



CLITCH

No. 03



SURFACE
PROCESS
ESTROR
ASSISTANCE
ASSISTANCE
RANDOM
EFFECTS
SMASGE
TECHNICAL
TECHNICAL
TECHNICAL
SPACE
TIME



PREFACE

E#

Glitch could be defined as an aesthetic effect—a certain kind of artistic object in which colors and shapes lose a coherent formal whole—or as a technique: a tool enabling the introduction of mistakes in a process, whether it is analogical or digital.

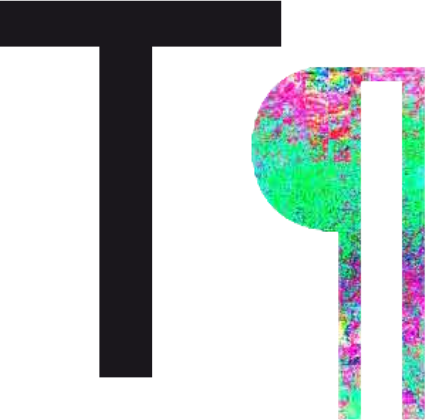
Even though the major results of “glitching” have often had a bi-dimensional nature, in recent years artists have produced works of a different nature kind in which there a physical and spatial dimension is involved. For instance, Banksy has made produced some works using a glitch aesthetic and Ferruccio Laviani has used “glitching” techniques to produce sculptures generated through the application of

deformations that break up the pure and well-composed sculpture’s object-hood and mass.

As far as architecture is concerned, the word Glitch has been used more and more by an ever increasing number of architects to indicate a series of design tools for the production of both flat patterns as well as for the generation of spatial, compositional and three-dimensional effects.

Given the impossibility of predicting the future of architecture, Glitch is a concept worth of study because by its understanding and by deepening its theoretical background, it might be possible to imagine disciplinary trajectories to come.

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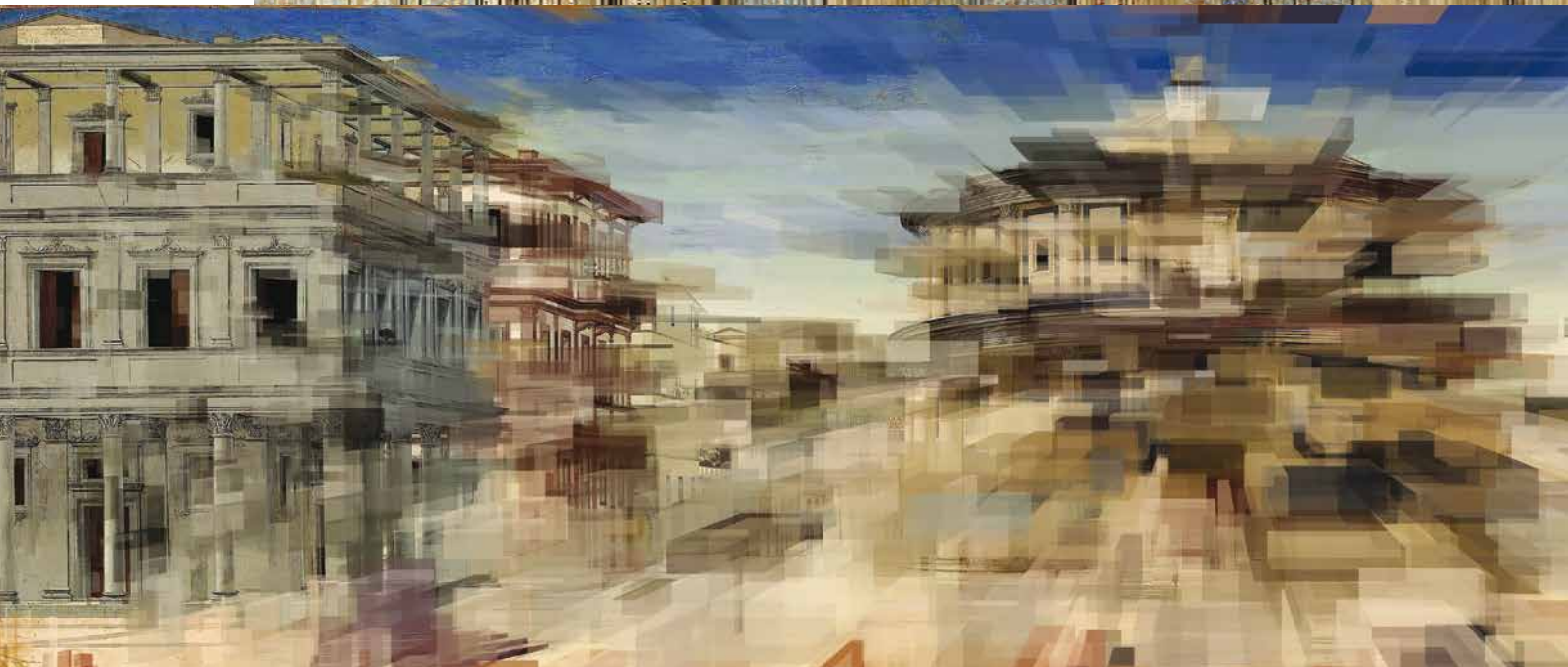
"Città ideale" is the image of urban perfection, in both rendering and architectural form. The balance results from a complete control over the disposition of volumes, their size, décor and colors, shown from a central linear perspective point of view.

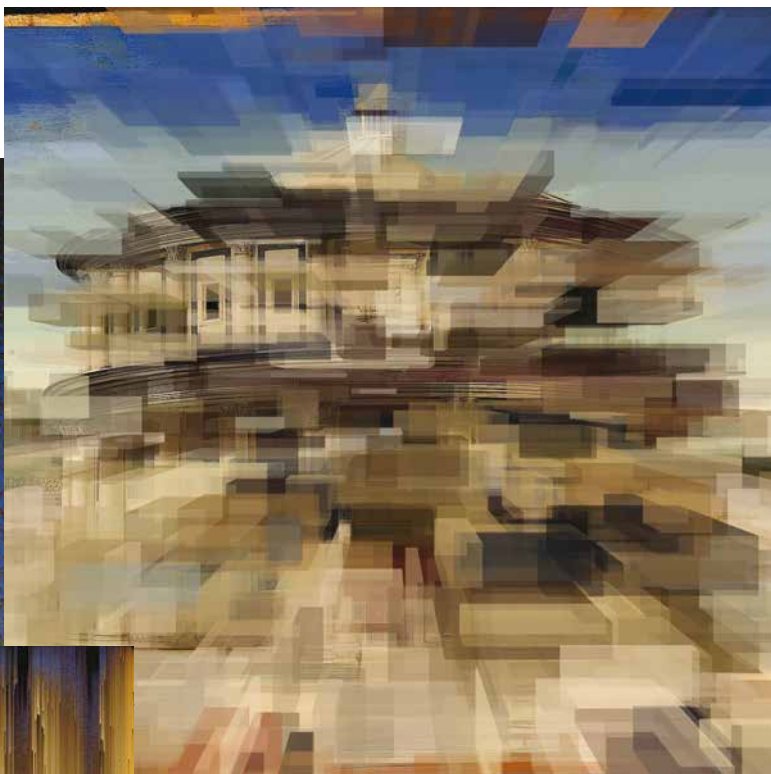
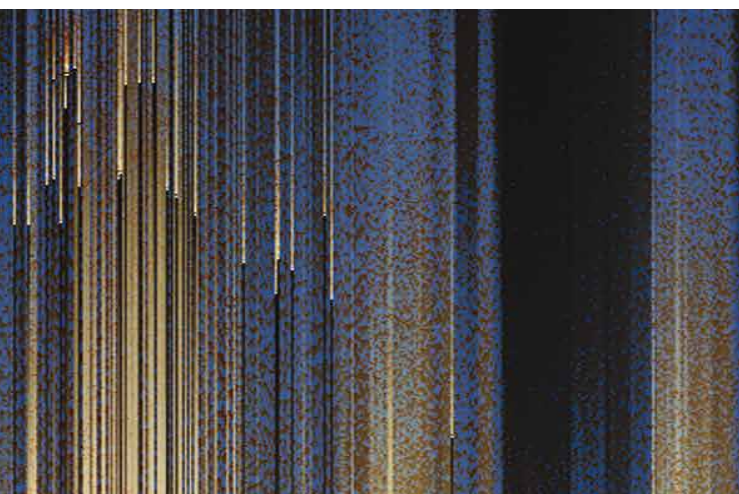
The result is a powerful representation of static mass orderly distributed around pockets of space: the core of the ideal European city.

The choice of this particular piece as input for a series of alterations via code is aimed at transforming a classical representation of beauty into pure data and operating upon it accordingly. The results are unpredictable, based on a series of functions affecting the place of the pixels, but not their initial mathematical description.

Thus, in both the random alteration and in the linear one, the original chromatic and formal balance of the original is kept, but strangely enhanced due to a dynamic force, which either deepens the perspective or melts it down.

The exercise becomes a play on perception, confronting iconic images of balance and mastery with the digital failure of representation, in an attempt at investing their content with new visual semiotics.





Raluca Sturzu
CITTÀ IDEALE

SCRAMBLED DESIRE

Courtney
Coffman

1. "Spring '14 :: Scrambled Porn Pack," The Hundreds (accessed on July 21, 2015), <http://thehundreds.com/spring-14-scrambled-porn-pack>.

GLITCHED FOR THE VERY FIRST TIME

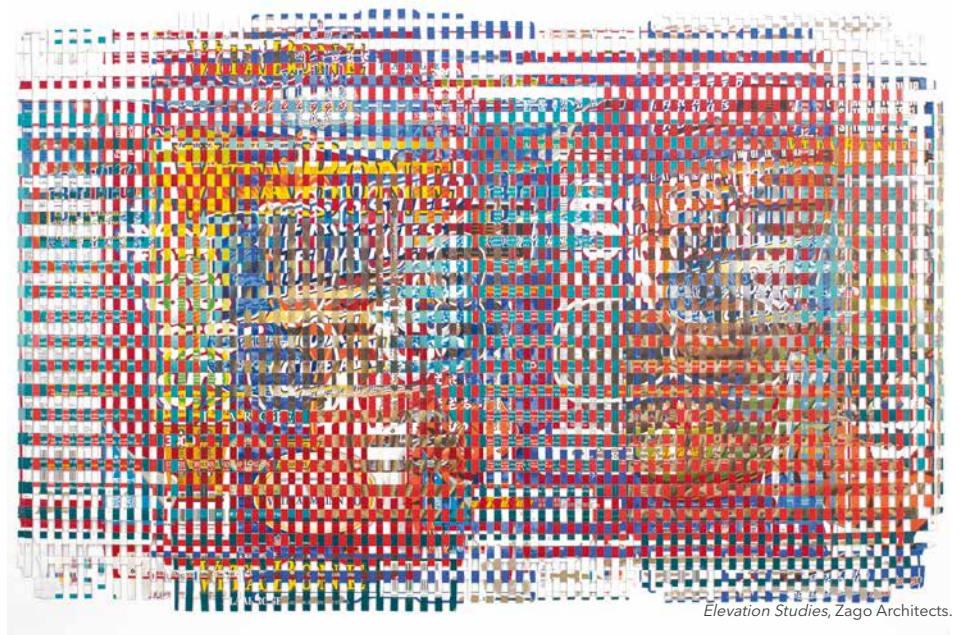
Small, glitchy, architectural images have begun to surface in the last seven (or so) years. It was not until Italian architect Ferruccio Laviani's *Good Vibrations*, however, that glitch design was confirmed as the next aesthetic project. Plastered across every design blog in early 2013, Laviani's digitized furniture left Internet audiences speculating as to what exactly were they looking at—is this a rendering of a purposefully defective armoire, or is the armoire real and the digital images are accidentally defective? *Good Vibrations* challenged perceptions of reality by disrupting the everyday coherence of domestic objects and the abundantly fetishized design images that proliferate across our computer screens.

A sense of modesty escapes when viewing *Good Vibrations* as the style in which the wooden cabinet is carved suggests the drama of the Baroque or—better yet—the eroticism of Rococo. Laviani's name for the armoire is not lost with this analogy and suddenly, what seemingly appeared to be capitalizing on the optical illusion of slit-scan photography, now reads as censorship of an audacious design.

SEX + SUBCULTURAL GLITCHES

The Hundreds is a counter-cultural lifestyle and fashion brand influenced by the surf and skate scene in Southern California. The brand launched a capsule collection for Spring 2014 aptly named "Scrambled Porn," in which a glitchy-pattern was printed on shirts, shorts, hats, hoodies and wallets. The collection aligned itself with the recent surge in 1990s nostalgia, as The Hundreds describes the spring collection on their website:

a nod to the '90s, although not in the predictable sense. Glancing over—if not ignoring—the more mediated memories of this era, we dig deeper into the true style landscape. This isn't the '90s painted across TRL and teen movies, but the '90s of American suburbs and average, cornerstore youth. So instead of grunge and gangster rap references, we looked to Magic Eye™ posters, scrambled porn channels, and lenticular art as mediums to tell the story of American suburbia at the turn of the millennium. The Hundreds' Spring 2014 "Scrambled Porn" pack pays homage to cable technology of the bygone decade—an ever-familiar symbol of the persistent rebellion of '90s youth and the constant pursuit of "off-limits."¹



Elevation Studies, Zago Architects.

The manual technique used to produce *Elevation Studies* may seem antithetical to the visual effect of glitchy misregistration, however, it is precisely in the analog construction that data input and output are conceived as the project in itself.

The Hundreds most likely circumvented a majority of their customers, as many were not born when scrambled porn found its way onto television screens. Before the accessibility of Internet voyeurism, scrambled porn had a specific moment in media history. In the 1980s, cable television networks controlled their media outputs for non-paying customers by encrypting channels and intentionally scrambled supplementary pay-per-view shows. The technological advancement of “on-demand” channels meant that scrambled adult entertainment channels were viewed, not in quick snapshots, but in striated RGB output: images of disparate body parts swerved across the screen and—if you got lucky—the lines would pause for a quick peep. Fundamentally, this was possibly the most abstracted and mediated image of sexuality since Duchamp’s “The Bride Stripped Bare By Her Bachelors.”

By the 1990s, centerfold prints and VHS media were immediately antiquated forms of porn for this new generation of *channel surfing* voyeurs. The result was a niche-audience

trained to pay close attention to sinuous form in an attempt to align abstracted body parts and coalesce a visual narrative of desire through a close reading of image.

SLIPPAGE: A VISUAL CULTURE

All this talk of scrambled cable porn considers the etymology of “glitch”—German for “to slip”—as a conceptual illustration of the slippage between salacious image and technical misregistration. The glitched scramble is a highly controlled technique that slows down the rate at which we consume images and forces us to reevaluate any given image as simultaneously fragmented and whole—not too far removed from architecture’s current post-digital representation and low fidelity aesthetic.

Architecture’s current post-digital preoccupation is to distance itself from the hyper-articulation of parametric geometries and biomimicry with its superficial surfacing techniques ushered in the 2000s with the introduction of scripting and cutting-edge rendering software. Post-haste,

Good Vibrations, Ferruccio Laviani.



data-bending and misusing software is not reactionary against the parametric and digital project, but rather the next logical and ideological disciplinary evolution to elevate aesthetic and disciplinary discourse.

Andrew Zago's *Elevation Studies* (2009-2012) are an analog pre-cursor to the low-res style appearing in contemporary architecture today.² Zago used the familiar form of household boxed goods and dislodged brand-name legibility through purposeful misregistration. Splicing, flattening, and reassembling the product packaging produced two realities: a conceptual reality of the branded image mentally pieced back together, and the tangible reality of a two-dimensional pixelated pattern in Process CMYK.

The manual technique used to produce *Elevation Studies* may seem antithetical to the visual effect of glitchy misregistration, however, it is precisely in the analog construction that data input and output are conceived as the project in itself.

Further pushing the misregistered aesthetic is Elena Manferdini's current exhibition, *Building the Picture*, at The Art Institute of Chicago. The installation glitches the rational geometries of an iconic Chicago façade: Mies van der Rohe's Lake Shore Drive apartments. The choice to closely read and manipulate geometries from a residential curtain wall building feels incredibly voyeuristic; Manferdini consequentially places museum visitors within the "scrambled" image of two, intimately close towers. In this slippage, the museum-as-media machine

Mies Glitch Lab.



Scrambled Porn, Spring 2014, The Hundreds.



2. Jeffrey Kipnis, and Andrew Zago. October 01, 2014. "Jeffrey Kipnis & Andrew Zago." In *SCI-Arc Media Archive*. Southern California Institute of Architecture. Accessed July 21, 2015. <http://sma.sciarc.edu/video/jeffrey-kipnis-andrew-zago/>

3. Elena Manferdini: *Building the Picture* is on display at The Art Institute of Chicago until September 20, 2015. "Elena Manferdini: Building the Picture." The Art Institute of Chicago. Accessed August 15, 2015. <http://www.artic.edu/exhibition/elena-manferdini-building-picture>.

4. Reinhold Martin, *The Organizational Complex: Architecture, Media, and Corporate Space* (Cambridge, Mass.: MIT Press, 2003).

pumps out cultural abstractions and visitors become voyeurs that piece together the scrambled bodies of Lake Shore Drive: "although the image is rendered in two dimensions, the play of light, color, depth, and perspective invites the user to experience the work up close as well as from a distance."³

Further reinforcing Manferdini's intuition to glitch a Miesian façade, a theoretical connection unveils itself in Reinhold Martin's text *The Organizational Complex: Architecture, Media, and Corporate Space*. Martin expounds on Marshall McLuhan's infamous "the medium is the message" tagline to demonstrate that the curtain walls of corporate American architecture act as screens on which to project cultural media, including cybernetic data.⁴ Given McLuhan's analogy, curtain wall-as-media screen, *Building the Picture* assumes new meaning and glitching Mies indicates a new cultural position on architecture as the producer of mediated images.



Now everyone can glitch Mies through our cell phones and partake in image distortions, scrambles, and glitches to reinscribe reality with low-res results. With the apps like Glitch Lab proliferating the effect of abstraction, we should reconsider if the glitch will lose its thick viscosity, which slows us down in effort to pay close attention, or if it will perpetually oversaturate a diluted version of glitched aesthetics in contemporary architecture and visual culture.

Christopher Taurasi

THE NEXT AESTHETIC OF BREAKAGE

A glitch is a rejection of the myth of control and offers an aesthetic repudiation of the totalizing values presented in the single articulated surface.

