

Layered Fabrications

Grant Gibson

University of Illinois at Chicago

There was an old lady who swallowed a fly.
I dunno why she swallowed that fly,
Perhaps she'll die.

There was an old lady who swallowed a spider,
That wiggled and wiggled and tickled inside her.
She swallowed the spider to catch the fly.
But I dunno why she swallowed that fly,
Perhaps she'll die.

There was an old lady who swallowed a bird;
How absurd, to swallow a bird!
She swallowed the bird to catch the spider
That wiggled and wiggled and tickled inside her.
She swallowed the spider to catch the fly.
But I dunno why she swallowed that fly,
Perhaps she'll die.

There was an old lady who swallowed a cat.
Imagine that, she swallowed a cat.
She swallowed the cat to catch the bird ...
She swallowed the bird to catch the spider
That wiggled and wiggled and tickled inside her.
She swallowed the spider to catch the fly.
But I dunno why she swallowed that fly,
Perhaps she'll die.

There was an old lady who swallowed a dog.
What a hog! To swallow a dog!
She swallowed the dog to catch the cat ...
She swallowed the cat to catch the bird ...
She swallowed the bird to catch the spider
That wiggled and wiggled and tickled inside her.
She swallowed the spider to catch the fly.
But I dunno why she swallowed that fly,
Perhaps she'll die.

There was an old lady who swallowed a goat.
Just opened her throat and swallowed a goat!
She swallowed the goat to catch the dog ...
She swallowed the dog to catch the cat.
She swallowed the cat to catch the bird ...
She swallowed the bird to catch the spider
That wiggled and wiggled and tickled inside her.
She swallowed the spider to catch the fly.
But I dunno why she swallowed that fly,
Perhaps she'll die.

There was an old lady who swallowed a cow.
I don't know how she swallowed a cow!
She swallowed the cow to catch the goat ...
She swallowed the goat to catch the dog ...
She swallowed the dog to catch the ca t...
She swallowed the cat to catch the bird ...
She swallowed the bird to catch the spider
That wiggled and wiggled and tickled inside her.
She swallowed the spider to catch the fly.
But I dunno why she swallowed that fly,
Perhaps she'll die.

There was an old lady who swallowed a horse—
She's dead, of course."

—Rose Bonne (music by Alan Mills)¹

LEARNING FROM AN OLD LADY

Could this wonderfully odd tale be much more than a nonsense rhyme constructed to aid children in memory retention? With progressively ridiculous lyrics, could this absurd story give our discipline new ways to order form? At a quick glance the poem seems relevant with a sensibility well versed in postmodern irony, yet fueled by earnest desire. Not to mention that the narrative of a human swallowing a number of living things whole, each more impossible than the last, seems to present an astute critique of our post-World War II, consumption-based culture. But, this is an overly ambitious take on the poem from 1952 that is only allowed by hindsight. A more literal reading of "*I Know an Old Lady*" is sufficient to advance the current discussions of architectural form.

The tale presents a justifiable argument for architectural order via the subject's curious physical state at the time of her death. Who knows whether those animals ended up doing what they were meant to do (consume the smaller figures already swallowed)? The tale leaves a number of possible final states, of which the two extremes have been illustrated in past book versions. The most recently published book has neatly fulfilled the character's objectives, distilling the formal relationship to a Russian Doll analogy, where each animal has eaten that which was previously swallowed. Yet, the range of possible failures are much more intriguing, if the Old Lady's internal state is without hierarchical relationships. Any figure could have consumed another (as relative scale is of minimal regard). The fly could have swallowed the spider or cat could have swallowed the cow. The absurdity is endless and completely within the rules of the tale. If this is not enough, it is also possible that none of the animals consumed another. Could this be why Abner Graboff's original illustrations have us looking into the lady's belly (through windows, no less) onto a figural free-for-all?

