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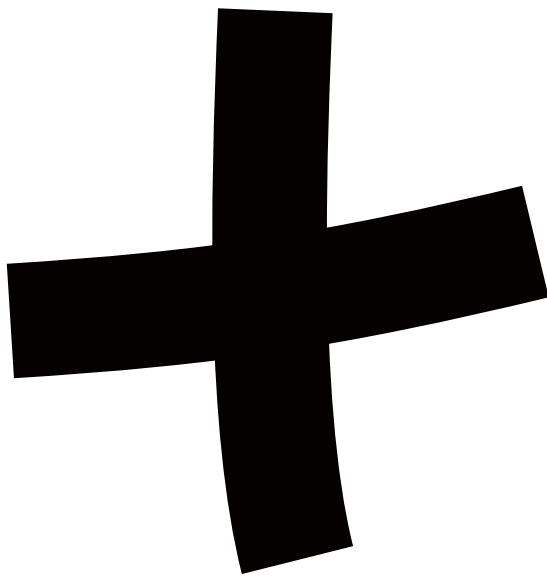
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THE FIVE POINTS OF PAPRIKA

Architects do not want to be arbitrary, which motivates them to seek out coherent design methodologies and intelligible information.

We experience a paradigm shift inspired by an overabundance of methodologies and alibis, the results of a poorly moderated digital reformation, expansion of the discipline, and disunity amidst a lack of authority.

A generation of prominent masters and their methods of design quietly fades.

Overloaded schedules, the drive for novelty and expressive forms, and the speed with which we view architecture in the digital age have helped steer us into pursuing certain methodologies over others.

In practice, has our corpus of methodological approaches become too narrow despite, conceptually, being nearly infinite? What modes are expiring and which will expire in the future?

INTERVIEW WITH PATRIK SCHUMACHER

PI In your lecture at the University of East London last year, you stated the reflective, explicit task of architecture is the spatial ordering of social processes. Would you say there is a deviation from this as a central trajectory of contemporary discourse today? Why despite recent advancement do we still experience a lag in the discipline for architecture to develop, and perhaps, propel fully fledged social systems?

PS Most of contemporary architectural discourse is conversational and eclectic and proceeds from common places rather than from a comprehensive theory of the built environment's/architecture's general societal function and specific historical tasks. My general formula "architecture as spatial ordering of social processes" is strategically posited and points upstream towards the necessary embedding of architectural theory within a theory of society as well as downstream towards a design methodology that includes the attempt to simulate social interaction processes within designed spaces. Architecture/design is still an intellectually rafter immature, even primitive, discourse practice and profession compared for instance to the legal discourse/profession or medicine, and certainly in comparison to social sciences like sociology and economics. I have been trying to upgrade the theoretical underpinnings of our discipline but my book has remained a largely ineffective dead letter. An effective practice-shaping discourse does not consist of published works gathering dust on shelves but must be a collective, evolving, cumulative communication process. My book went straight over most of our colleagues' heads. That's why I started to go out lecturing more, conducting intensive seminars like recently for my students at the AADR, at Harvard's GSD and soon at Beijing's CAF. Most of our current architectural education system operates like art schools and does not attract enough analytically minded intellects. There is hardly any curriculum left. Teaching architecture is a free-for-all. That's why our discipline is lagging behind. However, I believe my books and writings show how intellectually ambitious and stimulating architectural theory can be and how profoundly transformative and progressive a thus theory-led architectural practice can be.

PI Briefly, can you define "revolutionary capitalism" or "anarcho-capitalism" and your position against recent anti-capitalist sentiment in the field of architecture?