INTRODUCTION

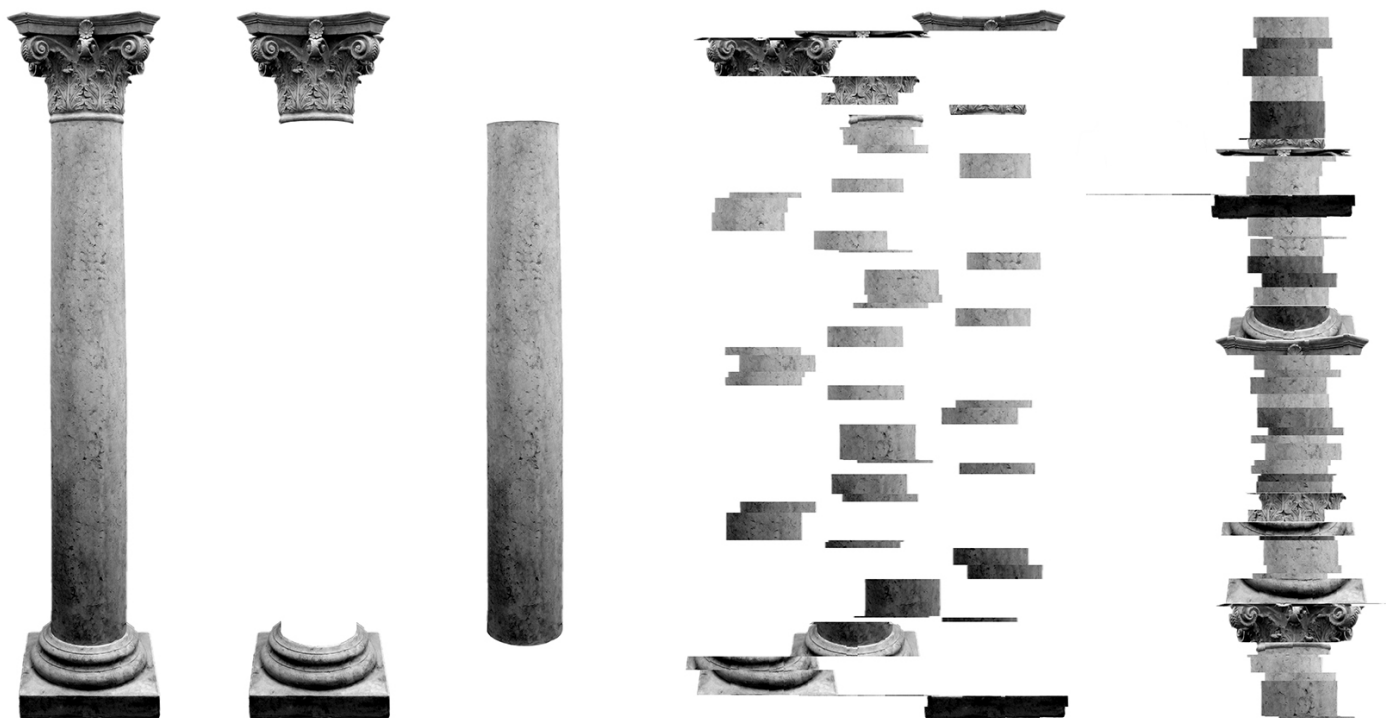
Architecture follows a pendulous swing between the arts and the sciences and moments of revolution exist at the apices. Must the aesthetics of architecture evolve? No, it does not, it is the will of its practitioners hoping to demarcate their point in history and unify others through the establishment of a new aesthetic, to generate such evolution. And this inventive demarcation is often found in the rejection of established normative values.

So, where of late has architecture endured and how might the current generation seek reformation? In the post-digital age, we find ourselves emerging from a period which—based on Deleuzian theories and the tools of computation—sought the integration of all building elements, furniture and landscape into singular articulated surfaces that, with the advent of parametric design, have been imbricated with systems of panelling. The totalizing notions of an all-encompassing surface and systemic unitization are founded in the spectrum of scientific architecture and offer only

verisimilitude: a puristic myth of control which is never truly obtainable. At present, these covenants have placated to a flatline in which the bleep of a heartbeat is needed for a resurrectorial exploration of a new aesthetic.

Riding the pendulum back to the domain of the arts, we find the emerging topic of the *glitch*. A glitch is a rejection of the myth of control and offers an aesthetic repudiation of the totalizing values presented in the single articulated surface. While the etymology of the word “glitch” is uncertain, one likely source is a derivation from the Yiddish word *glitsh* which translates to error, slide or slip, it is within the rebound of the pendulum towards an artistic expression of this theme, that architectural discourse may find new fertility. However, absent of the term glitch, we must understand that investigations into the theme of breakage is not new in the reformatory processes of the arts.

This text will explore the current glitch art movement and past utilizations of glitch-like devices through the practices of the sixteenth century Mannerists and



Manipulation

1. Rosa Menkman, "Glitch Studies Manifesto," in *Video Vortex Reader II: Moving Images beyond YouTube*, ed. Geert Lovink and Rachel Somers Miles (Amsterdam: Institute of Network Cultures, 2011), 336-347.

the early twentieth century Russian literary Formalists. Additionally, the essay will seek to cull out common processual devices of glitch which may be utilized as design methods resulting in glitched spatial perceptions.

CONTEMPORARY GLITCH ART OVERVIEW

Before delving into a historic view of glitch-like devices, let's first get a brief overview of the current glitch art movement which is, by and large, concerned with digital artifacts. Rosa Menkman, a leading figure in this movement, has provided the most thorough insight into its supporting theories in her *Glitch Studies Manifesto*. Here, she situates us within an "upgrade culture" that embraces the "myth of progression towards a holy grail of perfection." Menkman further suggests the progressional flow of technological evolution can only be understood through studying breaks within its lineage. A break, she states, "generates a void which is not only a lack of meaning. It also forces the audience to move away from the traditional discourse around a particular technology and to ask questions

about its meaning...The perfect glitch shows how destruction can change into the creation of something original."¹ One additional distinction made by Menkman, which will be essential to a historic assessment, is her partitioning of *production* and *reception*, these classifications are affiliated with the artist/process and the viewer respectively. As we will see, the Mannerist movement was primarily concerned with the productional aspects while the formalist addressed reception.

MANNERISM – THE FRAGMENTATION AND GLITCHING OF VITRUVIAN NORMS

In the waning tides of the High Renaissance, when artists had accomplished all that had been sought in representing the natural world, there was nowhere for the burgeoning generation to turn but towards the development of a new aesthetic—here emerged Mannerism. Derived from Italian word *maniera*, meaning style or manner, Mannerism represented a stark divergence from the overbearing (and totalizing) logics of classicism established throughout

2. Catriona Kelly, "9 - Byt: Identity and Everyday Life," in *National Identity in Russian Culture: An Introduction*, ed. Simon Franklin and Emma Widdis (Cambridge: Cambridge UP, 2004), 149-168.

the renaissance. This divergence first appears in the later works of the oft-controversial Michelangelo which was, at the time, criticized for experimenting with the purity of the classical language by fragmenting and disordering (glitching) its components in a blasphemous rebuke of Vitruvian norms. As the Mannerist movement continued to coalesce in the arts, it was typified by its imbalanced compositions, ambiguity of context (seeking otherworldly representation), sophisticated departures from expected conventions, traditional content represented in a unique manner, distorted forms, unusual complexities and blatant evidence of its contrived nature of production.

In the realm of architecture, the Mannerist movement is best exemplified by Vitruvian-schismatic Giulio Romano in his masterpiece Palazzo Te." Here, Romano re-appropriated classical elements and employed them in an unconventional fashion with the definitive goal of revealing the contrived disposition of classical architecture. This anachronistic mashup expressed a farcical pastiche of Bramante's classical style thus proclaiming the prowess of the architect and the artifice of the palazzo design. In application of concept, "Palazzo Te" is fraught with figurative structural shortcomings, stylistic contradictions and absurd scale-shifts—the attenuated architrave is supported by oversized columns and appears to snap midway; pilasters are out of place and ignore modular rhythm; fictitious masonry blocks—actually stucco applied over brick—are a mixture of smooth and rusticated finishes; and oversized keystones appear to be slipping (note aforementioned *glitch* definition) from



Deformation

arches. It is important to recognize that Romano was designing for a highly sophisticated enclave who had a thorough understanding of classical architecture. While his witty absurdity did not go unrecognized, Romano's focus remained on the produced object rather than the reader's relation.

In summation, the Mannerists understood their erroneous actions as a new aesthetic, one which rejected the overly contrived nature of classicism. This aesthetic was realized through physically imparting devices of breakage upon artistic representations and architectural objects.

FORMALISM – THE GLITCHING OF LITERARY DEPICTIONS TO SUBVERT THE AUTOMATISM OF PERCEPTION

With similar rescissionary interests as the Mannerists, the early twentieth century saw the literary emergence of the Russian Formalists, with Viktor Shklovsky serving as chief theoretician. The Formalists' scope was more intently aimed at the reader than the ideology of any prior movement, although it was founded on criticism of Potebnyaism and represented an aesthetic break from the practice thereof. The Formalists railed against *byt*, a Russian word which has no direct translation in English but can be crudely understood to mean the dreariness of quotidian life. "*Byt* is defined by being opposed to *bytie*, spiritual existence: in this context, the translation of *byt* would come close to 'earthly existence.'"²

The formalists, like the mannerists, endeavored to create a new literary aesthetic which was founded on the breakage of the norms of perception.



Estrangement

3. Viktor Shklovsky, "Art as Technique," in *Russian Formalist Criticism: Four Essays* (Lincoln: University of Nebraska, 1965), 3-24.

4. For an example of this, see Shklovsky's discussion of Tolstoy's *Kholstomeer*, which is told from the perspective of a horse observing everyday human activities.

Thus, the Formalists were trying to counter the repetitious portrayal of earthly existence which is taken for granted in everyday perception. In this sense the Formalists' fight against *byt* closely resembles the Mannerist desire to capture an otherworldly context.

Shklovsky, in his essay *Art as Technique*, argued that perception becomes habitual and automatic, and that "...art exists that one may recover the sensation of life... The technique of art is to make objects 'unfamiliar,' to make forms difficult, to increase the difficulty and length of perception...the author's purpose is to create the vision which results from that deautomatized perception. A work is created 'artistically' so that its perception is impeded and the greatest possible effect is produced through the slowness of the perception."³ Shklovsky's device for combating "the economy of perceptive effort" was *defamiliarization*—presenting familiar subjects in an unfamiliar manner, thus glitching their perception and forcing the prolonged contemplation of the reader.⁴ The aesthetic methodology is almost identical to Romano's use (or misuse) of classical orders in "Palazzo Te." The formalists, like the mannerists, endeavored to create a new literary aesthetic which was founded on the breakage of the norms of perception.

THE NEXT AESTHETIC OF BREAKAGE

In concluding, we return to the present interest of the glitch. It must now be clear that this recurrent exploration is founded on the establishment of a new aesthetic of breakage. In furthering the investigation, we can utilize the devices of the Mannerists and Formalists to affect the production and reception of architecture. As the Mannerists were primarily concerned with the production of breakage, we see they used imbalanced, decontextualized and distorted forms in contradictory and arrhythmic organizations to physically alter objects and representations. Similarly, the Formalists, focusing on receptive qualities, sought to prolong and break habitual perception by making forms difficult to read and estranging them from their context. In both examples we see a rejection of the totalizing and puristic myth of control instead revealing the absurd artifice of their creation. A glitched architecture could utilize these devices to respond both critically and viscerally to the current moment. In doing so, we must not lose sight of the fact that there are differing aesthetics of production and reception and both are ripe for glitching. Finally, we may breach the confines of the single surface movement and unify via a glitched aesthetic of breakage.

The glitch distances an author's agency from their work by purposefully subverting their original intent. The video frames showed here documents the process of "dust to dust" and "ashes to ashes," showing a detailed transformation of a series of discarded architecture plots passed through successive glitches to create a further ambiguity of meaning. The series of transformations does not arise from a clear stylistic ambition, rather, the belief that whatever is produced is self-justified by the process. A burden is lifted, and a free exploration of making the unexpected takes its place. The author's role is less about *crafting something* and more about exploring the inherent possibilities of transformations.

How can scanning, collaging, projecting, mapping, tracing, framing etc. fill the void that was formerly drawn by the author's hand? How can the rhythm of these processes collectively begin to create meaning and tell a story? How can taking advantage of seemingly mundane procedures inform our understanding of the author's role?

With the dissolution of the author's intended product so comes the dissolution of the audience's expected reading. The viewer is invited to participate in divining the works' new meaning. What's the story? You tell me.



You can find the video of this
image production at the following
link



Joseph Kennedy
Justin Wadge
Mandy Chen

REFORM/
DEFORM

Giacomo Pala

AVANT- GARDE GLITCH

1. Michel Leiris, *Manhood: A Journey from Childhood into the Fierce Order of Virility*, transl. by Richard Howard (Chicago: Chicago University Press, 1984), 38.

2. Rudolf Wittkover, *Art and Architecture in Italy 1600-1750*, 2nd rev. ed. (Great Britain: Penguin Books, 1965), 197.

To talk about Glitch means then to discuss the issues of virtuosity and form as the cores of architecture. Indeed, Glitch exists when geometry and technique are the fountainhead of architectural creation.

"the sense of a catastrophe perpetually invoked and avoided creates a rapture in whose depths horror and pleasure coincide"

Michel Leiris¹

When talking about glitch theorists usually refer to a kind of aesthetic characterised by an ontological inconsistency resulting from the application of computational processes and co-related mistakes. More broadly, to talk about such an aesthetic concept means to talk about the role of mistakes and errors in relation to the production of a work of art and, when related to Architecture, such a topic poses specific disciplinary problems distinguished by precise epistemological implications: any error, whether it is stylistic or technical, becomes autonomous from architect's intensions, assuming new and unexpected symbolic meanings. These issues are even more serious when the error is voluntary. Here, the error is an instrument, when it is a means to produce a certain kind of effect through formal manipulations, use of geometry and a sophistically inappropriate use of architectural

instruments (drawing, modelling software, scripting or sculpting). To talk about *Glitch* means then to discuss the issues of *virtuosity* and *form* as the cores of architecture. Indeed, Glitch exists when geometry and technique are the fountainhead of architectural creation.

Glitch is an incorrect, yet fecund, way of using architectural language. For instance, in San Carlo alle Quattro Fontane in Rome, Francesco Borromini, the architect who "introduced a new and disturbing approach to old problems,"² seems to make several errors if interpreted through the lenses of an orthodox classicist. One of these is a glitch in the courtyard's balustrade where he alternatively inverts the balusters. Of course, Borromini cannot be accused of not knowing the classical language of architecture, on the contrary, it is pretty evident that these "mistakes" are made by purpose, those are in-fact attempts of innovating and expanding the language of architecture through the denial of the classical modules, in turn replaced by geometric units and sculptural



1. Donato Bramante, *Saint Mary of Peace's Church*, Rome, 1500



2. Francesco Borromini, *San Carlo alle Quattro Fontane*, Rome, 1635

3. See: "Gespräch Hernan Diaz Alonso: Bauen für das Wurmloch der Zukunft," in *FORUM* (15 December 2008), <http://www.bauforum.at/architektur-bauforum/gesprach-hernan-diaz-alonso-bauen-fuer-das-wurmloch-der-zukunft-17133>

4. See: Jeffrey Kipnis, "Towards a New Architecture," in *Folding in Architecture*, *AD Profile* 102 (London: Academy Group, 1993), 40–49.

5. Of course such a position is a simplification, it is impossible not to mention words like "diagram" or "concept" but, while these two were and are as important as "digital," differently from the latter they do not impose a specific aesthetic.

volumes. Moreover, the mistakes in the balusters and the breaking of rules are not just vague gestures of a *virtuoso*, they are instruments to produce new architectural effects through the manipulation of a given language.

As Borromini used the deliberate manipulation of language to produce new effects, some architects do the same today. Furthermore, glitch is a concept even more appropriate if related to the digital heritage of architecture since it is usually defined as regarding mistakes occurring in computer-mediated communication. It is possible then to refer as glitch architectures all of those projects designed using specific techniques in the attempt of producing a kind of architecture usually referred to as incongruous, ambivalent, volatile or even awkward, in which the figure of the building, its silhouette and its shape are impure, broken apart, over-complicated or purposely messy. In these projects, geometry's function—the things it does other than being pure geometry—is to split spaces, generate fractures, produce

discrepancies, weirdly connect different areas.

If examined from an historical perspective, all of the architects using glitch techniques for the design of projects, are easily suitable in the history of that particular kind of avant-garde architecture that has been called as "digital" since the mid-1990s. Hernan Diaz Alonso has often stated to consider himself as a developer of digital language, comparing himself to John Coltrane following Charlie Parker (Gregg Lynn)³ and Andrew Zago, the theorist of the "awkward architecture," was already mentioned by Jeffrey Kipnis in 1993 as one of the architects creating the language of *DEformation* with his partner Bahram Shirdel.⁴ Such an historical position of glitch has then to be linked to architecture's present condition. In-fact, if the digital language of architecture has been the last of the shared languages by architects until a decade ago, today's architecture leave us in a condition of a total pluralism or, in the worst cases, it presents us a panoply of originality: every project has to be new, innovative and smart, if not fit.⁵



5. Wassily Kandinsky, *Several Circles*, 1926
6. Jackson Pollock, *White Light*, 1954

Once DEformation
has become the over-
expressive, once the Fold
has become the mess,
and once the Generative
has become the Volatile,
what can an architect
do to implement digital
language?

Once these two particular conditions are related, what the term glitch means for architecture becomes quite evident: it is one of the latest techniques to implement a language in the attempt of maintaining it new, fresh and estranging. In this sense, it is a kind of "informal turn" of architecture's digital language, as it happened for modernism. In-fact, according to Rosalind Krauss and Yve Alain-Bois, the Informal is the attempt of overcoming the dialectic between avant-garde and kitsch remaining in the aesthetic paradigm of modernism or, using Clement Greenberg's terminologies, it is the ultimate technique to criticize a discipline using its own techniques: Lucio Fontana often mules his sculptures with gold, green or red polishes without any postmodern irony, while through the invention of new painting techniques, Jackson Pollock radically regresses from the classical way of conceiving a painting as a vertical, intellectual and optical surface.⁶ The informal introduces the disgusting, the low and the "personal touch" in modernism, transforming kitsch, mess and gesture in positive values able to produce inedited effects.

