## **No Frills**

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In "The Tall Office Building Artistically Considered," Louis Sullivan lays out a formula for the artistic expression of "loftiness" centered around a functionalist analysis of the steel-framed American skyscraper. The essay begins with a critique of architecture's propensity for metaphor, and draws on popular analogies from the time that retraces the classical proportions of the modern office building to the familiar tripartite division of a human figure, a pine tree, or an archetypal column. The lower stories of the building recall the base, the "monotonous, uninterrupted series of office tiers" the shaft, and the expressive organicism of the upper stories the capital.<sup>1</sup> Allusions like these point to the power of precedents, and raises the central question that came to occupy Sullivan's career of how to decorate a modern skyscraper.

First published in 1896, the piece coincides with the completion of Adler and Sullivan's final collaboration together, the Guaranty Building in Buffalo, New York. Commissioned as rentable office spaces for the Guaranty Insurance Company, the building's illustrious terra-cotta facades are the product of a pivotal moment at the turn of the twentieth century when new fire codes, construction methods and corporate clients pushed the building industry into two parallel and opposite pursuits of self-preservation. The first was marked by a rise in demand for fireproof ceramic materials that took full advantage of the pluralist potential of mechanized production. The second was an attempt to reinforce architecture's ability to reflect the social status of its owners through the preservation of established ornamental orders. Both lines of development contributed towards the emergence of an increasingly frilly architecture centered on mimetic processes that were shaped in equal measures by twentieth century technology and nineteenth century aesthetic ideals. Placed within the inherent contradictions of its era, the facade of the Guaranty Building appears simultaneously out of date and ahead of its time.

Read in a contemporary context where design discourse is increasingly polarized between technocratic and rhetorical drives, the Guaranty Building provides a productive model for re-evaluating the relationship between reference and innovation in the development of architectural systems. This paper documents the design and fabrication of a recently completed installation in Buffalo, New York that explores the semiotic agency of the mass-produced ornament within contemporary modes of architectural reproduction. *No Frills*  takes the form of an inhabitable, 13ft terra-cotta column installed inside a former General Motors factory from the 1920s designed by the architect Albert Kahn. The project traces the aesthetic and technological history of modular ceramic building systems that emerged at the turn of the twentieth century as lightweight and cost-effective alternatives to masonry. This research serves as the basis for a year-long collaboration with Boston Valley Terra Cotta, a Buffalo based manufacturer of architectural ceramics, who also served as the fabricators for the installation. Using Adler and Sullivan's Guaranty Building as a conceptual framework, No Frills can be read as both a test case for introducing digital tools and media into traditional ceramic workflows, as well as an act of experimental reconstruction that questions what it means in today's context to continue to reproduce architectural systems that are rooted within a logic of substitution.

## **1998: RESTORATION**

In 1975, the Guaranty Building was listed as a National Historic Landmark. By that point, the facade had accrued significant damages as the result of a fire that took place in the previous year and and a flurry of ill-conceived modernization attempts during the 1950s. The building's precarious state provided the justification for a series of preservation efforts that included a \$12.4 million project lead by local preservation groups and backed by the city of Buffalo. The most significant round of restorations on the facade took place in 1998 after the building was acquired by its current owners, the law firm Hodgson Russ LLP. The project involved the replacement of over two hundred terra-cotta tiles that were damaged beyond repair. The commission was given to Boston Valley Terra Cotta, who were a relatively young company at the time. The project provided them with an early test case for developing of a working method for the repair and reproduction of nineteenth century terra-cotta facades that they would later apply to an extensive portfolio of restoration projects around the country.

The restoration of the Guaranty facades began with the careful removal of a selection of the original panels from building to serve as models for in-house sculptors, who were tasked with creating a new set of hand-carved replicas. The original plaster molds that were used for the construction of the facade in 1896 did not survive the test of time, so the resulting verisimilitude of the clay copies relied solely on the skill and hand-eye coordination of the artist to recall lost information. Archival photographs and drawings from Adler and



Figure 1: Front Elevation. Photo by Biff Hendrich, 2016.

