immorality and ornament: roast beef and sugar tongs

The 19th century debates. The path grows tortured.

> *"In paintings or mouldings or carvings in mineral or wood, or in the illustrations of books and newspapers, or in any comic or tragic prints, or in the patterns of woven stuffs or anything to beautify rooms or furniture or costumes, or to put upon cornices or monuments or on the prows or sterns of ships, or to put anywhere before the human eye indoors or out,* ***that which distorts honest shapes or which creates unearthly beings or places or contingencies, is a nuisance and revolt. Of the human form especially, it is so great it must never be made ridiculous****. of ornaments to a work nothing outré can be allowed … but those ornaments can be allowed that conform to the perfect facts of the open air, and* ***that flow out of the nature of the work*** *and come irrepressibly from it and are necessary to the completion of the work. Most works are most beautiful without ornament …."*[1]
>
> *Walt Whitman*

> *I have made the following discovery and I pass it along to the world: The evolution of culture is synonymous with the removal of ornament from utilitarian objects … "*
>
> *Adolf Loos*[2]

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[1] Walt Whitman, preface, *Leaves of Grass*, 1855 edition as reprinted in Readers Comprehensive Edition, W.W. Norton & Co., New York, 1965, 722.

[2] Adolf Loos, ____________

the terms of the debate

At least a century has passed since these two statements, the first in 1855, the other in roughly 1908, appeared. Whatever complexity they contained has long been disengaged from their historical contexts and flattened into a simple message: ornament should be jettisoned. More nuanced meanings hidden under that blanket condemnation are now pretty much the terrain for scholars only, where it is as vigorously debated.

But the issue need not be for scholars alone, especially because how we understand ornament is vital to making buildings, making places, making cities, let alone understanding the intrigue of a millennium-long debate. There is an obvious alternate reading we could consider: simply that both critics sanction the use of ornament, as long as it is used … 'appropriately.'

But even given that simpler read—that both want not to jettison but to control ornament—their statements nonetheless raise a lot of questions.

- First, must ornament always "flow **out** of the nature of the work and come irrepressibly from it" as Whitman enjoins? Why can it not be imposed **into** or **onto** the work from the outside world?
- Second, if ornament accomplishes its tasks, what difference does it make what it is made of? Why drag in notions of "honesty," whether of shape or material composition?
- Third, is the elimination of ornament really a sign of progress, of cultural evolution, as Loos proclaims? After all, if we view ornament in a Darwinian way, "evolution" doesn't necessarily mean absolute extinction but, rather, change.

- Fourth, Loos and Ruskin are both clearly calling for some kind of moral restoration in the light of the incoherence of modernity. But what does morality have to do with ornament?

To answer these questions, art historian Oleg Grabar suggests a pretty good framework that involves the effort it takes to actually make ornament. Ornament, he points out, "lead(s) to a sense of what is beautiful and of what is good."[3] And some very down-to-earth things go into producing the beautiful and the good: "Labor, cost and usefulness predominated in the creation of ornament," he writes. "All three have a human component independent of what is being produced, but the propriety of handling craftsmen, the appropriateness of spending money, and the actual practice of ornament …" means the ethics of work and the appropriation of capital should be included when thinking about ornament—even though such ethics may not have been considered in earlier periods when ornament flourished, long before the rights of the individual were held sacred.

Of course, it takes human labor and effort to make anything, whether a building is ornamented or not. After all, even a frameless door typically takes more effort and labor to build than a framed door. But if we are already debating whether certain costs need to be justified, we have already distinguished ornament as something added, something potentially unnecessary and perhaps irrelevant.

But immoral? The belief still has plenty of currency, even though ornament has begun to regain its purchase in the design world of the 21st century. But if contemporary ornament is to truly and robustly own its rich historical legacy, we at least should know the historic arguments swirling

[3] Grabar, o cit., p 39-40.

around ornament, in order that it can morph into new forms with vitality, sure of retaining its special role and footing in architecture and the visual arts. Simultaneously, I have also come to realize that there has always been a very real undercurrent of resistance to the notion that architectural ornament is "heresy." Ornament is stubborn and complex: it is eros, that complex character quite capable of inciting madness and abandon but nonetheless the universe's "organizing force capable of controlling strife and conflict," and has a will to live.[4]

In this chapter, I will introduce the context of ornament's relationship to morality, primarily in its most extravagant and hysterical form, which dates from the late19th to the early 20th century via Adolf Loos and compare it with a strangely similar debate centuries earlier. Then I will discuss how the attachment of morality to ornament arose before I settle down to a more linear account of the contributions of some pivotal architectural writers, theorists and practitioners, beginning with Alberti and concluding with an overview of some post Modernists.

In the West, it goes without saying that any discussion about ornament and morality inevitably passes through Adolf Loos. The theorist and architect first started articulating his pugilistic ideas about Hapsburg culture and architecture in the late 1890s as talks and lectures and they gathered breadth and depth over the next 25 years. The essay percolated through central Europe in various personal appearances and articles, and ignited into wide fame when Le Corbusier's journal, *L'Espirit Nouveau*, published a version in 1920.[5] Loos was deliberately provocative in his choice of title, knowing it would generate the requisite controversy he wanted to secure a larger audience and make his point; certainly those three words have immortalized Loos's fame, if not infamy.

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[4] Bloomer, o cit., 16.

The Czech-born, Vienna-based architect and theorist (1870-1933) condemned the use of ornament in utilitarian, everyday objects as symptoms of a filthy, degenerate society. Its scorching power was sanctified text to many of us in architecture school, never mind that we didn't have the slightest idea of what he meant by ornament. We also didn't know that the essay was just the tip of the iceberg of what were then increasing assaults on ornament by zealous theorists who used architecture and design as a vehicle to attack perceived social ills in *fin de siècle* Viennese culture.

In any case, his words immediately became Modernism's *basso profundo*. As an architectural culture we ignored what Loos had qualified with the critical predicate of "*utilitarian, everyday objects.*" Instead, we willfully extended the premise to the entire built environment (first, and in no little part, because his other exhortations, often complex, do involve a harsh critique of contemporary architecture and architects; second, his writing does require deciding to understand the larger context Loos was writing in -- despite his provocative and facile title, which is so easy to run with.) We also chose to ignore his deep respect for what he termed the "transcendental greatness of classical antiquity."[6]After all, would someone who despises all ornament write, as he did in a rather non-inflammatory 1924 essay, that the teaching of drawing "must be based on Classical ornamentation"? Or could he write, "Classical teaching created the unity of Western Civilization in spite of the divisions caused by languages and borders ... Therefore we must not only cultivate Classical ornaments but also study ornaments and moldings." Loos, in fact, admired Classical antiquity as a tradition for many of the same reasons many traditional ornamentists admire it today: it communicates clearly, it unifies, it is canonical, timeless, of proven value, it stands beyond mere individual (and therefore frivolous) authorship; it is the rightful purview of the anonymous "humble man in overalls" he so fervently admired. Loos used ornament – if one defines parts of the Classical

[5] Panayotis Tournikiotis, *Adolf Loos*, New York: Princeton Architectural Press, 1994, 23.

orders as ornament -- frequently and without apology. As Panayotis Tournikiotis points out in *Adolf Loos*, the timelessness of antiquity meant using its grammar was claiming one's place in a timeless tradition, therefore, to be of one's own time, to be modern. Certainly Loos packed many of his interiors with materials whose texture, often highly figured patterns, and vibrant color (elements that some do not accept as ornament) that was almost garish, primarily because such materials didn't, and couldn't, be defined as ornament and therefore were not subject to his own condemnation of the (gratuitous, desperate, inauthentic, misguided) ornament designed by his contemporaries.

Loos, Villa Müller, interior, Prague.
Photo by Simon Glynn 2005

It may be surprising that John Ruskin, hero to many advocates of traditional ornament, made statements 25 years earlier that were eerily similar in voice to those of Loos. Ruskin, too, sought to divorce the utilitarian from the ornamented:

> *Hence, then, a general law, of singular importance in the present day, a law of simple common sense—not to decorate things belonging to purposes of active and occupied life. Wherever you can rest, there decorate; where rest is forbidden, so is beauty. You must not mix ornament with business, any more than you may mix play.7*

However, centuries before Ruskin and Loos decided it had lost its ability not only to communicate honestly, let alone have anything worth saying, ornament was already suspect. Bernard of Clairvaux (1090-1153, the founder of the reforming Cistercian monastic order) denounced it in tones easily as sarcastic and zealous as those of Loos. In his 1125 *Apology*, Bernard wrote,

[6] Trotzdem, Adolf Loos SOURCE PAGE

> *The church is resplendent in her walls and wanting in her poor. She dresses her stones in gold and lets her sons go naked. The eyes of the rich are fed at the expense of the indigent. The curious find something to amuse them and the needy find nothing to sustain them …*
>
> *Finally, what good are such things to poor men, to monks, to spiritual men? Perhaps the poet's question could be answered with words from the prophet: "Lord, I have loved the beauty of your house, and the place where your glory dwells" (Ps. 26:8).*
>
> *I agree. Let us allow this to be done in churches because, even if it is harmful to the vain and greedy, it is not such to the simple and devout. But in cloisters, where the brothers are reading, what is the point of this ridiculous monstrosity, this shapely misshapenness, this misshapen shapeliness? What is the point of those unclean apes, fierce lions, monstrous centaurs, half-men, striped tigers, fighting soldiers and hunters blowing their horns? … In short, so many and so marvelous [stet]are the various shapes surrounding us that it is more pleasant to read the marble than the books, and to spend the whole day marveling over these things rather than meditating on the law of God. Good Lord! If we aren't embarrassed by the silliness of it all, shouldn't we at least be disgusted by the expense?*[8]

The *Apology*'s attack on the material at the expense of the immaterial put Bernard at odds with his contemporary, the powerful cosmopolitan Abbot Suger (1081?-1151, the originator of Gothic architecture and builder/renovator of the fabled St. Denis, 1135-50.)[9] Suger was no less rigorous a theologian than Bernard, but he embraced and even formulated the school of ornament that we today associate with Gothic architecture, precisely because he believed art and in the accouterments of worship were intermediaries to God: truth, beauty, value were all one, an idea in turn derived from neo-Platonic thought of the 3rd century. To contemplate objects of beauty was to foster a mystical awareness of the divine: in effect, the same goal Bernard had but obtained through opposite means.