PS The anti-capitalist bias of our discipline is much older than its recent intensification since the financial crash of 2008. It is not so much part and parcel of the general intellectual backwardness of our discipline than part and parcel of a general, anachronistic anti-capitalist mentality that afflicts most academically based professions with the sole significant exception of economists. While economic theory has moved on, the rest of the academic-professional world remains stuck with yester year's outdated insights. So it's particularly my inertia. However, there is perhaps more to this: This problematic (in my view irrational) bias might

also be partially due to the fact that our disciplinary discourse is to a large extent carried by intellectuals whose livelihood depends on state-sponsored or non-profit academic institutions. I myself was a Marxist from about 1985 to the late 1990s when I gradually started to shift more to the mainstream center under the influence of Habermas, Luhmann and through my originally Marxist-inspired interest in post-Fordist socio-economic restructuring and new forms of business organisation. My writings from the late 1990s are still Marxist in bent but already betray my enthusiasm for the new business protagonists and processes and the new economic dynamism of post-Fordist capitalism. While the events of 2008 inspired many to turn against capitalism and to return to Marx, I was looking for new answers and discovered Austrian economics, i.e. the political economy of Ludwig von Mises and Friedrich von Hayek. Hayek was a key intellectual who helped to turn the ideological tide against socialism and inspired Thatcher's neo-liberal project of privatization.

The political ideology and programme of Anarcho-capitalism envisages the radicalisation of the neoliberal rollback of the state. The key intellectual and political force behind anarcho-capitalism was the economist, scholar and political activist Murray Rothbard (1926-1995), the founder of the Libertarian Party and a disciple of Ludwig von Mises. Rothbard was also involved in the founding of the Ludwig von Mises Institute which remains a key centre for political economy research and advocacy for anarcho-capitalism as the most uncompromising libertarian tendency. As a special form of anarchism based on private property as society's most basic institution, its call for the extension of entrepreneurial freedom and competitive market rationality pushes to the point where the scope for private enterprise is all-encompassing and leaves no space for state action whatsoever. Private entrepreneurial production and voluntary market exchange are contrasted with political imposition and appropriation by the force of the state. While I agree that this distinction is important, I do not subscribe to Rothbard's natural rights approach to political theory and prefer an evolutionary grounding that remains open to institutional experimentation and utilitarian pragmatic appraisal. Like the anarcho-capitalists I have lost faith in "real existing" representative democracy and its centralized decision making which fails in its promises and is bound to fail more and more in the face of global interconnectedness and which can no longer cope with contemporary complexities, even if elected officials had the most selfless and noble of intentions. Instead contemporary society is probably better off betting on decentralized decision making and an unleashed entrepreneurial creativity—a system where new products, services or institutions can be tried out and weeded out right away without first having to convince the majority.

PS I would not use the phrase "authority" but I am happy with "central theory." A discourse practice needs a paradigm that guides and thus gathers the multitude of contributions into a collective, cumulative endeavor. In terms of design practice such a paradigm would be called a style. This implies the need for the discipline to converge upon a style that could become the epochal style of the era. In terms of the theoretical endeavors of the discipline we could talk about the quest for a unified theory that delivers what I have called a central self-description of the discipline. Such a self-description must be grounded in a theory of society as it must locate the discipline and its tasks within the overall evolving historical trajectory of society. This comprehensive theory also identifies, describes and argues for the epochal style that is to function as the guiding paradigm and design research program of the discipline in the current era. What is holding us back from achieving this task? I think it is once more inertia, an inertia with respect to our ideas, but more importantly an inertia with respect to our discursive culture which is all too easy-going and overly tolerant. Anything goes. We are still locked within this by now anachronistic discursive culture which made a lot of sense when architecture (and the rest of society) had to face the crisis and demise of modernism (as the pendent of the demise of the Fordist/social-democratic modernization regime). The crisis implied that all old certainties were bankrupt and new ways forward had to be explored. This "revolutionary" period required a radical discursive openness, nearly starting from zero, as if engaging in a collective brain storming session where indeed anything is permissible. In philosophy this was reflected in the mantra of the "end of the grand narratives." The old grand narratives were indeed bankrupt. So, for a while research and experimentation spread out in many directions. In architecture we witnessed Adhocism, Postmodernism, Neo-historicism, Deconstructivism, Folding, Minimalism. While Neo-historicism and Minimalism were obviously retro-styles that could not be taken seriously as candidates for a new paradigm (despite their relative popularity) and while Postmodernism and Deconstructivism waned, Folding seemed to be gathering pace and soon attracted the majority of students into its project. Folding was continuing Deconstructivism's quest for complexity and urban intensification, albeit with more virtuosity due to its empowerment via novel and creatively adapted computational design tools and without allowing the increasingly complex and variegated compositions to collapse into arbitrary visual chaos. Folding had thus established a productive research trajectory that allowed for cumulative collective elaboration and continuous progress not least via continuous tool development. Fifteen years into this increasingly consolidating paradigm I named, canonized and thereby hoped to accelerate the avant-garde hegemony and mainstream takeover of the movement: Parametricism. The 2008 financial crisis and the economic and political upheavals that followed slowed down this process. But also, the general resistance to the idea of a unified style, theory and movement. The idea of a central theory and unified style is still running up against the grain of the by now well-ingrained (but long since anachronistic) discursive culture of "anything goes", with the expectation and uncritical celebration of an obsolete pluralism of styles and approaches. This pluralism was temporarily fruitful but is now obsolete after the way forward—parametricism—was discovered, selected and cumulatively invested in. The problem is that the discursive culture of tolerance, of "anything goes", where it is perfectly accepted and indeed expected for every designer to indulge in his/her own idiosyncratic