Sullivan's offices provided an additional source of information to fill in the gaps left by over a hundred years of weathering and abrasive cleaning attempts. This painstaking process of manually replicating a piece of material that was itself a copy to begin with brings up a number of seemingly irreconcilable contradictions, and raises questions around how we assess qualities such as authorship and originality in the reproduction of modular material systems that were designed for mass-production. The dilemma recalls Rosalind Krauss' analysis of the reproduction of Rodin's Gates of Hell for the National Gallery of Washington in 1981, over sixty years after his death. She argues that since no casts of the piece were made by the artist during his lifetime, all subsequent reproductions acquire the same status by default as a legitimate copies. Rodin's remote method of working shifted the stamp of authorship from the physical artifacts themselves to the molds, blueprints, and copyrights that govern their reproduction. The Guaranty facades set up a comparable conundrum for preservationists, in that each one of the modular tiles that make up Sullivan's giant ornamental puzzle can be read as "copies in the absence of an original,"<sup>2</sup> designed around an ethos of reproduction.

Standing face to face with the Guaranty Building today, its uniform appearance presents an illusion of integrity—arguably the sign of a successful restoration effort. Moving beyond the surface, the facade is better understood as an exquisite corpse of copies many times removed—a collection of tiles made with different molds, decades apart, using different methods of reproduction that reflect the technological limits of its time. The resulting mishmash evokes the Theseus paradox, and raises the question of whether an object that has had all of its components replaced remains fundamentally the same object. The meticulous process of restoring the Guaranty facades highlights the central fallacy of contemporary preservation debates—the ceaseless attempt to recreate the signature of the architect overshadows the inherently substitutive nature of modular building systems. Siegfried Kracauer writes that by analyzing the "inconspicuous surface-level expressions" of an epoch, we are able to discern something about the cultures that produced them. The notion emphasizes the continuous feedback loop between architecture's semiotic function and its material make-up, and suggests a pliable reading of ornamental expression as something that needs to evolve over time to assimilate to changing cultural attitudes and technological constraints. Read in this context, one might argue that every time a tile is replaced on the Guaranty facades, it might provide us with a clue to the conditions of its making. Assuming that the building will continue to require maintenance throughout the course of its lifetime, it will eventually be faced with the need to redefine the terms of its own reproduction. This begs the question: if future preservation efforts can finally free itself



Figure 2: Panel Detail. Photo by Biff Hendrich, 2016.

of the burden of originality, then *what*, *how*, and *why* should we preserve?

## 2016: RECONSTRUCTION

In a series of lectures titled "Preservation is Overtaking Us," Rem Koolhaas puts forth the notion that far from being the antithesis to modernity, preservation is an indispensable component of modern technological systems. This calls for a two-sided approach to current preservation practices as both a medium for the maintenance and reproduction of the past and a flexible framework for architectural innovation. Using the 1998 restoration of the Guaranty Building as a point of departure, No Frills can be read as a second act of speculative reconstruction that reframe the terra-cotta and steel-framed assembly system of the original facade using contemporary tools and techniques that investigate the changing face of the ceramics industry. Through ongoing conversations with Boston Valley Terra Cotta, the design and fabrication of the project takes cues from emerging trends in commercial ceramic production—from mass-customization to digital fabrication—and examines the ways in which these practices are transforming contemporary preservation discourse through new and expanded notions of authorship. The title of the project, No Frills, is a response to modernist calls for material integrity that cast ornament in a negative light

as frivolous, dishonest, or behind its times. Instead the piece explores the enduring agency of architecture's "frills" to challenge established value systems and provide a testing ground for new workflows and representational tropes.