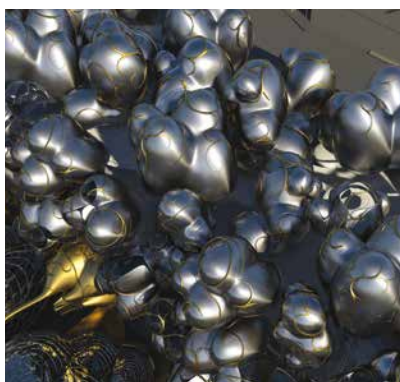
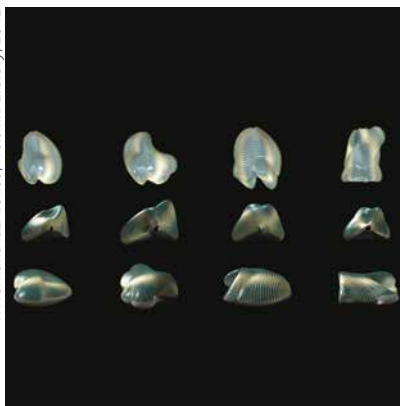
As it happens in informal modernism, the Glitch breaks the elegant, scientific, parametric and intricate smooth transitions of digital architecture, but remaining in the same formal domain. In this sense, the example of Borromini is more pertinent than ever. As the informal signals modernism's ultimate critical position, so it does baroque for classical architecture: the language is twisted, warped, strained and garbled, producing nothing but the impossibility

6. See: Yve-Alain Bois and Rosalind E. Krauss, *Formless: a User's Guide* (New York: Zone Books, 1997).

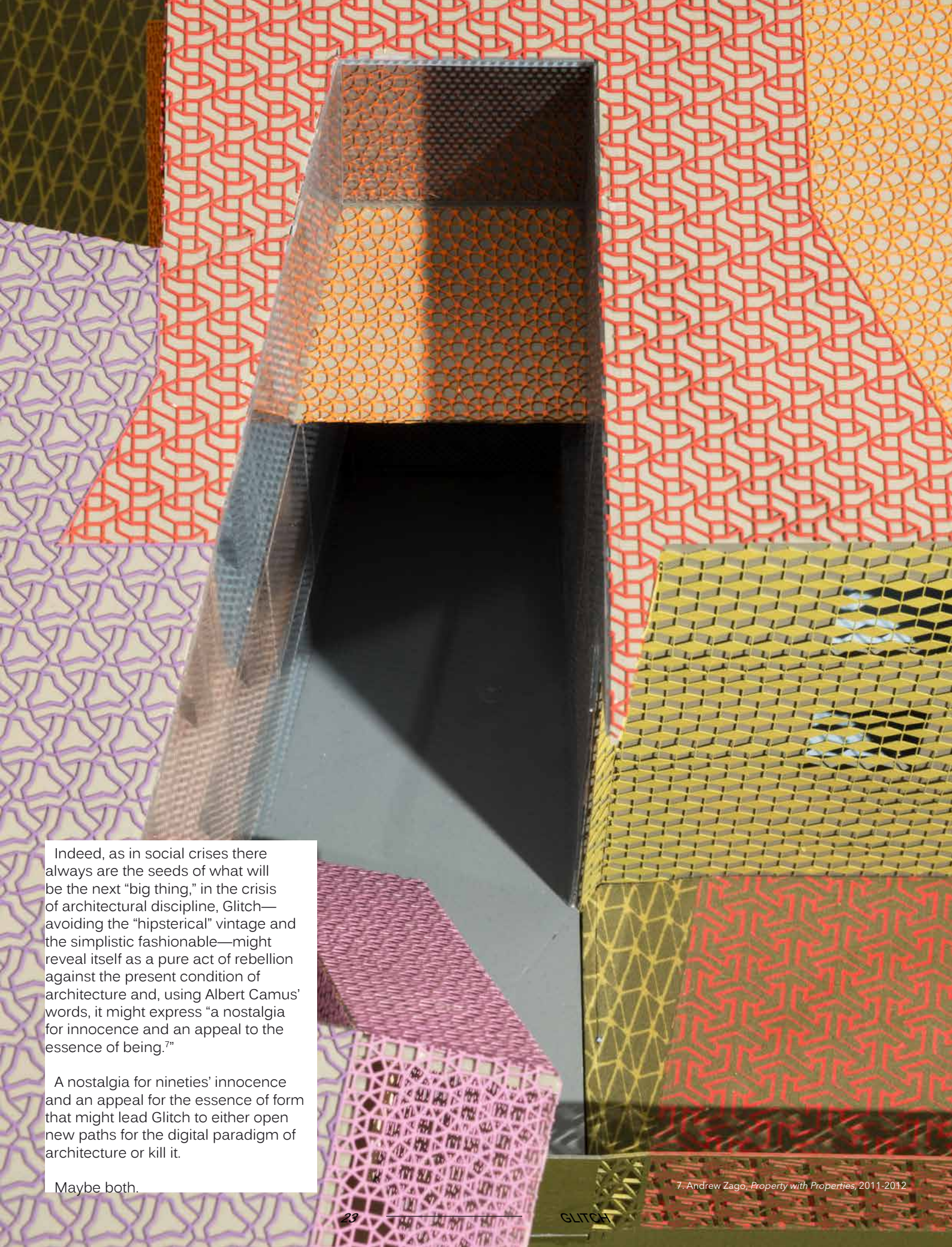
7. Albert Camus, *the Rebel, An Essay on Man in Revolt*, Vintage ed. (New York: Alfred A. Knopf, 1991), 105.

of generating new features. The work of Piranesi seems to pose the question of what an architect can do after Borromini, while Allan Kaprow solves the impossibility of innovating abstract painting after Jackson Pollock inventing a whole new form of art: the happening. Once DEformation has become the over-expressive, once the Fold has become the mess, and once the Generative has become the Volatile, what can an architect do to implement digital language? Even though the hysterically sublime forms, patterns and colours of architecture produced through glitch techniques try to be shocking and to shape new trajectories for "good-old" problems, when the shock of the new has become a tradition and when the *ostranenie* has become a routine, the attempt of implementing and regenerating an architectural "research program" through the design of new shapes seems to be impossible. A strategy constantly bound to a romantic failure.

Glitch, as well as the most exuberant expressions of digital architecture, calls into crisis the last of the codified architectural languages. Since the Digital has been unable to maintain the revolutionary promises of being a new and hegemonic architectural paradigm, becoming instead a decantation chamber for formal experiments, Glitch ultimately is a nostalgic concept. It is the latest and rebellious attempt to revive the revolutionary forms that could have been.



3. Greg Lynn, *Embryological House*, 1997-2001
4. Hernan Diaz Alonso, *Helsinki Library*, 2012



Indeed, as in social crises there always are the seeds of what will be the next “big thing,” in the crisis of architectural discipline, Glitch—avoiding the “hipsterical” vintage and the simplistic fashionable—might reveal itself as a pure act of rebellion against the present condition of architecture and, using Albert Camus’ words, it might express “a nostalgia for innocence and an appeal to the essence of being.”⁷

A nostalgia for nineties’ innocence and an appeal for the essence of form that might lead Glitch to either open new paths for the digital paradigm of architecture or kill it.

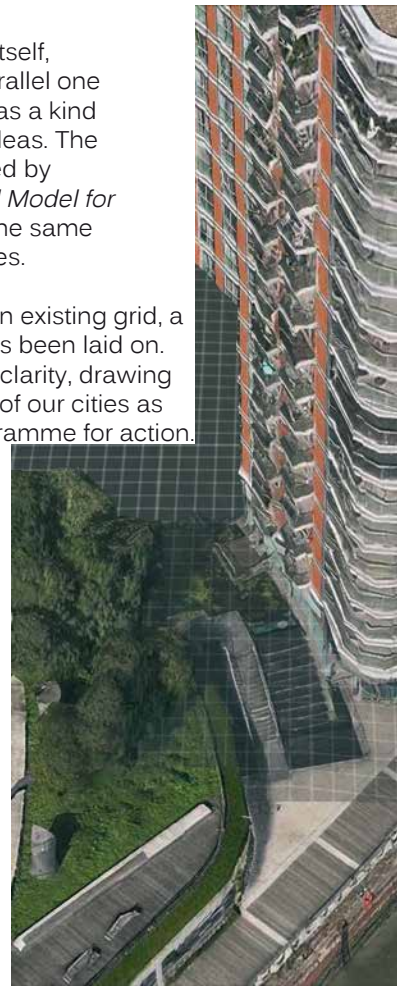
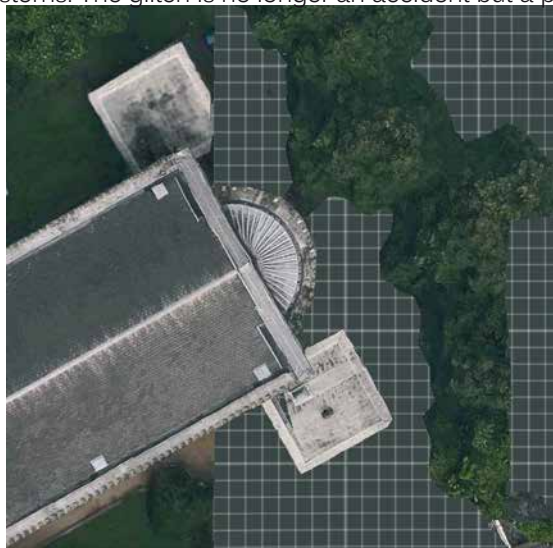
Maybe both.

7. Andrew Zago, *Property with Properties*, 2011-2012

Systems_Glitch are a series of photographic works recording *glitches* in the map applications on mobile devices. The images reveal in-between moments in the virtual navigation of the city, capturing the software's malfunction when trying to render the complex models of the city.

The glitch reveals the structure beneath the software itself, highlighting the informative structure of the city as a parallel one to the physical service structure of the city, acting then as a kind of conceptual glitch incorporating political and social ideas. The images share an uncanny resemblance to those created by Superstudio in *Continuous Monument: An Architectural Model for Total Urbanization* (1969) because they both allude to the same "information structure" even if from inversed perspectives.

In these images we observe the city being built over an existing grid, a grid revealing traces of city's topography on which it has been laid on. The buildings tentatively appear at diverse speeds and clarity, drawing an analogy to the actual logic guiding the construction of our cities as systems. The glitch is no longer an accident but a programme for action.





Roberto Feo
Rosario Hurtado
SYSTEM GLITCH

BUSINESS

RISKY

Enrico Forestieri
Matteo Pace

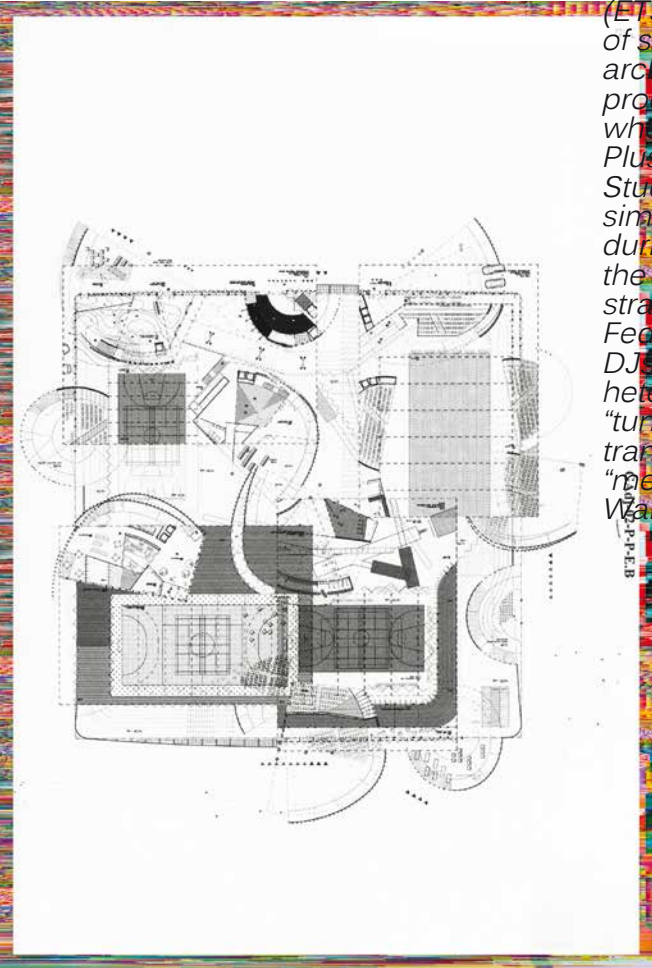
*A conversation with Federico Soriano
and Pedro Urzáiz*

Esteban De Backer, *Borsa, Grammaticals*, 2014, p.356

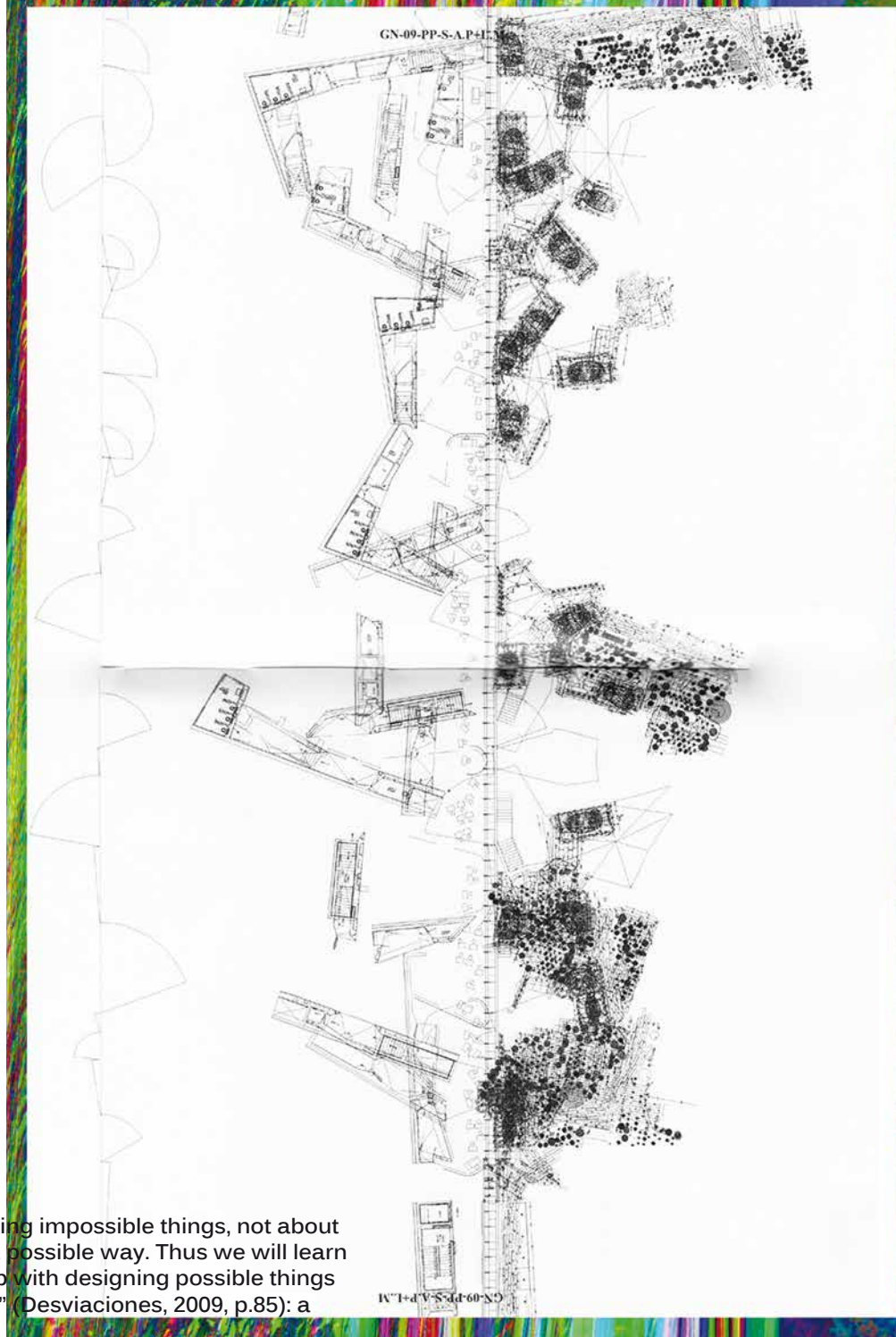
Over the last fifteen years, far from equilibrium and the language "commonplaces," the Spanish Teaching Unit directed by Federico Soriano and Pedro Urzáiz (ETSAM – Madrid) explores, constantly beyond the limits of short-circuit, the boundaries and qualities of the architectural wordscapes. Unprejudiced, postproductive procedures create apparently chaotic, multilayer plans where ambiguous and uncanny architectures emerge. Plus, they radically questions its generative modalities. Students from Universities of different countries simultaneously join this inductive search: mistakes risen during the information interchange process and within the very same communication stimulate novel adaptive strategies.

Federico Soriano and Pedro Urzáiz act like skilled DJs. They recollect, remix, manipulate and hybridate heterogeneous fragments of reality. Their overflowing "tunes" ceaselessly re-invent reality itself forming transient and momentary theories: deliberately uncoded "melodies" open to new interpretations. Warning, these tracks may sound glitch!

Milan / Madrid, August 2015



This studio is about
building impossible
things, not about building
impossible things in a
possible way.

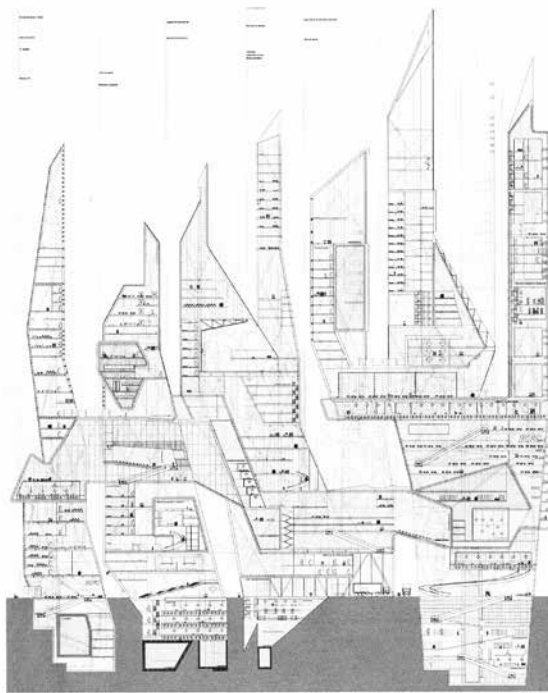


F+P: "This studio is about building impossible things, not about building impossible things in a possible way. Thus we will learn how to design and we'll end up with designing possible things starting from impossible ideas" (Desviaciones, 2009, p.85): a programmatic short-circuit!

Adrián Peñalver+Laura Miguelañez, *Colegio*, Grammaticals, 2014, p.74

FS: We are interested in risk!

Every studio of ours is a risk and, when we start with it, we can't guarantee that our ideas will show up at the end of the course. We don't want to fix a lineal discourse within our Teaching Unit, but, we prefer to put several issues on the table (the ones we are really into them, although they are disconnected, or even contradictory) and then let the students practice these unknown procedures as a way to discover new capacities by using them.



Chen Dingting, *Favelas, Grammaticals*, 2014, p.601

PU: We would like to generate a “technique method:” we don’t mean a tool—namely an object—but a procedure, a plan. The first time we talked about procedures, we were heading to Versailles by car, at night, and *Desviaciones* (Deviations) is the result of that conversation. It is not only a book, but also the result of the procedure by which it has been produced: we met in a restaurant and decided to record and edit all the conversations of our Design Studio with the aim to generate a conversation-book. When our Design Studio was finished, we picked up someone to select phrases from our dialogues because we didn’t want to interfere in this process with our own concerns and after a postproduction process, the book was eventually published.

F+P: How does postproduction intervene on the reality?

FS: We deliberately apply to every single “proto” (a fragment of reality) a meaning and we start linking it to other fragments. By doing so, we can either use the reality in a conventional way or manipulate, construct and hybridate it. Architectural fragments don’t possess any special potential to be reconverted in a architecture during a postproduction process: every material is exactly the same.

We could even assign *words*: we are not interested in their meaning in a specific language, but we push students to assume them as a pure agglomerate of letters, one after the other. Then, they started to manipulate the letters in order to see how they could divide them in syllables according to different languages, or how they could resonate in a language with a different phonetic system. The students work on the word itself, without knowing anything about its meanings, and we selected it without any specific reason, just because the dictionary was nearby. Anyway, the value of these words lies only on your capacity to manipulate them. We don’t select them because we think they might be more “linguistic” or because we think they have more potentialities. How could we know it? We didn’t even started to work on them!

F+P: Some years ago you started an experiment: the “intercontinental project.” Could we resume it as a kind of “Design blind date” in which unknown students from different universities and different cultural backgrounds collaborate together to develop a project? How did you imagine it and which were the objectives? Can we consider it a post-productive process as well?