ment as transformative agent: the organizational dimension, the phenomenological dimension and the semiological dimension. The organizational project is trying to increase the density, dynamism and complexity of the spatial ordering matrix that brings the multitude of interdependent cooperative interaction events into close proximity. The phenomenological project is trying to articulate these complex relations in ways that make them perceptually palpable and tractable for the sake of efficient navigation. The semiological project is trying to communicate the divers and differentiated interaction offerings by way of transforming the urban field into an information-rich text of clues, invitations and instructions that are indispensable for a complex, well-ordered interaction process involving many audiences, multiple social roles and a versatile menu of action options that need to be coordinated. The project becomes potentially more overtly political at the urban scale. Again, the real actors to whom these potentially political urban acts will be attributed are the clients rather than their architects.

However, as a theorist, polemicist and citizen I have made some speculative statements that have direct political import as they sharply criticize current urban planning practice and speculate about a different system with a much more market-based urban development process. Some of my discursive interventions did become literally political, i.e. they entered the political discursive arena proper, via mass media organs like The Guardian and The Evening Standard, even soliciting a (negative) response from London's Mayor Sadiq Khan.

PI What do you think is holding architecture back from a convergence onto a more singular platform for the interpretation and manifestation of an "authority" or a central theory?

PS I would not use the phrase "authority" but I am happy with "central theory." A discourse practice needs a paradigm that guides and thus gathers the multitude of contributions into a collective, cumulative endeavor. In terms of design practice such a paradigm would be called a style. This implies the need for the discipline to converge upon a style that could become the epochal style of the era. In terms of the theoretical endeavors of the discipline we could talk about the quest for a unified theory that delivers what I have called a central self-description of the discipline. Such a self-description must be grounded in a theory of society as it must locate the discipline and its tasks within the overall evolving historical trajectory of society. This comprehensive theory also identifies, describes and argues for the epochal style that is to function as the guiding paradigm and design research program of the discipline in the current era. What is holding us back from achieving this task? I think it is once more inertia, an inertia with respect to our ideas, but more importantly an inertia with respect to our discursive culture which is all too easy-going and overly tolerant. Anything goes. We are still locked within this by now anachronistic discursive culture which made a lot of sense when architecture (and the rest of society) had to face the crisis and demise of modernism (as the pendent of the demise of the Fordist/social-democratic modernization regime). The crisis implied that all old certainties were bankrupt and new ways forward had to be explored. This "revolutionary" period required a radical discursive openness, nearly starting from zero, as if engaging in a collective brain storming session where indeed anything is permissible. In philosophy this was reflected in the mantra of the "end of the grand narratives." The old grand narratives were indeed bankrupt. So, for a while research and experimentation spread out in many directions. In architecture we witnessed Adhocism, Postmodernism, Neo-historicism, Deconstructivism, Folding, Minimalism. While Neo-historicism and Minimalism were obviously retro-styles that could not be taken seriously as candidates for a new paradigm (despite their relative popularity) and while Postmodernism and Deconstructivism waned, Folding seemed to be gathering pace and soon attracted the majority of students into its project. Folding was continuing Deconstructivism's quest for complexity and urban intensification, albeit with more virtuosity due to its empowerment via novel and creatively adapted computational design tools and without allowing the increasingly complex and variegated compositions to collapse into arbitrary visual chaos. Folding had thus established a productive research trajectory that allowed for cumulative collective elaboration and continuous progress not least via continuous tool development. Fifteen years into this increasingly consolidating paradigm I named, canonized and thereby hoped to accelerate the avant-garde hegemony and mainstream takeover of the movement: Parametricism. The 2008 financial crisis and the economic and political upheavals that followed slowed down this process. But also, the general resistance to the idea of a unified style, theory and movement. The idea of a central theory and unified style is still running up against the grain of the by now well-ingrained (but long since anachronistic) discursive culture of "anything goes", with the expectation and uncritical celebration of an obsolete pluralism of styles and approaches. This pluralism was temporarily fruitful but is now obsolete after the way forward—parametricism—was discovered, selected and cumulatively invested in. The problem is that the discursive culture of tolerance, of "anything goes", where it is perfectly accepted and indeed expected for every designer to indulge in his/her own idiosyncratic