7 John Ruskin, *The Seven Lamps of Architecture*, New York: John Wiley & Sons, 1885, 109.
8 http://www.fordham.edu/halsall/source/bernard1.html. Translation by David Burr. Retrieved July 2008.
9 The battle between Bernard and Suger is a fascinating tale of two powerful men, the former associated with the reforming zeal of the Cistercian order, the second renowned as the founder of the Gothic style. The first forbade the use of anything in the church, liturgical or physical, that could undermine the focus on the spiritual, while Suger perceived the material—e.g., ornament—as giving form to the spiritual and an aid in focusing on the spiritual. But before facile comparisons can be drawn, it's vital to also recognize that Bernard was more concerned for monastic houses and for the spiritual welfare of those brothers and monks in any Order, whether it be Clunaic (the older, more established, more worldly) order, or the Cistercians, the younger, rowdier, more radical offshoot of the Clunaics. Indeed, Bernard grudgingly permitted the use of ornament in churches that also served the layperson (we *hoi polloi*, presumably, aren't cut out to be authentic ascetics and require a more visually stimulating environment). But it seems to me that Bernard has his priorities straight: if ornament

For the medievalists Bernard and Suger, the presence or absence of ornament was important because it facilitated or hindered the experience of the divine.

For early Modernists, the "divine" was replaced with the "authentic," to that pure expression of function and/or structure or to the honest struggle with Modernity. Many adopted the straight line and the smooth plane as official emblems of the avant-garde because the line and the plane symbolized and manifested the clarity of thought and the efficiencies of Frederick Taylor and Henry Ford's assembly line. No less than that lion of Viennese architecture, the resplendent Otto Wagner provided another reason for such preferences. He based his on aesthetics: he said the "modern eye" had "lost the sense for a small, intimate scale; it has become accustomed to less varied images, to longer straight lines, to larger masses, and for this reason a greater moderation and a plainer silhouetting of such buildings certainly seems advisable."

It is true that many of us today have become accustomed to "plainer silhouettes" based on the contemporary physical reality we occupy, as well as our personal history and preferences. At the same time, there is much about Wagner's statement that is just wrong, given the understanding we now have of our neural and sensory systems' inherent sensitivity to ornament as well ornament's pivotal role in place-making in urban design. Nonetheless, Wagner's position was an honest effort to make sense of and to justify the emerging aesthetic tenets of Modernism. At least he addressed the existence of sense perception in our apprehension of the built environment, even if we certainly have not lost our need for texture and transitions in scale, or our delight in the curve and the occasional eruption of "the Other" into the scheme of things.

connects us to our environment, and if our intention is to cut off connections to the world, then eliminating ornament is indeed a good step to take.

These mighty clashes of Bernard and Sugar so long ago just reinforces the fact that ornament has been troubling people for a long time. Nonetheless, the question remains. How can a visual system be associated with morality, which is a basis for conduct, typically between human beings? How could certain ways of putting bits of stone or stucco or metal together matter to anyone, let alone be labeled as criminal?

According to the *Shorter Oxford Dictionary*, “crime” means “sinfulness, wickedness, wrongdoing” or an “act or omission constituting an offense (usually a grave one) to an individual or the State and punishable by law.” Do we not, rather, agree with philosopher David Hume, writing in *An Enquiry Concerning the Principles of Morals* (1777), when he says, “We ought not to imagine, because an inanimate object may be useful as well as a man, that therefore it ought also, according to this system, to merit the appellation of virtuous.”[10] (Or, for that matter, criminal.) In other words, inanimate objects have no bearing in questions of behavior. Critic Roger Scruton said basically the same thing 200 years later: he labeled such a connection of moral and aesthetic criteria as “fantasy. For while aesthetic values contain an intimation of the moral sense (the sense of ourselves as social beings, tied to an order greater than ourselves), moral values do not in their turn contain any intimation of their aesthetic embodiment.”[11]

The reality, of course, is that we *do* associate buildings with people, their designers, owners and users and the values they reveal. As Jacob Voorthuis points out in his excellent analysis of Victorian architect Edward Lacy Garbett, “The act of consecration by which a designer or a patron owns a building sets that building apart within society, makes it an object of special significance, endowed

[10] David Hume quoted by Jacob Voorthuis in *The Necessity of Architecture, A Study of Edward Lacy Garbett's Theory of Architecture*. Retrieved 11/15/04, http://www.voorthuis.net/Garbett/GarbettChapter08.htm
[11] Roger Scruton, *The Aesthetics of Architecture*, 1979, 253.

with meaning about the mind that resides within … a building was able to participate in certain aspects of life by which it could assume an attitude by proxy. For the spectator the building thus became a symbolic extension of the (material or intellectual) owner."[12] The idea that the building was a portrait of the owner is not new: as one Venetian wrote on August 30, 1538, regarding his response to a newly refurbished façade, "Whoever wishes to see how clean and candid [the owner's] mind is should look at his face and his house, look at them, I say, and you will see as much serenity and beauty as one can desire in a house and in a face."[13]

There we have it. Despite logic, we are our buildings and our buildings are us, an intimate connection we make all the time consciously or unconsciously. After all, at

PAINT AS ORNAMENT

In Greek temples, color was a necessary aid in emphasizing the structure's tectonics. In many Buddhist temples around the world or traditional Chinese houses, color conveys symbolic meaning and/or status.Otto Wagner used paint in quite a different way for an apartment house in Vienna (near downtown, across from the flea market in Vienna) called the Majolikahaus, Linke Wieziele 40, 1898.

Majolica is a type of glazed and painted earthenware; originating with the Babylonians, it was extensively employed by the Hispano-Moresque potters of the 14th century. By the mid-15th century, majolica was popular in Italy, where it became famous through the decorations of the Della Robbia family. The early Renaissance ceramicist Andrea della Robbia made the medallions on the Foundling Hospital, Florence, designed by Filippo Brunelleschi; the medallions of white "bambini" on blue background are a critical element of this light-hearted building, renowned as the first building of the Renaissance. In Wagner's hands, here bright red poppy-like flowers with long stamens and cheerful blue pistils flow across the building as if the building were just a rock over which this languid stream of color flowed. And just as a stream winds in apparently random patterns, one corner of the building is left unpainted in a gentle curve, as though the flower stream were changing direction.

In any case, far from emphasizing the tectonics, as does the Della Robbia medallions, or dematerializing the construction into abstracted form per Semper, or highlighting the spatial qualities of the building, Wagner's paint-ornament blithely denies the building's structure and form completely. In an even more startling 1900 unrealized project by Wagner protégé Hans Schlecta, the designer used a painting of birch trees and superimposed it across the façade of the building like a photograph. In contrast to Wagner, who carefully placed his flowers to avoid the untrimmed window openings, Schlechta's design ignores the openings, so that the punched out orthogonal windows interrupt the image of the trees, giving the design a far more contemporary flavor, reminiscent of the use of the bands of silk-screened panels covering an ordinary box, the Library of the Eberswalde Technical School, Germany, 1999, by Herzog & de Meuron

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[12] Ibid.

[13] Monica Schwitters, "Odoni's Façade: The House as Portrait in Renaissance Venice," *Journal of the Society of Architectural Historians*, Vol. 66, No. 3, Sept. 2007, 295; footnote 1.

a smaller scale, don't we make assumptions about someone by his or her physique or clothes or their accessories? Style, after all, is "how we interpret each other."[14] By itself, then, a surface communicates *values* whether it is cladding or clothing: for example, essayist and philosopher Jacques Soulillou cites a passage from Plato's *Gorgias*, in which someone chastises Socrates for failing to dress himself in a way becoming to a free man. (The philosopher wears the same coat both summer and winter, and is perpetually barefoot.) "The character of he who is free," writes Soulillou, "cannot be disassociated in Greek language and thought from the exterior appearance and the ornamentation that goes with it."[15] Thus, this connection between quality, character, and ornamentation has been part of Western thought for centuries, despite the earnest Christian injunction that "clothing maketh not the man," an adage not even most believers by into, especially priests kitted out for Sunday.

While the act of *designing* buildings may be extraordinarily personal and filled with angst and obsession, actual buildings are conspicuously public in a way that the products of other arts, which can obviously be practiced in private, are not.[16] Because of the public and permanent nature of architecture, buildings—spectacular or banal—seem to function more like politicians in the *body politic*: that is, they address themselves to anyone who sees them. They manifest their specific attitude towards *civitas*, and thus it is not surprising that much of the tortured debate over ornament in the last 200 years focuses on what buildings *ought* to be saying. As Scruton reminds us, the arguments "illustrate the recurrent search for what is essential in architecture."

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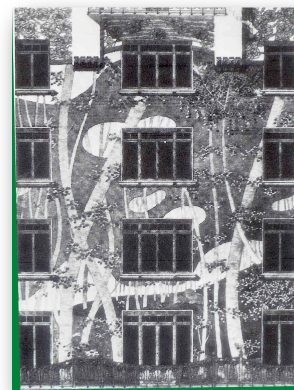
[14] Christina Binkley, "Of Birkins and Blackberry: Essential Reading on Style," Wall Street Journal (Personal Journal), July 9, 2009.
[15] Jacques Soulillou, ___________________
[16] (I am talking about how it is perceived visually, not how it operates functionally. Louis Kahn once said in a lecture that while painting can have two square wheels on a car architecture cannot, but he was talking about function, since today's architecure can assume any number of forms but it still must function.)