Distinct in its compositional logic and wildly liberated by its fiction, this strange constructed image of a human figure with other living forms within

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Figure 1: "There Was an Old Lady Who Swallowed a Fly"; poem/lyrics by Rose Bonne, music by Alan Mills, illustrations by Abner Graboff; Scholastic Book Services; 1961

it is unlike any other analogy used for past architectural part-to-whole relationships. There are two reasons for this fact; the first (and most direct) is that layered form is the remedy to tired versions of thin-skinned figures with ordered interiors. The second point is that, rather than mimicry of natural phenomena, this model is premised on human fabrications that may or may not be referencing a reality. In combination, these lessons can lead to a new architectural sensibility, indifferent to natural metaphors, capable of usurping old organizations from the industrial age and sympathetic to the spirit of our times.

AN ANTI-MIMESIS SENSIBILITY

The current architectural flat-field of diverse motivations, sensibilities, and tactics makes the identification of a collective difficult. Yet, it is hard not to generalize that in the discussion of architectural form there tends to be two clear interests. Those invested in methods of computation and construction to refine and advance the discipline's skills in control or craft. The other sector tends to be more interested in expanding the power of the discipline's influence by understanding and harnessing the vast networks that produce our built world. William O'Brien Jr.'s essay "*Experts in Expediency*" has argued that these paths to making architecture more accessible has us operating in methods within a spectrum of material and graphic expediencies.² The attitude introduced in this essay operates indifferently to this gradient in its motivations, sensibilities, and tactics.

The easiest pole in O'Brien's spectrum to which this new approach can be differentiated from is the "*one that has increasingly exhibited a form of "material expediency"—the creation of intricate formations that aspire to visually induce sensation and material awareness.*"³ It is a genre of architecture coined *Parametricism*,⁴ where the articulation of components is used as a pattern generator, which is instantiated across a variable skeleton. This work is indebted to the project of indexicality and the desire to produce responsive, *Animate Form*⁵ that can be played out in endless versions. Its formal motivation can be summarized as a desire to produce difference out of sameness.

At the other end of the arrangement, this emerging group is not to be confused with "*one that has leaned toward signs of "graphic expediency"—the shaping of adroit caricatures that can pointedly address the facts of mass culture.*"³ Unconcerned with natural metaphors, this range of contemporary work is primarily interested in networks and flows of human importance. More often than not, this preference for cultural genesis is developed (or pitched) as an objective process or a type of market-based indexicality. Form is produced with intentions of demonstrating performance that is the result of a series of forces enacted upon a mass to produce an optimized shape. In short, the project relies on the belief of an ideal that can be solved for, justified, and marketed; or that new truths (that are sometimes perverse) can be revealed.

The new sensibility, described here, does not believe in truths—only the resemblance of them. Their game is an irresponsible negotiation of



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verisimilitude; or the plausibility of fictions. They seek to use fiction as a way to side-step immediate pragmatic concerns to then address larger cultural issues (such as economical, ecological, theoretical, social, sensual) within the discipline of architecture. Along the way, they see no issue in borrowing from either end of O'Brien's spectrum, as long as their fictions are served.

There is a range to which this is done. Bittertang's "Animate Sensate" with anthropomorphic forms have been endowed with brutish (or animalistic) descriptions and implied natural habitats, or Bureau Spectacular's graphic novels reveal hypothetical futures that translate into physical gallery installations. These are examples of practices using initiating narratives to provide an escape velocity to the design process that propels speculation to new heights. Others leave intentional holes in their design narratives that require the audience to make their own conclusions. The subtle manipulation of sensual effects central to the work of WEATHERS/Sean Lally is an example of this tactic that leads the audience to reconsider status quo behaviors at grand scales.

These adherences to projective fiction inherently require authorship to be acknowledged and thus, seek for it to be distinguishable in the methods of design representation that drive the production. While this is common of many design movements, the relevancy of it in this work lies in the immediacy of these methods. In our media-driven society where a constant, instantaneous product is expected, there is little need for elaborate development of presentation. Similar to blogging, tweeting, or instant messaging, representation is expected to be quick, frequent, and have immediate impact for this group.