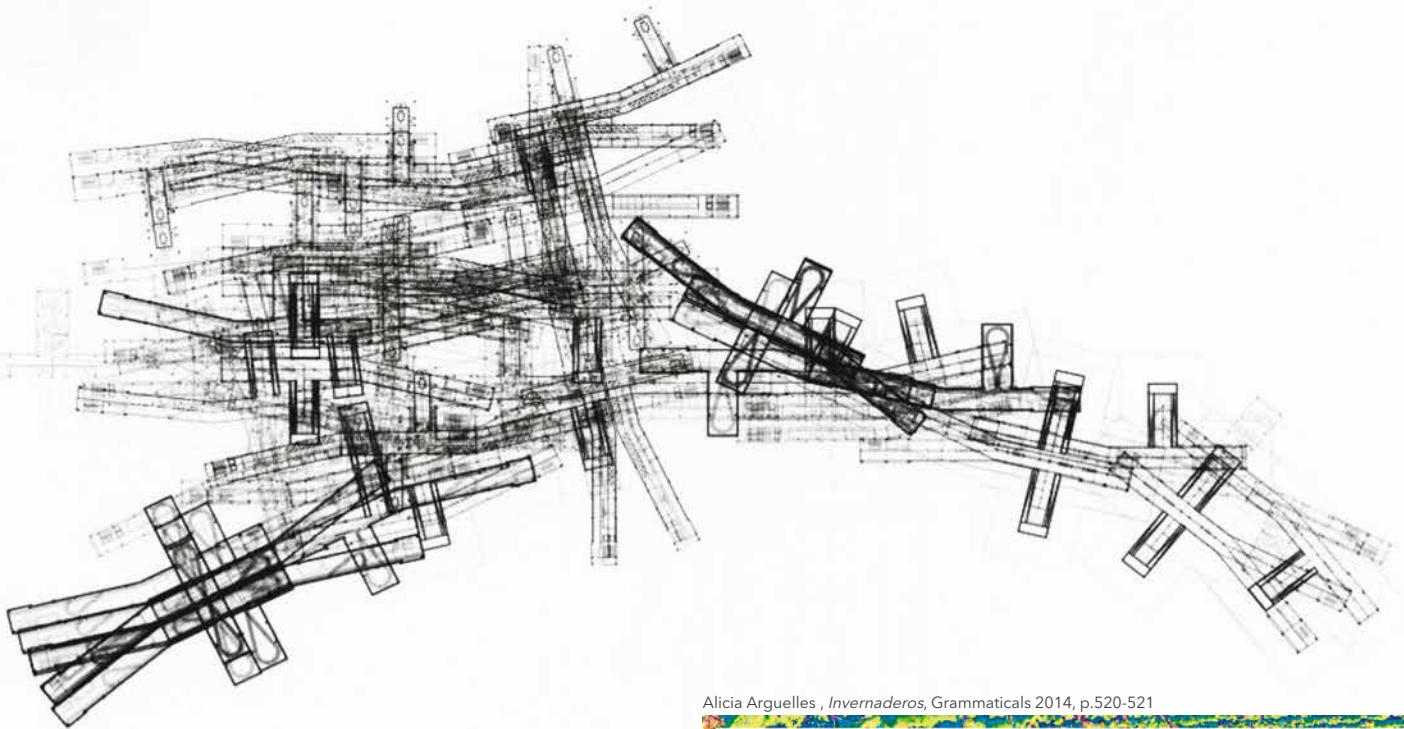
FS: When travelling to other universities we used to set out several issues. Local professors used to suggest solutions from their own point of view. Needless to say, most of the times it was very different from ours, sometimes opposite. We all have different cultural, historical, geographical, architectural references and also words can have slightly different meanings. All these elements were quite suggestive for us because instead of looking for a methodology with predictable results, we are interested in questioning all the previous methodologies and words to get new concepts.

On the other hand, we were concerned about the topic of remoteness upon the objects that you are producing. In fact, if you don’t have the proper distance in relation to them, you can’t even set a critical conversation about them or realise that you might opt for a previously unknown path.

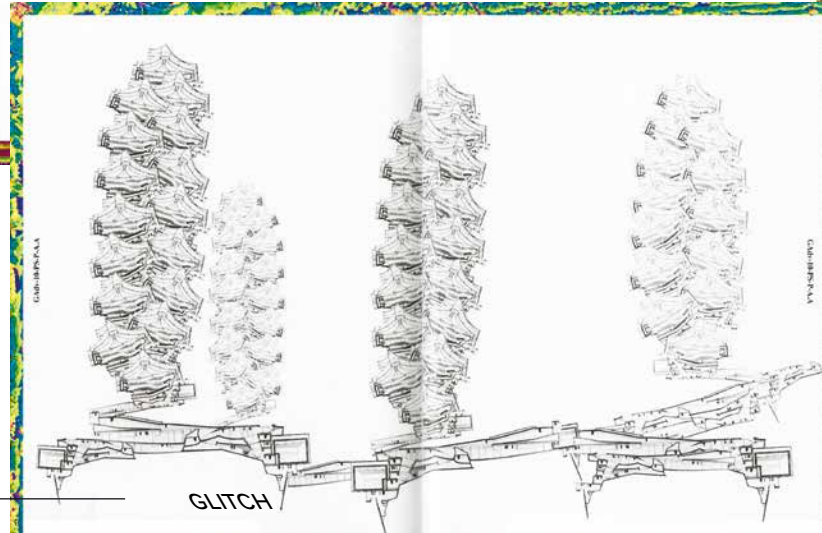
(...) we’re interested in
speculative students, not
speculators!

PU: We should also consider another methodological issue. For instance, when a student receives an explicit instruction from a teammate from Madrid, he selects a principle and a methodology according to his own background. The new, updated drawing is now a binding document for the student in Madrid: the relation between them is similar to the one we have with consultants. We obviously have some kind of negotiation with them, but when we get a soffit plan with the air conditioning system, we don't have this "image" within our project but we have to cope with it as if it was something ours. From now on, that drawing plan belongs to reality and it has the same *status* of the documents we produce. The result of this deal, or negotiation, is a new methodological experience for the students. They learn how their projects get modified and reshaped by the network interactions and how to deal with all these additional information and transformations and integrate them in their project in an honest way.

GV-02-PP-P-D.B



Alicia Arguelles, *Invernaderos*, Grammaticals 2014, p.520-521

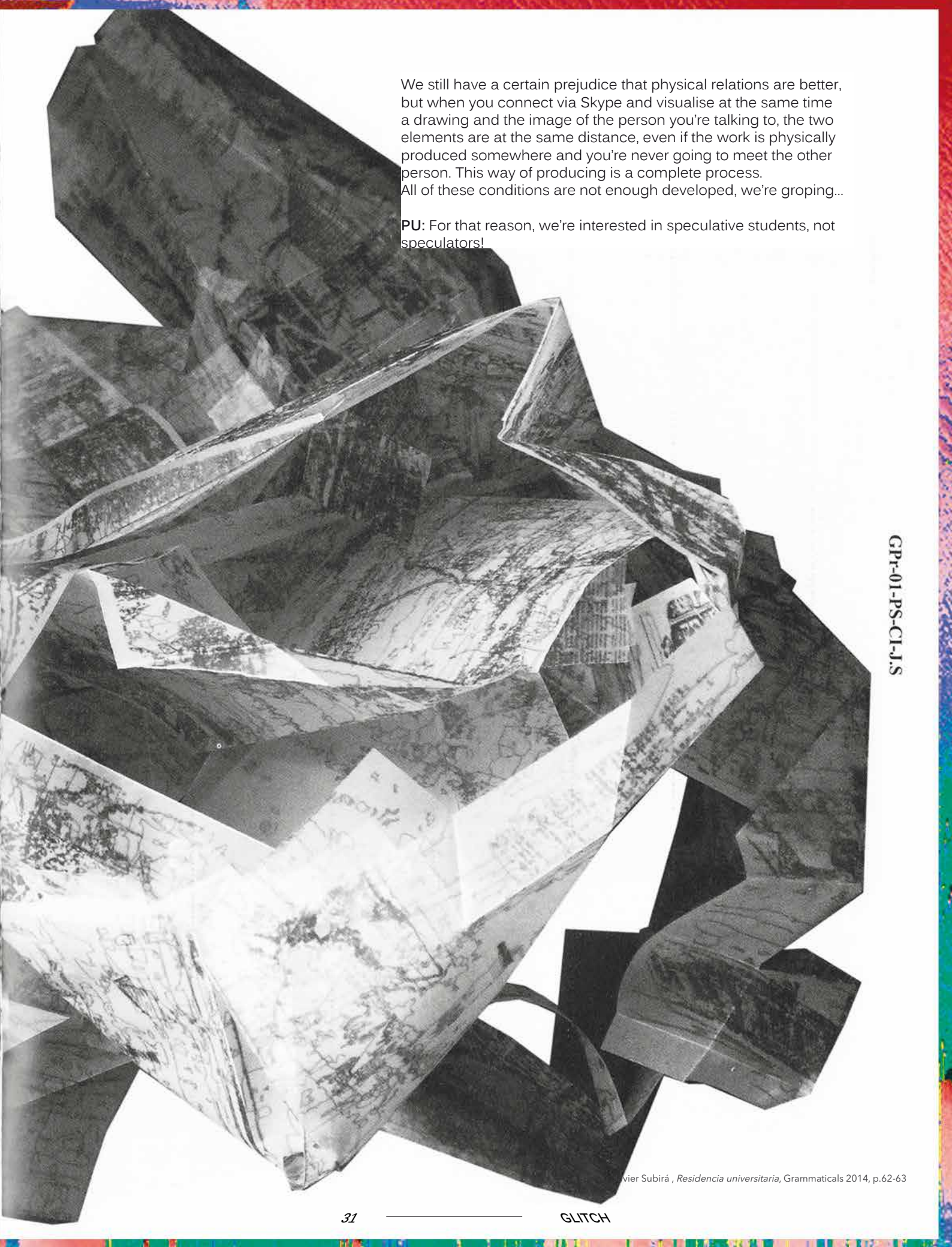


Daniel Bas, *Aeropuerto*, Grammaticals, 2014, p.292

GPr-01-PS-CI-J.S

F+P: Is this a simulation of contemporary reality?

FS: Of course, this is something that is happening now! "Unplugged" and solitary work condition, (the one in which a man is focused on asking and answering the questions he made for himself) is at an end. Nowadays you should be able to work in other countries, to establish professional relationships for a competition, to negotiate for a specific project with someone that works with different methods and so on.



We still have a certain prejudice that physical relations are better, but when you connect via Skype and visualise at the same time a drawing and the image of the person you're talking to, the two elements are at the same distance, even if the work is physically produced somewhere and you're never going to meet the other person. This way of producing is a complete process. All of these conditions are not enough developed, we're groping...

PU: For that reason, we're interested in speculative students, not speculators!

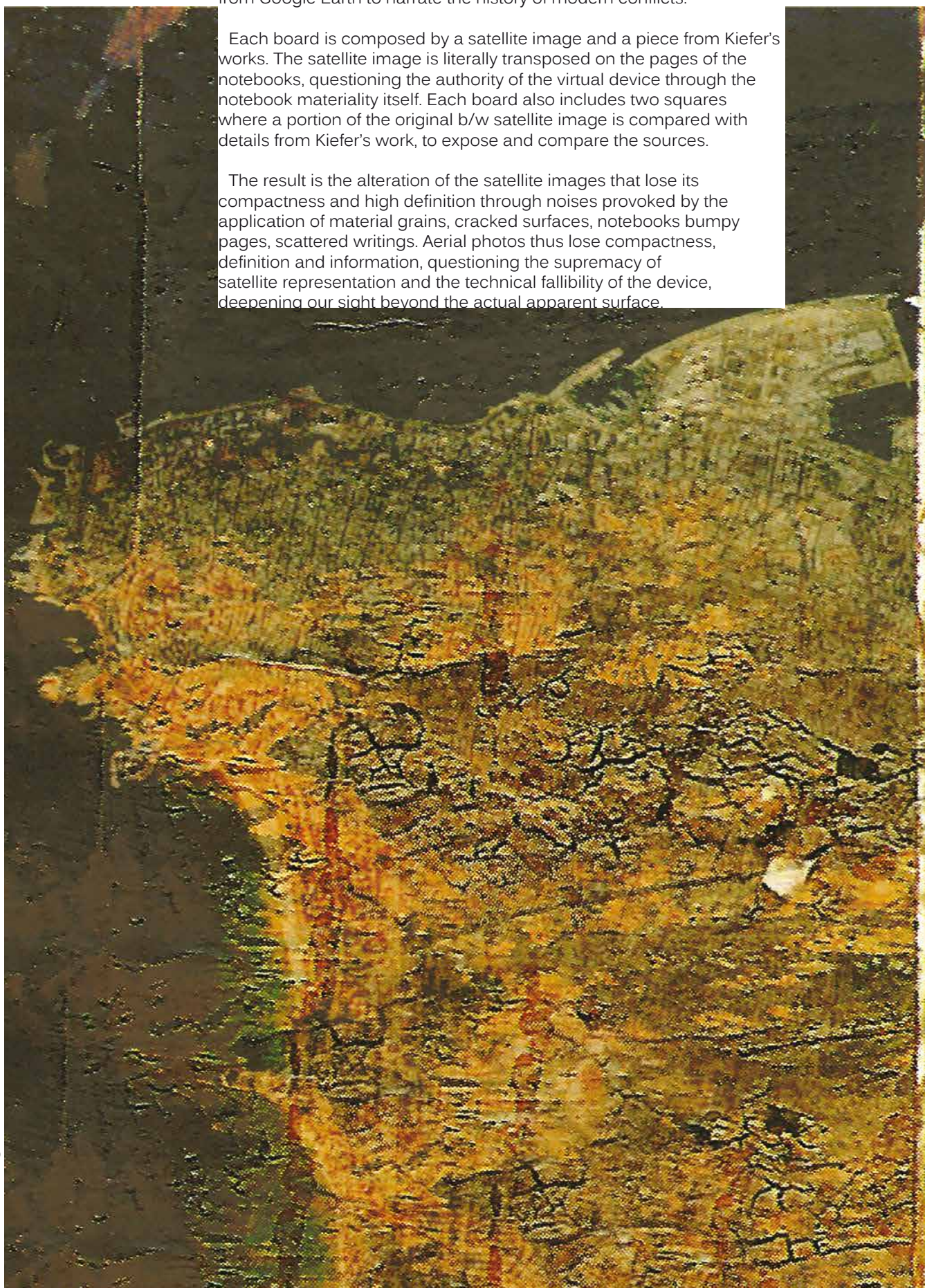
GP-01-PS-CI-J.S

The works realized on notebooks by the German artist Anselm Kiefer, where the terrestrial dimension of the rough materiality of the ground is coupled by the tragedy of history and the memories of war, are used to filter six worldwide cities frames extracted from Google Earth to narrate the history of modern conflicts.

Each board is composed by a satellite image and a piece from Kiefer's works. The satellite image is literally transposed on the pages of the notebooks, questioning the authority of the virtual device through the notebook materiality itself. Each board also includes two squares where a portion of the original b/w satellite image is compared with details from Kiefer's work, to expose and compare the sources.

The result is the alteration of the satellite images that lose its compactness and high definition through noises provoked by the application of material grains, cracked surfaces, notebooks bumpy pages, scattered writings. Aerial photos thus lose compactness, definition and information, questioning the supremacy of satellite representation and the technical fallibility of the device, deepening our sight beyond the actual apparent surface.

Beirut, 1982: "Isis and Osiris." Source: Germano Celant, editor, Anselm Kiefer (Venezia Contemporanea) (Venezia: Carta, 1977), 271. "Beirut." 33° 53' 20.15" N 35° 29' 43.74" E. Google Earth. May, 4, 2014. August, 28, 2015.





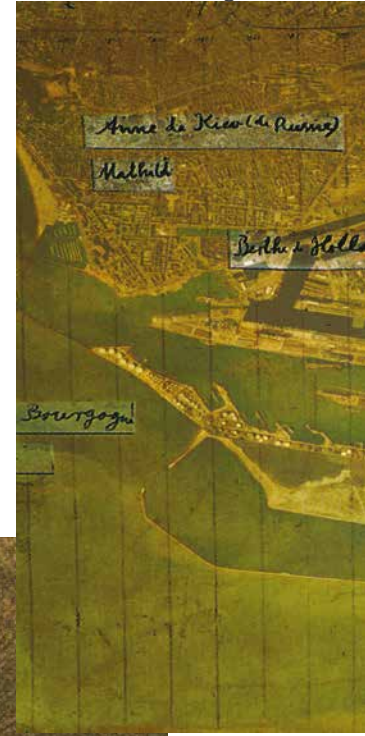
Fabiano Micocci

THE
UNCHARTED
FALLIBILITY
OF SATELLITE
IMAGERY

Hiroshima, 1945: "Die Überschwemmung Heidelbergs I." Source: Germano Celant, editor, Anselm Kiefer (Venezia Contemporanea) (Venezia: Carta, 1977), 84. "Hiroshima." 34° 22' 10.31" N 132° 27' 00.35" E. Google Earth. November, 4, 2014. August, 28, 2015.



Le Havre, 1944: "Les Reines de..." Source: Germano Celant, editor, Anselm Kiefer (Venezia Contemporanea) (Venezia: Carta, 1977), 335. "Le Havre." 49° 28' 30" N 0° 00' 00" E. Google Earth. March, 5, 2007. August, 28, 2015.



Baghdad, 1991: "Ausbreiter des Landkreises Buchen IV." Source: Germano Celant, editor, Anselm Kiefer (Venezia Contemporanea) (Venezia: Carta, 1977), 146. "Baghdad." 33° 18' 46.10" N 44° 21' 41.36" E. Google Earth. January, 6, 2014. August, 28, 2015.

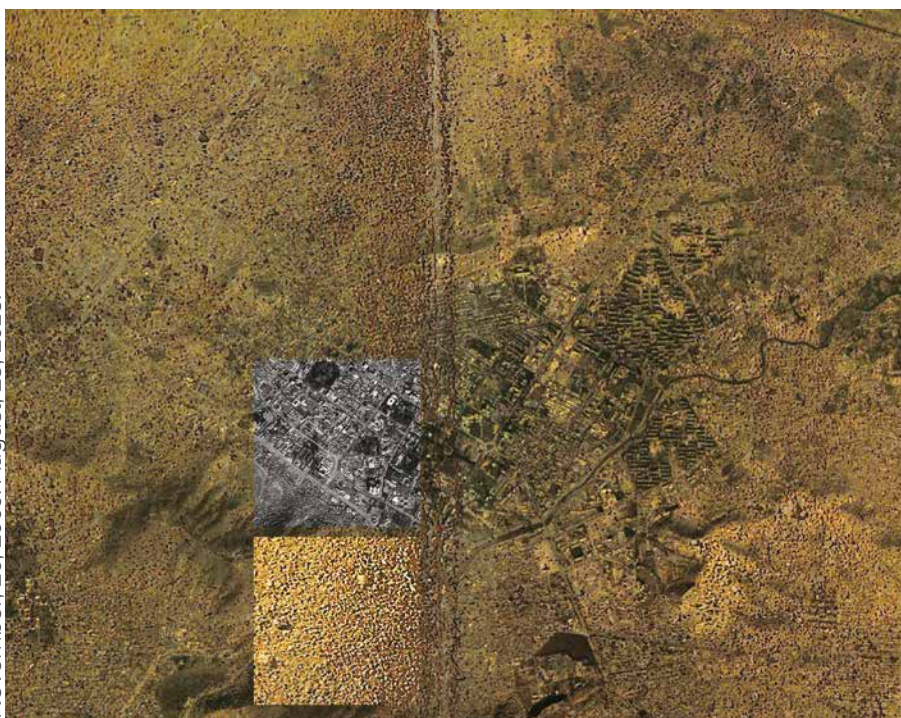


France." Source: Germano Celant, editor, Anselm Kiefer (Venezia Contemporanea) (Venezia: Carta, 1977), 183. "Kabul." 34° 34' 31.81" N 69° 14' 24.26" E. Google Earth. November, 20, 2009. August, 28, 2015.



Hanoi, 1966: "Ausbreiter des Landkreises Buchen IV." Source: Germano Celant, editor, Anselm Kiefer (Venezia Contemporanea) (Venezia: Carta, 1977), 131. "Hanoi." 21° 01' 39.95" N 105° 50' 02.98" E. Google Earth. July, 12, 2015. August, 28, 2015.