The Victorian Garbett even divided buildings into two camps, polite and selfish, and offered a simple rule for a kind of urban spatial bargain trading air space for examples of good architecture. "A great building is, in certain respects, a necessary evil," he begins. "It shuts out from us air and light and the view of beauteous nature; it encumbers a portion of the earth's surface and encloses a portion of the free atmosphere. It has no right to do so, without making or attempting what compensation it may for these injuries." Exactly how a building makes "compensation" distinguishes polite from selfish buildings, he asserted.[17] v

Ruskin and Loos knew perfectly well that buildings speak, as does anyone who speaks for architecture, let alone ornament and specific styles. The latter's famous pronouncement that "houses should be dumb on the outside" stemmed from *exactly* the knowledge that ornament, by definition potentially powerful and potent, can act as a bridge, proffer a hand, grease the visual gaps, so to speak, and so create a transition between the world and the individual, a bridge that Loos *could not tolerate* because that world had been corrupted. He removed the

Paint is low-budget but pungent ornament, as Le Corbusier, Bruno Taut and any number of architects, builders, developers, apartment dwellers and home owners know well. Le Corbusier's first executed commission, the Villa Fain La Chaux-de-Fonds, built in 1906 when he was still an art student of 20, uses "form and colours of ornamental details clearly derived from immediate observation of nature," according to architectural historian Verena M. Schindler. Brown. beige and red paint are used on the upper regions of the house in ornamental patterns based on pine trees surrounding the house. This is combined with actual rough rock base to create a richly textured effect with clear hierarchies delineating foundation, the ground, and the images of trees with their yellow ochre and sienna of leaves in autumn, "combined with some spots of light blue, which enhance and refresh the overall chromatic appearance," states Schindler in her online essay, "Prefabricated Rolls of Paint: Le Corbusier's 1831 Colour Keyboards." Frank Lloyd Wright used the The Los Angeles architecture firm Rios Clementi Hale use paint to cheer up cash-strapped public elementary schools in Los Angeles, the bright colors of painted flowers and plants also help children identify their classrooms.

Paint was used to create the "white dresses" of Modernism, of course; this is the subject of White walls, Designer Dresses: The fashioning of modern architecture, by architect/educator Mark Wigley . Post-Modernists, in turn, used color to refute Modernism.



4 Ibid., Ch. ???? Italics added. This footnote is not related to the text - ?

dwelling and the domestic (already buildings that speak far more "softly" than larger civic buildings, in Garbett terms) from public discourse in order to protect them and those they sheltered from gratuitous gossip (generated by the speech of other buildings or people) and the inauthentic life.

A "polite" public building, one might think, would compensate us for the environment sacrificed for its sake by fitting gracefully into its setting, e.g., address "contextualism," while selfish buildings would not. In fact, good architecture will perhaps not immediately be seen to but ultimately prove to take good care of its inhabitants and successfully address the surrounding urban fabric. It can engage a community in deeply "compensatory" ways, even if the architecture is not immediately received as being polite: to coin the title of one of Iris Murdoch's books, *The Nice and the Good*, what appears to be nice may not be good at all in the long run.

The style of buildings—let's call it the arrangement of parts, for the sake of argument—communicates a message. Architectural style represents "something in terms of something else," according to writer Voorthuis, with form representing "political, social, cultural and moral aspirations." In his view, style is nothing less than "structure in the service of desire," an elegant insight poetically and concisely rendered. Through much of history, this intense desire has not only driven those aspirations but has done so *didactically*, that is, to teach, clearly and earnestly, those values and ideas of the larger society. It is as if to say, "this is the way buildings should look" because "this is the way we should believe and behave." The post-Civil War American Renaissance Revival, which established a strong and enduring federal presence through Classical language, is a perfect example of using a style to communicate mores and values through an architecture that clearly communicated a federal presence. (In contrast, much contemporary architecture does not seem to be concerned with being at all didactic. Perhaps we no longer presume the confidence, even hubris, of earlier centuries of Renaissance and Beaux Arts or the Early Modernist convictions about

a just society.[18] Perhaps our agendas have grown more tentative, and we have grown less convinced of our right to throw our weight around in imposing values that are no longer mutually agreeable. We no longer presume to teach or to control; rather, our agenda may be more local and community-specific.)

To be effective in their role as vehicles both didactic and tectonic to meet society's aspirations, according to our Victorian Garbett, 19th century buildings had to take on yet one more task: only "poetical" buildings could be deemed *Architecture*. This "poetical" aspect speaks in a language not available to words, art, or music. Its "highest productions are calculated to produce, not only a transient emotion, but a permanent effect on the beholder," Garbett writes of this *poetry*, his ultimate requirement. (He never specifically defines it, apart from saying that anyone who has wandered the temples of Karnac or the cathedrals of Amiens and Salisbury or the fragments of Athena in the British Museum "and finds no poetry in it, must be incapable of discovering it in anything else in nature or in art."[19])

In contrast to *Architecture*, a mere *building* (lower case b) *cannot* convey messages about society, *cannot* help to create an identity for a nation, and *cannot* be held responsible for imposing a "permanent effect" on anyone, whether user or "beholder."

We are getting closer to why ornament was particularly ripe for attachment to immoral behavior. Author Edward Ford asserts that

[18] Walter Benjamin's ambivalence about modernity notwithstanding.

[19] Edward Garbett. Rudimentary Treatise on the Principles of Design in Architecture as Deducible from Nature and Exemplified in the Works of the Greek and Gothic Architects. where ?? Lockwood & Co.: 1876.   29.

> ***Insofar*** *as architecture connects us to a world beyond itself it does so through an arrangement of space and light.* ***Insofar*** *as architecture communicates an idea about society it does so through joints and an arrangement of parts.*[20]

While Ford is talking about architecture, ornament, as we've discussed in earlier chapters, most definitely conspires in *both* these "insofars," whether it is "the world beyond itself" or it reveals "an idea about society."

That is exactly why it was attacked: Ornament is a basic manifestation of style, and as such could be called architecture's first line of visual presence because when we look at buildings, we first see surfaces, which is precisely where ornament dwells and creates "poetry." We do not *actually* apprehend what is beyond or behind the surface unless, of course, the wall is transparent. In this light, it may be easier for us to understand in what way the presence of ornament, or lack of it, could be seen to manifest good and evil or serve as a vehicle, a messenger of morality and meaning.

This problem of attaching morality to construction and the struggle for theoretical consistency is manifest not just in the verbal and written debate about ornament but in the actions of many leading

[20] Edward R. Ford, from the text of a speech, *Some Thoughts on Architecture at Virginia,* delivered 5 December 2005 to the Society of Fellows of the University of Virginia.

turn-of-the-century architectural practitioners, actions that often contradicted their theories. It is, after all, easier to talk and to write than to build. Wagner's dicta, for example, were not always reflected in his work, resulting in a disparity between his words and his work even more sharp than that of Loos, simply, I suspect, because Wagner was born early in 1841 and into fervid historicism, or because he built far more and prestigious buildings such as rail and metro stations that took up more "Garbett space," space that the Viennese public used daily. Wagner may have argued for flat, minimally adorned masses in his book *Modern Architecture*, 1894, but his buildings are not only decorated – or ornamented, depending on your viewpoint -- but some dramatically so.

Probably his most famous ornamental treatment (note I don't use the word ornament) is his famous bolts with their crisply handsome aluminum heads, which apparently secure the marble panels enriching the brick façade of the Postal Savings Bank, 1912, in Vienna.

In reality the bolts were inserted during construction merely to temporarily restrain the panels while the adhesive mortar actually holding the panels in place hardened, as historians have pointed out.[21] In this case, these highly decorative pattern of bolts were intended as a kind of *symbolic* functionalism, clarifying that the marble panels had been fastened to the brick walls as a surface cladding and were not to be read as structure. Thus, the bolts are not necessarily dishonest at all, but frank in explaining their vestigial but requisite role in building construction, a strategy similar to that Mies van der Rohe (1886 – 1969) employed for the Seagrams Building, 1958, in which he "applies" slender, pretty bronze I-beams that allude to the structural role of the much beefier steel structural members beneath. Nonetheless, the "dishonesty" of Wagner's bolt heads continues to excite people, quite a different criticism than whether they should be considered as ornament (they fulfill at least two of

ornament's roles: first, they tell a story, here of how one architect resolved a difficult challenge specific to a time when new methods of construction challenged ideas about cladding and construction; second, the bolt heads help articulate scale. And yes: I know that others may consider that the bolt heads hermetically, solipsistically pertain to the building alone and that they fail to employ other readings of the world or the larger cosmos: in which case the bolt holes are decoration and not ornament.)

a linear look of the debate

I touched on the medieval debate on ornament but now want to do a more systematic look at this long tradition of argument concerning the meaning of ornament's role in architecture. This is clearly a case of complexity and contradiction, as many writers, theorists and practitioners across the centuries have spoken with opposing voices, leaving us to wonder about their exact meaning; or they contradict their own practices, as we've just seen with courageous, majestic Wagner.

Actually, how could they not? Architecture is difficult and complicated in any case. Many of these voices I briefly note here were writing and acting in intense, unstable times and struggling to make sense of their worlds. These writers also share another commonality: whether they embrace it or reject it, they all recognize architectural ornament's unrepentant pulse of *eros* and its power to invoke sensuality. For some, many, actually, even the promise of that sensuality was dangerous and therefore to be controlled. The fun is seeing how that control was expressed, somewhat like a spirited horse behaving differently depending on who's riding it.