The reciprocity between expedient representation and production is deliberate; or, as Jimenez Lai of Bureau Spectacular puts it, "*representation is more than half the battle.*"⁶ This can be seen in work like Indie Architecture's patterns of poly-lines that transform from a radiant piping lattice in one project to the profile for plans in the Hydrogen House. Often this occurs by providing figural distinction in two dimensions, then using subtle operations

Figure 2: Bureau Spectacular's "White Elephant (privately soft)" (2011)

to the third dimension to obscure the generating shape; as is the case with Ania Jaworska's "Cloud Gate" or CAMES/Gibson's "A House With ..." design series.

It is not uncommon that these projects often appear as figures that are more posed than animated. These new results refer back to an era where formal composition carried Venturian expectations. A range of figures is influential to this movement, but John Hejduk's work is central. With a strong figural presence and comic anthropomorphic qualities, his masque of characters embodies the formal values of this emerging work. Seeking to introduce their own context, rather than being a reaction to the surroundings, this new collective expect their forms to perform theatrically (then sometimes perform programmatically).

The consciousness of fiction has motivations beyond the crafting of posed figurations—strong importance for the interior is also expected. Given the separate and equal considerations it earns, distinction or even contradiction is expected and sought between elevation/section, appearance/experience or exterior/interior. Or more plainly: what you see is not what you get in this movement of architecture. Best describing this motivation is Ilka and Andreas Ruby's writing on J. Mayer H.:

[W]e realize that a lack of knowledge or even a blunt understanding can create a space of freedom. Here in lies, ultimately, Jurgen Mayer H.'s interest: creating objects that a) appear to be something which they are not (i.e., hard rather than soft), b) attract us to use them, which c) makes us realize their true nature. It is a play of false promise, disappointment, and finally the pleasure of discovering something truly unexpected instead.⁷

In this notion of internal contradiction, the work moves beyond the innovations of stage-like performance of Hejduk's characters, or even the more recent intuitive sculptural mathematics of Neutelings Riedijk's work, to produce a formal order that recalibrates context, experience, and ecology through dual formats (the interior and figure). It is only through fictitious or fabricated design sources that the genre is able to cool down the highly sculptural massing tendencies to accommodate robust interiors.

A LAYERED METHODOLOGY

The preferences and inclinations of an anti-mimesis sensibility are not enough, tactics are required. History has taught us that earnest motivations that drive movements are tasteless without tactics that aspire to a greater cultural aesthetic; just as work concerned with novel aesthetic tactics are limited without a larger practical motivation. Left to its own devices, work, derived from fiction, seeking posed figures with embellished interiors would allow infinite compositions—unfortunately the majority of which, would likely be unconcerned with reality. But, if the emerging attitude were coupled with a pragmatic ordering logic, in a way not that dissimilar to the mixture of critical art and industrial production that gave us the early modern architecture, it may be able to propel us past old dogmas.



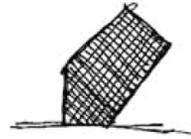
Intensify An Element



Extend The Line



Develop A Precise But Vague Silhouette



Saturate With A Monotone Treatment



Bore A Hole Through It

Luckily, we seem to be at an opportune moment when an old pragmatic building concern, filled with latent potential is returning to relevance. It is a topic that gets back to architecture's most basic obligation of delineating in from out. In terms of tectonics, it is the line of work that unifies traditional assemblies of roof and wall into one skin, envelope, enclosure, or surface. It is the site of architectural production that focuses on the perimeter and "the crust of space affected by the physical construction of the surface."⁸

Once, in the age of *Bigness or the Problem of the Large*,⁹ it was a undesired necessity; a minimal enclosure for the unraveled floor plate at Jussieu University or the convenient by-product of mass in the *Strategy of the Void*. It was an after-thought to the compelling methods of programmed interior field organizations. Those days are over now, the context has evolved; the credit bubble has burst, climate change has not gone away and the world is still coming to terms with fanatical identity politics. The inter-connected global world has altered into a negotiation of limits, to which the topic of enclosure is our discipline's best medium to engage this new terrain.

