of discrete parts that can be combined according to systematic rules, and are therefore language-like, they are distinct from sentential systems in that they maintain a resemblance to the objects and properties that they represent— the signs of a drawing are not arbitrary and their combinatorial possibilities are not infinite.
7. "Skeleton data" is the term used by Harold Sleeper to describe the dimensional types used within Architectural Graphic Standards. Hyungmin Pai, "New Genres and New Formations," in *The Portfolio and the Diagram: Architecture, Discourse, and Modernity in America*. (Cambridge, Mass: MIT Press, 2002).
8. Evidence for the linguistic nature of working drawings can be found not in the symbolic representations themselves, but in what these drawings leave out, and consequently what is conceptually filled in by their receivers. When an architect flips between a plan and its details, he or she is crossing over what the theorist of narration, Gerard Genette, has called "implicit ellipses": "those whose very presence is not announced in the text and which the reader can infer only from some chronological lacuna or gap in narrative continuity." Gerard Genette. *Narrative Discourse: an Essay in Method*. (Ithaca, N.Y.: Cornell University Press, 1980), 94.
9. Borrowing these categories from Robert Reich, Paolo Tombesi has shown how developments in information technology have divided architectural labor along geographic lines. "Routine Production or Symbolic Analysis: India and the Globalisation of Architectural Services," *The Journal of Architecture*, vol. 8, no.1 (2003).
10. Marshall McLuhan's categories are useful here, although the initial prompt of the project— the foam block— brought on participation not through the establishment of a known pattern, but through circumscribing the boundary within which the outsourcing expert could work. Marshall McLuhan, "Media Hot and Cold," in *Understanding Media: The Extensions of Man*, (New York: McGraw-Hill, 1964), 22.
11. Here I am thinking of both the inside out treatment of High Tech, most notably in the Pompidou Center in which the inner workings of the building are shifted to the façade, leaving the galleries vacant and open, but also the slight offsets, shifted grids, and layered facades of Deconstructivist architecture.
12. Buster Keaton's "One Week," from 1920 and the animated Pink Panther film, "Pink Blueprint" from 1966, both spoof the protocols of the construction site, and the accidents that inevitably ensue from errors in the drawing.

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