Kabul, 2001: "Märkischer Sand V." Source: Germano Celant, editor, Anselm Kiefer (Venezia Contemporanea) (Venezia: Carta, 1977), 183. "Kabul." 34° 34' 31.81" N 69° 14' 24.26" E. Google Earth. November, 20, 2009. August, 28, 2015.



Kristy Balliet

GLITCHY PARTS

1. Rosa Menkman, *Glitch Moment(UM). Network Notebooks 04* (Amsterdam: Institute of Network Cultures, 2011).

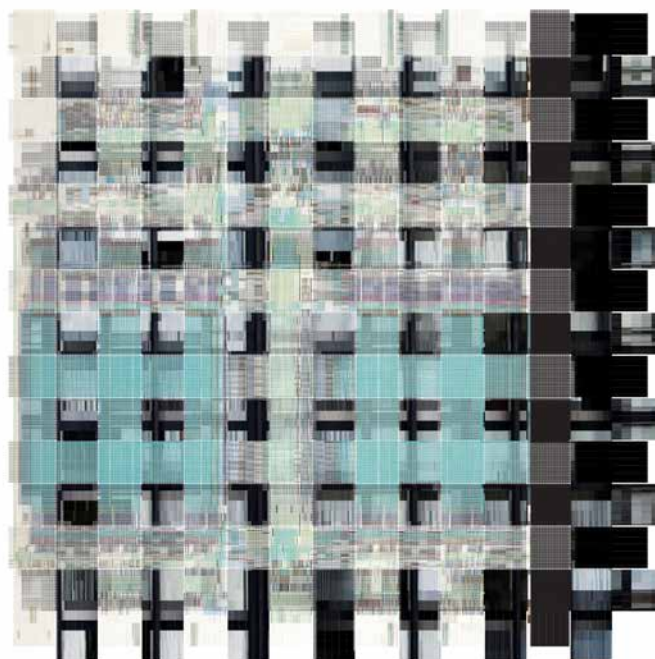
2. Wes Jones, "Can Tectonics Grasp Smoothness?" in *Log 30* (New York: Anyone Corporation, 2014)

The field of architecture has a fascination with parts—parts as building elements, parts as rooms and parts as volumes. The *glitch* provides a means to investigate the implications of what happens when parts seek alternative relationships. It reads like a personal ad for parts: roof seeks plinth, window seeks door, arcade seeks ramp and so on. This research uses the mid-rise speculative office building typology to recast parts. The focus on the mid-rise is twofold: to explore the vertical and repetitive, while exploiting glitches and volumes such as atriums, courtyards, and rotundas—tools for wrestling the box. Presented as conceptual models, the architectural glitch research promotes innovation and changes the typical into the exceptional.

The glitch challenges the value of the normative. Today the term glitch is often used to describe a mechanical or digital slip in a system. Artist and theorist Rosa Menkman describes it this way, "The glitch captures the machine revealing itself."¹ The glitch affords contemporary artists and designers a means to negotiate analog and digital. Consider Elena

Manferdini's 2015 exhibition *Building the Picture* at the Chicago Institute of Art (Fig. 1). Manferdini begins with the normative grids of Mies Van der Rohe and works to make new patterns that alter scale and perception through the manipulation of a singular building element, the curtain wall. Greg Lynn's *Eyebeam* proposal from 2001 also transformed the architectural curtain wall, proposing the "bleb façade" (Fig. 2). While a glitch may indicate an error it can also be a starting point to develop new narratives, both visual and spatial. A glitch within coding can produce productive surprises and within a video game it may send avatars magically passing through walls. How can the architectural glitch transform and challenge convention? An elective design studio I taught at Ohio State University, in the spring of 2015, took on this question. We explored the conceptual implications of the architectural glitch and the potential for new spatial typologies.

The studio brief set up an investigation into the architectural glitch with a 10/15 storey midrise in downtown Detroit. We selected Detroit, a city emerging



1. Elena Manferdini, *Building the Picture*, 2015. © Atelier Manferdini.

A glitch within coding can produce productive surprises and within a video game it may send avatars magically passing through walls. How can the architectural glitch transform and challenge convention?

from bankruptcy and reimagining itself with new investment and an influx of capital. It is a shrinking city with a need for targeted density and renewed vitality. The Motor City has become a testing ground for innovation. In short, a compact downtown entices grand gestures and innovations both inside and out.

The design of a contemporary mid-rise focuses on the architectural issues of sequence and entry, development of spatially descriptive spaces, interlocking volumes and creation of atmosphere and effect. The studio recasts Louis Sullivan's definition of a tall building, outlining alternatives for how commercial buildings hit the ground, touch the sky and engage the middle. The tall building grew up to be the skyscraper, but the *mid-rise* resists growing up. It is a typology misfit. Standing on the shoulders of buildings designed by Daniel Burnham and Albert Kahn, the research embraces the low profile and exploits the volumetric proportions to study innovative modes of circulation and develop new connections to the city. The program is a combination of odd bedfellows—

community-based startups and market-driven speculative "class A" office space. These programs require a balance of accessibility and openness, while providing secure space for internal affairs. The glitch enables parts to begin to negotiate the nuances of this building type while testing new architectural ambitions and possible economic models.

Tectonics have been defined as the constructive elements of architecture, such as the beam and column. But over the past decade parts have been used to blur tectonics, favoring gradation and smooth transitions over abrupt difference. Wes Jones writes about the shift from aggregatory tectonics stating that "Today, architecture can be divided up between projects that are made up of assembled discrete parts and projects that are embodied in a continuous, homogenous, or smoothly transitioning (continuously differentiated) mass."² The glitch provides an alternative to this dichotomy by embracing both difference and continuity. Surpassing a singular interest in surface, a common limitation of digital work,



the projects included in this article produce novel tectonic relationships through the deliberate glitching of parts. Each isolates and interrogates the relationships of building parts—building as atrium, arcade, stringcourse or building fragments.

This research was initiated by a speculative project, the *Inverted Icon*, I designed for downtown Detroit. The project has a bloated atrium—the atrium is too large for the building container (Fig. 3). The proposal rejects the object building opting instead to swallow the object and capture the immensity of Detroit's urban landscape. An animated central volume for the city—an urban-scale room—channels Detroit's history and facilitates its ambitions for renewed vibrancy. The building acknowledges the industrial cathedrals that preceded it and creates a contemporary peer. The project consists of two major complementary elements: a voluminous, curvilinear interior room and a shard-like, articulated exterior. The building contains vertical residential units, speculative office space and a film studio/incubator element. The glitch impacts the exterior massing of the building including a highly visible rooftop plaza that connects the building to immediate and distant Detroit landmarks.

Three exemplary projects included here present the research of the studio.

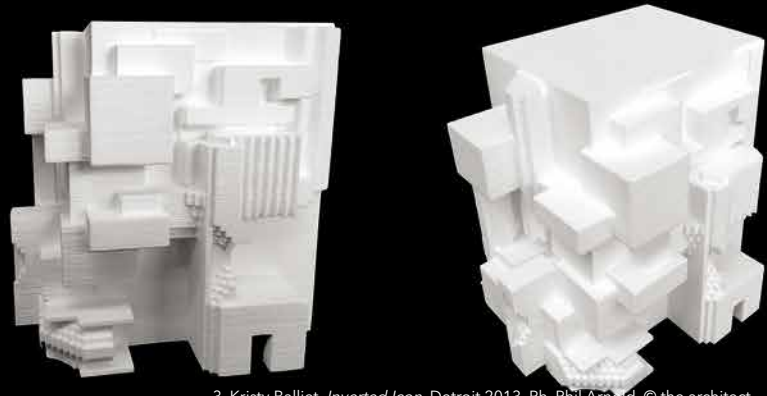
The arcade project reworks the classical arcade to create a layering of volumes that expand amenities and view corridors. A glitch in the arcade modifies its structural and elevational roles, resulting in multiple front doors, a range of floor plates and division of space that enhances the spatial qualities of the building. The atrium adjusts to the expanded circulation capacity of the arcade (Fig. 4).

The stringcourse project uses the glitch to remix the traditional tripartite composition. Historically, a stringcourse defines distinct layers of a building. In this project its role transitions from clear delineation of parts to connecting discrete volumes. The top and middle flip and at moments the building appears to float. The glitch accommodates cafes, night clubs and sky lobbies that connect the cores at the upper and lower levels. In addition to stitching the fractured building mass, the stringcourse serves as a shading device and connective balconies (Fig. 5).

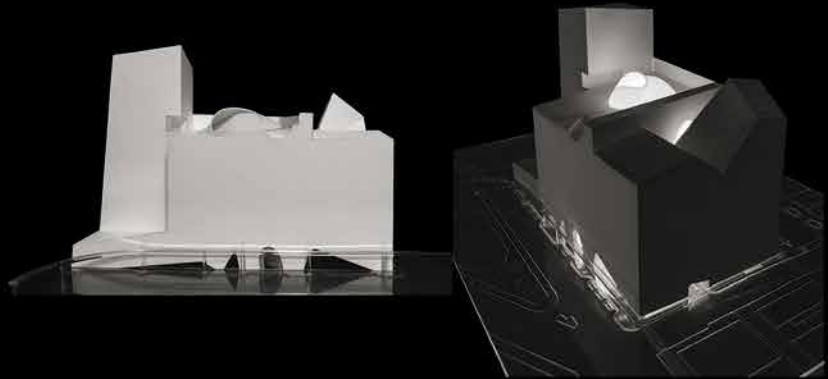
The fragmented building part project contains an interior city. The project oscillates between inside and outside as chunks of building facades are both interior walls and exterior enclosure. The project uses five adjacent buildings to create one building. The in-between spaces offer a surplus of amenities that service the broad range of spatial needs of speculative office space and start up tenants. Connector lobbies or sky plazas are dispersed throughout the building to set up new encounters and direct layered views. (Figure 06)

A design with a glitchy part is not misbehaving; on the contrary, the designer authorizes the behavior. The designer takes advantage of an inappropriate relationship developing new narratives. An architectural glitch understands its history and belongs to a relational system or visual structure. The glitchy part maintains a connection to this history while forging a trajectory and new relationships, stealthily engaging new audiences and prolonging attention.

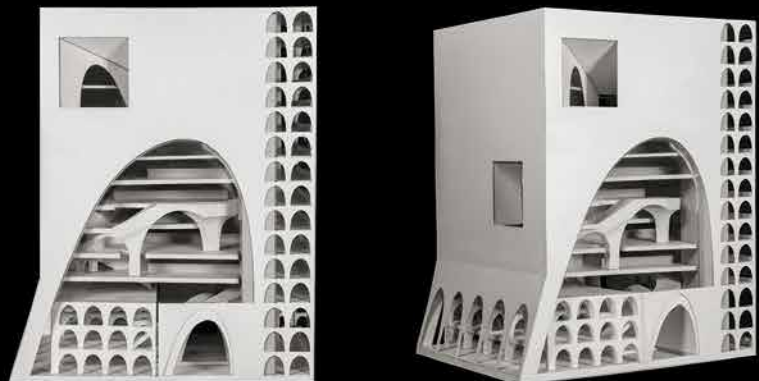
Surpassing a singular interest in surface, a common limitation of digital work, the projects included in this article produce novel tectonic relationships through the deliberate glitching of parts.



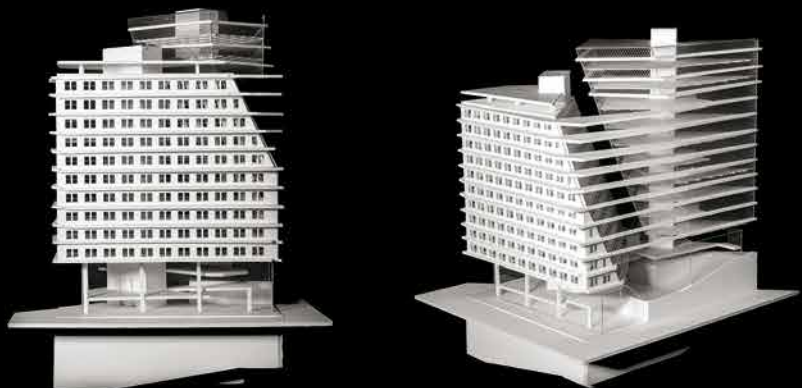
3. Kristy Balliet, *Inverted Icon*, Detroit 2013. Ph. Phil Arnold. © the architect



4. Glitch Studio Spring 2015, Professor: Kristy Balliet. Student: Sara Kline



5. Glitch Studio Spring 2015, Professor: Kristy Balliet. Student: Lukas Cameron

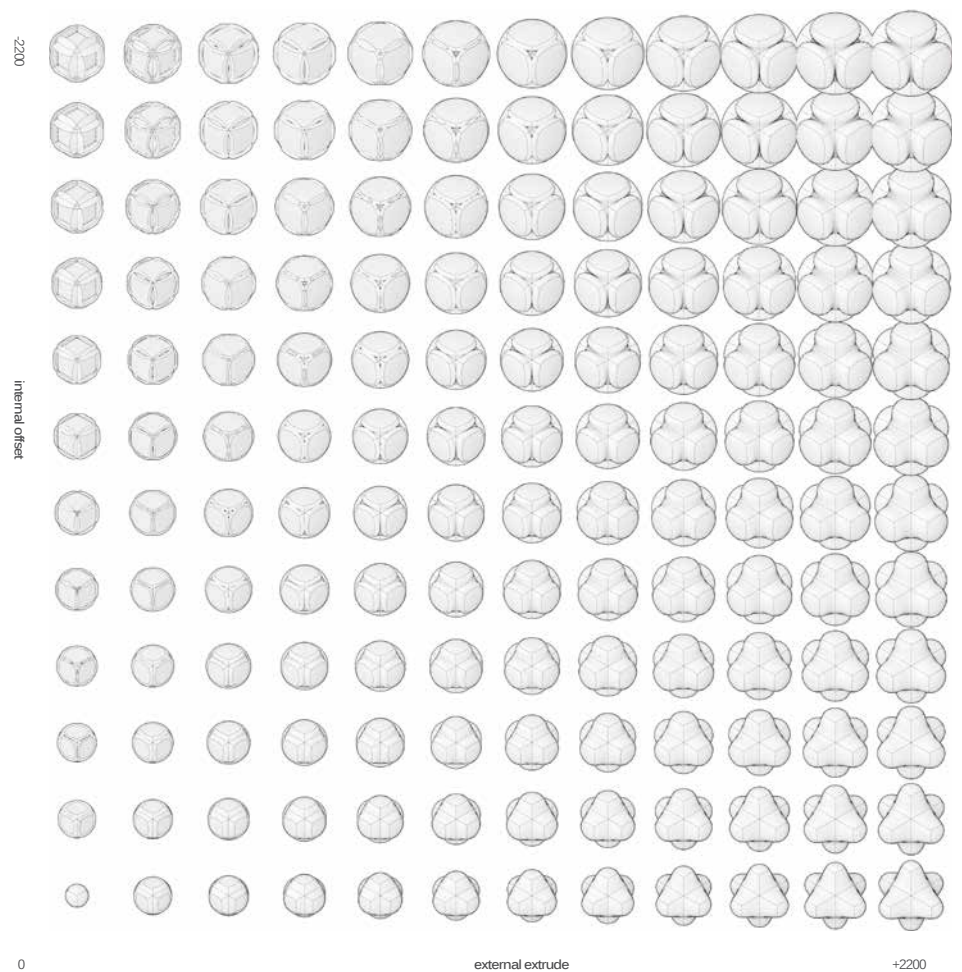


6. Glitch Studio Spring 2015, Professor: Kristy Balliet. Student: Nicholas Schweer

A design with a glitchy part is not misbehaving; on the contrary, the designer authorizes the behavior. The designer takes advantage of an inappropriate relationship developing new narratives.

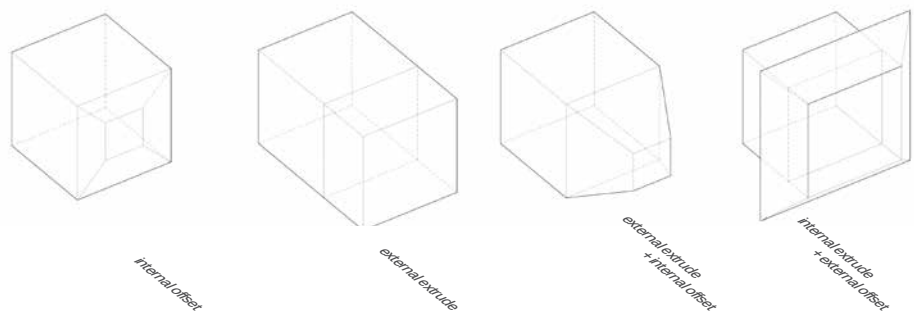
RECUR- SIVE BEVEL

Andrea
Giordano



Recursive modelling provides a platform for an anomalous glitch to flourish and multiply through a series of iterations. The proposed methodology employs the digital modelling technique of bevelling. By repeatedly bevelling a primitive solid with a negative integer, it is transformed into a digital artefact of intersecting solids articulated by seams.

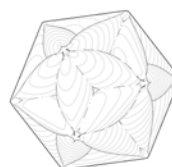
Articulation of the artefact's structural seams is dependent on when the anomaly is introduced and the number of recursions. The unforeseeable form serves as a starting point to inform the design of architectural elements such as columns integrated with reception desks. All together, they constitute the ultimate visual outcome of this proposal.