The interest and attention paid to this aspect of architectural production is not entirely new.¹⁰ However, it did more recently gain significance through a set of ironic and expedient decisions, perhaps most fully developed in the work of Herzog & de Meuron, Neutelings Riedijk and Foreign Office Architects. This topic was academically identified through discussions of "cosmetics,"¹¹ (Jeffrey Kipnis), "expediency,"¹² (R.E. Somol) and, more recently "The Politics of the Envelope"¹³ (Alejandro Zaera-Polo). The two most recent essays offer clues to the advancement of this design topic. When Somol's interests in figuration and Zaera-Polo's attention to the conflation of envelope performance and representation are considered away from the era of work that preceded and ignited them; there is an opportunity to project a new approach for architectural production—an approach that distills three justifications for a figuration of the whole and two methods for creating surface significance.

THREE FIGURAL JUSTIFICATIONS

Objective methods with which architects are beginning to answer Somol's charge to "develop a precise but vague silhouette" have become so prevalent that three typologies of figuration—bureaucratic volumes, environmental canopies, and infrastructural tubes—can be identified. Each allows the building limit to remain an instigator of the project's organization, while

Figure 3: Five Operations for Logo Buildings & Landscapes; R.E. Somol; "Intensify An Element, Extend The Line, Develop A Precise But Vague Silhouette, Saturate With A Monotone Treatment and Bore A Hole Through It"; "Green Dots 101", *Hunch 11* (Winter 2006-2007)

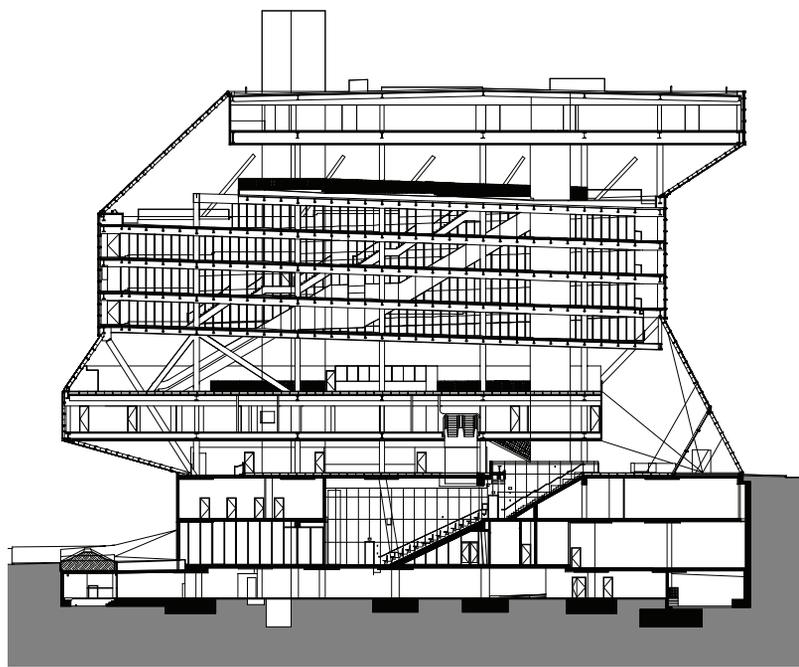
still providing clues for how to evaluate the whole. The prioritized values of each typology permit it to vary in states of proportion (thus matching Zaera-Polo's four objective categories), and in intensity (enabling resulting forms to be either common and contextual or distinct and iconic).

