

What is the default that you believe is the most pressing to address/ that you are most interested in? In our work it's trying to shift the default understanding of building materials. To us, materials act as a register of a number of things within the building industry, field of architecture, and culture at large. One thing that we are particularly interested in questioning, highlighting or even expander is the understanding of the tension between natural and artificial materials. Historically, this is something that we assume is somewhat clear in architecture even though it has always shifted in perception across different periods of time and has been continually questioned and turned over. Even today, I think each of us would have default assumptions and associations with those terms. But in fact, I think they are becoming much looser and vaguer in a productive way.

The building industry is ripe with materials already in a strange liminal territory, where things that we perceive as raw and composed of living matter are in fact the most factory-processed and things that we may think are artificial contain more organic matter than the other. This shift reflects our contemporary material culture at large, not just within building materials. I think that opens up space for new aesthetic conditions as well as instigates new ways of perceiving and engaging ideas of nature and building. As it shifts, the default remains important as a means to register any change or subversion. Rather than just being disorienting or confusing, our deviations are meant to open up other readings of building materials and their organization.

How do we operate with the default? There are two projects we're working on this summer in the office that are moving into the construction phase and both of them are making extensive use of standard materials, because of budget and other constraints. This raises the question: where can we break out of the default and where does it need to be embraced? For us, we want to look at the ways we can start to make slight swerves from those expectations, from those defaults.

Both projects use vegetation as a material—not as a static decoration, but as a participant in the organization of the material assembly both inside and outside. Part of this has been working with a range of actual living material as well as petrified materials. The preserved materials open up conditions where we can adjust expected chromatic qualities or work with plants that are seemingly growing off the expected cycle. [By] starting with these slight interventions, we can start to deviate from the expected.

To consciously work on deviating from the default, we have to be aware of what it is and what expectations it brings with it. I think the way to engage with that is to explore the history of things, whether it's [the development] of a setting in Photoshop, the history of the hallway in housing, or even the history of CMU block dimensions. We need to start to understand who set that default and who it is serving. For architects, most of these defaults aren't set by us and are set by somebody else. A lot of these are productive and necessary, but as we work we should identify the ones which are outmoded and no longer serving us. The only way to swerve or move away from those defaults is to understand how they came to be.

How should we operate with the default? I think that the issue of 'how to find the limit' is an important question. It makes me think of a book by George Monbiot called Feral that talks about environmental conservation. One thing he brings up a number of times is the idea from Daniel Pauly called the "shifting baseline syndrome." The initial use of it was for fish hatcheries, where every generation the amount of fish in the water considered as the healthy baseline would be reset, with the new baseline disregarding the amounts of years past. By constantly shifting the baseline you are resetting to a new default every time allowing the current condition to become the norm. It normalizes wherever we are environmentally or politically to neutralize or minimize loss or negative development. But it isn't so clear where to reset the baseline to.

If we say that the default condition shouldn't be the current one and we're going to actively change that, it opens up the question of how you decide the new limit. In conservation terms, any baseline will favor certain actors or conditions whether its flora, fauna, geology, bodies of water, or human industries tied to these and at the same time potentially harm or eliminate some of those actors. So do we go back a single generation before us because conditions seemed better then, to a point when the most species thrived, or to the beginning of recorded history for the region. In finding these limits one has to unpack who they are benefiting and to whom they would be potentially hostile—are you benefiting the majority, finding the most advantageous economic impact, or conforming to the current norm. Finding the limit also comes with determining what is the criteria to judge that and how do you open up a larger conversation about the impact of resetting the default. This could be extracted and applied at many levels to architecture in relation to contemporary life. It is certainly not so easy or clear to just reset a default to a new one. How do we think about limits or baselines as being dynamic or elastic instead of a singular fixed thing? And what are the larger implications on a whole host of actors when we adjust those limits.

How can we operate with the default? We can think of all architecture as the constant act of deciding to uphold or upend defaults. From the minor decisions about drawing a detail, to the decision of a representation convention, to the organization of people in the city, at every level we are constantly making decisions to continue, shift or swerve a default. As a discipline, we work with codes, types, standards, best practices and standardized materials and assemblies drawn with centuries old conventions. Some of these are absolutely necessary because it'd be impossible to start over for every project or every building document. However, we need to start to recognize which ones are an accumulation of knowledge and which ones have been formed out of pressures that are not productive for us. Through the idea of elasticity and the evolving baseline, we have to constantly look at culture and architecture and ask what default are outmoded or biased and need to be rethought whether from a decade old standard or a five hundred-year-old practice. Only through understanding their motivations, is there a chance to change or influence them in any way. To subvert the default we must identify and ask these questions to open up new possibilities and transcend them where necessary.

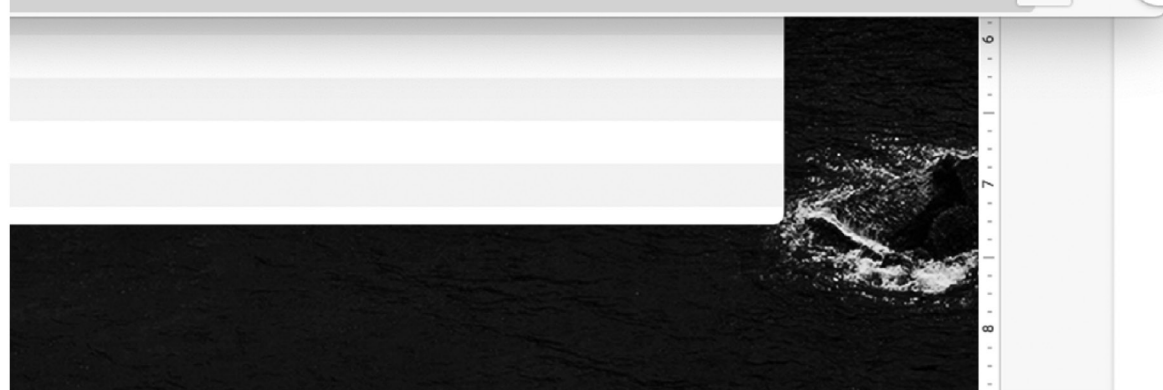
What's the default that you find the most pressing to address or that you're just most interested in?

I found this to be a difficult question. Questioning the "digital default" is very much part of my teaching and my work, but given current events and ongoing police violence and brutality against black and brown bodies, the most pressing default must be white supremacy. I don't know what other defaults we could identify right now that would be more urgent than that. Maybe we can talk about the intersection between the dangers of the digital default and questions of racism, discrimination, and white supremacy, and there's another conversation we could have about digital defaults in terms of design, architecture, and digital environments, but that one feels much less urgent. Maybe the third default I would throw on the table is construction technologies, which I think are increasingly problematic and something that my practice T+E+A+M has been trying to work on. So I'm throwing three defaults on the table: Whiteness, software (or, the invisibility of network technology) and construction technology.