Earlier writers who took on the subject include such luminaries as Frank Lloyd Wright (1867-1959)

[21] *Wagner*, o cit.,   37.

and Adolf Loos (1870 – 1933). An exhaustive study of the theory of ornament should probably include the Austrian art historian and theorist Alois Riegl (1858-1905); the French engineer, historian and architect Viollet-de-Duc (1814-79), champion of rationalism in Gothic architecture; Gottfried Semper (1803-1879), the great German architect and theorist, and E.H. Gombrich, (1909 – 2001), one of the century's leading art historians. Pretty much everyone notable in architectural history, in fact, has had something to say on ornament— since the *real* conversation underlying arguments on ornament is about the basis of architecture itself—but the personalities I have included here are enough to trace the main arc of the debate.[22]

Aligning himself with that reading of Alberti in seeing unity between ornament and architecture, Sir John Summerson in his essay, "What is Ornament and What is Not," suggests our contemporary notions of ornament are limited. Citing examples in both Classical and Gothic architecture, Summerson, like Alberti before him, asserts that elements that are today defined as ornament are in fact integral to architecture. Citing the Roman Doric column, he argues that entasis, the molded cap and base are not ornament per se because those elements are part of "a sequence made obligatory by convention, just as the arrangement of words in a sentence is made obligatory by convention." In other words, those elements are the language of an Order and not ornament. Super-added enrichments, such as egg and dart on the echinus, are superfluous and indeed qualify as ornament, just as the trills and mordents that a composer would use to enrich a melody might be considered something "extra."

Summerson similarly conflates ornamental style and "pure" architecture in his approach to ornament in Gothic architecture. In Gothic, ribbed shafts appear to support the vaulting above them, even though in actuality the ribs have no structural role (neither does the vaulting above the ribs, for that matter). "Everybody knows that if the shafts were knocked away the vault would still be there," he writes. But, he adds, "the intention to support is present, and it would certainly go very much against the grain to describe those shafts as ornament; they are as much a linguistic part of the building as are the columns in a subsidiary order in a classical building." Sir John Summerson. Via III, Ornament: The Journal of the Graduate School of Fine Arts, University of Pennsylvania. Edited by Stephen Kieran. Philadelphia: The Graduate School of Fine Arts, University of Pennsylvania, 1977. p. 5 – 9.

See Heavenly Mansions by Sir John Summerson (New York, W.W.Norton & Co., 1963), in which he describes ornament as "surface modulation."

Renaissance architect/theorist Alberti's views

[22] I offer a kind of rationale, feeble perhaps, for not including everyone by quoting Alberti, who speaks for me here: "Yet to collate material from sources so varied, heterogeneous, and dispersed, material from outside the normal range and skill of any writer, to review it in a dignified manner, to arrange in a proper order, to articulate precisely and explain rationally, surely all this required an ability and learning greater than I would profess to have." – Leon Battista Alberti, "Here begins the Sixth Book of Leon Battista Alberti. On Ornament," *On the Art of Building in Ten Books*, Cambridge, Mass., and London: MIT Press, 1988, ___. Translated by Joseph Rykwert, Neil Leach, and Robert Tavernor.

on architecture and ornament tended toward control and to the disciplined and the unity of parts, as seen in his *De re aedificatoria*, or *On the Art of Building in Ten Books*, written in 1450 as the first modern treatise on architecture. It was so popular that in 1485 it became the first printed book on architecture. It is based on the format of Vitruvius's building treatise, *De architectura libri decem* or *The Ten Books of Architecture*, written 27 b.c.e.

Vitruvius

It is helpful to take a look first at Vitruvius's book as it so informed Alberti's seminal book, although their aims were quite different.

The pragmatic Roman's writings on architectural ornament (a caveat: the reader may or may not consider parts of the Orders as ornament) as derived from nature, seen in plant growth, the human form, and the way natural forces are resolved in building. Thus, the "rules" that govern the architectural ornament of Vitruvius are not random, arbitrary, or based on "mere" aesthetics. Rather, for the Romans, who borrowed freely and heavily from the Greeks to align themselves with their revered predecessors, ornament continued to express and elaborate the processes of construction. Vitruvius notes, for example, that stone triglyphs symbolize the Greek treatment of the ends of beams.[23] This is also why he states that *dentils* should never appear under *mutules*:[24] in roof construction, *mutules* represent heavier major rafters, whereas *dentils* represent the ends of lighter

[23] It is interesting that even dictionaries cannot distinguish between whether the triglyph is a "structural member" or "ornament." *Dictionary.com. Unabridged* defines a triglyph as a "**structural** member of a Doric frieze, separating two consecutive metopes, and consisting typically of a rectangular block with two vertical grooves or glyphs, and two chamfers or half grooves at the sides, together counting as a third glyph, and leaving three flat vertical bands on the face of the block." Meanwhile, the *American Heritage Dictionary* defines it as "an **ornament** in a Doric frieze, consisting of a projecting block having on its face two parallel vertical glyphs or grooves and two half grooves or chamfers on either vertical end, that separates the metopes." http://dictionary.reference.com/search?r=2&q=triglyph, retrieved October 2007.

common rafters. "And so in Greek works nobody ever puts dentils under mutules, as it is impossible that common rafters should be underneath principal rafters. Therefore, if that which in the original must be placed *above* the principal rafters, is put in the copy *below* them, the result will be a work constructed on false principles," he cautions.[25] [Italics added.] Such falsity would destroy the demonstrable and desired intimate relationship among natural forces, Greek wood construction, and Roman stone building.[26]

For Vitruvius, it appears that demonstrating forces and reinforcing memory, especially for an architecture that traced a lineage from Athens to Rome, was more important than ornament's role in assisting towards beauty, one of Alberti's prime concerns.[27] In contrast, one of Alberti's objectives is to use architecture to manifest a balanced, ordered perfection that embodied and facilitated the perfect social order.[28] His was not a game of meaning but of aesthetics in service of social propriety.

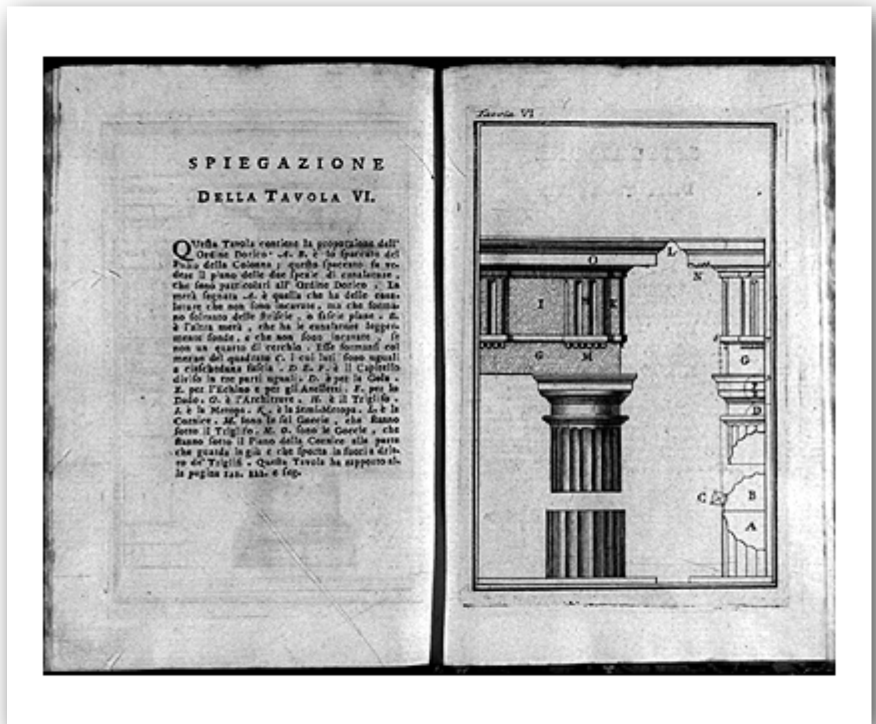
Alberti

Given his monumental stature in architectural history and his distance of over half a millennium, one might expect Alberti's voice to be remote and unintelligible. In fact, this humanist scholar, so pivotal in defining architecture itself as a special art and a profession in its own right, often surprises the 21st century reader who is braced—at best—to gain some sort of foothold in an arcane text.[29] Instead, Alberti's writings are quite approachable, sometimes canny and quite funny.

[24] Dentils are the small rectangular blocks projecting like teeth from a molding or beneath a cornice. Mutules are flat blocks projecting under a Doric cornice, decorated on the underside with rows of six drops (guttae) each.
[25] Vitruvius, "The Ornaments of the Orders," Book IV, Chapter 11, *The Ten Books of Architecture.*
[26] See also Timothy Zork, "The Use and Meaning of Ornament: Vitruvius versus Alberti," http://www.andrews.edu/~tzork/Ornament.html.
[27] Nostalgia combined two Greek words, *nostos*, to return home, and *algos*, pain or suffering.
[28] Zork, o cit., ___

At one turn, Alberti is a rather chatty, overly solicitous Latin scholar, mindful of impressing clerics and the Florentine aristocracy with his indisputable familiarity with history, poetry, literature, art and architectural history, etc.,

peppering his text with Roman and Greek jokes and anecdotes from eminent sources such as Plato, Herodotus and Cicero. Then, abruptly, he will wheel about and plunge into much more straightforward discussions of materials and construction techniques, comparing, for example, Egyptian and contemporary methods for moving massive stones.[30]


SPIEGAZIONE

DELLA TAVOLA VI.

Questa Tavola contiene la proporzione dell' Ordine Dorico. [illegible]

Page from De architectura libri decem

Alberti's principal task, however,

is to design and build something else entirely, and that is the profession of architecture itself,

[29] Tackling Alberti is not so different from reading (Michel de) Montaigne's essays, published in 1575. IMHO, Montaigne's writings are not particularly novel in their insights or in style but because he was perhaps the first blogger, unabashedly taken with himself and his own impressions of the world and craving attention.

[30] Despite its canonical stature, *De re aedificatoria* in some ways also recalls the beseeching, slightly condescending writing style and concerns of the American architect, Andrew Jackson Downing (1815-1852), especially his *The Architecture of Country Houses: Including Designs for Cottages, and Farm-Houses and Villas, With Remarks on Interiors, Furniture, and the Best Modes of Warming and Ventilating,* 1850. This book is equally likely to discuss how to mix lime plaster for outbuildings as much as teaching a slightly muddled, probably crass emerging middle class of Victorian America how to develop good taste.

defining its scope for an audience he himself is crafting: gentlemen and professionals. He is not addressing the medieval master-builder, who no longer is the desired demographic for such an important discussion. In fact, Alberti could have equally titled this book not *On the Art of Building in Ten Books* but *The Art of Being an Architect in Ten Books*.