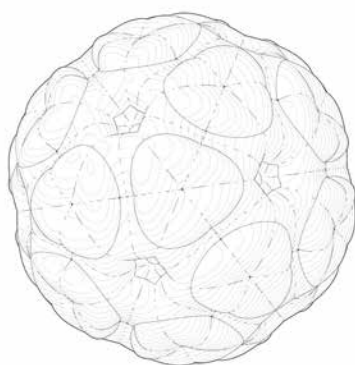
step 1 of the recursive process



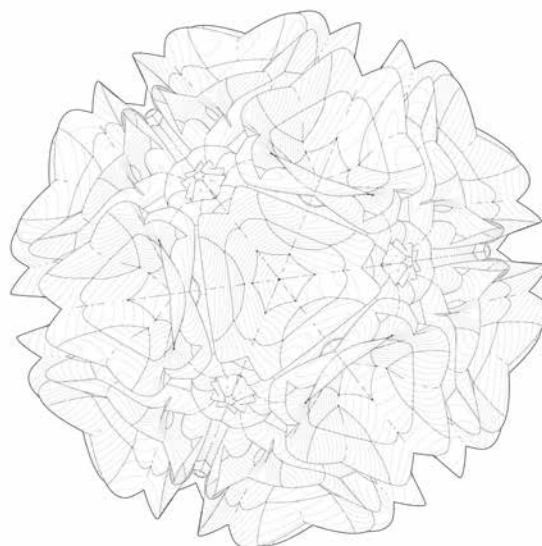
step 1



step 2
recursive bevel

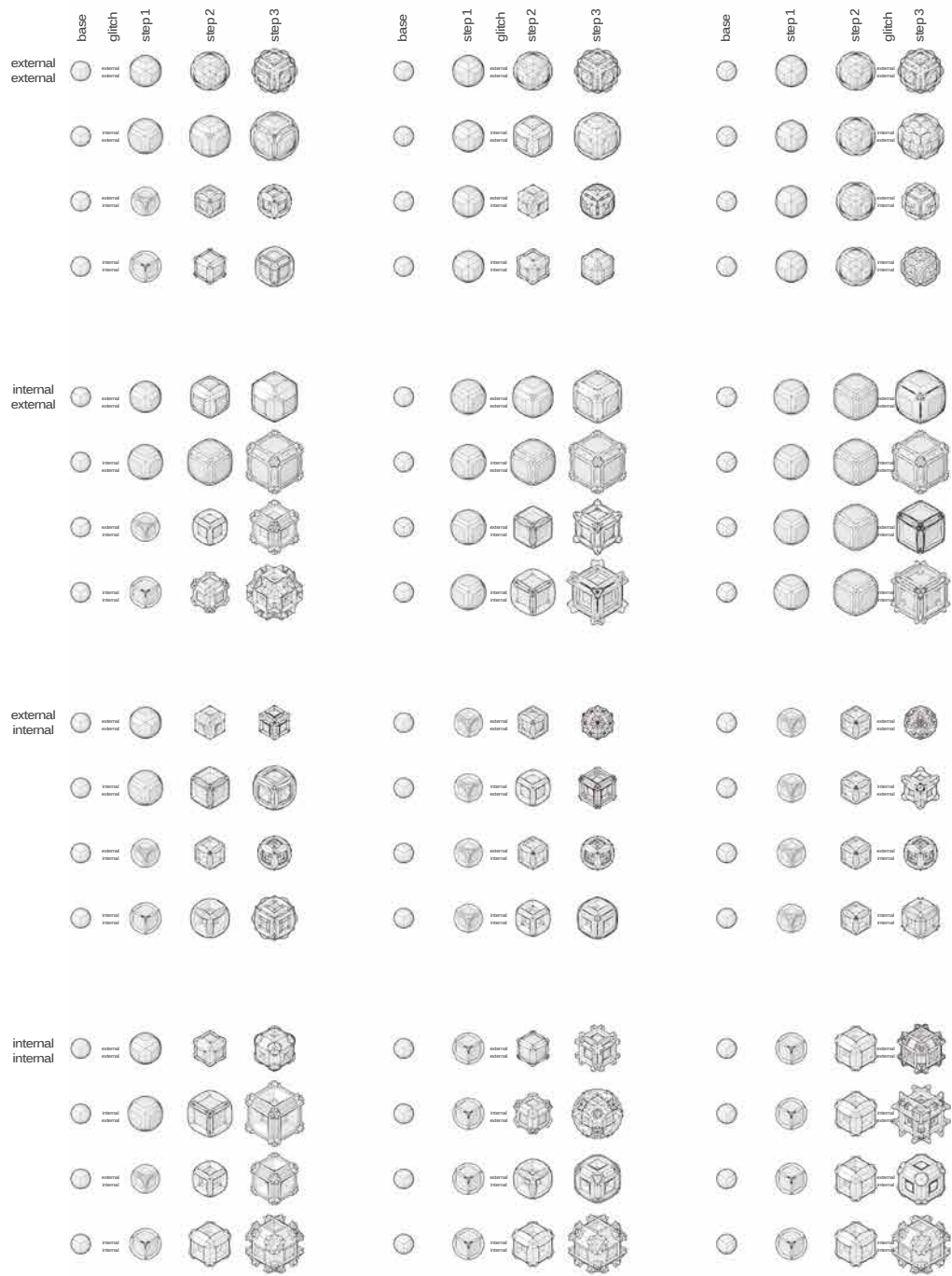


step 3
recursive bevel

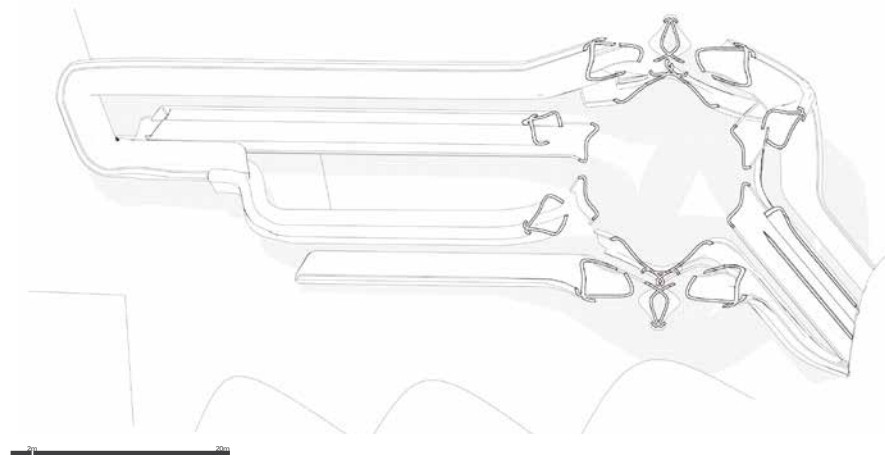
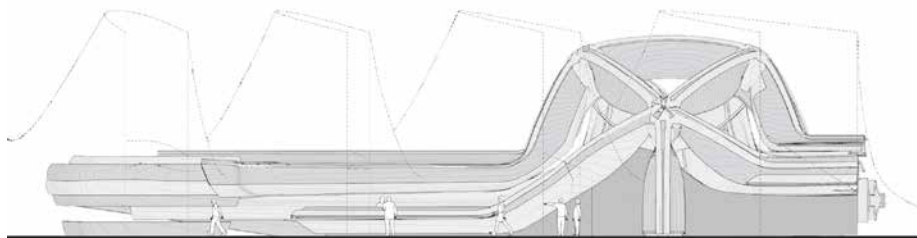


step 4
recursive bevel

step 2 of the recursive process



step 3 of the recursive processes



landside concourse check-in desk
recursive secondary structure and furniture

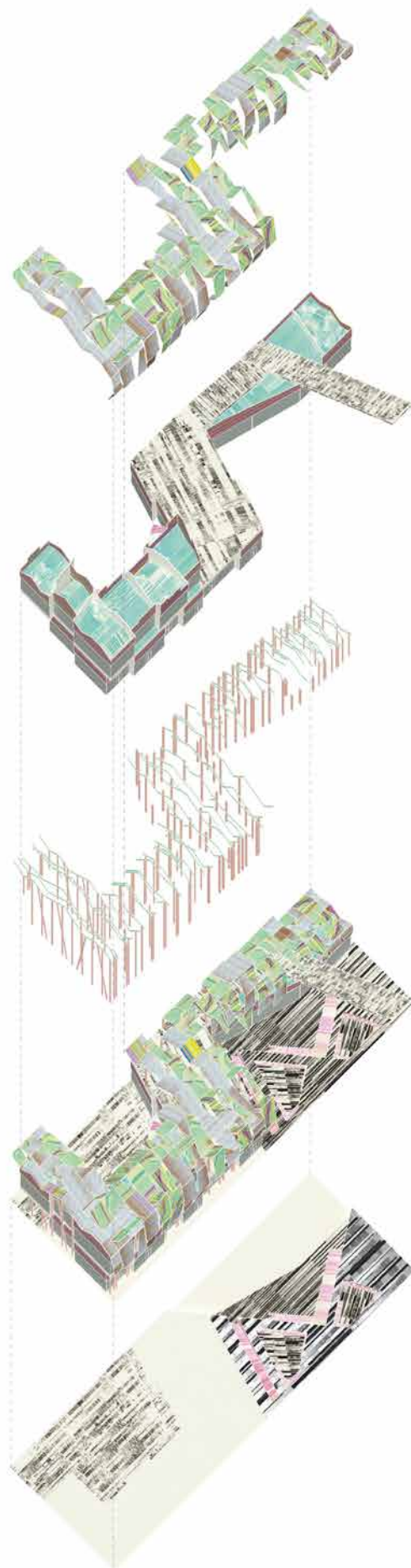


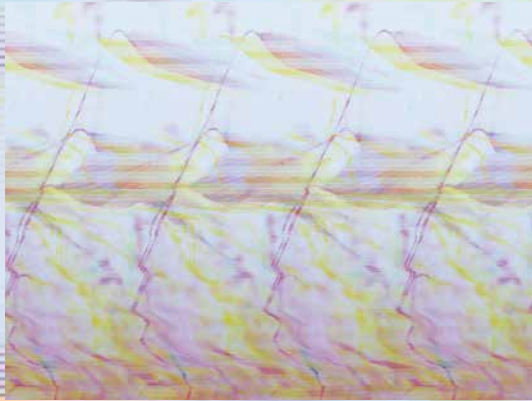
ALL HAIL THE STRIP MALL

Nicole
Doan

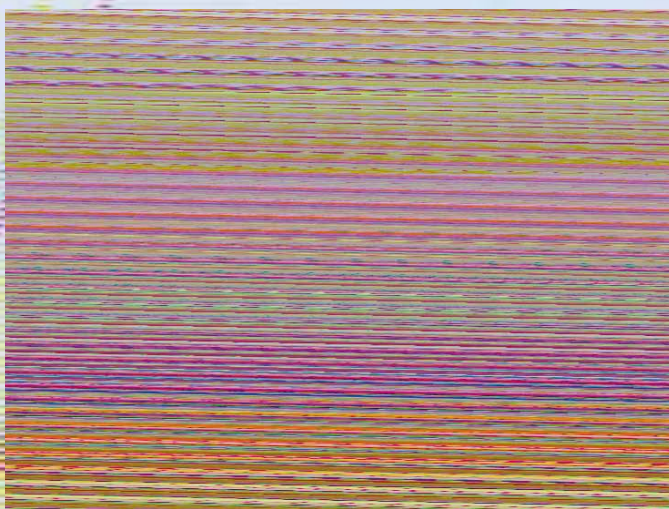
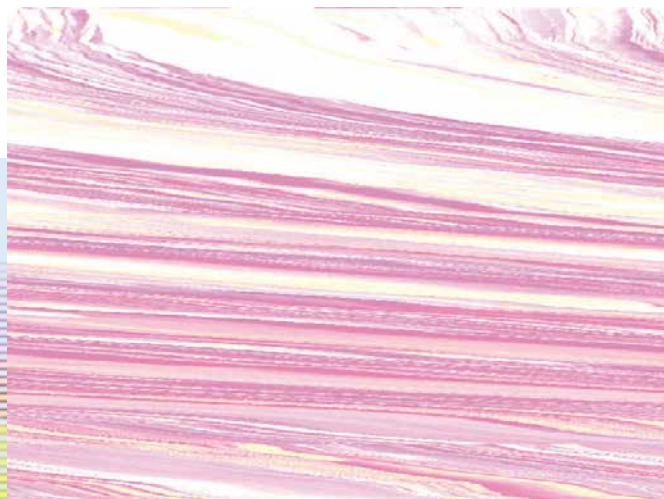
This project explores the use of *supergraphics* in order to both emphasize and democratize the building, which, in this case, is a strip mall designed for urban and suburban America. These supergraphics were created by performing a series of deliberately harmful acts onto a set of photographs' data, resulting in "glitch art." The product of these databent images is assigned to the different components within the project: one pattern corresponds to the roof, another to pedestrian circulation, a third to the walls, etc.

Despite each component's distinct surface pattern, the overall project appears homogeneous, due to its identity as a strip mall. The strip mall is a strategic urban instrument and an underrated architectural device. It is a no-place, as it is peripheral to architectural investments, while it is generic and ubiquitous on an urban level. Consequently, the strip mall's ordinariness allows itself to dissolve into the background of the urban fabric. However, this project plays with the program's democracy, in terms of its spaces and appearance. The building melts into itself and the patterns consume it, rather than the rest of its urban context.





The photographs in the left column, taken by Nicole Doan, experienced a form of databending in order to transform into the glitch art that appears in the right column. These transfigured images were used as the building's supergraphics.



TECTONIC GLITCH

Alexander
N. Walzer

The project TECTONIC GLITCH consists of surely simple planar elements, mostly triangles. By intersecting each other a spatial stability can be created. Intensification is merely aesthetically driven but multiple resolution areas can be translated to increased inner forces or stresses coming from the outside.

This project is related to the term "functionless" which can either be seen as pure provocation or merely breaking down most projects, independently from their geometrical approach. Indeed, academia tends to teach us about "real materials" and "real geometry" as two separated instances but when we investigate the materials on the smaller scale, we can see reality is quite different.

They are built up from molecules and atoms exposing intense geometrical properties that are not necessarily part of the designer's intention. A *glitch* in this workflow is a not intended or a not understood outcome that was created or provoked within an anticipated framework. A glitch will always be a pseudo-random phenomena.

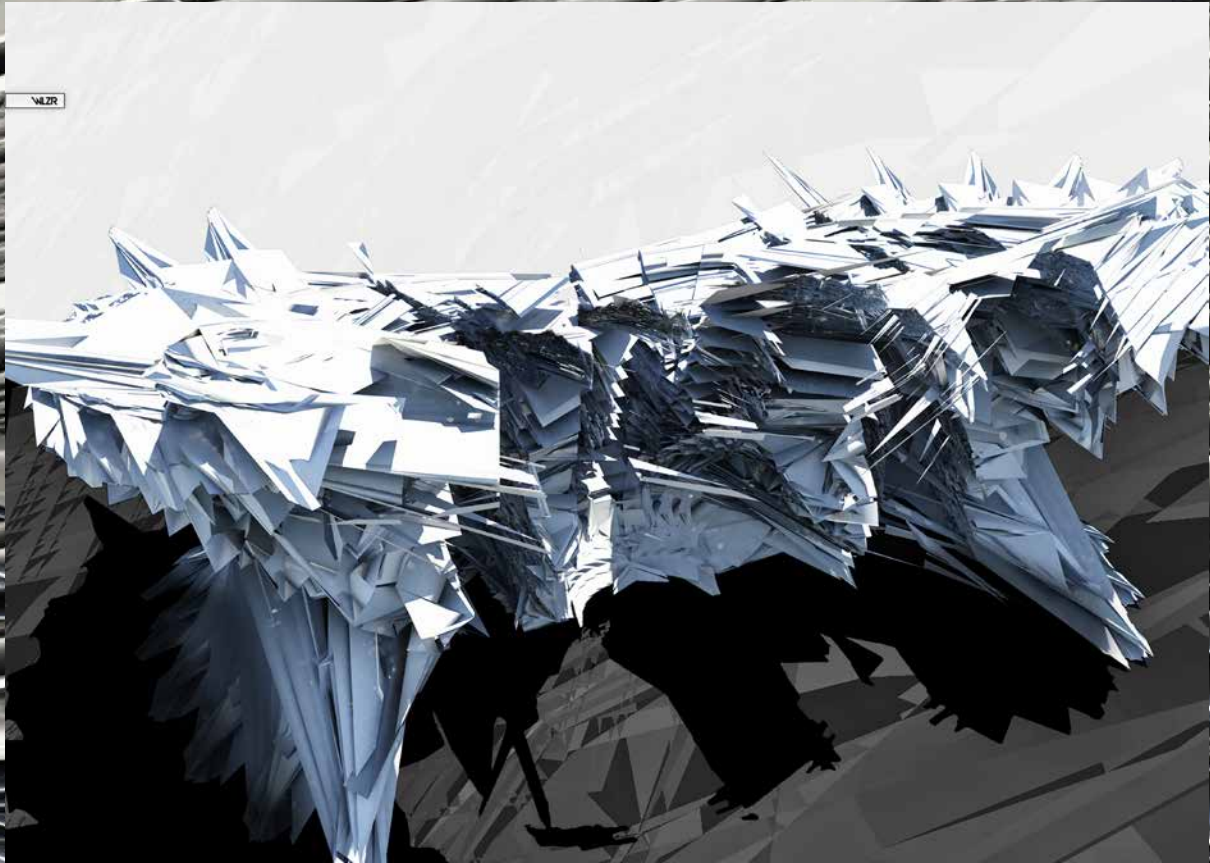
This project shows the misbelieve in digitally created geometries, urging instead for questioning complexities within assemblages and their productions, either letting loose of some top-down decisions and embracing bottom-up development. Architecture is not necessarily about form, neither about function.

But if so; does the glitch also exist within the function/program?









"A GLITCH IN THIS WORKFLOW IS A NOT
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PROVOKED WITHIN AN ANTICIPATED
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PSEUDO-RANDOM PHENOMENA."

Jonathan Choe

ABER- RANT ARCHI- TECTU- RE

In a global culture (...) architects have begun to utilise digital processes and construction technologies to deform the Modernist box into an architectural vocabulary more palatable for buildings with complex urban contexts, varied programmatic requirements, and diverse constituents.

WHY ARE CONTEMPORARY ARCHITECTS OBSESSED WITH PIXELS, MUTATIONS, AND DEFORMATIONS?

Throughout history architectural styles have followed the zeitgeist, embodying cultural phenomena and the technological *avant-garde*. The advent of an intensely digital age has ushered in an ongoing transformation from analog to digital design; from mass-manufactured construction to 3D printed parametric buildings. These technological advances have ushered in an era of aberrant architecture where deviations are not eschewed, but embraced.

HISTORICAL BASIS FOR ARCHITECTURAL ABERRATIONS

In a world swept by change from manual labour to large-scale industry and the aftermath of World War II, architects were working within a new cultural environment—with an updated material palette and construction techniques to match. Classical forms of architecture were unable to cope with the complexities

of this new post-industrial world—along with changes in lifestyle, technology, mobility, and the rampant urbanisation which would come to epitomise the century of industrialisation.

Architects began to postulate how they could incorporate modern ideas about technology and mass production into an architecture that could relate to the new state of the world. Iconic figures such as Le Corbusier and Mies van der Rohe were influenced by industrial processes and new materials such as steel and reinforced concrete to create a new architectural style (Modernism), renouncing the tradition of buildings with applied ornamentation for structures expressive of these new materials and construction methods.

As modernist architects departed from vernacular archetypes and developed a style influenced by the new manufacturing technologies of the industrial revolution, the resultant spaces and places were often out of touch with the decorative warmth of historical architecture.



PARKROYAL on Pickering Hotel by WOHA Architects, Singapore.
Ph. Jonathan Choe.



Maciachini Office Complex by Sauerbruch Hutton, Milan, Italy.
Ph. Jonathan Choe.

The intentionally machine-like precision of these buildings has often become unintentionally humanised over time, through the addition of curtains, colouring, or even through accidental breakage and imperfect repairs or alterations.

One of the notorious products of Modernism, large-scale public housing projects throughout North America and Europe are an often-cited failure of the stylistic period. The large, bleak developments often created unpleasant—and even dangerous—environments due to a sense of alienation that the large homogeneous complexes caused. When many of these failed projects were demolished, the resident's personalisation within pigeon-hole units was exposed—the physical manifestation of the human need to differentiate themselves.

MOVING PAST MODERNISM

Negative reactions to the brutality of Modernist spaces encouraged architectural movements such as Postmodernism and Deconstructivism, but they never managed to usurp the rational modernist box as a dominant archi-ideological paradigm.

One of the first—and most notorious—architectural stylistic movements which eschewed the brutality of Modernist architecture was Postmodernism, where exaggerated historically-inspired formal gestures were utilised to evoke the grandeur and humanity of classical architectural styles as a defiant move against their perception of Modernism as bland and soul-less.

The often tasteless results achieved by the borderline ironic architectural stylings of the postmodern rebellion motivated a later generation of architects to create the architectural assemblages of Deconstructivism, manifesting as abstract fragmented forms. These structures are able to recreate the ornamentality of classical building (something eschewed by Modernist theory) within a contemporary vocabulary. Deconstructivist icon Bernard Tschumi wrote that “It might be worthwhile...to abandon any notion of a postmodern architecture in favor of a ‘posthumanist’ architecture, one that would stress not only the dispersion of the subject...but also the effect of such decentering on the entire notion of unified, coherent



Public housing development on South State Street in Chicago, Illinois, USA, 2009. Photos from Google Street View.

