Being and Becoming: Material, Process and Making in Contemporary Swiss Architecture

I. The Nature of Things: Ethic, Epistemology or Metaphysic?

Swiss architecture has been known for some time now for its deeply "truthful" expressions of materials. But what does that mean, exactly: being "true" to materials?

The most famous account of what it means to be true to materials comes from the 19th century English aesthetician, John Ruskin. For Ruskin, the question of material truth was deeply tied up with a series of ethical considerations. In his writings, truth is portrayed as a duty, and ethic, which should, "burn clear in the hearts of our artists and handicraftsmen". He refers to any, "direct falsity respecting the nature of material... construction... or the quantity of labor" as a "moral delinquency". [1] For him, all of this derives from a concern about the negative effects of deceit more than the positive consequences of truthfulness. Ruskin sees that a falsity concerning the nature of a material degrades the quality, expression and spirit of craft among makers and lessens the faith in and appreciation of architecture for the general public.

While these moral questions may be at play in some Swiss architecture, this framework does not, I believe, get to the heart of this particular practice of "truth" as it is understood generally. There is little appetite among contemporary Swiss architects for moral condemnation and little worry about corrupting the public or their faith in the built world. The problem of truth in this tradition begins, we might say, not in ethics but in epistemology, though it may not end there.

It may help us for a moment to review briefly the thoughts of a few other notable western philosophers, beginning, as one is wont to do with Plato. For Plato (or rather his mouthpiece, the written Socrates), things-in-themselves (ideal things or things independent of human experience) is all that really is. Knowing the truth, then, lies only in knowing the ideal. The things-in-the-world that we experience daily are but shadows of their one true forms which we cannot access through the mechanisms of our embodied selves.

Some two-thousand years later, after a long series of outright rejections or acceptances of Platonic thinking, Immanuel Kant set out to resolve Idealism with the obvious significance (truthiness) of experience. He pointed out that there is in fact an epistemic division between the truth as delivered by our senses and what might (and likely does) lie beyond their reach; between things-in-the-world and things-in-themselves. This, he felt, was not a division we could overcome, and focused his ontological studies on things-in-the-world, the only truth that he believed he had access to, thereby planting the seeds for the modern discipline of phenomenology.

Kant's division and setting-adrift of what he called noumena – things-in-themselves – held on as philosophical fact for over a century. Despite the apparent validity of the divide, we, as humans retain an almost spiritual

interest in things-in-themselves; in their natures; in their separate truths.

In *Thinking Architecture*, Swiss arch-architect Peter Zumthor speaks of the magic of the real. He advances the at once obvious and yet profound Kantian observation that the physical being of the world is before our experience of it – that any experience we have is predicated first upon being. Detached from and before the experience of architecture is its existence and the stuff and labor that make it a "thing". He encourages us to reach beyond the recorded and experienced history of man's relationship with material to find its essence and begin from there. [2] Martin Steinman has described much of contemporary Swiss architecture as "a search for the inherent meanings in the materials; meanings which can be applied to characterize a building. [3] Zumthor further insists that the most "truthful" designers carry out this search beyond the epistemic divide by some means that remains deeply metaphysical; in his words: magical.

In the 1920's, the German phenomenologist Martin Heidegger began to ask new questions of the noumenal realm; his were not primarily epistemic questions, understanding Kant's prohibition against such lines of inquiry as fundamentally sound. Rather, his questions were of a metaphysical nature. Heidegger understood that knowledge of things-in-themselves was limited by normal means of inquiry, but he posited new ones. In "The Origin of the Work of Art", he develops an ontology in which the true nature of things – their nature independent of and before subjective experience – is brought forth (epistemically speaking: "made known"; *alethea*) by their use in the world. Heidegger describes the presence of art and architecture in culture as a means of disclosing the true nature of their own constituent parts. In a sense, he posits a way to access the truths of materials-in-themselves by their being-in-the-world in "authentic" ways – ways true to their nature. [4]

This, it strikes me, is the searching-disclosing-manifesting-reclosing cycle that Steinman is referring to. Heidegger would call it the Hermeneutic cycle. His disciple, HG Gadamer would expound upon the process of making-to-disclose, calling it fundamentally an act of play. [5] This play with materials and processes defines the Swiss search, as we will see in the built work.