pet ideas and predilections and where the very attempt of a comparative evaluation or ranking of approaches, never mind any superiority claims, are simply anathema. The problem is that this culture is incredibly comfortable, especially for the mediocre. But it is a defunct discursive culture. It's the brainstorming phase made permanent. But then all brainstorming becomes senseless, irrational, if we refuse to filter, rank, select and then elaborate and build cumulatively on the selected approaches. This requires a switch in discursive culture, a heightened analytic rigor, and indeed a new cast of characters, new protagonists, with a different set of skills and talents. But the over-stretched brainstorming phase has established the art school culture for too long, attracting too many would-be art students, so that a shift in discursive culture is harder to achieve. So that's holding us back, together with the general economic stagnation that is paralyzing the majority of the advanced countries since 2008. With respect to both inhibitory factors I am becoming increasingly impatient.

A RESPONSE FROM PEGGY DEAMER

Patric Schumacher's interview with Paprika has to be taken seriously. Not only is he smartly and persuasively calling on architecture to analyze its role in a larger socio-economic context, but he alone amongst architects is willing to stake his claim on a particular analysis, a thoroughly courageous act. It is all the more aggravating then that his analysis of the current state of architecture, society, and the economy is based on such wholly outdated (and often contradictory) tropes, indeed, three very big ones.

History: Behind Schumacher's view that the economy has moved from Fordism to post-Fordism and with this, from economic constraint to full actualization, is the old teleological Hegelian view of history. In this trope, history is not just socially progressive, but the previous era must be seen as radically insufficient and the new, transcendent present the culmination of historical self-realization. Schumacher's descriptors—post-Fordism's "life-enhancing potentials," "old bankrupt" modernist certainties (that require) new ways forward," parametricism's "trajectory that allowed cumulative collective elaboration and continuous progress"—are truly German Romanticism applied to contemporary circumstances.

To identify someone's approach to history as Hegelian should not, in and of itself, be cause for dismissal. (Marx was Hegelian.) It just needs to be pointed out that 1) this view was one of the first "grand narratives" to be dismissed by a contemporary theory that Schumacher embraces; 2) that Schumacher falls in line with all the Hegelians who put themselves at the center of the transcendent "arrival"; and 3) that the philosophic affinity to Hegel and the economist Hayek is surely seamless for the German-born Schumacher.

Economics: Bypassing the nearly incoherent argument that Schumacher makes regarding the economics of housing—the housing problem is caused by state regulations that present the city to be a non-habitational place of pure production—and moving on to the larger trope of the virtues of the free-market (the best idea always does and should win!), Schumacher's championing of neoliberalism is, while courageous, based on willful allegiance to economists whose limited historical prave is taken to be universal truth-speak. Schumacher has every right to pick his own economic guru; we all grab onto narratives that suit our own worldview and personal circumstances. But it is odd, given Schumacher's infatuation with the today's technological advances and the ability to access rich information, that he refuses to address Thomas Piketty's data driven analysis of capitalism. Piketty's comparative method tracking wealth in all western nations from the industrial revolution to the present not only reveals that there is indeed no "progress" regarding capitalism's social enhancement but, on the contrary, left unregulated, capitalism's unequal distribution of wealth historically leads to economic disasters.