Carried over from the era of Bigness is the most recognizable type of justified figures: bureaucratic volumes. They arise from external concerns, such as zoning limits and desires to maximize floor-area ratios, and are used to describe a formal limit. Their creative and communicative powers—a series of step-by-step axonometric drawings—were originally introduced by Hugh Ferriss in his studies of New York's zoning laws and have long been deployed as a design strategy by the usual suspects¹⁴. But, few have consistently exploited the method with a focus on the internal organization. Architects' 'Villa-Villa' is one exception where the concerns of the building limit, an optimal interior area, and the perimeter surface are justified in this manner. The home's zoned enclosure provides a logic for its internal organization: the Bureaucratic volume is here understood as an outer house holding three stacked figures—the inner house.

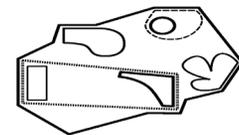
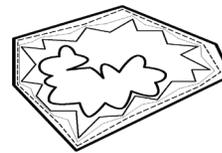
The second method concerns the use of environmental parameters to inform surface treatments and figural manipulations. This method results in environmental canopies, a typology that focuses on volumetric-based analysis and one indebted to a composition of natural elements or materials such as heat, humidity, air flow. It relies on orthographic plans or sections and is driven by sensual concerns. The resulting forms, which are often distinct, can be misread because this typology can be organized from the inside outward or externally inward. Weathers's proposal for the Estonian Academy of Arts offers an example in which the figure is equally internally justified as it is from the exterior. In this project, thermal desires understood at the scale of the urban context produce an open park at grade. This public space is then shaped by internal programmatic relationships as it stretches up into the building mass.

The third method of justification produces Infrastructural Tubes, forms that are understood primarily through vector-based analysis and composition. These figures result from an inside-out approach, where internal organizations are understood at the scale of the site. Their logic is often discussed in terms of programmatic progression, as seen in UN Studio's Modius House, and in experiential circulation, as seen with Diller and Scofidio's Slow House. Their main mode of explanation is through diagrams of movement networks. Paul Preissner Architects' Museum of Polish History proposal is an example where the clear planning of internal progression organizes, then gives way to a more elaborate investigation of the relationship between aperture and panelization on the perimeter.

Bureaucratic volumes, environmental canopies, and infrastructural tubes are not exclusive categories. In the vein of UNStudio's claim that the old question of the box versus blob "doesn't matter anymore,"¹⁵ designers can breed hybrid solutions through multiple typologies. A recent example includes CAMES/Gibson's Kaohsiung Maritime Cultural and Popular Music Center. Here the combination of site specifics and program allow all three



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typologies to be deployed as one canopy. The key is that each typology offers a viable method for the production, development, and marketing of form, freeing up time and effort to find ways of increasing the enclosure's role in the project's organization.

TWO LAYERED STATES

Beyond the logics for describing the whole, there is a need to define methods for advancing the cosmetic envelope into assemblies that are more than just thin graphic or tectonic arrays. Such techniques would produce spatial and experiential thickness in surface compositions both complimenting the formal uniqueness of contemporary masses and at the same time, leading to deep, interior spatial organizations. These methods rely on the historical practice of layering to assemble enclosure.

Layering has long been the dominant method for understanding the perimeter barrier. Pragmatically, it allows greater control of construction sequences and can isolate responsibilities of the enclosure to specific layers. Conceptually, it provides opportunities to create distinction, uniqueness, or even contradiction, while still maintaining the appearance of a comprehensive whole.

The most significant recent example of this may be another library from OMA. The Seattle Public Library was envisioned as *"the superposition of floors"* that created five programmed platforms with four unstable spaces between.¹⁶ Making it another internal organization that was then clad in a tight-fitting skin. The importance of the project to this line of figural ordering does not come in the conception of the project, but its execution. Once the minimal skin assumes thermal, moisture, and structural responsibilities, a robust section appears. A number of limits co-exist via two states of layering—delamination and stuffing.