II. Signs and Referents: De-Semiotizing Architecture

A strong idea in most conceptions of material truth or truth to things-in-themselves revolves around their semiotic relationships, or lack thereof. In The Republic, Plato famously has the poets banished from his ideal city on the grounds that they merely represent the truth of things as translations, manipulations and subjectifications of the actual, while philosophers sought the actual on its own terms.

Many fields, architecture included underwent what has been called the "semiotic turn" in the third quarter of the 20th century. This meant, broadly, an awareness of the power and prevalence of signs and symbols in the world; of the fact that a great many of the "things" we encounter in the world daily – texts, buildings, signs, artworks – stand in for or signify something other than themselves, as we had always been aware that names and symbols do. Robert Venturi's work stands out as the most well known among "semiotic" architects of this period.

In the visual art world, Andy Warhol rose to prominence in part through his exploration of outside reference. His interest in the centrality of representation and reference to made things (particularly images) and their confirmation of

an absent, flexible or subjective truth put him in much the same position as Plato's poets for some.

By the late 1970s, a backlash against centrally semiotic understandings of the nature of things and a return to direct truths had begun to sweep the world. In his introduction to Studies in Tectonic Culture, architectural theorist Kenneth Frampton wrote, "the overemphasis on signification and reference in architectural theory has led to a construal of meaning as an entirely conceptual phenomenon". [6] Frampton led the charge in architecture against the "semiotization" of the discipline. He insisted that buildings and general thought return to the path walked simultaneously by the Modernists and Heideggerians in the 30s and 40s – one of exploration in the name of apprehension – earnest, direct and still endowed with a sense of wonder.

Above: Untitled (1975), Donald Judd

We might understand this return-to-being-qua-being as beginning, or at least finding an early voice in the minimal art movement in New York which served as both antithesis and antagonist to the work of Warhol and co. Martin Steinman defines minimal art as work that "rejects any reference outside itself". [7] As Heidegger suggests, minimal artists like Donald Judd attempted to present objects in the world authentically and without associating them with anything beyond themselves.

In some ways, the New York of the 60s & 70s was as raw and real as the Swiss landscape. The issues faced by Judd and his colleagues were equally present in Switzerland's mountains

Above: Negative Pyramid (1997), Sol LeWitt

and valleys where self-consciously representative art and architecture sat uncomfortably among so many things that just simply "were" without pointing anywhere else. The self-reliant, craft-heavy culture of Switzerland meant that a direct relationship to material was the norm for most of it's citizens.

This is not to say that Swiss architects did not dabble in semiology. The most famous project of this type may be Herzog and de Meuron's second Ricola warehouse in Mulhouse-Brunstatt, France (1992), wherein the image of the leaf from which the Ricola cough drop derives is reproduced at a radically greater-than-life scale all over the building's glass walls and canopy. Here, the walls are not themselves leaves but rather adopt this form in order to announce the building's contents.

More interesting, however, is the earlier Ricola Warehouse in Laufen (1986), Switzerland, also by Herzog and de Meuron. The ideas and forms of the minimalists are obviously present in this pavilion which presents stacked stone siding for what it is, revealing even its mode of support – small shelves

Above L: Ricola warehouse at Laufen, Switzerland (1986), Herzog & de Meuron

Above Right: Ricola warehouse at Mulhouse-Brunstatt, France (1992), Herzog & de Meuron

at each course which carry the rain-screen's weight back to the bearing walls behind. Jacques Herzog, echoing Steinman has said that, "the material is there to define the building" (10). Its form is a direct result of explorations into the nature and use of the thin-split local stone (the building sits in the actual quarry). The material nature that the architects sought, however, transcends its mere utility. Herzog, again, "We push the material we use to an extreme to show it dismantled from any other functions than 'being'" (11). At Laufen, Herzog and de Meuron exercise a Heideggerian disclosure – allowing the exposure of the stone and wood's true states of being through their authentic use.