Equally weird is Schumacher's depiction of "anarcho-capitalism" as a free-for-all allowing all experimenters to self-realize and, when deserving, rise to the top. It is not just that concepts such as the capital/income ratio for determining social viability are never mentioned; it is the naïve belief that there is (or ever has been) such a thing as the "free market". We all know that the state agents that he condemns regulate, through agreements favoring "non-profit" university links to industry, the very technological winners—Google, Apple et al—that Schumacher so admires. Tinkerers in garages are not fueling neoliberalism.

Aesthetics: The notion of an aesthetic Zeitgeist that has its "avant-garde" generals leading us to a harmonious, transcendent present/future comes from the precise modernist rhetoric that Schumacher is so anxious to dismiss. You don't have to believe Peter Bürger's astute analysis of the "avant-garde"—an historically specific phenomena that is an empty signifier when used today—to question the simplistic identification of an inevitable "avant-garde" style that ushers in a new social order. Schumacher's coupling of our digital, information, post-Fordist economy with (his) digital, knowledge rich architecture; his assumption that the parametric style is the chosen one (by Darwinian selection) to represent neoliberalism; his belief that the style in and of itself contributes to neoliberalism's advancement—these all are ideas made

possible by the above described Hegelianism as well as a reductive understanding of each term. We can't ignore the irony of someone supporting the chaotic economic mash-up of anarcho-capitalism with the insistence that only one style—parametricism—is acceptable. Let's be experimental as long as it looks like this!

A reflection on these tropes doesn't need to bring up the missing concept of labor, class, or ethics. Their elisions are merely the by-products of Schumacher's higher order of analysis. We agree that we should enter into the "comprehensive theory of the built environment's... specific historical tasks," just not one so out of touch with current intellectual acuity.

INTERVIEW WITH KARSTEN HARRIES

PI For the sake of Paprika, could you provide a brief explanation of arbitrariness in architecture?

KH In Complicity and Conviction William Hubbard writes that, "if there is one characteristic that links the diverse art movements of the modernist period, it is perhaps a hyperawareness of the fact that one's personal sensibility could have been otherwise. A modernist artist is so deeply aware of this possibility of otherwise-ness that he feels a deep unease about simply accepting his own sensibility. He feels a need for some reason that will convince him that he ought to feel one way rather than another." I think that awareness of what Hubbard calls an awareness of the possibility of otherwise-ness helps to explain the fascination with theory, so pronounced among avant-garde architects. The opening up of an ever expanding space of possibilities—just think of the way the computer has changed architectural practice—has meant on the one hand an increase in freedom, but on the other a mounting sense of arbitrariness.

PI How has the threat of arbitrariness shifted from the time of your 1983 article to the present?

KH What comes to mind first of all is the way the progress of technology, especially the computer, has changed architectural practice. Think of the work of Frank Gehry or Zaha Hadid. The computer has allowed them to generate and to translate what are fundamentally sculptural visions into architecture. But sculptures and paintings invite consideration as self-sufficient aesthetic objects. For architecture that is a temptation that, I ought to resist. As Rudolf Schwarz put it, whom I cited in my lecture: a house should be more than an aesthetic object of house-like character. If not it will invite the charge of arbitrariness.

PI What do you think are the most worthwhile avenues for avoiding the arbitrary in 2017? To whom or to what should we be paying attention?

KH We should resist the temptation to create first of all aesthetic objects that also have to meet certain functional requirements, i.e. we should resist the temptation to design what Venturi called ducks. But Venturi's understanding of decorated sheds also raises questions. It would have us understand a work of architecture as a functional building with an added aesthetic component, which will invite the charge of arbitrariness unless related in some essential way to the building it serves. To address that problem I have developed at some length, especially in The Ethical Function of Architecture my understanding of the re-presentational function of beauty. But what should a building be. Here I would emphasize that not only the client, but others will have to live with it. The architect's responsibility should extend to these others. And here I would have the architect think not only of the present, but of the future.

PI What potential and what limitations do you see in the near infinite sea of formal and methodological possibilities available to contemporary architects?