" 'Merchants plow the Seas , … Lawyers break their brains, and Souldiers fight battels, in sum, to live at east, and splendidly; who before, and whilest employ'd, were the Pillars and Ornaments of their Country." The country house, [for writer John Evelyn, in a 1667 essay] offered a respite for those members of the elite who had been 'Pillars and Ornaments of their Country.'" Thus, the country house also contributed to England's national welfare. If lawyers, merchants and soldiers were "pillars and ornaments" it suggests the word didn't indicate something but quite necessary to national well-being. See "Redefining Hospitality" by Kimberley Skelton, Journal of the Society of Architectural Historians, Vol. 68 No. 4 Dec. 2009 p. 510.

Since four of his ten books are devoted to ornament, one might assume these would prove a rich mine for its discernment. Yes and no: Alberti's ideas on ornament seem to be far more free-wheeling (leading to sharp, nuanced, sophisticated debates among scholars) than those of others writing centuries later, perhaps stemming from his feeling for unity and for didactically developing an architecture agreeable in proportion, scale and propriety.[31] Architectural ornament and architecture served this purpose together.

Perhaps this is why the critic Reigl could observe that Alberti's use of the terms ornament and architecture in the original Italian "collapsed the words *ornament* and *architecture* as if the two were inherently interchangeable."[32] Rather than dwelling individually on the different parts of a building, Reigl pointed out, Alberti preferred to "describe that unity which should 'permeate every stone and act of design in good architecture.' "[33] That unity, or the perfect harmony he described as *concinnatis*, is "the absolute and fundamental rule in Nature" and "the spouse of soul and of

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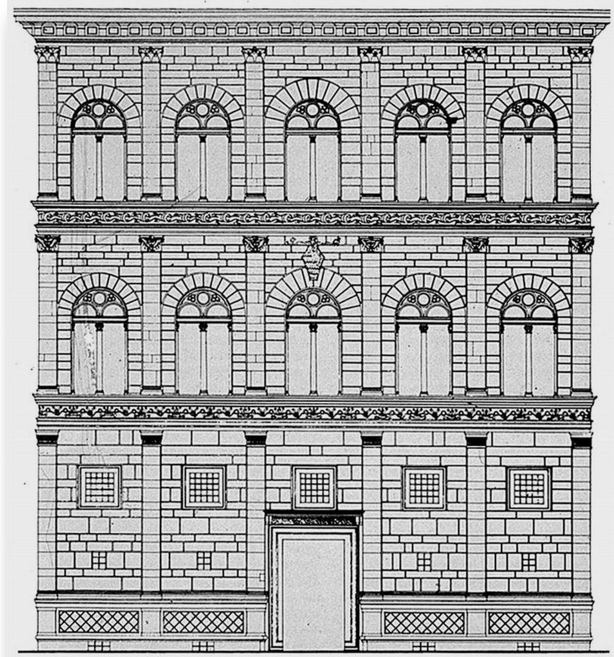
[31] After all, Alberti began this ten-year work by explicating the garbled prose of Vitruvius, part Greek and part Latin, which added up to neither, as Alberti complained, though in setting himself this task, he had no rivals and had much to gain.

[32] Daniel Pontius,*"Ornament as Narrative: A Framework for Reading Ornament in the Twenty-First Century,"* http://www.spokane.wsu.edu/academic/design/content/documents/d_pontius_10444486.pdf. Retrieved 2004.

[33] Ibid.

reason."[34] We would intuitively recognize *concinnatis*, he said, because "it is our nature to desire the best, and to cling to it with pleasure"[35] It is the term that epitomizes Alberti's beliefs. *Concinnatis* was to be obtained through the thoughtful and precise application of number, geometry, measure, alignment, and proportion (Alberti was skilled in math and counted as friends the premier mathematicians of his day).[36]



Facade, Palazzo Rucellai, Alberti, 1451

As an example of appropriate ornament—that which strengthens and displays unity—Alberti developed a system of nonstructural, classical pilasters and architraves (revetments), which could be superimposed upon any smooth wall surface, a treatment that became very popular in the Renaissance. He used the word *"ornamentum"* (equipment, decoration) for these architectural elements, insofar as they were not *bona fide* members of the family of Orders: theoretically, pilasters are imperfect hybrids, embodying neither the purity of the Greek column or the Roman wall. [37] The pilasters are In addition to any other function, such as its aesthetic potential for what he termed "auxiliary light," Alberti's pilaster has a

[34] Rykwert, o cit., 303, 302.
[35] Ibid.
[36] Liane Lefaivre, "Leon Battista Alberti: Some New Facets Of The Polyhedron," http://www.bk.tudelft.nl/dks/publications/online%20publications/1994-DBR-some%20new%20facts%20on%20the%20Polyhedron.htm. Retrieved August 2006.

[37] As Alberti points out in *Book Seven, Ornament to Sacred Buildings*, other ornaments include the "platband, corona, the ovolo, astragal, channel, wave, and gullet." See *On the art of building in ten books* By Leon Battista Alberti, Joseph Rykwert, Neil Leach, Robert Tavernor. Translated by Joseph Rykwert, Neil Leach, Robert Tavernor. Contributor Joseph Rykwert. Cambridge: MIT Press, 1991. 204.

mechanical function very much like any old door molding in drywall: to cover a joint and its success here also depended on using the correct material. The facade of Alberti's first independent work, Pallazzo Rucellai, 1451, for example, is composed of *pietra forte*, “a fine grained sandstone that allowed him to hide the joints within the overall pattern of channels and pilasters.”[38]

These examples—the pilasters, particularly—recall the role of *lineamenta* discussed in Chapter II – they are organizing lines, part of Alberti’s mind, that are vital to the perception of the building’s overall face. They are applied ornament that are necessary for the completion of the design. Always seeking good recipes for *concinnatis*, Alberti lays out rules for his *ornamentum,* the pilasters, in prescriptive textbook fashion. They could be round or quadrangular if they were “engaged,” that is, where the pilasters are part of the wall. However, if detached, they were to be round columns (columns, imitating nature, were based on trees, and to be smooth, like bark, and smaller at the top) and, if they stood far enough off the wall plane, a secondary series of engaged quadrangular pilasters was to “echo” each column along the wall. This move thus reinforced the visual impact of the two sets of columns, somewhat like the relationship established by soprano and alto voices. Subtly, the result provided more visual pleasure in the added depth and play of light in the rhythm of two similar (but not identical) elements working together. Walking along such a wall, one can almost feel the movement of shadows made possible by that doubly echoed rhythm of column and pilaster. The experience is enriched, ringing the changes of the sun across the day.

Much later, Henry van der Velde seemed to speak to this double duty (covering a joint as well as providing “ancillary light”) when he wrote, “I see ornament in architecture as having a dual function. On the one hand it offers support to the construction and draws attention to the means it employs; on

the other... it brings life into a uniformly illuminated space by the interplay of light and shade."[39]

But if ornament and architecture may have dual functions or on some occasions be interchangeable, ornament and beauty definitely did and were not. Alberti wrote:

> *Ornament may be defined as a form of auxiliary light and complement to beauty. From this it follows, I believe, that beauty is some inherent property, to be found suffused all through the body of that which may be called beautiful; whereas ornament, rather than being inherent, has the character of something attached or additional.*[40]

Depending on how one defined "attached or additional," Alberti could possibly argue the opposite for a wide range of tectonic elements that we might alternatively label as parts of architecture or as ornament.

In addition, like those of geographer Yi-Fu Tuan, his definitions of ornament inhabit several scales at once (linking Alberti to another familiar role of ornament, that is, reconciling scales). At one moment he may be discussing relatively small ornament such as "spheres, garlands, statues, chariots."[41] But: "the main ornament to a wall or roof will be the revetment [either a veneer of stone, concrete, or other materials or a retaining wall] …Openings are an ornament that give great delight and dignity to the work," and, of course, one of his best-known declarations on ornament is "In the whole art of building the column is the principal ornament without any doubt."[42] (Here Alberti echoes some other influential writers of the 17th and 18th centuries such as Francesco Milizia, for whom the orders—Doric, Ionic and Corinthian—were considered ornament but also to be the

[38] Patrick George, http://ccat.sas.upenn.edu/george/elevation.html
[39] Henry van der Velde, *Arts and Crafts Sermons by a Lay Preacher*. Leipzig:1902. http://www.bc.edu/bc_org/avp/cas/fnart/symbolist/vandevelde.html
[40] Alberti,___________
[41] Rykwert et al., o cit., 180.
[42] Ibid., 164., 180, 183.

foundation of beauty and meaning in architecture.[43]) Having addressed ornaments of the land, such as the road leading to the basilica of St. Peter, "2,500 feet in length and protected by a portico of marbled columns and lead roofing," Alberti turned to the harbors and the sea, where "watchtowers provide an excellent ornament" that make an "imposing sight from afar."

But while Alberti may conflate *architecture* and *ornament* interchangeably, maddeningly, (and perhaps inevitably, given the task, absurd really, of attempting to define ornament)—he also says that architects should "erect our buildings naked, and let [them] be quite completed before we begin to dress [them] with ornament."[44] In other words, a particular order and perfection is already implicit in that "naked" building, and only the structurally (or apparently structurally?) complete building is ready for the embellishment of ornament. To most of us in the 21st century, however, Alberti's 15th century notion of a "naked" body that already incorporates the details of the Classical orders probably appears already and thoroughly "ornamented."[45]

Architect/scholar Amir Ameri raises this paradox in his discussion on the idea of Alberti's concept of the naked and the beautiful:

> *We are consistently told that the beautiful [according to Leon Battista Alberti] cannot accept either addition or subtraction without loss. However, from Alberti's description of ornament as a "dress" that covers the body beautiful, to Laugier's description of it as all "that can be admitted or suppressed without changing the thing fundamentally," to*

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[43] Neveu, 61.