In newer Swiss architecture, one project stands out as an apparent transgression of this search for truth apart from representation. In their (very pink) subterranean auditorium for the University of Zürich, Gigon Guyer have created a retaining wall which bears the polychromatic striations normally seen in sedimentary geologic formations which have been cut away and exposed. The wall is not of rammed earth but of concrete. While sedimentation is in some sense the "genesis" of the concrete, the colored striations are not a normal function of the wall and do not seem to relate to its fundamental being. Rather, they serve to reference other beings and concepts not physically present on the site. Unlike Herzog and de Meuron's later work, Gigon Guyer do not make much of signification and normally do a good job of manifesting the nature of building materials. This wall will continue to bother us as we move forward.

Below: Retaining wall for a subterranean auditorium at the University of Zurich (2002), Gigon Guyer

III. From Being to Becoming: Things in Process

Many works of art and architecture around the world are guilty of a kind of "momentism" that is directly related to the imageism of the post-modern period. In this mode of thinking, things are presented as having been sampled from a specific moment in time and preserved. Such a presentation is necessarily one of abstraction; of a composed, filtered ideal.

Peter Märkli's first built works, the two houses at Trubbach (1982) are an example of this sampling. In this case, Märkli is participating in an archaicism – identifying elements of some unknown past (Cretan-esque columns, Hellenic-esque cornices, Roman-esque mass), freezing them and representing them in the present in whatever material is convenient to their form (in this case, concrete).

Herzog and de Meuron are guilty of presentism in their signal box in Basel (1994) where overemphasis on novel or ephemeral phenomena at the expense of physicality removes the building from the forward flow of time. For the commuter who passes through Basel's switchyard perhaps ten times a week the building offers little beyond its initial effect. Its ephemerally does little to hide the fact that it is also aging very poorly – it neither acknowledges its genesis nor makes ready for its future. It has become unstuck. Built for just a moment, passing on a train, surely our regular commuter, now many moments on, stops looking up for it at all.

By contrast, Gigon Guyer's Signal Box at Zurich (1999) exists comfortably within the flow of time. It acknowledges its past – its materials, its genesis – and exists forward into the future. The architects knew that it would weather and so they used iron-laden concrete to both acknowledge this process and allow the contingencies of time to manifest on the building's façade.

This signal box participates in an alternate reading of time – one more often present in contemporary Swiss architecture. In Thinking Architecture, Zumthor reiterates the omnipresence of the past. Steinman points out the frequency and clarity with which so many Swiss projects reference the work that brought them forth from raw material and the material itself. Unlike the momentist view, this outlook acknowledges that process is as significant to being as presence.

For both Plato and Aristotle, anything that brought change to things was "accidental" and skirted over the core, eternal facts of being. For Heidegger, by contrast, process and change are notable features of being. In "Building, Dwelling, Thinking" he poses substance as something in a constant state of becoming (or, alternately, of disclosure). Thingness – that true nature of things-in-themselves – is always being drawn out into the world by the dual processes of thing and building (or making), operations which simultaneously transform material and render its nature bare.

The point may be best given again through analogy to the visual arts. If much of Donald Judd's work is aimed at manifesting things as they are without further reference, he does so in a deeply presentist way. The work does little to manifest its material makeup or its process of becoming.