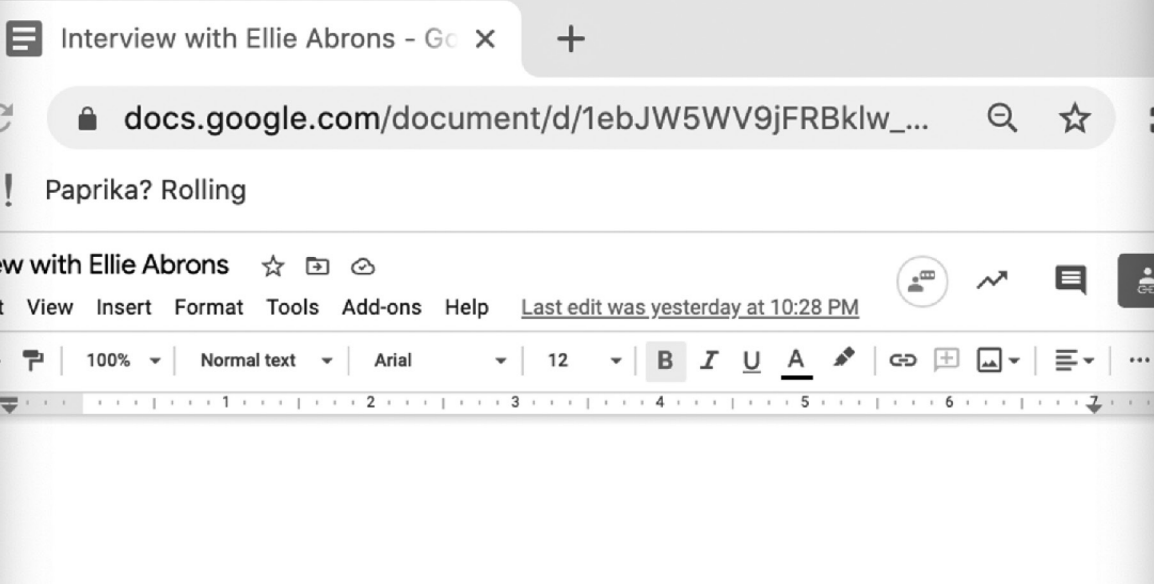
How do we operate with the default?

On the issue of construction technology, traditional wood framing is still the way that most low and mid-rise buildings get built and the reason that they get built that way isn't because it's the cheapest way, it's because it's the way that we know. There's no incentive for builders to take risks and so even if it's not the cheapest way or the most efficient way, it's the safest way. In Detroit and many other cities, the cost of construction is rising, due to a shortage of skilled labor and expensive material and land costs. This means that most new housing is luxury and market-rate housing. "Affordable" housing is cobbled together through incredibly complex and precarious financial structures. T+E+A+M has been working with a developer and a construction partner who see an opportunity in the middle range to build workforce housing. A significant amount of time in the early phases of the project was spent running down all the different kinds of construction systems that are out there and considering ways we could rethink them or apply them for mid-range housing. I think it's something that architects and the construction industry really need to take on.

There is an important intersection between systemic racism and the pervasive theme of visibility in network technology. We are steeped in digital network technology. Sometimes we are aware of it, sometimes we are not, but everywhere we go, we're leaving this trail of data behind. Companies like Google have algorithms which decide all kinds of different things about our identities. In John Cheney-Lippold's book, *We are Data*, he describes this interesting, puzzling, intriguing, but also scary separation between the identity that you would self determine and the identity that companies assign to you, your algorithmic identity. Not only does your designation change, the very definition of what that identity is also changes. One of the layers of [the algorithm's] power is the black box of the algorithm. We don't know how it makes its determination and maybe nobody knows how it works. There's an invisibility in the sense that there's a lot of design that goes into hiding things from us. Everything is designed to be physically smooth, but also experientially smooth such that there's no friction and the interface slips by. You aren't forced to contend with the realization, or



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the acknowledgement of the thing you're doing. The visible part of it becomes problematic when we think about something like facial recognition, because it is trained to recognize white faces and white bodies. Recently, a man in Detroit was wrongfully accused of a felony based on a facial recognition algorithm. So, it matters. It really matters. It's not just a theoretical problem.

How should we operate with the default?

There's an academic side to that question, which is thinking about the tools and the default settings and the software and the technologies that we all use and the ways in which that necessarily constrains or guides your work in certain directions and makes certain things possible and other things not possible. I don't think retreat is the answer. I don't think there's any way really to fight against that. And in some ways, it has always been the case when using the tool you choose.

What is important is just knowing [the effects of the default] as a simple axiom, thinking about it, keeping it in mind, and looking for opportunities, either to use unconventional tools or to use tools in a different way.

I think the other side of it, if we zoom out a little bit, would be to think about how important it is to understand how technology has fundamentally changed the built environment—and it's changed! It's really at every scale, from the scale of the object to the globe. There's this great drawing called *Anatomy of an AI* by Kate Crawford and Vladan Joler. They essentially take an Amazon Echo, break it down, and expand it out into the global network of influence embodied in this object—the mining of the minerals, the shipping and logistics, and the digital networks. You could pick up almost any object in your surroundings and go through that kind of exercise and understand this intimate relationship between everyday objects, the built environment, and global networks of technology.

How can we operate with the default?

The default is intimately tied to power. The default will tell you who has power and who doesn't. Now we're talking in a really abstract sense that simply relying on the default perpetuates existing systems of power. What would be useful would be to think about what you want the default to be. And then, how might you move from what's currently representing the default to where you want it to be? I think that would be an interesting exercise. My intuition is that you would often find that you wish it to be something other than what it is and thinking about how you might start to work for that change is a super worthwhile thing to do.



[Good](,) By(e,) Default

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Calibri (the typeface) makes me anxious. Not because of its form, but what it signifies. As the current *default* font of Microsoft Office, it is a demonstration of a mindless acceptance. Seeing it in a document, or posted somewhere out and about, elicits feelings of disappointment and a little mistrust. As irrational as this reaction may seem, my personal misgivings have precedent. Consider this 2017 headline in *The Independent*: "Pakistan's Prime Minister may be brought down by Microsoft's Calibri font amid corruption allegations."¹ It turns out that a key document in the case, dated February 2006, was written in Calibri, a font not officially released until 2007. In other words, the document exposed itself as a fraudulent anachronism through inattention to what might seem to most a very small detail. Calibri itself didn't do anything wrong, being more a victim of circumstance, but its default status as "a selection made usually automatically or without active consideration,"² puts demands on it that open it up to additional scrutiny. Calibri's Wikipedia (a suitably default resource) page even has a brief section under the heading "In crime and politics," with defaults and forgery being the primary topics.

Most technical endeavors (engineering, architecture, typography...) avail themselves of accepted defaults. Whether dimensional, material, financial, spatial, digital, and even cultural, they are frequently motivated by efficiencies of resources (time, money, space, effort), which in turn allow progress without time wasted on the continual reinvention of acceptable practices. Defaults are tricky, though. They are not standards, but defaults and standards share some family resemblances; a default could be a standard, and vice versa. And it's the etymology of the word itself that increases the concern. Default, from the Latin *de-* ("away") + *fallo* ("deceive, cheat, escape notice of")³ establishes a situation where the ability to go unnoticed lays the foundation for deception. Any one default could be, arguably, good, bad or indifferent, but the default's mere existence is low-hanging fruit, for bad (or good), to prey on indifference. Operating under the radar, the default, especially as indoctrination, warrants examination.