1. Bernard Tschumi,
Architecture and Disjunction
(Cambridge: The MIT Press,
1996), 208–209.

Contemporary architects have begun to harness the power of seemingly random, yet curated abstractions as a way to convey information, identity, and individuality. The uninterrupted masses and gridded oppression of modernist structures become a celebration of difference, and the monotony of idealistic—but ultimately charmless—urban plans are distorted to promote differentiation through pixels, malfunctions, glitches: embracing the heterogeneity of post-technological life, rather than hiding the contents of a diverse urban civilization behind staid façades and plans.

architectural form,” an idea which directly contradicts Modernist purist building massing.¹ However, both Postmodernism and Deconstructivism were ultimately formal movements. The jarring geometry of Frank Gehry’s early work, Tschumi’s deconstructed “follies” and Michael Graves’ oversized column capitals were essentially placeholders for vernacular or classical ornament, and as such none of these attempts at stylistic reform ever really managed to succeed Modernism as a dominant aesthetic movement in architecture.

Many advantages of Modernism, such as efficiency and structural rationalism (form follows function), are still convincing in a contemporary architectural context. But in lieu of a completely new archi-ideological paradigm at the groundbreaking level of Modernism, architects had to find a way to anthropomorphize rational structures and break down the increasingly large scale of buildings in order to avoid the alienation that Modernism had often caused in the past.

EMBRACING ABERRATIONS

In a global culture infinitely more complex than the world in which Modernism was conceived and compounded by technological advancements in both construction and design capacities, present day architects have begun to harness the power of the glitch in architecture. Perhaps influenced by the asymmetric formalism of the Deconstructivists and surely retaining the functional aspects of Modernism (while recognising its many failures), architects have begun to utilise digital processes and construction technologies to deform the Modernist box into an architectural vocabulary more palatable for buildings with complex urban contexts, varied programmatic requirements, and diverse constituents.

Keating Hall at the Illinois Institute of Technology by Myron Goldsmith, Chicago, Illinois, USA. Ph. Jonathan Choe



As Bjarke Ingels stated in his manifesto *Yes is More*, "Architecture is never triggered by a single event, never conceived by a single mind, and never shaped by a single hand. Neither is it the direct materialisation of a personal agenda or pure ideals, but rather the result of an ongoing adaptation to the multiple conflicting forces flowing through society."² This complex contemporary reality makes monolithic and undifferentiated Modernist masses no longer relevant in contemporary society.



Public housing development on South State Street in Chicago, Illinois, USA, 2014. Photos from Google Street View.

2. Bjarke Ingels, *Yes is More* (Köln: Taschen, 2009), 20.

3 Patrik Schumacher, "Parametricism is Compelling and Without Alternative," *Parametricism2* (August 2015), <http://www.parametricism2.org>



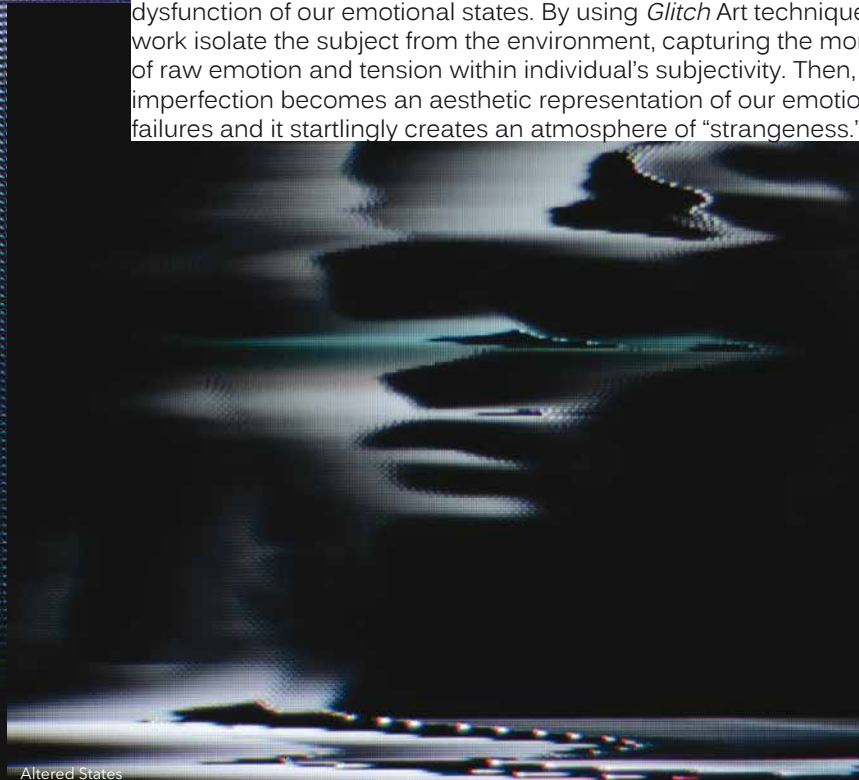
These glitches often manifest as pixelated façades or the distorted geometries of BIG or OMA, but also in the morphed forms of Zaha Hadid. Patrik Schumacher (director of Zaha Hadid Architects and self-described "parametricist") describes the fluid formal distortions of ZHA's work which he refers to as parametricism as "compelling and without alternative," stating that "other styles are incapable of working with the efficiencies of the adaptive structural and tectonic differentiations that issue from the new engineering intelligence, i.e. they force its adherents to waste this opportunity and thus to waste resources [while parametricism provides a] versatility in organizing and articulating legible complex architectural compositions—embedded into dense and variegated urban contexts—for our contemporary multiply affiliated, multi-audience institutions."³ Whether articulated as fluid forms or pixelated panels, contemporary architects have begun to harness the power of the glitch to create an architecture that adapts to and embraces variety.

Architectural glitches act as an effective way to embrace (rather than conceal as Modernist architects often did to the point of functional sacrifice) difference within buildings which often now contain multiple functions. Different façades and even specific parts of the building envelope can be expressed in deference to their specific programmatic requirements and varied site conditions such as views and climatic exposure. The scale of increasingly large developments can be broken down into relatable portions on both an architectural and urban scale. Rather than concealing technical requirements such as blank back-of-house façades, mechanical services and site massing constraints, these deviances can become integrated into a multifarious architectural entity, embracing aberrations without sacrificing unity.

Nordpark Cable Railway Station by Zaha Hadid Architects, Innsbruck, Austria. Ph. Jonathan Choe.



These portraits of women altered by *Glitch Art* techniques demonstrate the fragility of the subject's identity when facing the pressures of a super-productive society. Individuals in today's society aim at attaining perfection in every aspect of their lives where imperfection has no place. The longing for perfection affects us negatively either psychologically and emotionally. These works aim to emphasize a relation between the *Glitch* phenomenon—which is a technical failure whether it happens in a digital or in an analog domain—with the dysfunction of our emotional states. By using *Glitch Art* techniques, this work isolates the subject from the environment, capturing the moment of raw emotion and tension within individual's subjectivity. Then, the imperfection becomes an aesthetic representation of our emotional failures and it startlingly creates an atmosphere of "strangeness."



Altered States



Affliction



Dark Desires

Roberto Malano

DARK
MINIMALIST
GLITCH

Depressive Illusions

GLITCHES INSIDE THE BRAIN OF AN ARCHI- TECT. THE ECLECTIC TASTE OF POST-DI- GITAL AGE.

SMALL

SMALL
SOFT
METROPOLITAN
ARCHITECTURE &
LANDSCAPE LAB

1. See: Mario Perniola, *The Sex Appeal of the Inorganic. Philosophies of Desire in the Modern World* (New Delhi: Bloomsbury Publishing, 2004).

Right after the second postwar period, the explosive economic growth of Western Europe and America generated—for the first time in history—an acceleration in the evolution of taste that started to make visual culture evolve radically, at the rate of decades or even faster. Progressively, this process synchronized with the major pushes in global culture, among which one of the most influential became, increasingly, technologies and their relationship with everyday life. Then, the visual trends followed what could be described as a sinusoidal process of attraction and repulsion for the inorganic, oscillating between its sex appeal¹ and the propensity towards pastoral utopias freed from the tyrannies of plastics and electricity.

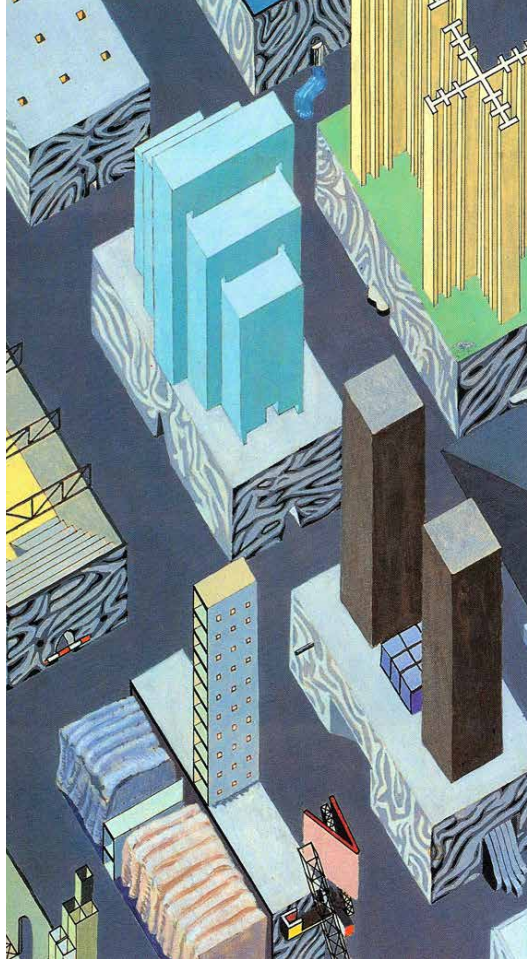
Since the rise of digital culture until the state of totalizing narrative—yet undisputed since the early 1990s—the sharpness of the boundaries between the two stylistic bents started to fade away, generating shorter wavelength in the vibrations of the countercultural imagination. The twenty-five years following the spread of the internet for private use have indeed been analyzed and interpreted by many as the effect

of multiple eras of digital culture, each characterized by its own specific features and contradictions. Lately, one of the most globally diffused aesthetic trends is the one associated with the hipster subculture, mainly based on an obstinate quirk for organic materials, analogic machineries, vintage attire and traditional typography. This is yet intimately eclectic because it is totally reliant on the latest social and cultural practices, directly derived by the use of extremely *au fait* digital tools.

If graphic design has always been extremely sensitive towards all those fibrillations, so could not architecture, traditionally too slow in welcoming subtle taste changes because of the inherent slothfulness of its typical processes. Nonetheless, as a branch of graphic design itself, architectural representation is instead highly capable of interpreting trends. Promptly and coherently, the new post-digital eclecticism started to generate its own communication language.

If the first wave of digitalism had produced some naively direct emanations of the technical possibilities of the graphic computation of its time, filling magazines and websites

If the first wave of digitalism had produced some naively direct emanations of the technical possibilities of the graphic computation of its time, filling magazines and websites with beyond-realistic renderings, now post-digitalism mostly bases its aesthetics on the revival of some long-buried postmodern features.



Madelon Vriesendorp, illustration for Rem Koolhaas's *Delirious New York*, 1978.



eBoy, commercial poster with buildings.

2. For shortness, we will overlook the relevant cognitive implications the passage from classical to digital education is thought to have on the personal tendency towards—respectively—perspective or axonometry. McLuhan and his heir De Kerckhove wrote diffusely about this topic. For reference, see: Marshall McLuhan, *Understanding Media* (Canada: McGraw-Hill, 1964) and Derrick De Kerckhove, *The Architecture of Intelligence* (Birkhäuser, 2001).

3. Technically, axonometry is a kind of perspective whose observer is placed at infinite distance from the scene. This results in an unwillingly nightmarish effect of detachment, other than an unnatural, unrealistic effect, but could also be considered fascinating as a declaration of awareness of the contemporary relativistic condition of humanity, and a neutral attitude towards it.

4. Unwanted visual effect appearing when tight line patterns superimpose with small angle or density errors.

with beyond-realistic renderings, now post-digitalism mostly bases its aesthetics on the revival of some long-buried postmodern features. One of the most relevant among them is certainly the resurgence of axonometry over perspective.² Much farther than just reprising an apparently *démodé* look, reminiscent of the last years of wireframe hand drawing, axonometric representation is now extensively used even at wide urban and landscape scales, openly declaring its visual reference to the world of videogames of the 1990s. Not surprisingly, 8-bit aesthetics and pixel art pay much attention towards architecture and urbanity. Its best-known exponents, like Eboy, create hallucinatory cut-outs of seemingly endless, hyper-congested metropolises whose surrealism owes everything to games like *SimCity 2000* but, unconsciously, is as well related in more than one way to the legacy of *Delirious New York's* follies. As many in history, these extreme avant-garde graphic experiences, coming at a turn of an epoch, depict reality as the output of some sort of acid bad-trip of the whole human kind. Of course, architectural drawings serving as

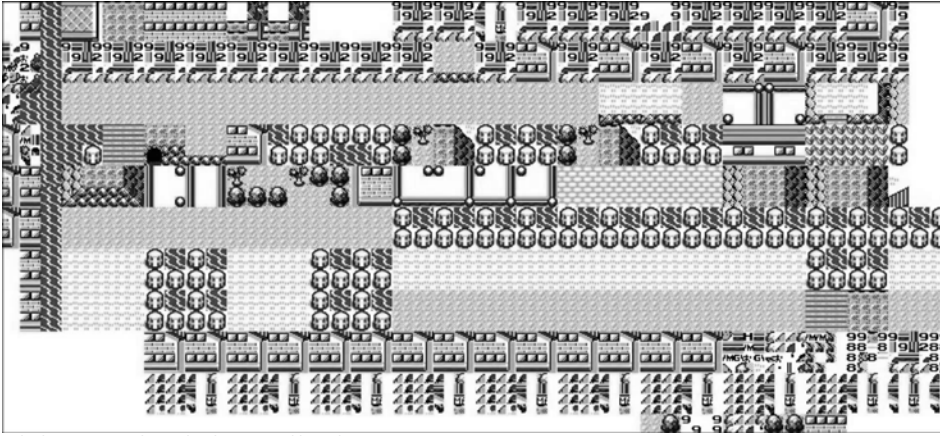
functional representation for projects cannot—commonly—be that dystopian, or deliberately nonsense; however, much of contemporary fashionable graphics makes use of wireframe axonometry, directly connected with those speculations, with the uncanny result of man seeming completely irrelevant before the city, no more the center of any decision and action.³ At the same time, lo-fi, fully AutoCAD-made drawings are just another way to exploit the poetic power of outdated instruments and languages re-located in the contemporary time, with all their limits and, indeed, for their limits themselves. So, for instance, filling wide color fields with super tight lined hatches has become desirable *because* of the errors and *moiré* effects⁴ that will follow, especially at low quality.

Post-digital eclectic taste, hence, is an aesthetic of technologies fallacies: fallacies for both being too much avant-, or too much rear-guard for their time.

The fascination for electronic glitches, in other words, is just one more particular case of this wider story. Seeing glitch as an aesthetically



baurkuh, MARC and YellowOffice, drawing from *La Metamorfosi: Spina 4 e Vanchiglia* competition, 2010. The tight lined hatches, originally intended to fill small areas, are here used as large color fields, generating visualizing errors at lower qualities.



"Glitch cities", in online role play games like *Pokemon*, are maps with invalid tile data, or errors concerning patterns.

5. Oliver W. Sacks, *Migraine: Understanding a Common Disorder*, University California Press, 1970.

6. As stated by Google Research Blog: <http://googleresearch.blogspot.it/2015/06/inceptionism-going-deeper-into-neural.html> (Accessed sept. 1st, 2015).

intriguing phenomenon—so much to be purposefully generated or even mimicked—implies an admission of the possibilities of systemic error, whose unpredictability contains interesting margins of emotional added value.

In Italy, for example, the debate about the art of architectural representation has been recently generating a very interesting movement of visual production, with different authors jauntily sharing experiments of hybridation between analogic and digital graphics related to architecture. While some has stayed more or less safe in the eclectic trendiness of neo-postmodernism, the boldest have entered more deeply into the aesthetics of their time, creating autonomous languages of expression. Beniamino Servino's apparitions are projections of architectural dreams on balanced mixes of traditional painting, photography and digital graphics, whose interest lays much in their aesthetic use of deliberate, hand-made reproductions of digital glitches. There, the superimposition of edgy color fields tell the story of the elegance of errors, of the simultaneous presence of different possibilities, cubist ghosts of

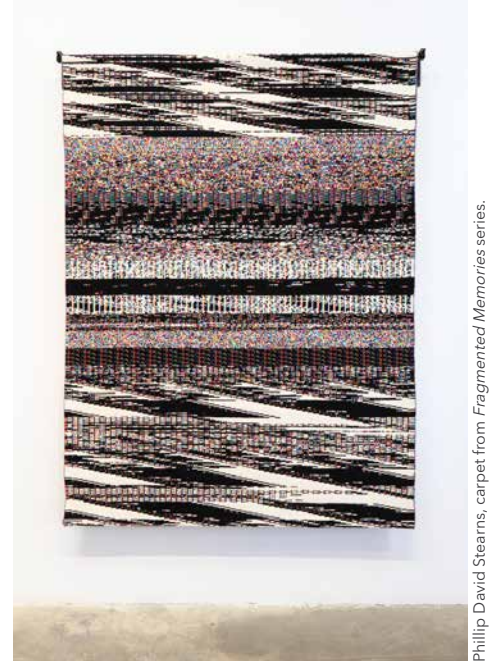
the impossible coexistence of multiple instants of what is and what could have been. Luca Ruali, instead, consciously introduces properly generated glitches inside its drawing, themselves hybrid between traditional pencil works and digital postproduction. The suspended atmosphere of his human or plant figures are constantly juxtaposed to architecture, as if they all belonged to one natural kingdom exposed to fragility and imperfection and deeply connected by them.

In this sense, just like the celebration of a synthesis of the irreconcilable couples of organic/inorganic, analogic/digital, natural/artificial, life/algorithm, the glitch gives back the digital environments their naturalness, unveiling its hidden structures as obeying to the same laws of living ones. Much sci-fi and cyberpunk narrative of the 1980s to 2000s are actually based on this act of revelation (just think to *The Matrix* or, more recently, to *Inception*) of the extremely tight similarities between the cognitive mechanics of human mind and electronic devices, particularly for what concerns perceptions. And glitch is not different, even under

a completely scientific point of view. Since the early 1970s, Oliver Sacks studied how visual illusions generated by some kinds of migraine are totally similar to drug-induced hallucinations and spontaneously generated geometric patterns, which turn out to be completely innate to human mind.⁵ Therefore, not only the presence and appreciation of patterns in different cultures is rooted right in the deep of our brains, but actually the way we see and reproduce reality is linked to the obsessive repetitions of geometric figures colored in CMYK (or, hyper-saturated hues): natural human glitches.

As from the machine's point of view, most recently, Google's studies on artificial intelligence gave birth to *Deep Dream*, a software experiment whose intent is to understand to what extent machines can acquire the ability to interpret images by their content. After cycles of education—or upload of wide databases of images with tags and specific rules for content detection—the machines are asked to elaborate given images, looking for known elements inside them. What has made Deep Dream particularly interesting lately

is the unpredictable “weirdness” of the output received by the involved computers, actually representing the first known example of non-human-interpretation of a graphic work. With their extreme density of hyper-saturated fractal textures resembling familiar things and shapes, Deep Dream images will soon, unintendedly, build another aesthetic paradigm which has as much to do with the profoundness of our cognition as patterns have had since the beginning of our visual history. But what Deep Dream can also teach us is related to its *horror vacui*, or its tendency to fill uniform color fields and horizons with “things” (often pagoda and fountain-like shapes⁶). This could help us understand, at unprecedented depth, how much our aptitude for the interpretation of territories and our push for their colonization with new things—in other words, architecture—is rooted inside our hardware minds, rather than conscious and cultural. How much, then, the world, as the built environment we know, has been created as a stratification of uncountable glitches inside the brains of architects.