Top: Central Signal Box at Zurich Station (1994), Herzog & de Meuron

Bottom: Secondary Signal Box at Zurich Station (1999), Gigon Guyer

By contrast, the work of later minimalist Ulrich Rückreim is deeply engaged in the demonstration of the processes and materials by, through and from which his work has arrived at its current state. His pieces are often named both for their base material and the dimensioning and shaping operations that it has undergone. It also implies a continuing process where Judd's work is fundamentally "done". We often encounter a Rückreim in medias res, as though the shaper has just walked away and might soon return to continue work. In Heideggerian terms, Rückreim acknowledges the continual "becoming" present in the thing beyond its mere "being".

Much of Peter Märkli's middle work engages process and becoming in a variety of ways. First, the architect's own process is present in the form of drafted lines and clay-sculpted models whose character and geometries carry over into the work. Secondly, his material of choice, brut concrete is always manifest in such a way as acknowledges the process and nature of both its geological substrates and the pouring and casting process it has undergone. Finally, Markli always accounts for the future of his buildings, working with material and joints that will weather naturally and change with time, seeing that the concrete's process will continue though it's vector may thereafter leave his control.

Peter Zumthor's Bruder Klaus Field Chapel (2007), too, belongs in this theory of time. The meeting of its internal formwork – a teepee of logs – and the fluid concrete, which poured over them, is present in the final form and texture. So too are the effects of the fire that removed the logs and charred the concrete. The striations of the unpredictable concrete are especially present on the chapel's smooth outer walls. As the building moves forward, the chapel will accept the elements of nature that it has been designed to meet through its open top and change with their contact.

With this in mind, let us return again to consider Gigon Guyer's problematic polychrome retaining wall. Through the lens of process we can see that the wall is, in fact, disclosing something of its nature. It is, in fact, a manifestation of its own becoming. The striations we see are always present in such a wall construction – they are the cold-pours, each atop the next. Through the medium of integral coloring, Gigon Guyer reveal to us a common process by which material comes together to form something new, reminding us both that the wall is and that it was not always.

IV. Construction and Tectonics: The Grounds for Form

If process is a function of the true nature of things and not merely accidental to them then an interest in things-in-themselves includes an interest in their coming together and thereby transforming. Adolf Loos once wrote, "Construction is the grounds for form." In this ontology a truthful use of materials calls for the definition of form by material and not vice versa. Martin Steinman illustrates the point by comparing Herzog and de Meuron's first Ricola warehouse to the Picassoplatz Center by Diener and Diener (1993). The difference, he points out, lies in the fact that the "stacked" stone form of the former is actually set on shelves hung from a backing wall at each course as the discerning eye can make out while the latter's stacked façade is well and truly self supporting. In some sense, Herzog and de Meuron's building projects an ontologic falsity. This is not a falsity against anyone as Ruskin would have us see it; it is merely and unnatural and at closer glance uncomfortable use of the material – one that, upon our apprehension of it renders the entire construction strange.
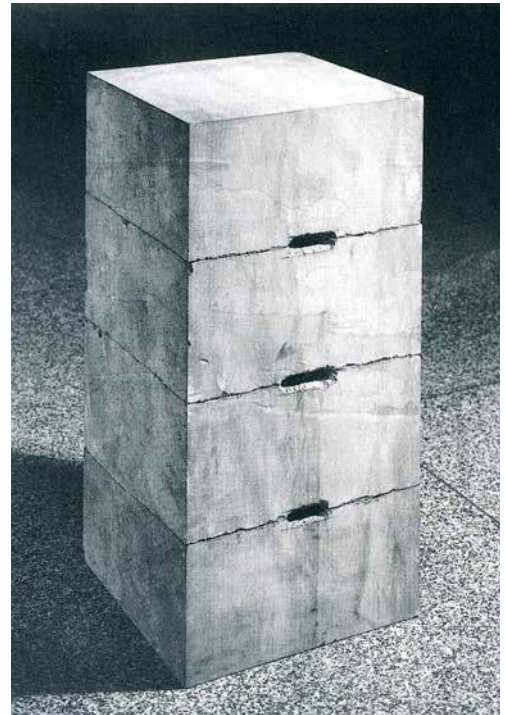
Top: Dolomite, Cut and Split, 150x50x50 (1988), Ulrich Rückreim