Figure 4: Seattle Public Library; Office of Metropolitan Architecture; 1999

Figure 5: "Layered Figures," CAMES/ Gibson (2009)

ENDNOTES

1. "There Was an Old Lady Who Swallowed a Fly"; poem/lyrics by Rose Bonne, music by Alan Mills, illustrations by Abner Graboff; Scholastic Book Services, 1961
2. Classifications outlined by William O'Brien Jr., "Experts in Expediency", *Log 17* (Fall 2009)
3. William O'Brien Jr., "Experts in Expediency", *Log 17* (Fall 2009)
4. A term championed by Patrik Schumacher's "Parametricism as Style: Parametricist Manifesto", presented and discussed at the Dark Side Club1, 11th Architecture Biennale, Venice 2008
5. Greg Lynn, *Animate Form*, Princeton Architectural Press, 1999
6. Quote attributed to Jimenez Lai from Bureau Spectacular's Mission Statement; www.bureau-spectacular.net
7. Ilka and Andreas Ruby, *Invitation to Play*, J. Mayer H., Hatje Cantz, Verlag, 2009
8. Alejandro Zaera-Polo, "The Politics of The Envelope," *Log 13/14* (Fall 2008)
9. Rem Koolhaas, *SMLXL*, The Monacelli Press, 1995
10. There are numerous examples of thought on the perimeter in terms of environmental concerns (i.e., Fuller, Banham), political expression (i.e., Loos). The majority have focused on composition (i.e., Rowe, Venturi) or material tectonics (i.e., Groupius, Sempër)
11. Jeffrey Kipnis, "The Cunning of Cosmetics: A Personal Reflection on the Architecture of Herzog and de Meuron"; Herzog & de Meuron: *El Croquis 84*, (1997)
12. R.E.Somol, "Green Dots 101", *Hunch 11* (Winter 2006-2007)
13. Alejandro Zaera-Polo, "The Politics of The Envelope," *Log 13/14* (Fall 2008)
14. OMA, Herzog & de Meuron, Neutelings Riedijk, FOA, UN Studio can be seen as leaders of the first generation that have been followed up by firms like NL Architects, Bjarke Ingels Group, Julien De Smedt Architects and others.
15. Ben van Berkel & Caroline Bos, *Inclusiveness; Move*, Goose Press, 1998
16. OMA/LMN, *Seattle Public Library*, Actar, 2005

Delamination, in its pure form, is a centered organization in the sense that there is always an innermost zone regardless of its formal characteristics. The results of this technique are often unified exteriors surrounding a singular interior space. Creating uniqueness in the transition through layers, which is most effective in small projects, such as Garofalo Architects's Sanders Residence. With an open muted interior and unadorned concrete enclosure, distinction is found in the moments when the outer concrete layer stops short or extends past corners and the remaining layers pull away to allow human passage to various exterior spaces.

Stuffing is distinctly different from delamination in that difference happens in isolated spaces or forms within the whole. This method allows several differentiated interiors to coexist without an explicit hierarchy. It also provides more opportunities for overlap or the superimposition of internal spaces. The outer layers often formally yield to the internal organization. The Wall House by Frohn & Rojas is a clear result of this method. With three wood volumes clustered around a concrete core, the home is sealed in with glazing under a soft skin. The resulting configuration interlocks interior and exterior, public and private spaces while still providing a singular form that bulges from its internal figures.

Contemporary design work dealing in layered form is historically new. Thus, the limits to these techniques are still unknown, as is the utility of possible combinations. Yet, the perimeter organizations that do exist are profound, in that they offer methods, evolved from our immediate past, that are suitable for a wildly new attitude toward the references underlying architectural form.

As the discipline of architecture continues to be tempted to address the world's problems, this highly subjective, fiction-obsessed approach may seem absurd, if not inappropriate—it is too unreal. Yet, the agenda of layered fabrications is equally pragmatic and direct in its application. Unlike the earnest formal analogies of real cultural or natural phenomena and their resulting techniques of sculpting bulk, programming fields or scripting surfaces, this approach reaffirms that *life imitates art*. In doing such, it liberates the discipline from codified formal references, while obligating our audience. Let them try worlds designed from tales of an old lady swallowing a horse or any other fantasy that offer up new relationships, readings, and atmospheres that are currently unavailable through earnest mimicry. ♦