[44] Leone Battista Alberti, *Ten Books on Architecture*, 1755 Leoni Edition, Transatlantic Arts Inc., 1966, 203. Quoted by Amir H. Ameri in "Writing on, the Margins of Architecture," *Art History, the International Journal of the Association of Art Historians*, London, Vol. 16, No. 2, 1993, p 336-348. Retrieved 28 December 2005.

[45] I, for one, don't think of a column or an opening as an ornament *per se* ... although both, given the physicality of the discussion, go to the obvious subject, *eros* ... and perhaps that is where all this is leading anyway: *venustas*, delight, the heightening of the senses, from the Vitruvian formula for architecture, *utilitas, firmitas, venustas*. *Venustas*, after all, comes from the goddess Venus, who is clearly capable of arousing desire. All great architecture invokes *eros*, the physical, the sensuous; conversely, our erotic natures are embodied in the tectonic ... as any number of 20th century theorists/writers have pointed out more elaborately than my brief musings here.

> *Ruskin's definition of it as "things that may be taken away from the building, and not hurt it," to Robert Venturi and Denise Scott Brown's view of architecture as a "shed" decorated with explicit "appliqué ornaments," ornamentation is purported to never be anything but an external addition. Hence the perplexing question that variously confronts the authors of the field: what to ascribe to and how to reconcile the aesthetic contribution of ornamentation, if the "aim" is to produce what can accept neither addition nor subtraction without loss?*[46]

Perhaps inevitably, Ameri offers no easy answer to his dilemma. Instead, he proposes that questions and attitudes about "beauty, nature, revelation, ornamentation, etc." are "intertwined and mutually reinforcing." In other words, we're pretty much back where we started: the terms "beauty" and "ornament," cannot be forced into distinct entities because they are interdependent phenomena. Terms like this, he says, "carry the load of a lasting and pervasive tradition." One cannot discuss any element in isolation, "or even collectively without assuming the weight of the tradition."[47]

Other historians have tried to clarify Alberti's concept on the relationship between the naked and the beautiful. Scholar Jennifer Bloomer is quite helpful on this: she writes that the "beautiful object is first beautiful without ornament; ornament is added after the establishment of the beautiful object. When this occurs there must logically be a slipping away of beauty, because for the object to possess beauty in the first place, 'nothing may be added . . . but for the worse.' So when something (ornament) is added, the beautiful object becomes both worse (no longer its pure self) and better ('more delightful')."[48] What we lose in beauty, we gain in *venustas*.

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[46] Ibid.
[47] Ibid.

[48] Jennifer Bloomer, "Abodes of Theory and Power Tabbles of Bower [stet]," in *Deconstruction and the Visual Arts: Art, Media, Architecture*, ed. Brunette and D. Wills, Cambridge: Cambridge University Press, 1994, p 231-32.

Although these apparent contradictions make it more difficult to understand exactly how Alberti viewed ornament, the addition of *venustas*, whether structurally integrated or added, seems key. In the beginning of Book Six, *Ornament*, he writes that whatever we construct should be appropriate to its use and lasting in structure. But, he adds, "to be graceful and pleasing in appearance," that is, to manifest *venustas*, is "the noblest and most necessary of all."

However, even as Alberti encourages pleasure and delight with one hand he dampens it with the other. For example, immediately after he invokes the need for pleasure in his introduction, he nonetheless insists that the notion that "the forms of buildings should vary according to individual taste and must not be bound by any rules of art" is an error of the ignorant. Art, he states, must follow sure and consistent methods that are precisely governed. In other words, delight must be disciplined and beauty is objective, even though a "delightful" addition to one may be corrupting overkill to another as equally sophisticated and cultured as Alberti. And while pleasure may be necessary, the word "dignity" percolates far more frequently throughout Alberti's text. "Extravagance I detest," he declares. Analogous to the goal of revealing his cultural acumen through his luminous high Latin phrases, the goal of successful architecture is to distinguish and to dignify the self, the family, the nation state. f

In order to accomplish that, "the chief ornament in every object is that it should be free of all that is unseemly [or "free of improprieties," as another translation has it]."[49] This leads to a work that must not be "too" anything: it must not be "jumpy, nor confused, nor disorganized, not disconnected, nor composed of incongruous elements … made up of members neither too numerous, nor too small, nor too large, nor too dissonant or ungraceful, nor too disjointed or distant from the rest of the body, as it

[49] Rykwert, o cit, 163.

were."[50] Unless it passes all these tests of moderation, "the work will undoubtedly fail to retain any **dignity**."[51] [emphasis added.]

Noted architect/theorist Mark Wigley has suggested that ornament for Alberti was a threat because it is sexual and thus both distracts the eye and endangers the maintenance of order, views Alberti presented in his little series on domesticity, *Della famiglia* (*On the Family*, 1432 - 4), in which "ornament is explicitly linked with sexuality."[52] If so, this is a case of ornament not as *mediating* chaos and cosmos, one of ornament's chief roles, but as chaos—the old-fashioned, forboding pre-fractal kind—itself.

Alberti's definition of correct architecture also propelled his advice on building design, counsel that goes far beyond mere aesthetics or even control. In what might anticipate environmental psychology, buildings not only were to be well constructed but should also provide for the emotional well-being of their occupants, human or animal. They should be capable of inducing emotions appropriate to the function of the building in order to enhance and adorn the activities of their users. For example, "the rooms set apart for counsel chambers at the center of a palace should preserve the energy of the seniores who meet there. The paintings on the bedroom walls of city palaces can help women who sleep with their husbands to bear handsome children and invalids to recover from their fevers." (Note, however, that the marital bed is designed not to enhance pleasure or venustas but to produce offspring, doubtless successful and worthy of Florentine praise.)

His distrust was perhaps well-founded. He was the quintessential illegitimate son, the celibate cleric with few close family connections and little inheritance, determined to prove himself through tireless labors in a world dedicated to ostentatious displays of knowledge, pedigree and wealth, someone who deeply adhered to decorum, hierarchy and a virtuous life, defined as not so much right-thinking as striving and productive.

For Alberti, Wigley writes, "the task of architectural theory becomes that of controlling ornament, restricting its mobility, domesticating it by defining its "proper place" (bondage to the ground,

[50] Ibid.
[51] Ibid.
[52] Kim Anne Savelson, "The Places of Feminist Criticism," http://www.appendx.org/issue1/savelson/index8.htm

faithful representative of the presence of the building)."[53] Ornament may not just flit about, like a Renaissance woman in Florence who wanders outside her dwelling, as any woman daring such is obviously neither chaste and domesticated/able. Woman, like ornament, needed to be enclosed (precluding the possibility of mediating as boundary.)

Alberti's attitude reveals an ambivalence about *eros*, if not fear. His wariness about excess recalls Ruskin, who also feared losing authority over ornament lest it became an "offence, an encumbrance, and a dishonor." In contrast, it also brings to mind Adorno's impudently opposing position on ornament, when he speaks of its ability not to reinforce but to *resist* certain cultural and economic paradigms, and to invite fantasy.

Why not, after all, invite *eros* into our buildings, an *eros* connected to the fact of the natural human condition?[54]

While Vitruvius sought to use ornament as a tool to help maintain cultural continuity through honoring the organization of natural forces and the wisdom of the ancients, and Alberti harnessed ornament on beauty's behalf, using beauty to win praise and distinction for buildings designed as metaphors for preserving the materialistic social order of Florence, later reforming rationalists such as Lodoli and Laugier had other concerns altogether.

Though Alberti had challenged Vitruvian formulas for proportional systems, which were based on a

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[53] Savelson quotes Wigley's essay, "Untitled: Housing Gender," presented at a March 1990 symposium entitled *Sexuality and Space* sponsored by the Princeton University's School of Architecture. This was published by Princeton Papers on Architecture in 1992 and includes superb essays by writers including Jennifer Bloomer, Beatriz Columina, and Mark Wigley. See "Untitled," 357.
[54] Bloomer, o cit., 16.

human scale that radiated outward from the navel, Alberti still honored the quest for the perfect proportional system in order to manifest *concinnitas*. In contrast, the rationalists of the late 18th century sought to eradicate what they believed were the rotten outgrowths of an erroneous and irrational adherence to architectural history. They argued that the best architectural *forms* could be arrived at through reason and by analysis instead of relying on historical precedent. Their primary focus was the *buildings* themselves. (Others—primarily the later Romantics—emphasized reforming *society* through the medium of specific architectural styles. If architecture upheld "truth"— *their* truth, of course—it would reinforce moral behavior. By the 20th century, these two agendas converged in architecture that could reform society, express modern truths, and render them in modern forms.)

A seminal impetus to such new independent thinking was a new attention to the validity of direct experience as the source of human knowledge, ushered in by John Lock's *Essay on Human Understanding*, written in 1689, as architectural historian Barry Bergdoll points out in *European Architecture, 1750 – 1890*. Such an attitude destabilized received truths and paradigms, setting the stage for Lodoli and Laugier.

Carlo Lodoli

Father (Fra) Carlo Lodoli, 1690-1761, holds a curious place in architectural history. While he has been the object of fervent investigation by some leading scholars,[55] to most of us, if we've heard of him at all, Lodoli was a obscure, obsessed visionary. His ideas on ornament and architecture were

[55] Diana Bitz, Louis Cellauro, Marco Frascari, Edgar J. Kaufmann, Jr., Marc J. Neveu, Alberto Pèrez-Gòmez, Joseph Rykwert. All of these writers have been important contributors to Lodoli scholarshi Dr. Neveu, who studied with Dr. Pèrez-Gòmez, kindly shared his dissertation with me, *Carlo Lodoli (1690-1764): the Indole of*

original and shockingly prescient. His own writings were lost because his papers rotted into history under a leaking roof: given Lodoli's own passion for methods grounded in materiality and natural forces, this is a fact of no little irony.