Phillip David Stearns, carpet from *Fragmented Memories* series.



Google Deep Dream, elaboration of a photograph representing a valley. The machine “saw” some structure, and the output results in a “built” environment.



Luca Ruali, *Fade*.



Beniamino Servino, *Anonymous-Camouflaged-Rural-Cathedral*.

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Giovanni
Glorialanza

DO ARCHITECTS ADDRESS THE ELEPHANTS? SHEEPS?

1. While *reCAPTCHA*, a service for hand-written texts which computers cannot identify, proves the limits of the state of the art in Computer Vision, the iCub—a humanoid robot developed at the Italian Institute of Technology and adopted by many laboratories worldwide—is one righteous example of the potentialities in robotics of the same system.

2. If the *Matrix* scenario from 1999 may be recognized by the many, previously Hilary Putnam's *brain in a vat* and Descartes' *evil demon* speculates the perceived world as a comprehensive illusion created to deceive us; the post cold war culture often embodies those evil entities by conscious machines in movies such as 1984 *Terminator*.

As an un-professional research over an internet sensation, I foresee a risk of recentism, since as this article will be published, new and interesting papers will have surely enriched the topic.

NO #PUPPYSLUGS IN HERE

The aim of this article is to reveal a glimpse of the potential of a tool which interest is rapidly fading, archived on the internet as just another funny nerdy thing. It is my conviction that Convolutional Neural Networks (CNN) should still be experimented in many art fields, and in architecture research is a specific way.

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IN THE BEGINNING WAS THE NET

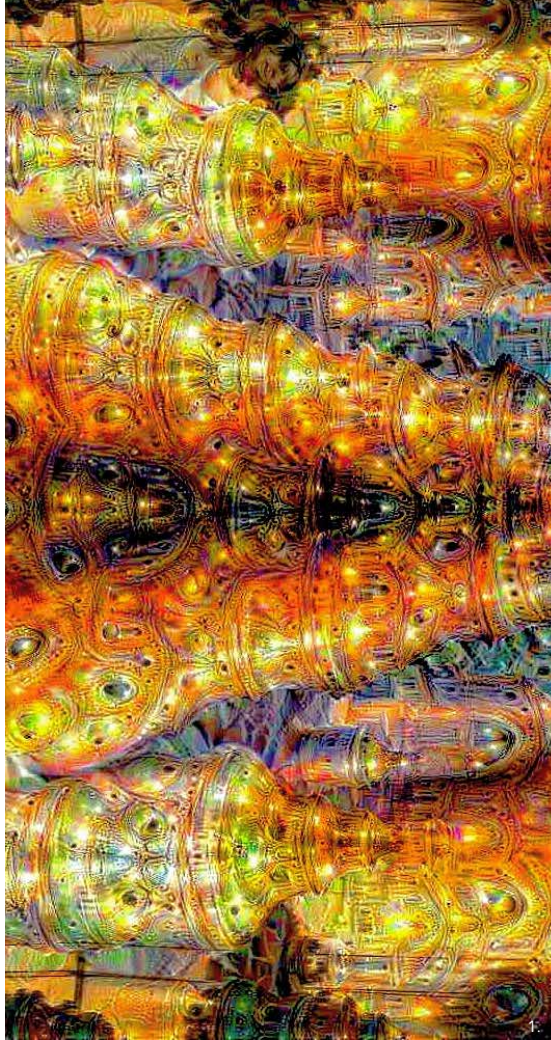
Deep Learning is a new field of research within Machine Learning: algorithms are learning how to classify images to a much greater accuracy than before; this kind of technology counts several applications in many different research fields: from recognition of calligraphy in digitalized libraries and vision-based learning processes in robotics to consumers applications like the recent update to the Google Photo service.¹

Traditionally, this task has been nearly impossible for computers but easy for

humans; the idea of a context-aware machine has always been a compelling goal for computer scientists, while being one of the most typical Sci-Fi post apocalyptic scenarios,² frightening the generic audience.

The word “network” refers to the inter-connections between the neurons in the different layers of each system. A basic network would take data from a first layer of *input* neurons, sends via *synapses* to a second layers of neurons, and then via more synapses to a final layer of *output* neurons. Deep Learning algorithms are trained providing set of images, divided in categories, telling them what object is in each image. Once it has located a certain number of times the same elements, it has been *trained*. Furthermore, one can give it new images and it will spot the same element, or tell you that there are none at all, providing a coefficient of how unsure it is.

Besides the extraordinary results achieved in so many different developing fields, it has always been hard to tell what the algorithms are “thinking” when we feed them new images: Google Research Team released to the public *DeepDream* as a



3. Google Research Team, "Inceptionism: Going Deeper into Neural Networks," (JUN 17, 2015). <http://googleresearch.blogspot.co.uk/2015/06/inceptionism-going-deeper-into-neural.html>

4. The Iron Bridge crosses the River Severn in England; designed by T.F.Pritchard and opened in 1781, it was the first arch bridge in the world to be made of cast iron.

5. 1995 *Brasserie* by Diller Scofidio + Renfro at the entrance of the Seagram Building in New York features live video cameras activated by movement sensors and a video beam of fifteen LCD screens casting the flow of clients in and out the restaurant.

6. A renowned personality both influent in teaching and professional activity is Carlo Ratti, investigating the impact of digital technologies on architecture, planning and design (<http://www.carloratti.com>).

method³ to visualize what the algorithm actually "sees."

This not-so-insta method of image manipulation has *hit* the internet, trending in the last months saturating every sharing platform of an enormous amount of spam; even if Github has been the epicenter for the spread of these instrument started, some developers managed to produce images on that style throughout apps running on similar processes. Only few of those are actually running the code shared via iPython: most likely they just apply some filter to images, aiming to reveal foggy figures of slugs and dogs within the target images.

While this process of pauperization baffles the inner meaning of the complex research behind, in some kind this is not different from what happens to every tool when it wanders from its native field—being in this case programming and coding—to another—read art in general and architecture specifically.

SYMPATHY FOR THE DEVIL

When it comes to certain point of aesthetic deadlock, architects have always strayed between liminar

research fields; it happened in the technologic switch for the Iron Bridge,⁴ hovering between a wooden structure and a metallic one. Recently, with media art entering architectural public spaces,⁵ similarities can be found for the application of interactive technology to buildings: instead of adopting a new piece of mind to develop the newborn tool in a proper way, after a brief and enthusiastic approach the first suitable application suddenly seems the best achievable.⁶

The current trend of the so called *generative design* is just one side of a bigger tendency of using tools lent from the purely informatics field and apply them forcibly to project with a physical output, both at the scale of an object and of a building; most of the algorithms inherited from computer sciences are in fact simple linear workflows with elementary geometries as input, processed iteratively to obtain some non-elementary outputs. If the typical *studio*-level project applies fractal and space subdivision principles as Voronoi diagrams, advanced practices rely on biologic studies like plants germination and swarms behaviours, up to brain activity patterns

7. The connection between students and professionals is precisely represented in workshops as the ones organized by the Bartlett University, or *AAn+1*, Leslie Ware and Pierre Cutellic (<http://www.aan1.net>) or *Computational Design Italy Co-de-iT* by D. Del Giudice, A. Erioli, A. Graziano (<http://www.co-de-it.com>) just to name a few.

8. As well as wellknown practices as *Balmond/Studio* by former Arup consultant Cecil Balmond to younger agencies as *kaisersrot* by Prof. Dr. Ludger Hovestadt or *Relational Urbanism* by Enriqueta Llorens Valls and Eduardo Rico (<http://www.relationalurbanism.com>).

9. An in-depth explanation of the research behind *Neural Network and Machine Learning* the divulgatory papers do explain the most of the process, but *Reddit* is surely a more accessible way to approach the theme, specifically on *r/deepdream* and *r/machinelearning*.

to develop interactive systems.⁷

In addition to this groundless approach to a foreign area of research, results tend to look alike nowadays: blobby vision for futuristic cities, mysteriously-shaped everyday objects and overly complicated building shells for any sort of architectural typology, whether it is justified by some logic or not. This happens because the quality of the results is acknowledged more to the effort required during the process than the practical results of the procedure. This attitude takes something from a different field of research to architecture, develops that *seed* through improper tools, obtaining results that are doomed to a cultural *Limbo*: not valuable as scientific research, nor considerable by an overall architecture audience.

More and more architectural practices subcontract to external agencies to keep up with competitors; experts in coding and developing informed systems of analysis—whether they are requested analysis of urban flows in public spaces or purely investigation of complex geometries and innovative solutions⁸ to augment the architectural experience.

The same designer skilled in coding—when lacking of a lucrative job—are used to investigate the pure results of experimentations of their favourite tools for an artistic fate, ending up becoming a new figure in the professional world: rarely over-paid for collaborations of unclear utility, few times hired by University to research multidisciplinary themes, but mostly wandering between a good employer to exploit their particular skills.

Inevitably, those procedures evade most of the tools shared by architects and critics—like the relations with the context, history, archetypes and, in the end, form. Much alike the “scientific” researches, familiarity with the past gets secondary: the emergency is to be the first of the line, on the edge of the topic.

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While a proper use of this algorithm would allow researchers to accurately spot analogies between architectures, (...) the twisted method of image augmentation allows to forcibly find and visualize relations between distant architecture.

GENERAWARE DESIGN

Instead of a typical procedural method—following instructions in linear order—Convolutional Neural Networks work more as *connectionist* system: information is processed in parallel through a network of nodes, just like neurons works, which happens to be both an intuitive and more advanced informatinal process.

This manipulation procedure has images as input, like every other method of categorisation of a specific form, or architecture; it later applies a conscious analysis to reference the input to other images looking for analogies between multiple references and ends up showing explicitly if some images appears inside the one that is analysed.

This enlights to two different interests in the same field of research: while a proper use of this algorithm would allow researchers to accurately spot analogies between architectures—defining a more specific notion of style, for instance—the twisted method of image augmentation allows to forcibly find and visualize relations between distant architecture.

If a network was trained over a dataset of elements of architecture, we could spot how many bow-windows are *hidden* in the Sears Tower in Chicago; asking a CNN algorithm, which is trained to differentiate between arts styles, unexpected connections between Art and Architecture could be found.⁹

In the near future image recognition technology will surely hit the architectural field by the first approach, assisting the classification of old books in libraries—probably, but a simple twist in the method has already developed a tool of many usages.



1. *Frame#38* by reddit use u/ knine09, aka Kyle James - Deepdreamed on MIT's Places-CNNs: Convolutional neural networks trained on Places dataset.

2. *Houted House* by reddit user u/skinjester aka Gary R. Boodhoo, part of an animation project based on GoogleNET dataset.

3. *Washington Square Park, NY* deepdreamed by Gordon Au on GoogleNet Places205, inception_4b/ pool, 10 iterations, 10 octaves, scale 1.2, 2 repetitions and inception_4c/3x3, 20 iterations, 10 octaves, scale 1.2, 2 repetitions.

4. Lina Bo Bardi's *Instituto SESC Pompéia* frontal elevation augmented on Ridley's optic art, Piranesi's *Antichità Romane* and Khidekel compositions.

5. Augmentation of suprematist patterns from 1982 *The Peak Blue Slabs* and 1983 *The World* both by Zaha Hadid on a render by MIR for Zaha Hadid Architects for the *Bee'ah Headquarters*, 2014.

6. Abstract composition obtained after 257 iterations on inception4b/3x3, dreamed over PlaceNET by reddit user u/lagerdalek aka John Cornell.





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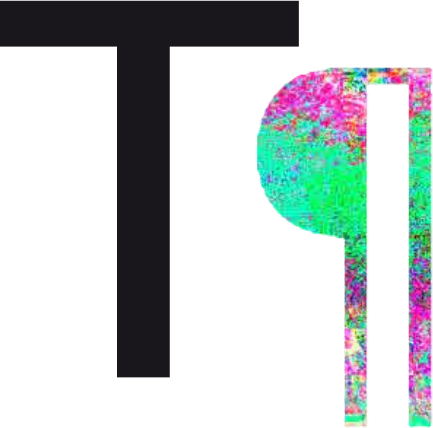
is an assistant professor at The Ohio State University's Knowlton School of Architecture and founder of Balliet Studio. She is a co-chair of the Possible Mediums Project.

GIACOMO CARMAGNOLA

Giacomo Carmagnola (Montebelluna 1992) is an artist who creates his works using the technique of collage Glitch, derived from Glitch Art. His works aim to restore a pure aestheticism of the picture by the distortion of it. The digital error becomes an aesthetic element that corrodes, disturbs the image and blurs vision.

ROBERTO MALANO

is an experimental visual artist living in Montreal, Canada. Following his studies in literature and film at l'Université du Québec à Montréal (UQAM), Roberto worked some years in the cinematography field before devoting himself entirely to experimental art. He mainly works with video, photography, video editing applications, analog video equipment and various other inspiring media.



SMALL

Soft Metropolitan Architecture & Landscape Lab is a studio based in Bari and Milan, as well as an open platform researching on the contemporary urban condition with both architectural design and parallel forms of investigation, melting curatorial and editorial practice with academic experimentation and teaching.

SMALL is: Rossella Ferorelli (curatorship and writing), Alessandro Cariello (planning and urban design), Luigi Falbo (architectural technology), Andrea Paone (interior design).

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is a MArch graduate from the Bartlett School of Architecture, he has a background in digital design and theory, inspired by the imprecise nature of Gothic craftsmanship.

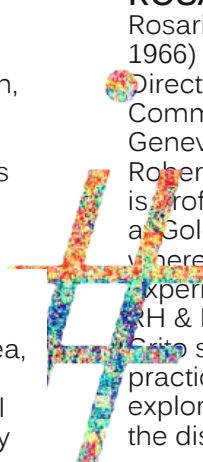
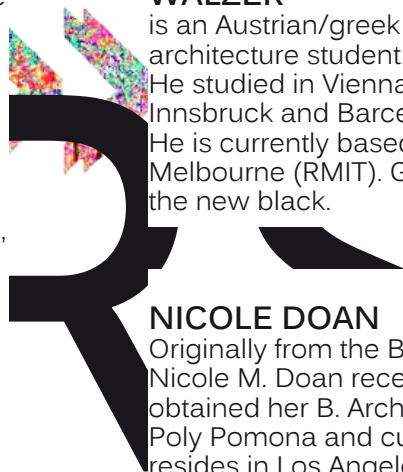
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GIOVANNI GLORIALANZA

Licensed Architect, Giovanni holds a Master Degree from the University of Genoa; internet lurker, computational amateur: he survived the Parametricism because there was no Rhino for Mac yet.



Burrasca was born in 2013 by a group of sixteen architecture students and it is based in Genova. As a cultural association, we focus on thinking and realizing different activities: from independent architectural publications to exhibitions and other editorial and graphic projects.

This association, created as a sort of think tank, aims to be a platform of discussion by which we want to propose reflections, information and activities about Architecture under a large range of meanings. Each Burrasca's publication tackles one theme. Contributions are collected by a call for submission. Burrasca's intent is then to make emerging relationships appear.

The interpretation is both graphic and editorial and it is build up trough illustrations and extra content. We encourages inventive and original contributions from every person, even independent thinkers and people not related with any academic environment. This open structure provide us with the most diverse kind of contributions, succeeding in representing our fast-changing world. In the same way we give a great importance to illustration which is in our thoughts a powerful mean able to communicate Architecture to a wide audience.

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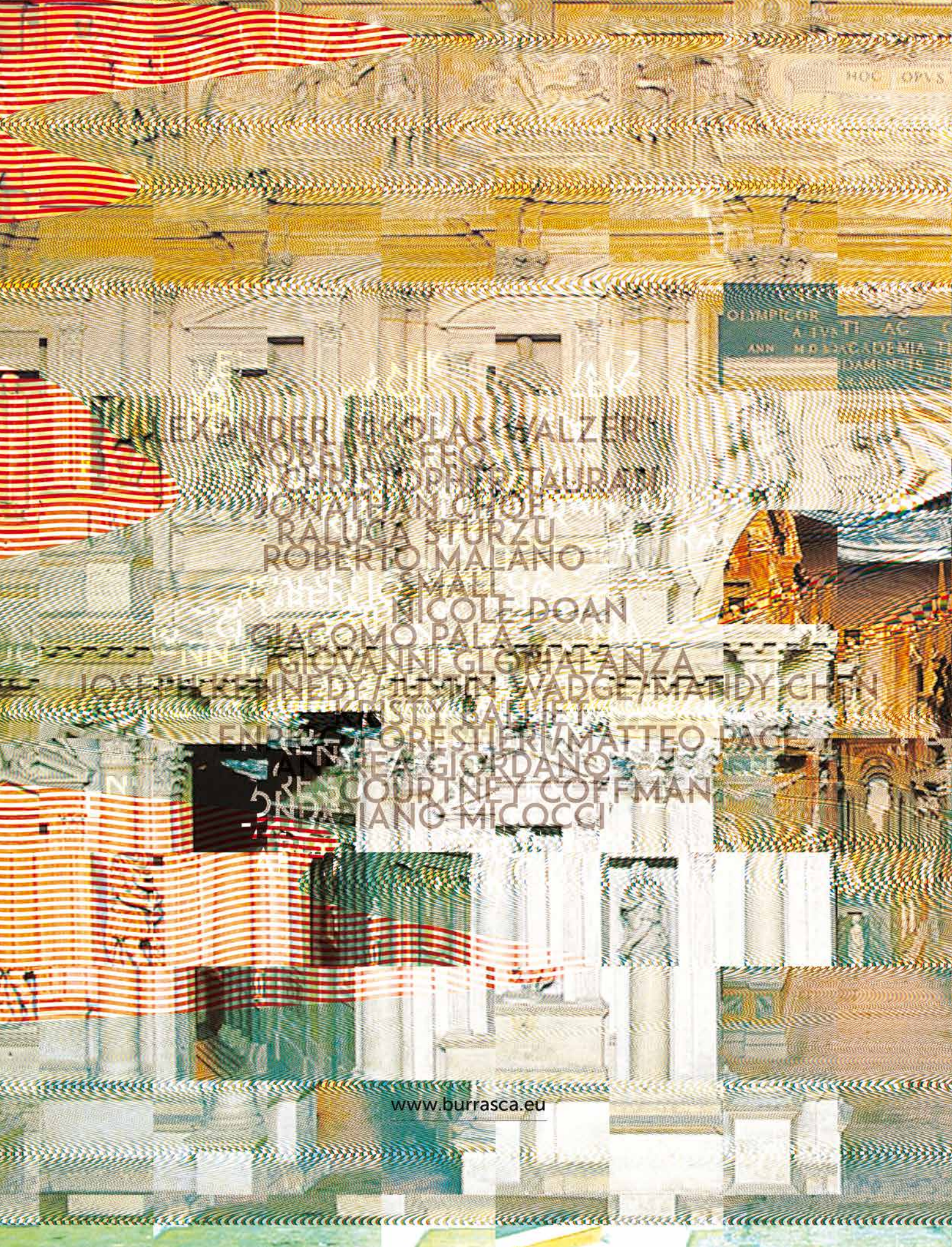
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