The project began with the simple question of what essential features of the Guaranty facade to reproduce. Most written accounts of the building focus on the ornamental exuberance of its facades, describing it as a physical manifestation of Sullivan's genius, or a geometric abstraction of the invisible structural forces acting on the building.<sup>3</sup> These attempts to justify the "function" of ornament through architecture's internal logic alone leave something to be desired. What's more, they reinforce modernist notions of single authorship that seem at odds with the egalitarian spirit of this thoroughly modern building. Instead one might argue that the legacy of Adler and Sullivan's work stretches far beyond the iconic envelope of the Guaranty Building, and lies instead in their contribution to the development a democratic architectural system—a reconfigurable kit of parts designed to accommodate the shiftings desires of a growing group of corporate clients. In attempt to translate this assembly for contemporary production, the design of the installation retraces the lineage between Adler and Sullivan's steel-framed skyscraper and its modern-day counterpart: the popular rain-screen cladding systems that have come to represent the new face of the American office building. Working within the confines of Boston Valley Terra Cotta's patented TerraClad facade system,



Figure 3: Interior View. Photo by Biff Hendrich, 2016.

*No Frills* draws from the company's extensive product catalog of commercial tile patterns to re-imagine Sullivan's organic ornamental orders using this new set of machine-made substitutes. The resulting industrial patchwork can be read in two ways. The exterior of the column explores the part-to-whole relationships of systems of mass-customization, and their ability to register universal aesthetic sensibilities. Walking inside, the installation doubles as an industry showpiece that demonstrates the nuts and bolts required to hold up over 2000 lbs of terra-cotta tiles.

The next phase of the project involved the design of a custom workflow for the fabrication of this co-opted vocabulary. Visits to Boston Valley Terra Cotta's workshops outside Buffalo, NY, revealed the intersection of manual and mechanical processes within the assembly lines of commercial ceramic manufacturing. Historic restoration projects are generally carried out by hand, and pass through a sequence of time-honored techniques—sculpting, mold-making, slipcasting—that have been passed down through generations of craftsmen. On the other hand, commercial facade systems are executed at a much faster rate using large mechanical extruders and a catalog of ready-made dies. In Walter Benjamin's "The Work of Art in the Age of Mechanical Reproduction," he writes that mechanized production "emancipates the work of art from its parasitical dependence on ritual," and releases it

from a cultish search for originality.<sup>4</sup> Even though these two operations are grounded within the same system of massproduction, the introduction of "ritual" or human labor into the mix dramatically alters our perception of value in the finished pieces. Working from this set of observations, No *Frills* served as a test cast for developing a hybrid workflow that challenges this dichotomy between the hand-made and the machine-made through the introduction of automated processes into the mix. The exercise explores how the substitution of the human hand for digital fabrication tools like 3d printers or CNC routers that enhance the indexical nature of cast materials could lead to new aesthetic possibilities for ceramic production. Working with existing infrastructure that was already in place at Boston Valley Terra Cotta, the fabrication process traveled back and forth between software and hardware: digital models of each tile was sent to a 5-axis CNC router where they were milled into styrofoam prototypes; these dematerialized replicas were then returned back into the casting room where they provided the models for the production of set of plaster molds. In the end, the resolution gaps between matter and media-the shrinkage rate of fired clay and the tolerances of a digital model—are recorded in the subtle glitches and distortions on the surface of the terra-cotta. These moments of misalignment between distinct technological systems imbue the final pieces with a distinctly anachronistic edge that owes as much to terracotta's mimetic history as it does to the prevalent post-digital sensibilities of our times.



Figure 4: Casting Process. Photo by Boston Valley Terra Cotta, 2016.

## ENDNOTES

- 1. Louis Sullivan, "The Tall Office Building Artistically Considered, *Lippincott's Magazine*, March 1896, 403-409.
- Rosalind Krauss, "The Originality of the Avant-Garde: A Postmodernist Repetition," October, Vol. 18 (Autumn, 1981), 47-48.
- Siegfried Kracauer, "The Mass Ornament," in Kracauer, The Mass Ornament: Weimar Essays, trans. Thomas Y. Levin (Cambridge: Harvard University Press, 1995), 79.
- 4. Rem Koolhaas, "Preservation is Overtaking Us," in *Preservation is Overtaking Us*. (GSAPP Transcripts, 2014).
- Vincent Scully, "Louis Sullivan's Architectural Ornament: A Brief Note concerning Humanist Design in the Age of Force," *Perspecta* Vol. 5 (1959), 73-80.
- Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," Illuminations. Ed. H. Arendt (New York: Schocken, 1969), 222.