Lodoli was very much of his inquisitive Italian culture of the early 18th century, which radiated beyond voluptuous Venice to include the long established universities and faculties of Padua and Bologna, a culture also enriched by the many accomplished *amateur* sophisticates with no overt academic allegiance but who investigated new, scientific ways of knowing. Mathematics, especially geometry, for example, was no longer to be venerated *solely* for its symbolic cosmology but to be harnessed as a tool for problem solving.

Father Carlo Lodoli

But like scholars I mentioned, Lolodi fever is catching. Like them, I've come to believe that he deserves a much larger presence not only in the history of architectural theory but in a practicing architect's office. His views, as distant as they are, suggest that the last several centuries of controversy and ambivalence regarding architectural ornament might have taken a different course had his ideas been more clearly understood and more widely disseminated.

Material and of Self. See also Nevue's article in the *Getty Research Journal*, Vol. 1, Spring 2009, 27, "The

One of Lodoli's followers, Francesco Algarotti, published a collection of his sayings, *Saggio sull'Architettur*, in 1753.[56] The polished, sophisticated Algarotti treated Lodoli as an eccentric whose principal ideas denuded architecture of art, denied any merit in Classicism, and denied ornament its rightful place at the table. Lodoli went too far and was therefore to be dismissed. Like differing versions of Jesus in the the four Gospels, another follower, Andrea Memmo, alarmed that Algarotti's views reified a narrow version of Lodoli's ideas, put forth his own competing version called *Elementi d'Architettura Lodoliana*. in 1786.[57] The equally patrician Memmo was far more sympathetic to the ideas of his mentor, portraying Lodoli as an unsentimental thinker, brilliant in rigor as well as being wholly entertaining.

A Franciscan monk of Venice, Lodoli was a philosopher, dialectician, scientist, caustic wit and teacher of both Galileo and Bacon, but still an unlikely hero in the history of architecture. The only surviving portrait of this disorganized priest (foul-odored as well because of a chronic skin disease) confirms Memmo's description of his master, with "blood clotted on his face, unkempt hair, stubbly chin and those sparkling fiery eyes ... bawdy words."[58] He taught in the questioning (and irritating) way of Socrates and the Greek peripatetics (so named because they conversed while pacing about) and was a sought-after guest of the most cosmopolitan of chic Venetian salons, although rejected by some of his peers for his deliberately provocative and anti-congenial stance.

We may take a cue about his attitude towards learning in general from his behavior after his appointment in the summer of 1723 as the censor for all books coming into Venice – a delicate role

Indole of Education: The Apologues of Carlo Lodoli."

[56] Francisco Algarotti, Saggio sull'Architettur, 1753.

[57] Andrea Memmo, *L'Element d'Architettura Lodoliana*,1786.

given the power of the Inquisition and Lodoli's unrepentant mind. Even given the more catholic atmosphere of the Veneto compared to larger Italy, Lodoli permitted books that he considered "useful" (and not necessarily based on the teachings of the Church) to enter libraries; his tenure lasted until 1742, when enlightened booksellers mourned his ousting in favor of a more conservative reviewer.

His understanding of architecture and history "appears to be more profound than even that of most nineteenth- and twentieth-century theoreticians," according to historian Alberto Gomez-Perez."[59] In particular, Lodoli's "reconciliation of ornament and structure is indeed so advanced that it is still an adequate criticism of simplistic `postmodernism.' "[60] Gomez-Perez also maintained that by questioning the traditional Vitruvian myths, Lodoli revealed "the absolute primacy of man's original mythical structure."[61] High praise for such a (relative) nobody.

To those few who do know about him, Lodoli is a hero on at least two counts: first, for his radical ideas on function, structure and ornament and second, for his propositions on the "organic" in architecture, a term he invented, some say, but with connotations quite different from the sloppy, ill-defined meaning typically employed today. (Perhaps a third count, too: his take-no-prisoners attitude.) Although most historians acknowledge the Abbé J.L. Cordemoy, 1660–1713, as the first writer to denounce conventional notions of architectural ornament in his *Nouveau Traite de toute l'architecture of 1706*, it was Lodoli who *in practice* smashed then-current contemporary architectural theory, as historian Joseph Rykwert points out in *The First Moderns: The Architects of*

[58] Ibid.
[59] Joseph Rykwert, *The First Moderns: The Architects of the Eighteenth Century* . Cambridge, Mass., MIT Press:1983.   253. See also Alberto Perez-Gomez, *Architecture and the Crisis of Modern Science*, 1983, 254, quoting from Memmo's Elementi di Architettura Lodoliana, Zara, 1833,   314.)
[60] Ibid.,   257.

the Eighteenth Century.

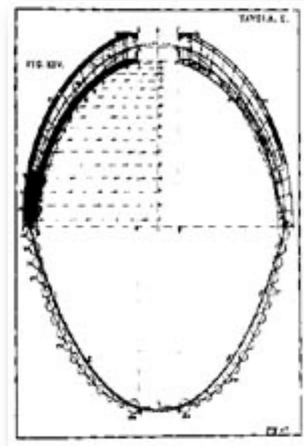
Lodoli called for an architecture informed by scientific experimentation on structure and informed by the act of making. That may sound tame to us today but keep in mind he lived in an age when archaeology was just beginning to unearth antique architecture, and measuring and following the rules of the Ancients was *de rigueur*. In contrast, Lodoli blithely, systematically, denied the validity of harmonic proportions (an anchoring tenet of Renaissance theorists) as well as their supposed derivation from the human body. Vitruvius, he asserted, had failed to consider the relative strengths of different materials, thus losing an opportunity for more dynamic architectural systems and modes of representation. Neither was the Roman architect, he said, able to calculate loads and stresses with modern, Newtonian precision. Insofar as the basis of Greek architecture was assumed to be wooden post-and-beam construction, Lodoli saw no reason why wooden architecture should be translated into stone or why precedent needed to be quoted; rather, structure should be based on xylology and lithology, the physical laws that govern wood and stone. His attitude is exemplified by his design of the hospice of San Francesco della Vigna, which is part of the monastic complex surrounding the church by the same name in Venice, [62] " 'a poor conversion of a friars' hospice,' [Memmo wrote] to explain the lack of generosity, magnificence, fine comfort, planning and elegance."[63]

Structure should correspond to the characteristics of the material of which it is made AND should also be devised with specific users in a specific place. In what survives of this small and modest

[61] Perez-Gomez, 255

[62] The principal church, begun by Jacopo Sansovino in 1534, was conservatively designed in accordance with Alberti's theories of harmonic proportion. Sansovino was a Florentine man, after all, like Alberti, and while not predisposed to the Byzantine flourishes beloved by Venetians, soon became renowned for his "most rich and ornate" architecture, which was a high compliment in that flamboyant city. It is best known for its façade by Palladio, added in 1569. Lodoli's own work there, ca. 1740, can be seen as a critique of Renaissance theories and of Sansovino's and Palladio's work.

building, Lodoli exercised his research into catenary curves to show where loads are greatest along the length of a beam, strengthening the load-bearing arches and stone thresholds of the building, for example, where loads were concentrated. Stone thresholds at the time, not yet built with this understanding, often broke: Palladio had surmounted this difficulty by dividing the threshold into three pieces, instead of a single long piece, but the increased loads below the stone door jambs depressed the two flanking stones, a choppy solution that was "ugly to see," according to Memmo/Lodoli.[64]



Catenary curve, from The First Moderns, p. 314

In contrast, Lodoli distributed stresses more evenly, with the main middle block, on the underside of the threshold, fashioned with a thickened middle based on the catenary curve. He applied similar thinking to other areas of the doorway, with reinforcing blocks in the middle of the stone door frame he gently curved, all moves that responded to the stone's greater weakness at mid-span. For the sills at the base of the windows, he also incorporated not only a catenary curve, deepest at the mid-span of the window, allowing rainwater to run down over the building (creating a decorative pattern itself over the centuries, decorative by definition unless Lodoli anticipated the action of rain over time as a generative tool for ornament.)[65] He rusticated the keystones crowning a door in an idiosyncratic, non-Classical way; their eccentric shape almost seems to shout from the intensity of the stresses they are withstanding.

The result, to my eye, is not pretty. What it is, rather, is a logical, almost overly earnest effort, an awkward, heavy-handed structural honesty amidst all the laughing frippery of Venice around it, an

[63] Rykwert, o cit. footnote 62.
[64] Rykwert. 314.
[65] Neveu, 79-80.

honesty which nonetheless is absolutely determined to communicate.

This one remaining example of Lodoli's treatment of structure and stone—his material to hand—is nonetheless a visual narrative of the physical work divided assumed by the different parts of a building and the forces such as sun, wind, rain, and gravity, all which will organically affect a structure over time. This is an example of Lodoli's concept of *indole* that Lodoli scholar Marc Neveu illuminates, that is, "the temperament and natural inclinations that characterise an individual." Lodoli redirects *indole*, usually associated with personhood and the self, to architecture and the broader nature of materials and natural forces, creating a new linguistic radius for the word itself.

Hospice San Francesco della Vigna. Photo by Daniel Reynolds.