KH The gain in freedom is always shadowed by an increased threat of arbitrariness. Freedom must bind itself to remain responsible. But where is it to find the necessary bonds? In this connection I called in my lecture for a post-Copernican geo-centrism, post-Copernican because we must affirm the modern world that he helped found, geo-centrism because for us humans there is no alternative to this fragile earth. In all our actions, including our building we must take care to leave it to those who come after us in such a way that they may flourish.

PI In your article, you wrote that arbitrariness is "characteristically modern" and that "we have removed ourselves too effectively from the past to still belong to it." Is there any going back?

KH Should there be a going back? That would be irresponsible. We have to remain open to the future and its challenges. This is not to say that we should not respond to context, both geographical and historical. But nostalgia is also a danger in that it invites a flight from the challenges that face us. Here it is interesting to compare Gamble Rogers colleges to the New Colleges. Missing, it seems to me is the irony and humor that helps to make the former more human.

PI How do you interpret the fact that philosophy as methodological justification often appears in the context of the avant-garde?

KH In a way I have already answered that question. When architecture has lost its way it looks to those who can provide some orientation. But too often philosophy has not provided

that. Instead it often seems to have furnished architects with little more than a strange kind of rhetorical ornament, meant to give a building an intellectual respectability that it would otherwise lack.

PI Is a non-arbitrary architecture inherently more adept at confronting the "terror of time"?

KH How do we confront the terror of time? The more we understand ourselves as atomic selves the more insistent that terror is likely to be. The more completely we are able to project ourselves beyond ourselves as part of an ongoing community the more effectively we will be able to counter that terror. And here I am thinking especially of those who will come after us. We need to leave them a world in which we can expect them to thrive. In that sense I called in my lecture for a post-Copernican geo-centrism. We have to take better care of this fragile earth. And that means, among other things, we have to learn to consider even space a scarce resource. And since architecture can be understood as the art of bounding space, this has important consequences for architecture. The space that the architect bounds should not be understood as the Euclidean space of geometry or the virtual space of the computer.

INTERVIEW WITH KARLA BRITTON

PI Could you provide a brief definition of exactitude for the sake of Paprika?

KB Exactitude is when the thought about a work and the work itself exist on the same continuum. It is when the lucidity of intention is united with a total clarity of construction. For Italo Calvino, Exactitude means three essential things: a well-defined plan, incisive images, and a precise language.

PI Given the abundance of formal and methodological possibilities available to contemporary architects, how does exactitude fair in current architectural trends?

KB I'm not confident that exactitude is able to sustain itself as a normative mode today but that doesn't mean that it isn't a provisional model which can provide clarity and limits in today's turbulent practice of architecture.

PI Provided that economy of expression is key to the notion of exactitude, how does one interpret the sculptural forms of the contemporary avant-garde with this concept in mind?

KB Architecture of the contemporary avant-garde may be seen as driven by what Paul Valéry described as "the intoxication with the New." Exactitude is a kind of antidote to this drive towards "newness."

PI Can the underlying idea expressed with exactitude be complex and demand a correspondingly complex expression? Or does exactitude entail a certain level of perspicuity?

KB Yes, I believe that the architecture of Auguste Perret is an example of work that often says more than it seems to be saying. In other words, beyond its clarity of construction lies a deeply intentional orientation toward a cultural project that is rooted in ideas of historical and cultural continuity, permanence, and place. As Paul Valéry wrote, "What is more mysterious than clarity?"

PI In "Exactitude and the Ethics of Continuity," you reference Valéry as holding exactitude to mean "a visual map of the exactitude one seeks in the life of the mind." Could you elaborate on this? Why is one compelled toward exactitude? Do you see this compulsion as a broader psychological inclination?

KB Metaphorically, I see exactitude as a distillation, or a framework, in architecture which can lead us to deeper meanings and questions about permanence or at least duration.

PI Could you explain the related phenomena of "the flattening of cultural memory" and the "perpetual present"? Are these in line with the loss of place that Karsten Harries discussed in his lecture last month?

KB Yes, I think exactitude—as Perret—manifested it in his architecture was closely related to his understanding of the "banal" which is not understood in the usual sense as referring to the ordinary, but rather that which has always existed. In his theory of architecture, he clearly places the timeless over the fleeting; the permanent over the transitory; written language over the graphic image.

PI In what ways does exactitude in itself prompt an architecture with historical continuity?