This is significant when the two (the default and the indoctrination) unite under the guise of a standard or tradition that continues unexamined, past its acceptable shelf life or its context. Architecture is a discipline replete with both traditions and standards, and is also often engaged in a myriad of competing agendas whose distractions may weaken the will to push back against the path-of-least-resistance models offered to diffident audiences. The current U.S. president's recent executive order, which hopes to "make federal buildings beautiful again" by imposing "the classical architectural style [as] the preferred and default style,"⁴ is an idea supported by the National Civic Art Society, which sees it as liberation from "architectural elites."⁵ This example identifies just how much default thinking is intertwined with expectation (architecture = classicism) as it is with perspective (architects = elites). Architecture thus frequently finds itself understood, by comparison and by default, as unnecessary bespoke precociousness. And it does itself no favors when, in its close attention to established defaults, other things are easily forgotten, dismissed, or postponed—including how a historically default approach to designing for 'optimal standard' human forms, as exemplified by the Vitruvian Man's influence on the Classical orders or Le Corbusier's Modulor system, has marginalized deviations therefrom.

Architecture engages a range of defaults, from beloved inheritances, to easy answers, to fraught impositions, each capable of evolving from lifeline to quicksand. The difficulties inherent in this mutable terrain put necessary pressure on the discipline to be deftly critical in its navigation of the zone between the productive efficiencies and the mindless indifference made possible by default thinking. Architecture (by default) is compelled to interrogate questionable situations that have resulted by default; to re-examine harmful ones to which we might say goodbye; and to forge radically fresh paths that are simply good, by default.

1. Benjamin Kentish, "Pakistan's Prime Minister may be brought down by Microsoft's Calibri font amid corruption allegations," *The Independent*, July 14, 2017, <https://www.independent.co.uk/news/world/asia/pakistan-calibri-font-microsoft-prime-minister-nawaz-sharif-corruption-maryam-sharif-panama-papers-london-property-a7841381.html>
2. Merriam-Webster.com
3. <https://en.wiktionary.org/wiki/default>
4. Cathleen McGuigan, "Will the White House Order New Federal Architecture to be Classical?" *Architectural Record*, February 4, 2020, <https://www.architecturalrecord.com/articles/14466-will-the-white-house-order-new-federal-architecture-to-be-classical>
5. Katie Rogers and Robin Pogrebin, "Draft Executive Order Would Give Trump a New Target: Modern Design," *The New York Times*, February 5, 2020, <https://www.nytimes.com/2020/02/05/arts/design/trump-modern-architecture.html>

In the colonial perspective, because wilderness is a default stage in the cycle of development, to return to default, people and their infrastructure must simply exit the landscape. Whether it's through a catastrophic event such as the Chernobyl nuclear reactor failure, which created a 30 km exclusion zone, or whether it's through deliberate legal action, such as those areas demarcated in the Wilderness Act. Thomas Cole's final painting, *Desolation*, in the *Course of Empire* more closely resembles the catastrophic exit of people from a place, where crumbling architecture is superseded by climbing nature. *Desolation* is the only truly empty painting in this series, with the viewer looking towards the east, from where they can expect the next batch of settler civilization to arrive and lay claim to this reset land.

1) Benjamin Kentish, "Pakistan's Prime Minister may be brought down by Microsoft's Calibri font amid corruption allegations," *The Independent*, July 14, 2017, <https://www.independent.co.uk/news/world/asia/pakistan-calibri-font-microsoft-prime-minister-nawaz-sharif-corruption-maryam-sharif-panama-papers-london-property-a7841381.html>

2) Merriam-Webster.com

3) <https://en.wiktionary.org/wiki/default>

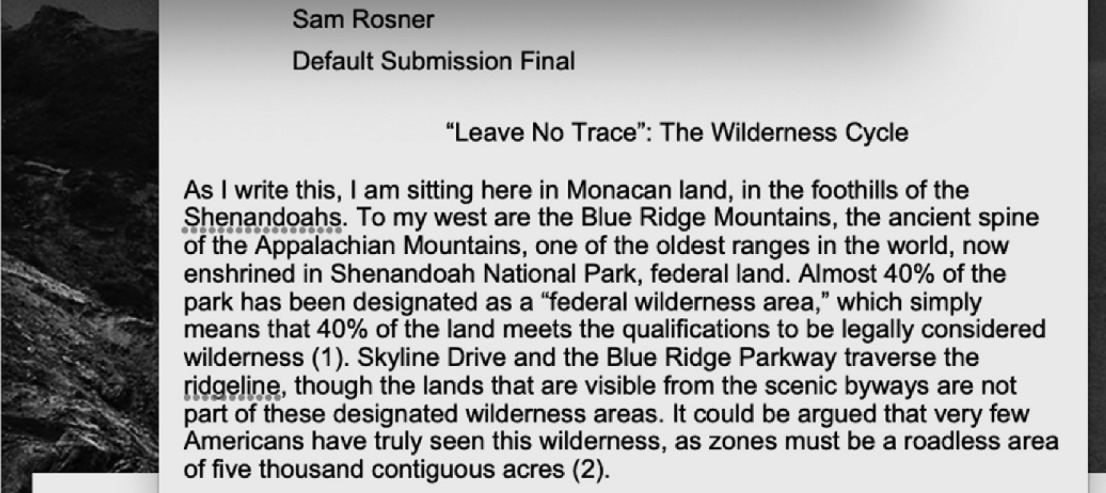
4) Cathleen McGuigan, "Will the White House Order New Federal Architecture to be Classical?" *Architectural Record*, February 4, 2020, <https://www.architecturalrecord.com/articles/14466-will-the-white-house-order-new-federal-architecture-to-be-classical>

5) Katie Rogers and Robin Pogrebin, "Draft Executive Order Would Give Trump a New Target: Modern Design," *The New York Times*, February 5, 2020, <https://www.nytimes.com/2020/02/05/arts/design/trump-modern-architecture.html>

Defaults are pervasive. They are not only inherently tied to existing systems of power, they actively perpetuate them. Defaults are easy. They provide efficiency, security and freedom from risk. Defaults are subtle. They disguise themselves in what is commonly accepted and what isn't easily known.

But default conditions are ultimately constructed by us. We can self-flagellate or retreat, blaming our powerlessness within this totalizing framework, choosing the safe path. Or we can challenge the default by diving into the history of things. We can constantly question what we want the default to be. We can imagine something different as designers, as architects, and as citizens. We must not be afraid to fail and if there is no other recourse, we have to gather the courage to exit.