Bottom: Bruder Klaus Field Chapel (2007), Peter Zumthor

At Peter Märkli's La Congiunta (1992), we see a highly normative tectonic in which materials are put to use according to their distinct natures – concrete bears, steel spans, and the spanning elements meet with the bearing in a clearly gravity-defined way. The steel is unitary and dispersed, the concrete, monolithic. Each material bears the marks of its becoming and, together, of their meeting. In Ruskin's words,

> *It renders architecture both more masculine and more scientific to employ stone and mortar [or here, concrete and steel], simply as such and do as much as possible with their mere weight and strength, and rather sometimes to forego a grace or to confess a weakness than to attain the one or conceal the other by means of verging upon dishonesty.* (Ruskin, 42)

Meanwhile, at his 1995 house in Grabs, Märkli appears to be having some fun with tectonics. He floats the extraordinarily massive concrete porch that wraps two sides of the rectangular volume mere inches off of the ground, servicing it by means of a little detached staircase. Here, there is no deception. Rather, the absurdity of the floating weight and backwardness of its situation from its normal ground-joint serves to reemphasize the normative reading of mass and groundedness. Ruskin, again, "There is no dishonesty while there is much delight in the irresistibly contrary impression" (Ruskin, 37).

Above: La Congiunta (1992), Peter Märkli

Along with questions of contrary and normative tectonics comes the issue of shifting norms. Meili and Peter, among all contemporary Swiss practices may be best noted for their role in shifting material understanding, primarily in wood. At their Mursteg Murau bridge (1995), construction in sawed timber manifests itself in planar, layered wall constructions wherein planks slide past one another, representing their true natures. Walls that at a distance seem volumetric and monolithic reveal themselves to be alternately hollow or made up of many plies of laminated planes. This attitude towards wood shifts with the transition from traditionally prepared timber to engineered products in the bridge's structure – particularly the engineered box-beam with its steel post-tensioning cable which carries the main span.

Below: Mursteg Murau bridge (1995), Meili & Peter

This tension between old and new technologies – differentiated by their becomings is also present in the School for Wood Technology in Biel (1999). Classrooms present as wooden boxes hung within a structural steel frame. Interior wood walls were constructed on site in the normal stud-and-sheathing fashion, while the façade is made up of curtain-wall like wooden panels manufactured off-site and hung from deep, engineered beams. All of this is acknowledged by clever reveals of material weight, orientation and thickness. The intervening space, the classroom itself, is thus rendered didactic in its very being – an expression of the true nature and use of wood in two forms, old and new.

This nature-shift reaches its fullest potential in the Parasite House (2002) wherein all of the pieces were pre-manufactured and therefore freed of the dimensional and constructional limitations imposed by normative on-site construction. As such, all parts and all surfaces are treated in much the same way. The outer wooden surfaces do not attempt to "wrap" the building

Above L: School for Wood Technology in Biel (1999),Meili & Peter   Above Right: Parasite House (2002),Meili & Peter

as traditional installed siding would but rather orient each in their own direction to demonstrate their independence. Likewise, the diamond window comes to represent the freedom that glazing achieves when removed from traditional rectilinear framing.

Perhaps the most tectonically confusing project built recently by an otherwise wonderful practice is the Schwartzpark apartment building by Miller Maranta (2004). In it, both pre-cast and site-cast concrete were used extensively owing to the varying structural conditions posed by the scheme. The architects were concerned, however, with the fact that the concrete presented differently when it was made in the controlled, dry factory than when it was poured on the job site (as of course it would).