KB For Perret, exactitude was rooted in the framework of architecture which more than a metaphor had origins extending back to the Ancients. It was in this sense that he understood exactitude as a classical impulse—not a stylistic determinant, but a mode of working and seeing.

PI Are there any contemporary architects whose work embodies exactitude particularly well?

KB In the seminar we often grapple with this question often in light of two additional questions: 1) What is the role of digital fabrication in relation to exactitude? Parametric design for example, perhaps aims to free the architect from the constraints of exactitude. 2) What are pedagogical approaches which embody exactitude? The fluid non-hierarchical approach represented by SCI-ARC stands against the sensibilities expressed by exactitude.

PI As exactitude entails a clear idea expressed through an economy of means, toward what ends should that underlying idea strive?

KB Paul Valéry's Eupalinos says that "There is no geometry without the word. Without it, figures are accidents... By it each figure is a proposition which can be composed with others...". Just as an economy of means speaks to architectural calculation, so too does it allow for a magnitude of possibilities based in the knowledge of principles and properties.

ALEX VELAISE: HOW GEOLOGY CAN GROUND ARCHITECTURE

Surface geologists use cross-sections to study sub-surface geology. For them, the outcropped rock on the earth surface gives insight into what goes on beneath. Mapping signifiers from the outside-in generates visualizations of the earth's internal qualities. I'm intrigued by the idea of an architecture whose functional and semantic logic operates on a similar co-dependent internal and external condition. Asking the question, how might interiors better predict exteriors or vice versa? Everything from facade striations, gutter extrusions or window formations would suggest interior spaces that follow the same or disruptive logics.

One of the most basic natural phenomenon is the principle of the path of least resistance. As water travels down a slope it takes the easiest path, with the least obstruction or following the deepest incise. This process governed by gravity generates the mountain as much as the tectonic forces that push the earth's crust upward. It is not curious why Architect Viollet-le-Duc devoted so much energy to distilling what made the mountain so inherently 'architectural.' Architectural circulations, whether comprised of humans filling up or filtering through space, structural force distribution, or mechanical servicing, are defined by efficiency—yet architects constantly challenge these notions. Architecture's continuous mediation of its systems may be better defined by the least resistant proposal of a comprehensive architecture.

At a much smaller scale and with a completely different language, the natural geometric perfection of micro crystalline structures in minerals bring other possibilities in design exploration. As an igneous rock cools or a mineral precipitates, bonds form in various ways, due to a range of chemical compositions, heat and pressure. These processes result in perfect cubic structures and tetrahedrons as well as complex systems of repeating 3-dimensional shapes. These microforms are repeated at surmounting scales until the rock, visible to the naked eye, mimics the form of its sub-structure. This physical part-to-whole relationship can be seen through the lens of repeating architectural modularity, for one, and can be fractured in the same ways based on exterior forces. For example, a cubic crystal of NaCl (salt), will always fracture into many more cubic crystals.

The large scale movements of the earth's crust can be seen as a way of studying formal forces in conversation with one another. Tectonic plates are forever moving due to the formation of new crust. When two plates make contact, they can converge, diverge, subduct, fracture and fault. The forces of motion at play at this massive scale lead to the formation of mountains, volcanoes, trenches, cliffs. Every natural form has a reason for existing in all its glorious monumentality, so shouldn't every built form have similar lines of reasoning? If so, when one builds in direct conversation with a magnificent landscape, shouldn't it be subject to the forces of the ground below it?

BOOK REVIEW BY THADDEUS LEE

Of Cats and Microwaves: Reflections on Architectural Interventions, Lukasz Lendzinski

"Do not put cats in the microwave", reads the disclaimer. As the urban myth goes, prior to this legal addendum, wet cats were frequently put in microwaves by oblivious owners to quick-dry. Even with this disclaimer, the practice seemed to persist! The question arises then, of whether the disclaimer serves its intended purposes; are cats being protected from irradiation or users being educated on the use of microwaves? In Of Cats and Microwaves, two experimental architecture studios umshichsten and Bellastock make the case for the liberation of this cat microwaving world.