Regardless of difficulty and circumstance, it is our responsibility to be critical of the Default. |



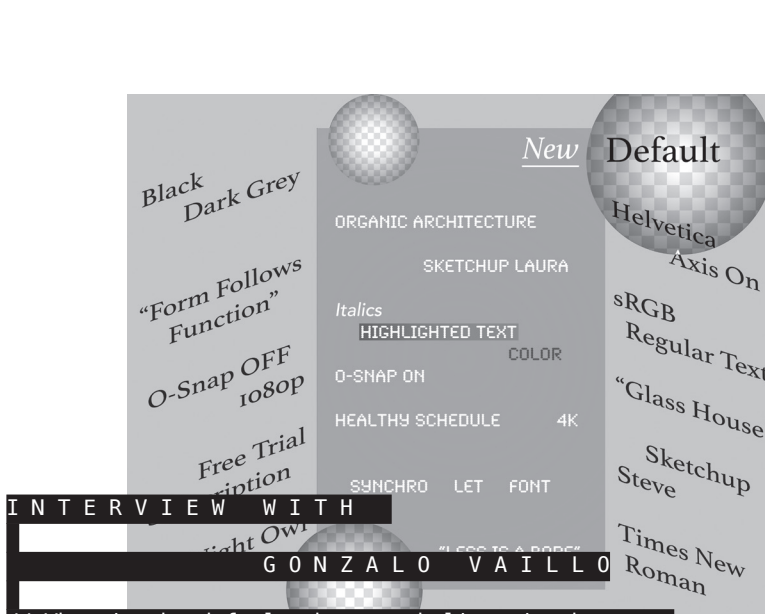
The colonial imagination conceptualizes wilderness as the default setting of land on one end of the cycle of the land development spectrum. In other words, wilderness sits in virtual stasis until a human force acts against it. Thomas Cole's series, *The Course of Empire* (1833-36) visualizes this cycle, beginning with *The Savage State*. Painted from east to west, the canvas spans the course of a day, from the morning to the stormy night. To the east, the sun rises on a turbulent bay, with a Native American man in the midst of the chase after a deer that is rushing into the darkness of the stormy evening. In the middle-ground to the west, a temporary settlement of tipis circle a community fire, whose smoke vanishes into the torrential downpour that dominates the western sky. Compared to the rest of the cycle, this is Cole's darkest painting, alluding to the coming enlightenment that begins with his *Pastoral State*. Within this visual concept, which is far from empty, wilderness is represented as land that is absent of visible or significant traces of western, Christian human intervention. Virtually absent of people, thus absent of politics. The very declaration of this landscape as emptiness is itself a political act, and has been used for hundreds of years as violence against Native Americans through political doctrines such as the Discovery Doctrine, which was created in Europe in the mid-15th century and was later reaffirmed by Thomas Jefferson (whose Monticello home sits to my southeast) in 1792, to open the gates of the west to the citizens of the new nation.

"Hideous and desolate wilderness," is how William Bradford, first governor of Plymouth Plantation described their landing point, Cape Cod, in 1620, "the whole country, full of woods and thickets, represented a wild and savage heu." (3) Like many apocryphal American history stories, the arrival story of the Pilgrims either downplays or omits the prior violence that was enacted through colonial imperialism. As the story is told, the settlers found the abandoned ruins of a Wampanoag village, on top of which they constructed their own. While this telling paints the abandonment of the village as a passive fact, around 1616, just a few years before the Mayflower landed on the shores of Massachusetts, a plague had wound its way down from the coast of Maine into Wampanoag country. Effectively wiping out 50 - 90% of the Wampanoag population,

the Pilgrims found a devastated and suffering country that they mistook as empty wilderness, not for them to take, but rather given to them, ordained from divine providence. Over 300 years after Bradford declared Wampanoag territory as hideous and desolate, the Wilderness Act, was signed into law in 1964, ushering in an era of modern environmentalism spurred by Rachel Carson's 1962 book, *Silent Spring*. The Wilderness Act codified wilderness as being an area that "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable."

In a sense then, wilderness is an aesthetic category, where the appearance of being devoid of people is more important than humans actually being absent from the scene. Evidence of this strange fact can be found throughout our visual culture, from the pebbleless landscape paintings of the Hudson Valley School, to tourist photos of the Grand Canyon, where visitors wait their turn to take a photo that looks like Caspar David Friedrich's painting, *Wanderer above the Sea of Fog*. Wilderness is a manifestation of nature that has been ascribed qualities of the sublime, which J.S. Mill has described, "always arouses a feeling that is more like terror than like any moral emotion." (4) It is against this enormous power and sense of vastness "that her [Nature] powers often relate to man as enemies, from whom he must by force and ingenuity get what little he can for his own use, and deserves to be applauded when that little is more than might be expected."

- 1) "Shenandoah National Park," Wikipedia (Wikimedia Foundation, September 3, 2020), https://en.wikipedia.org/wiki/Shenandoah_National_Park.
- 2) United States, Congress, Cong., Zahniser, Howard. Wilderness Act, 88AD. 88th Congress Congress, 2nd session, bill 16 U.S.C. 1131-1136).
- 3) "The Desolate Wilderness." *Wsj.com*, 2019, www.wsj.com/articles/the-desolate-wilderness-11574814600.
- 4) "Nature." *Three Essays on Religion: Nature, the Utility of Religion, Theism*, by John Stuart Mill, Prometheus Books, 1998.



INTERVIEW WITH GONZALO VAILLO

// What is the default that you believe is the most pressing to address or that you're the most interested in?

I find 'default' as a problematic term when it is used as a goal because it implies that you'll deliver something that is already known. I would say that the default can be seen as the common agreement within a society, a common ground, which is what makes a collective cultural form of living particular and specific. And this idea obviously is what establishes a measure of rightness. I think especially in creative fields, there is always a necessity that each proposal needs to be confronted with something, and I think that's what provides guidance and orientation in every design. I think that default is what provides a kind of a measure.

So in a way, the default is the system of valuation and conventions of how to judge things, and the practical effect of the situation is that you don't need to start from scratch every time, so this makes the default, in a way, additive. This is what can somehow interest me about the default, that it is a starting point upon which to build something on top of or add something. The default is not the goal, but the minimum from where to begin. What makes me feel extremely uncomfortable with the term, is this condition of the default as something that you have to take for granted. Contrary to that, I think different opinions can coexist and precisely because none of them is accurate enough about the thing in question; it gives the opportunity of constantly unfolding something new and unexpected that is outside the regulations of this default.

I find the celebration of difference much richer, which is not what the default is doing. I think that the default established a structure of power that is usually really tough to subvert. It's probably those totalitarian aspects of the default that I like the least.

// How do we operate with the default?

Within the status quo of the default today, I find some contemporary trends in architecture problematic. For example, automatons or optimization that, in my opinion, are (purely) default-based. There is always a preconfigured solution that you simply accelerate, and I don't think this gives you any kind of progression, relevant design, or spatial contribution to the discourse. On the contrary, the default defines the medium of expression in which to deliver an architectural phenomenon. So I'd say the default is to meet the conventions that define the mediums for communication to exist. My interest lies in what someone perceives and how someone interacts with the building, but that is not defined by the default and pre-determined understanding of what to perceive and how to interact with the building. I think this is in tune with what I will call the sense of extended perception; that is, when you don't understand something immediately, you don't take it for granted, you need more time to come to your own personal impression. The medium is default but the content cannot be.