Rather than acknowledging and playing up difference as Meili and Peter have, the decision was made to stain the lot a bronze-y color such that any difference disappeared and the building takes on a monolithic look. In regards to this approach to process- and material-generated difference, Ruskin says it best:

Above: Schwartzpark Housing (2004) Miller Maranta

> If the intermediate shell [of a vault, in this case] were made of wood instead of stone and whitewashed to look like [the stone], this would of course be direct deceit and altogether unpardonable. (Ruskin, 36)

Excepting his overly moralistic bent, Ruskin's assumed criticism of Schwartzpark would likely be shared by many of today's Swiss architects.

V. Work Made Manifest: Registering Impressions of Drawing-Forth

As with the question of material truth, the most significant account of the role of the maker in architecture might also lie with Mr. Ruskin. For him, this, too was a moral question. The value of a thing was inherently linked to the worker and the spirit he or she imbues the finished work with; he speaks often of the role of the worker in "ennoblizing" things. While these considerations are certainly present in much of Swiss architecture, perhaps most obviously in that of the ex-cabinet maker Zumthor, something deeper is at stake in the contemporary Swiss opus than "nobility".

What is most significant in the catalogue of projects we see is not that someone has done the work but rather that work has been done. This mode of thinking moves beyond acknowledging that a thing is the result of work and engages the work itself. The concretization of the verb transcends Ruskin's social preoccupation with the person of the maker.

Contrasting with Walter Benjamin's account to the potter whose hands (and hence presence) are felt by a vessel's user, Heidegger gives an account of the making of a vase in his lecture on "The Thing" wherein the significance is given not to the ceramicist or that he does the shaping but rather to the fact that shaping happens – that it is a significant impulse in the life of the thing. Making, here, is the process of drawing a thing forth into the world. It is the method by which the hermeneutic cycle, the disclosure and concealment of truth progresses.

In Rückreim' work, it is toolmarks and their force that remain present in the work – the worker is thus once removed. He describes his work as, "actions on material," thus absenting his presence from the thing (Steinman, 16). Similarly, the works of most Swiss architects do not form the self portrait that Zumthor's portfolio does. In fact, most are fairly anonymous, and purposefully so. Even so, each manifests the work that renders them present in the world.

At Märkli's Trubbach apartment (1988), small moments in the geometry left by the formwork shift the focus off of the form and onto a memory of the work of selecting, laying up and stripping the formwork. The workers themselves are not necessarily present in the form of handprints, signatures as Ruskin or William Morris would have us believe, but their tools and energies are.

In Meili and Peter's Parasite house, we see a structure that stands for its own manufacture and assembly. It is the manifestation both of its material being and of the transformation or translation of the kit-of-parts into a whole by the expulsion of directed energy.

Above: Apartment Building at Trubbach (1988); Peter Märkli

Gigon Guyer's great pink retaining wall is very clearly the result of this energy. It retains the marks of the very physical act of pouring a heavy and viscous liquid. Its striations are not straight and clean; they retain the imprint of the sloshing accidentality of a site-pour, perhaps in spite of all of the human craft that surrounds its becoming.

VI. Being, Becoming, Making

To review: the Swiss architectural discipline's attitude towards the "stuff" of architecture in the last thirty years has revolved around exploring and manifesting three key concepts: being – the disclosure of the nature of things by their manifestation in the world; becoming – acknowledging that architecture comes from somewhere (somewhen) and is going onwards, too; that it is always in process; and making – clearly rendering the forces that shape and impel things into being; into becoming.

Older firms have moved away from these considerations, Herzog and de Meuron being the earliest and best example) but their mantle is being picked up piecemeal by very young firms – Buchner Brundler, Christian Kerez, 2B Arkiteckten to name a few – generally in singular ways and in specific materials.

At the same time, these ideas first developed in Switzerland in the 80s and 90s are just spreading beyond the mountains and into the world through the large-scale publication of built work and of didactic texts like Miller Maranta's *Architectural Concrete in Detail*, Andrea Deplazes' *Constructing Architecture: Materials, Processes, Structures,* and Steinman & Wang's *Construction, Intention, Detail.*

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