Unfortunately, it seems that cats and microwaves are not like ducks and sheds, and that is about all the traction the metaphor accrues. (Sadly, we will not get to proclaim, "That's a cat!" in architecture reviews) The book is more concerned with metaphorical cat-bulldozing in microwave-cities than our dear domestic feline. The authors argue that architectural innovation is being stopped in its tracks by overbearing legal requirements on design and construction. As such, the sense of adventure commonly found in competition entries and "social" projects in "Africa, Latin America or Southeast Asia" is sorely missing in the context of the European city. In the foreword, Christian Holl extols the two authoring firms for their willingness to not hide behind social vogue and for not needing to look "beyond national borders to find meaningful projects." What follows is a series of guerrilla works that are part architecture, part installation, but wholly political.

Most of the projects site themselves amidst temporal and material opportunities within urban conditions. One makes use of

stockpiled sand at a construction site for short-term sandbag structures, while another dismantles an installation, only to coopt its structure for a rickety public slide. The illustrations of these projects are equally spartan and playful. The opening spread for an inflatable concert hall shows just a small box on the upper left corner, but expands into a full-bleed image of the interior on the subsequent page. It is useful to see this book as both portfolio and architectural proposal; the authors do state that this is a clear case of an unbuilt architecture being translated into a publication.

Various OSHA-programmed alarms go off in my head as I start to wonder about the ethical implications of such an edgy architecture. What of public safety? Liabilities in use? Then again, we seem to be desensitized to transgressive architectures that takes place on "other" shores. Take Kunlé Adegemi's Makoko Floating School, for example. We seem to widely accept its prototypical and temporary nature in forgiving its 2016 collapse. Not to take the matter lightly, these kinds of projects certainly require much tacit trust between the architect, the authorities and the public. In fact, this is something the authors not only acknowledge, but want to encourage in our communities. A broad understanding of the benefits of architectural adventure, they argue, will free architects from cat-disclaimers in our built environment. No animals were harmed in the writing of this book review.

ON THE GROUND

Submit tips to On the Ground at otg.paprika@gmail.com

Welcome back from Spring Break.

First years received the results of their leadership style analysis, told they were the least autocratic class in all 8 years this survey was done for the Jim Vlock building project. The analysis hints at the burgeoning hierarchy to form in their Building Project groups.

Second years prepare for Rome. Some compiled their field guides chronologically, others typologically, and the wise ones ordered by proximity to the best gelato in Rome. However, most will likely "forget" it at home in lieu of Google Maps and Italian Yelp.

Third years and Post Pros scrambling to finish portfolios for the career fair next week, all while secretly keeping close tabs of their classmates' interviews. While some have expressed displeasure at a lacklustre selection, OTG advises the graduates to put on their best blazer and start knockin' on doors.

Prom! April 1st at 8PM. GPSCY.

March 31:7:30PM to 12:00AM YSOA + FES Mixer at The Trinity Bar + Restaurant, 157 Orange St on Thursday, starting at 7:30PM.

April 1-2 12PM to 6PM MFA Open Studios 2017

The Yale School of Art hosts its annual graduate open studios featuring work from the School of Art. With Body Double: A Screening and Lecture by Bruce Hainley at 6PM on April 1st. Locations include: 1156 Chapel Street, 353 Crown Street and 32-36 Edgewood Avenue approaches, never mind any superiority claims, are simply anathema. The problem is that this culture is incredibly comfortable, especially for the mediocre. But it is a defunct discursive culture. It's the brainstorming phase made permanent. But then all brainstorming becomes senseless, irrational, if we refuse to filter, rank, select and then elaborate and build cumulatively on the selected approaches. This requires a switch in discursive culture, a heightened analytic rigor, and indeed a new cast of characters, new protagonists, with a different set of skills and talents. But the over-stretched brainstorming phase has established the art school culture for too long, attracting too many would-be art students, so that a shift in discursive culture is harder to achieve. So that's holding us back, together with the general economic stagnation that is paralyzing the majority of the advanced countries since 2008. With respect to both inhibitory factors I am becoming increasingly impatient.

The large letterforms are an exploration into the process of distillation: Translating one media into another, from a singular gesture to repetition. The painted brush lines are printed in black, and the vector strokes are printed four-color process.

A NOTE ON THE LETTERFORMS

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