// How should we operate with the default?

I think the default cannot be taken as a model of epistemological comfort. To the contrary, it is the goal that has to be challenged. It requires a certain degree of rebellion and nonconformity, but you need to know what your rebellion is against or what it is you are challenging. Therefore, I think that you cannot operate in complete ignorance of the default. The critical engagement with the default, then, is first understanding its contemporaneity, which for me is still regulated by what Mark Gage criticizes as the "problem-solving model." That means that we still understand architecture as a service and a byproduct for other contemporary agents, whether it is social injustice, global warming, political implications, applied technology, and so on. Obviously those are relevant topics that architecture has something to say about, but I think we are confronting them erroneously, and to be honest, with a really short-sighted perspective. Basically what I want to say is that architecture cannot be a response to our purposes because architecture has its own purposes.

// How should we operate with the default?

One thing I would add here [around the Green New Deal discourse] is that there are a lot of people working in the energy sector, and if the fossil fuel economy is shut down, then all of these people will be out of work. So one of the solutions for transition is a just transition. We give these people job training and we help them move into other sectors. Architects need a just transition because architects make their livelihood from an extractive economy as well. We can't design our way out of that default through a single project. If we think about the way that architects make their livelihood from architecture, we think about what we get paid for, 99.9% of them replicate carbon form, carbon modernity, extractive economy. They perpetuate climate change. They worsen climate change. Architects need a just transition as well.

// How can we operate with the default?

I see the default as something of a totalitarian model, which claims for the truth. My immediate reaction is distancing myself from it. When the default operates through dogmas and axioms, I find it dangerous because it creates a structure of power that demands political implications that we do not necessarily need to deal with. Given the situation, I find the tools of aesthetics a productive way of working. That means that offering an architecture that is open to individual interpretation, but that multiplies the gradients in which "everyone is right, but no one is correct," as Wolf Prix says.

1) Joshua Abramovic: New Default. 2) Uzay Ayaz: The default is a temporal link between precedent and present that guides a specific pattern of action in my artwork. This link uses memories and observations from my childhood as visual anchors that orient my design process. From the pattern work I observed in my grandfather's jewelry shop to the distorted perspectives and proportions I studied in the miniature Persian paintings my mother would collect. For me, the default is personal and has an unstable relationship with the past. As my identity evolves and I move across spaces geographically and culturally dispersed from each other, I am reminded that this is only the default for now. 3) Ariel Bintang/ It feels like we are in an age where living in a damaged world is the default. If my grandparent's default was a lush mountain, our default is mountain quarries.

In today's terms, the intentionality of the architect is irrelevant. The moment that architecture does not look for the default as a goal, that means designing an architectural arrangement that is not doing what everyone expects it can do. Architecture, and the building as a placeholder, can challenge the observer to find his or her personal engagement with the space. However, it is precisely the medium that requires certain physical participation of the user to achieve such aesthetic experience and this is clear when Peter Eisenman speaks about the question of movement and the unpredictable way of unfolding functions that are immanent to that space. Each space has its own particular affordances, so the role of the architect comes in the way we deliver a space and how we can make more or less evident these affordances. This is what I'm most interested in as an architectural effect through an arrangement of architectural syntax that is not obvious and cannot be taken for granted. This is what justifies my explorations in abstract and excessive formalizations that start from the hypothesis of challenging automated cognition, as something negative, and have a higher degree of complexity of affordances in an excessive and abstract space.

INTERVIEW WITH ELISA ITURBE

// What is the default that you believe is the most pressing to address/ that you are most interested in?

The default that I'm most concerned about is the underlying concept of carbon modernity, which is a form of modernity that is based on fossil fuels and has a very long history. The possibility of extraction has been a fundamental premise of social form since the emergence of the state, and the transition from nomadic societies to agricultural society. The question of energy transition solidifies with the state form because state forms engaged in harnessing material resources in a way that was different from simply engaging in agriculture as a means of subsistence. The idea that society can harness resources from its environment to grow without limit—that has been a default, for a really long time. Insert fossil fuels into that in the 17th century. There has been no looking back since then.

LET'S F*CK UP TOGETHER

MARI KROIN

One of the reasons why it's really hard for us to deal with climate change is because we're not dealing directly with a real problem. We need to study and understand carbon modernity so that we can understand what that default is. The real problem is hard to see because it spans across many centuries and many cultures and many regions, but for far too long, the default has been an underlying assumption of exploitation and extraction in order to build. This becomes a particularly sticky question within the context of modernity, because we have a narrative in our heads that modernism died, then in the 20th century it became something totally different, and then, the digital turn changed the whole scene again. But if you look at the underlying premise that gave form to the modern, it came from the possibility of extraction and abundant energy. When modernism as a cultural ideology died, all of those basic premises—that the economy could grow infinitely, that we basically had to organize society around industrial production—all of those became default. We created a default of carbon modernity. Carbon modernity is a subset of another default: an extractive ideology that we continue to replicate constantly. You could put trees on a building and solar panels on top of a building, and still be replicating the same default of carbon form and carbon modernity.

// How do we operate with the default?

I think it becomes really difficult to build, given the defaults that we have, because they not only are ideological, but are also physical and material. They give form to how we practice architecture and to the profession as well. It involves certain dynamics of power, and a certain amount of extraction from the environment, no matter what. Often in the current form that the profession takes, we are just hired at the end of the line, so it becomes very difficult to be an architect because you are constantly operating within the default—no matter what.

Academia provides a somewhat self-indulgent space to experiment, to discover what drives our mental consciousness, and to examine counter-conventional methods of working. Fearless abnormalities have future potentials greater than anything that has been iterated before. I recall a moment last year where a fellow student set the Miyaki machine to cut instead of draw. Subsequently, their drawing did not appear as ordinary line work but rather a build-up of exacto cuts. This weathered the paper, giving the impression that the composition could fall apart if mishandled. There was something profound about this result and the fact that it was presented and discussed in class; perhaps because it was a project with an unfamiliar future.

// How should we operate with the default?

This is not to be confused with the impulse to deviate for the sake of being different. In undergrad, I observed the growing fad of inverting drawings from loyal followers of Morphosis. When pinned up, the black background of these compositions contrasted the white of their neighbors. The white line work distracted perception, hid blemishes, and gave the illusion of innovation, when in fact, the drawing would seem similar to the others if inverted again. Critique often diverted from the content of these drawings; they were frequently praised and encouraged at a superficial level for their luminous lines and sleek, product-like quality. This is comparable to setting an iPhone appearance to "dark mode"; a slick packaging that functions no different from "light mode." An appealing ambiance that can be turned on and off based on preference. We should scrutinize the action of imitating popular aesthetics, theory, and process, and welcome the unexpected.

// How can we operate with the default?

Ultimately, it is not about standing out from the pack, it is about not caring where you stand. We must not be afraid to be unappealing, the underdog, the unchosen. Let there be no guilt or shame in the process of creative exploration. You never really know where your f*ck ups will take you.

1. "How Even Pollock's Failures Enhance His Triumphs." New York Times, 1998.

coming to terms with what it means to build a building. But again, this is where we are looking at that double path of harnessing the architectural imagination projecting different visions of the world onto a piece of paper. [Corbusier] did not build the Plan Voisin, but make no mistake, it was built in the end. It was an idea that was so powerful on paper that it proliferated, and in the end, it ended up redefining carbon modernity more than we could have ever imagined. But if an architecture on paper has that kind of power to help us reorganize society entirely in space, that's what's needed again. The space of the paper is also a space where subversion can occur in a way that it can't in the physical and material world.

I think one thing that I've tried to do is to focus on writing and teaching as one aspect, to make sure that I am able to retain critical aspects of my work, that's important to me. I think of academia less as a silo, but more as a place where detachment can allow for different kinds of thinking. And in my own practice, we've always held the belief that space has a certain power within this conversation. We've mostly just done hypothetical projects because of this concern over the actual production of the built environment and the problems that entails, but right now, we're working with a community trust fund in San Diego to help them visualize the potential of how common ownership can transform the dynamics in their community. We're trying to harness our own architectural imagination to give representations, images, plan drawings, certain ideas about what they can build and where. Our hope is that we are simply participants in the communities' own process of building. And of course, the relationship to the default itself is always extremely complicated, because the default is so pervasive. In any moment where we're talking about the engagement of "building a building," we have to set aside some of the other ideas to make sure that the building is possible, and you have to engage with some of the aspects of the default to make sure the building is possible.

UP TOGETHER

MARI KROIN

With the introduction of CAD, architects found themselves making use of the software; with Revit, the software is making use of the architect. Rather than users drafting drawings, Revit, or the machine, produces drawings through the intermediary of a 3-dimensional model. Though Revit models appear on screen as physical buildings, most of the work is less digital construction(3) and more information management. Even assuming the end goal of full-automation is desirable, there is no doubt that the current reality of this process further alienates the user from the product, i.e. the architect from the drawing.

Relentless ideals emerge from the dos-and-don'ts promoted by the media, competition guidelines, syllabi and course intentions, and the preaching of enduring idols. What has been deemed successful, be it modes of visual representation or patterns in spatial layout, suggests a safe route to trek. We must question our half-conscious efforts to emulate our studio mates, to follow trends, and to impress an educator by mimicking their style. What happened to reveling in our imperfections? To share and discern them as crucial components of the design process?

Many of us have experienced a moment of excitement or fear from an unexpected glitch or operation of error. When this happens, do you end up correcting the flaw? Likewise, do you reprint an image if it comes out purple instead of black? Is there discomfort in the idea of presenting work that diverges from your ideal vision? Moreover, why do we hesitate to show anything considered less than perfect or even adequate? In a New York Times review of Moby's 1998 Jackson Pollock retrospective headlined "How Even Pollock's Failures Enhance His Triumphs," author Michael Kimmelman recounts, "He was always trying to stretch the parameters of the narrow agenda he set for himself, and if he sometimes botched the results, which he did, this was intrinsic to a process that consciously flirted with incoherence: accidents, upon which the art depended, had to be held in tension with acts of control. The exhibition is instructive because you see some of the failures, which clarify his successes by contrast."(1)

While this abdication of authorship can certainly lead to increased productivity(5), the ontological effect of this separation of architects from their historical context should not be dismissed. As more technology is introduced into the production process, architects are finding themselves further from the material reality of their labor. In fact, historically, drawings have been the one physical component of the building process that architects have produced; to discover a machine as the primary author of this product is the predominant mechanism through which architects are alienated from their labor.

Marx begins his historical analysis of machinery with a quote from John Stuart Mills: "It is questionable if all the mechanical inventions yet have lightened the day's toil of any human being."(6) This is certainly true of Revit; even with productivity gains, architects have seen no reduction in the amount of hours worked; in fact the opposite has occurred(7). Though the origins of this paradox are in larger systems of capital, a secondary reason is the assistance necessitated by the machinery of Revit. In the future, as the architectural production process approaches full automation through computation or AI, perhaps architects will be able to return much of their attention to the physical construction process of buildings, for example. Today, however, we are stuck in an uncomfortable in-between state: the principal burden of uncomfot has been alleviated, but significant intervention is still required for adequate results.

Until machinery can reliably produce architectural drawings with little manual intervention, offices should initiate critical engagement with other material means, not just in terms of their personal making, but also through their broader role in the building process. For example, this contextual shift might manifest itself in a closer relationship to the building industry through more Design-Build practices since, in theory, there will be increased bandwidth due to the reduction of drawing labor. An alternative approach might find architecture aligning itself more closely with its capital origins, i.e. the Developer or Client.

At the very least, this moment is a critical opportunity to examine the nature of our relationship with our methods of production; if not, we might soon find ourselves deferential to far more powerful computational forces, reluctantly agreeing with Marx that: "To be a productive worker is therefore not a piece of luck, but a misfortune."(8)

1. Karl Marx and Ben Fowkes, Capital : A Critique of Political Economy. / Vol. 1. (Harmondsworth: Penguin In Association With New Left Review, 1990). p 548.
2. Alberto Pérez-Gómez and Louise Pelletier, Architectural Representation and the Perspective Hinge (Cambridge (Mass.); London: The Mit Press, 2008). p 7.

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BUILDINGS, INFORMATION, AND MACHINES
CHRIS BECK

Revit is quickly becoming the default mode of production for architects. Though it is on a trajectory to usurp CAD, there has been little attention given to the nature of this transformational shift: productivity amongst architectural workers is at an all time high, due to an unprecedented level of technology mediating the production process. While, ostensibly, these technological components have been seamlessly integrated, a question remains: how has this historic transformation altered the material experience of architectural production and labor?

Most contemporary discourse surrounding architecture and technology, particularly in the production process, ranges from the metaphorical (how does our interaction with specific media affect our work?) to the epistemological (is a different type of knowledge leveraged between manual and digital production?). What is missing in this conversation, however, is in the ontological: how does this profound technological shift affect the very being of its participants?

Economist and historian Karl Marx was confronting similar questions during an equally disruptive moment in history, when every industry was being revolutionized through new productive technologies. Observing the transformation of self-sufficient agrarian production to simple-manufacture represented by artisanal guilds, Marx was concerned about the next evolution of work: the factory system. Noting the positive impacts of new technology on the production by artisans of complex but individualized commodities, Marx was fearful of the massive sociological shifts occurring in the factory system.

In handicrafts and manufacture, the worker makes use of a tool; in the factory, the machine makes use of him. There the movements of the instrument of labor proceed from him, here it is the movements of the machine that he must follow. In manufacture the workers are the parts of a living mechanism. In the factory we have a lifeless mechanism which is independent of the workers, who are incorporated into it as its living appendages.(1)

Though architects are not embedded in such large systems of production, and are not responsible for the production of physical things (but rather the instruments by which these things are made(2)), the transition from CAD to BIM has brought with it equally profound questions regarding the nature, or quality, of those doing the producing.

With the introduction of CAD, architects found themselves making use of the software; with Revit, the software is making use of the architect. Rather than users drafting drawings, Revit, or the machine, produces drawings through the intermediary of a 3-dimensional model. Though Revit models appear on screen as physical buildings, most of the work is less digital construction(3) and more information management. Even assuming the end goal of full-automation is desirable, there is no doubt that the current reality of this process further alienates the user from the product, i.e. the architect from the drawing.

Writing on this "digital turn" in The Alphabet and the Algorithm, architectural historian Mario Carpo, a staunch advocate for relentless technological progress, deduces that the shift to BIM has only one primary condition, that of reducing individual authorship:

"Likewise [BIM] is already challenging the modern notion of the architect's full authorial control and intellectual ownership of the end product.(4)

While this abdication of authorship can certainly lead to increased productivity(5), the ontological effect of this separation of architects from their historical context should not be dismissed. As more technology is introduced into the production process, architects are finding themselves further from the material reality of their labor. In fact, historically, drawings have been the one physical component of the building process that architects have produced; to discover a machine as the primary author of this product is the predominant mechanism through which architects are alienated from their labor.

Marx begins his historical analysis of machinery with a quote from John Stuart Mills: "It is questionable if all the mechanical inventions yet have lightened the day's toil of any human being."(6) This is certainly true of Revit; even with productivity gains, architects have seen no reduction in the amount of hours worked; in fact the opposite has occurred(7). Though the origins of this paradox are in larger systems of capital, a secondary reason is the assistance necessitated by the machinery of Revit. In the future, as the architectural production process approaches full automation through computation or AI, perhaps architects will be able to return much of their attention to the physical construction process of buildings, for example. Today, however, we are stuck in an uncomfortable in-between state: the principal burden of uncomfot has been alleviated, but significant intervention is still required for adequate results.

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3. In fact, Revit provides default "material" and "component" libraries, only requiring the user to initially choose and "assemble" these given pieces, with the occasional need to edit them.
4. Mario Carpo, The Alphabet and the Algorithm (Cambridge, Ma: Mit Press, 2011). p 117.
5. The notion that Revit wildly increases productivity is debatable; anyone who is familiar with the countless bugs, glitches, and tutorials required to run the software can attest to this. It might also be appropriate to question the aspiration of continually increasing productivity, and hence production, in an age of limited natural resources.
6. Marx, p. 492
7. This phenomenon is not unique to architecture. See Bullshit Jobs by David Graeber, who tragically passed away recently.
8. Marx, p. 644

SERENDIGITAL

CHRIS PIN

"Kitbashing" is an appropriated term in the movie/ videogame design industry, stolen from hobbyists that use "disparate elements" from standard model kits to "blend... within a continuous field of other free elements."(1) There is only a vague idea of how two completely unrelated objects will relate, and kitbashing provides a breeding ground for unique and unpredictable relationships to materialize—serendipity. There is an ideological overlap here with architectural thinking that is worth exploring.

The "continuous field" definition is a direct quote in Greg Lynn's description of the smooth, curvilinear, pliant, and multiplicitous. These are conceptual descriptors for a formal language that refuses allegiance to either side of the complexity/unity dialectic that dominates the architectural canon. Lynn points to a variety of architectural projects and organic phenomenon(2) to advocate for unpredictable (serendipitous, if you will) output.

Similarly advocating for the unpredictable, Jeff Kipnis aptly labels himself an "intellectual apologist for the extreme, the exotic, [and] the subversive."(3) True to form, Kipnis outlines the "powerful but suspect tradition" of measuring a design by the "degree to which it exemplifies a theory or philosophy, rather than the degree to which it continuously produces new architectural effects"(4) Advocating for an alternative method to the popular analytical rationalist modus operandi, Kipnis also uses a variety of contemporary projects(5) to describe a process of "formal linking" as a tool to generate "unpredictable affiliation."(6) Kipnis advocates for an unpredictable design process in order to uncover repressed, minor organizations of a site. Serendipity becomes a tool for design discovery.

In order to momentarily avoid an ideological clash, common ground was established by way of the architectural communities affinity for the physical model. You would be hard pressed to find an architect who doesn't believe in the generative power of the sketch model. Discrete materials are used as early representation for programmatic, tectonic, and formal elements where vague relationships start to come to the surface. The generative power of the physical model is made possible by the serendipity and the vague. An extension of this idea to the digital realm is not audacious, and that is where I make the case for the Serendigital.

* Why Do We Choose Rhino *

Regardless of how interested one is in the exploration of the Serendigital, the process of aligning digital tools with theoretical tools is still necessary for any designer. If the chosen digital method of exploration and development is a product of a system of beliefs, then what are we valuing by exploring with NURBS-based Rhinosphere over programs like Blender, Zbrush, Maya, or Cinema4D (the Polysuite)? If we unpack the historical development of each software package, the answer to this question becomes fairly obvious.

Rhino's lineage can be traced back to a collaboration between Boeing and the SDR(7) at the end of the 1970s, when 3D representation of complex wing geometries was not commercially available. Engineers and mathematicians with no CAD experience whatsoever developed a taxonomy of Non-Uniform Rational Based Splines (NURBS) that would define precise surface geometry in order to share data throughout fabrication. The lead engineer of the project commercialized the software, starting the company Applied Geometry and offering services for clients like Honda, Alias Research, and Tecnomatix through the 1980's. Eventually, collaboration with Robert McNeel for AutoCAD in the following decade led to the final release of Rhino 1.0 in 1998.

During the same time period a similar supply gap was being addressed by Wavefront Technologies, a company developing CGI products across multiple industries. In 1995 wavefront was purchased by SGI alongside rival company Alias Research (small world) in a merger that was competing against Microsoft's Softimage in a race to corner the Computer Graphics market. The merger between the two companies led to subsequent development and release of Maya in 1998, where its initial use on Disney's "Dinosaur" in 2000 led to an Academy Award and widespread acclaim. Autodesk eventually purchased Alias in 2005, and has continued development on Maya since.

Considering the real-world precision that built form requires, the choice of software selection (and the subsequent underscore of design values) seems obvious here: to choose the package that addresses transferral of complex digital ideas to the real world and to not choose the software built as a vehicle for creativity across a purely digital medium. Yet both of these "destinations for creativity" are important in architectural design. Have we not already established the power of the vague? The point where vagueness is usurped for precision is worth closer consideration.

* How Do We Create The Serendigital *

The case can be made that the NURBS-modelling(8) environment in Rhino needs this transition to begin immediately. Serendipity is on life support as points start defining curves and surfaces. Though the fabrication-centric NURBS geometry requires less input in order to create complex/ precise surface geometry, it requires unit-based input. Upon opening Rhino, what seems like a grey Tabula Rasa belies the precision of its modelling environment. Generation of curves, surfaces and volumes are influenced by continuous calculation with real world implications.

The contrasting Polymodelling paradigm allows for less prescription from the start and offers a digital extension of the vague and serendipitous concept sketch.

In the unitless polysuite, proportion and interface between discrete elements takes precedence over real-world metrics. Geometry is composed strictly of straight lines and planar surfaces, in which smoothness is a product of subdivision. Furthermore, the ability to easily manipulate the common branching and fusing geometries found in the CG industry plays a large part in the Polysuite success in the CG industry. The polysuite extends exploration into the digital realm, and the growing interoperability with Rhino makes these tools increasingly important in discovering new architectural ideas.

* Serendipity/ Vagueness *

As the century progresses, credence is growing for proto-functional architecture as a generative source of new ideas(9). Instead, students should be using digital tools that cultivate this new-found "correspondence between concept and form."(10) The importance of NURBS-based Rhino bridging between concept and fabricated form cannot be understated, however we should be considering the ramifications it has on design. Why is there no medium between physical sketches/models and the Rhinosphere? The vague and the precise both share a seat at the table of architectural design, and the right digital palette can engender a non-linear relationship between the former and the latter. Why leave serendipity to the physical model?

- Lynn, Greg. 1998. Folds, Bodies & Blobs: Collected Essays. Bruxelles: La Lettre Volée, 110
- Lynn repeatedly discusses "organic" matter and "bodies" with a subversive tendency to avoid anthropocentrism; swarms, parasites, fish-eye morphology, and flatworms to name a few.
- Kipnis, Jeffrey. 2013. A Question of Qualities: Essays in Architecture. Cambridge, Massachusetts: The MIT Press, 99
- Kipnis, A Question of Qualities: Essays in Architecture, 302
- In A Question of Qualities Kipnis specifically describes Shirdel's Library of Alexander competition, Eisenman's Columbus Convention Center, and Gehry's Vitra museum to symbolize a "Deformatist" emphasis on "affiliation" and the dissonance between intention and result. For more information see Chapter 11: Towards a New Architecture.
- Kipnis, A Question of Qualities: Essays in Architecture, 308
- Structural Dynamics Research Corporation, industry leading CAD system development
- Non uniform rational b splines
- Kipnis, Lynn, and Binl all reflect on specific contemporary architects that use the diagram in a proto-functional generative way. See Kipnis' notes in his Towards a New Architecture essay about reprogramming, or in a discussion on Ben Van Berkel's work found in both Greg Lynn's Forms of Expression Essay and John Binl's Lines of Encounter.
- Lynn, Folds, Bodies & Blobs: Collected Essays, 224

ON THE GROUND

August 31:
The long anticipated return to Rudolph Hall was met with an anti-climatic turn out. The few students who did brave sharing air with their peers received a welcome package of sanitizer, wipes, headphones, a fresh copy of Retro-specta 43, and a 'Y'-emblazoned mask—because pandemic or not, Yale won't miss a marketing opportunity.

An unfortunate group of second year M.Arch I students found themselves stuck for another studio on the sixth floor, reminding them that it is indeed still March 2020.

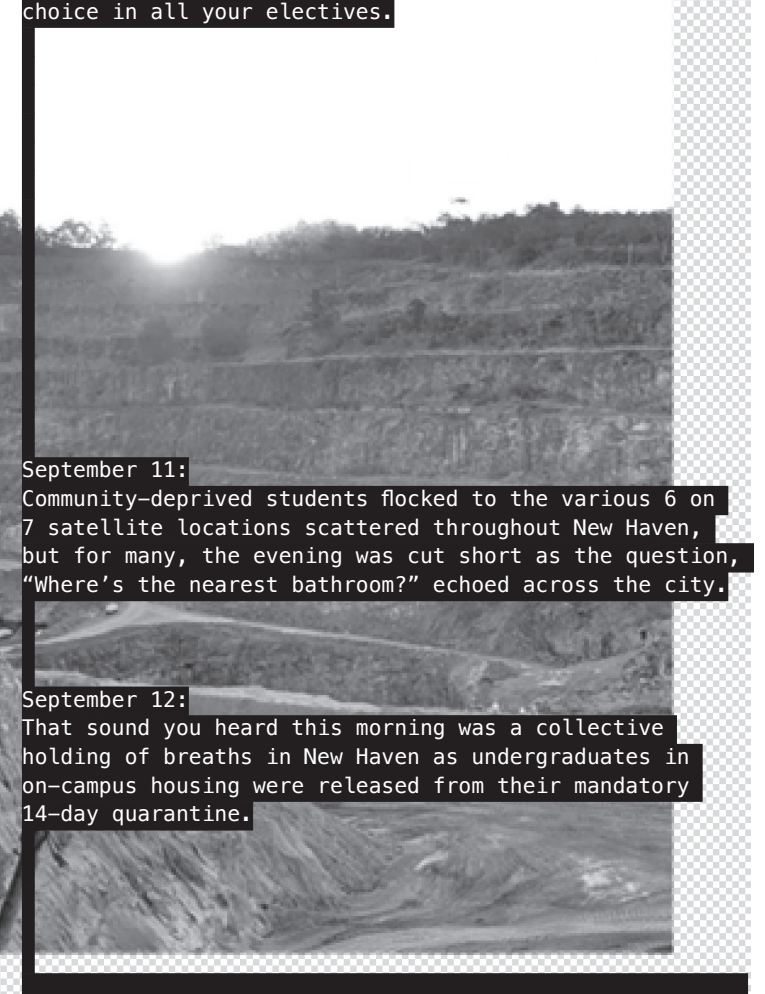
September 1:
From an incoming student: "I'm trying to become a 'regular' in some of the neighborhood shops. It's mostly to support local businesses, but oddly, it's also become my way of connecting with people. I had a long and fabulous conversation with Raphael about incense at GW Bench. I think we're friends now... My first friend in New Haven."

September 4:
A well-meaning administrator invites an incoming student to meet in-person at the offices in Rudolph Hall to offer them some much-needed guidance through the bewildering Serlio process. Unfortunately, having never received a tour, the student declines, as they do not know where said office is.

September 5:
The new and unimproved Serlio system makes more sense if you think of it as a passive aggressive administrator retaliating against its ungrateful students with the worst punishment of all: assigning you to your last choice in all your electives.

September 11:
Community-deprived students flocked to the various 6 on 7 satellite locations scattered throughout New Haven, but for many, the evening was cut short as the question, "Where's the nearest bathroom?" echoed across the city.

September 12:
That sound you heard this morning was a collective holding of breaths in New Haven as undergraduates in on-campus housing were released from their mandatory 14-day quarantine.



1) Joshua Abramovic: New Default. 2) Uzay Ayaz: The default is a temporal link between precedent and present that guides a specific pattern of action in my artwork. This link uses memories and observations from my childhood as visual anchors that orient my design process. From the pattern work I observed in my grandfather's jewelry shop to the distorted perspectives and proportions I studied in the miniature Persian paintings my mother would collect. For me, the default is personal and has an unstable relationship with the past. As my identity evolves and I move across spaces geographically and culturally dispersed from each other, I am reminded that this is only the default for now. 3) Ariel Bintang/ It feels like we are in an age where living in a damaged world is the default. If my grandparent's default was a lush mountain, our default is mountain quarries.