With regard to ornament, from what little evidence survives, Lodoli indeed did not rely on the geometries, grids, and symbolism on which ornamentists in the Western tradition had traditionally depended.[66] Like structure. it should be animated by the materials it is made and for a specific circumstance and specific users, not necessarily copying Classicism. One can point to a bas-relief he designed of the hospice's patron saint, St. James Picenus, the Holy Protector of the Jerusalem Friars, surrounded by a frame of twisting vines that can still be seen in a surviving doorway arch. The ornament "tablet" is clearly

[66] See Rykwert's "Lodoli on Function and Representation," in *The Necessity of Artifice*, New York: Rizzoli: 1982, and "Memmo's Lodoli," Edgar Kaufmann Jr., *The Art Bulletin*, Vol. 46, No. 2 (Jun., 1964), p 159-175, which was informed by the work of Bruno Zevi and Lodoli scholar Antonio Foscari.

superimposed. “Here is an appropriate enough ornament for you! Had he been able to let his fancy run free in the palace of some great lord, he would surely have decorated its beams with various allusions,” Memmo wrote.[67] Memmo also notes that Lodoli used “a little ornament over the joint,” when seeking best-practice waterproofing methods (a statement Tim Anstey, who addressed the idea of “tolerance” in construction in Part II, might well appreciate.) So alhough he has been called ornament's “first enemy,” his approach to ornament was not either-or, but an investigation. Lodoli anticipates and surpasses those early 20th century Modernists in expressing ornament and structure simultaneously without jettisoning or condemning the need and narrative of ornament.[68]

Rykwert also considered Lodoli a “first Modern” because of his concept of the “organic.” Lodoli’s characterization of organic architecture has little in common with present-day notions of “organic. Rather, “organic” was better to be found in buildings that were “formed to meet the wants of their occupants” in addition to a second duty, that of addressing loads and materials: “Carve, then [your chairs], and varnish, and gild as much as you like to serve your necessary luxury; but do not neglect comfort or the *resistenza opportuna* [i.e. desirable elasticity]," he said.[69] The chair he designed was based on the flesh and bones of the body, the shoulders and buttocks, and not on the style of the day.[70] Beauty did not rely on precedent but emerged from thought, experiment and analysis, from use itself, as Neveu notes. “Essential beauty is based on truth … this true or essential beauty is not prescriptive but rather situational.”[71]

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[67] Rykwert, ibid.
[68] Louis Cellauro has also written about this. His 2006 article was not known to me until late 2009, but is a scholarly examination of Lodoli, the interpretations of his disciples, and ornament. See Louis Cellauro, Carlo Lodoli and architecture. Career and theory of an eighteenth-century pioneer of modernism, in "Architectura", Munich-Berlin, 36 (2006), No. 1, p 25-59. Louis Cellauro, Carlo Lodoli and architecture. Career and theory of an eighteenth-century pioneer of modernism, in "Architectura", Munich-Berlin, 36 (2006), No. 1, p 25-59.
[69] Rykwert, ibid, 317-321.
[70] Neveu, 112.
[71] Ibid. 116.

"The beauty of civil architecture depends on ornament, symmetry, eurythmy, and convenience.

By ornament is understood that decoration that carries through the whole body of the building. The principals of these are, the orders, sculptures, paintings, marbles, stuccoes, &c.

An order is composed of a column and an entablature. The principal parts of a column are the base, the shaft and the capital; those of the entablature are the architrave, frieze, and cornice.

Francesco Milizia, 1768

A rich architectural language might have emerged from Lodoli's position, a language of tectonics and materials whose form springs from the thoughtful consideration of the architect, which in turn might have played some greater role in creating a rhetorical vocabulary for the *structural* narrative of buildings simultaneously linked to a specific group of users, lending it value to the community in whose midst the building dwelt, dwelt in the sense of Heideggerean dwelling. That school of thinking and detailing might have paralleled traditional schools of ornament, engendering multiple new languages of ornamented architecture.[72] Certainly Lodoli's thinking, summed up as "the form must represent its functioning," was carried down the centuries, through writers such as Francesco Milizia (1725 – 1798), author of lives of *Famous Architects, Ancient and Modern*, 1768, published in English in London in 1826. (This is the book in which Lodoli's ideas may have come into the hands of the famous American sculptor, Horatio Greenough (1805 – 1852), who lived abroad in Italy, studied the Renaissance, and whose collected essays are titled, *Form and Function: Remarks on Art*, a title that immediately establishes his place in the historical chain linking form and function.[73]

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[72] It is interesting to speculate on a possible, if tenuous, thread between Lodoli and the American Horatio Greenough, who worked in Florence between 1829 and 1851. (Greenough not only married form and function in his writings but also, like Lodoli, classed buildings as organic, "formed to meet the wants of their occupants," and as machines. See Horatio Greenough, *Form and Function*, *Remarks on Art,* 1947, preface by Harold A. Small, xvii. Apparently Greenough was familiar with Lodoli's theories through Memmo's publisher, Francesco Milizia. Even more tantalizing, Rykwert notes that Milizia's daughter, Countess Mocenigo, gave a copy of her father's book to Effie Gray-Ruskin for her fiancé ... none other than John Ruskin.

[73] Whether such linear links are valid or not, they are irresistible: Greenough's essay, "Relative and Independent Beauty," 1851, was indebted to Garbett's *Treatise*, 1850, which in turn was influenced by Ruskin's *Seven Lamps of Architecture*, 1849, according to Hanno-Walter Kruft and Robert Taylor, authors of A History of Architectural Theory (Princeton Architectural Press: 1994), 349. See also the excellent essay by Joseph Masheck, "His Native Doric' and other columns: Adolf Loos and the Chicago Tribune," things 15 winter 2001-2002, http://www.thingsmagazine.net/text/t15/column.htm. Mashek also notes the architectural historians who

Rather than proposing what *could* be, as did Lodoli, most later theorists concentrated on what *should not* be, basing their ideas on either a lost halcyon Golden Age of art or social order or both. Laugier, Lodoli's contemporary, is renowned for his allegiance to that Age, rendered by the "perfect" architecture of the Greeks, the ultimate Golden Age. The architect should return and study that Age because of what it represented: the simple, clear adherence to nature's laws, when human and nature were intimate. As scores of other writers have noted, one of the most famous drawings in architectural history is the frontispiece of *Essai sur l'architecture*, in which Laugier defines all the essentials of architecture as elements of a wooden hut that he believed to be the foundation for the four-cornered Greek temple in stone. The foundation consisted of three elements: the free-standing column, the entablature, or horizontal piece connecting the columns, and the sloping roof, or the pediment (shaped as a triangle.)

Laugier's vivid, elegant and highly individual *Essai sur l'Architecture* was published in 1753, the same year Lodoli's sayings via Algarotti came into print. Equaling Lodoli in zeal, Laugier wrote that

documented the possible connections among Loos, Sullivan and Greenough. See Horatio Greenough, *Form and Function: Remarks on Art* . Edt. Harold A. Small (Berkeley: Univ. of California Press, 1947).

the architectural culture of his time was in a "chaotic state," threatened by "complete decadence" and the "trash" of too much ornament. He wrote,

> *It is true that I take away from architecture much that is superfluous, that I strip it of a lot of trash of which its ornamentation commonly consists and only leave it its natural simplicity. But there be no mistake about it: I do not take away from the work or the resources of the architect. I force him always to proceed in a simple and natural manner and never to present anything that savors of art and constraint. .... More over, I leave to the architect ample resources. If he is gifted and has a slight knowledge of geometry he will, with what little I place in his hands, find the secret of varying his plans ad infinitum and of regaining through the diversity of forms what he loses on superfluous parts which I have taken away from him.*[74]

Because of this *return* to a first purity, Laugier is therefore different to Lodoli in essential premise, in that Lodoli was not returning to but rejecting the ancients, especially Vitruvius. Laugier, however, leapfrogged back over Vitruvius, also eschewing his formuli and muddy Roman hybrids and Baroque inventions, such as "defective" arches, in the sense that arches distribute their loads both laterally and vertically, "which, again, is against nature, since columns are made to give vertical support only"[75]; engaged pilasters, a hybrid form combining column and wall that was among the worst offenders; "detestable" broken pediments; walls with niches and pilasters of any kind—moves that undermined a wall's structural purity—were also not permitted (there were no walls in the first hut). The result is that much of Alberti's "ornamentum" is now illicit, depending on the engineering skills of the observer.

This search for first principles based on nature is apparently not so different than Lodoli's exploration of natural forces, although Laugier never overturned architectural proprieties, as Lodoli did, and seems to have a much more romantic ideal of nature than Lodoli's raw stance. To me it appears that Laugier believed a myth he created, a myth he needed to propel a convincing theory, to

[74] See Marc-Antoine Laugier, *An Essay on Architecture*, 1753, republished [trans Wolfgang and Anni Herrmann] (Santa Monica: Hennessey & Ingalls, 1977).

cleanse architecture of its "decadence" and "trash." Lodoli did not. Despite his call for a "scientific, thorough experimentation of materials," Laugier did not seem to be driven by any overt desire to investigate and manifest the implications of such experimentation himself: since he did not practice architecture, his lack of consideration of loads and forces is not surprising.[76]

However, just as Lodoli has mistakenly earned the label as the first denouncer of ornament, Laugier's label as a revolutionary rationalist hardly prepares one for his wry acknowledgment of the need for ornament in view of humanity's perennial penchant for "novelty and variety."[77] To the extent that architecture and ornament imitated nature's processes and rhythms, he argued, it became an art, he argued.[78] In this light, Laugier judged *cartouches,* which are emblems in the form of a heraldic shield adorning many an entrance to fine Baroque buildings, typically *announcing* a patron, fixed at an angle so that one could not miss the crest with an impressive inscription looming above one's head), for example, as being in bad taste "because there is nothing like them in nature."[79,80] One might argue that plumage or a brilliant flower is indeed a very natural *announcement* indeed, often critical to ensuring continuity of a gene pool.

Laugier also followed Alberti's caveats on beauty and ornament. Only when the building has been

[75] Laugier, 22.
[76] Laugier, 36 – 37.
[77] A penchant, noted mathematician Ian Stewart, author of *Does God Play Dice? The New Mathematics of Chaos*, points out, that has survival skills. "The human brain has evolved to get bored if things stay the same for too long. It's a great survival characteristic—if you're too predictable, predators and parasites may have time to evolve a way to use that predictability against you. We are very much creatures of our environment, and we get used to whatever surrounds us when we grow. But in order for us *to* grow up, those surroundings have to lie within certain broad limits." He echoes Ruskin, the critic: "Change or variety is as much a necessity to the human heart and brain in buildings as in books." (John Batchelor, *John Ruskin: A Life* (New York: Carroll & Graf, 2000), 114.
[78] Laugier,12.
[79] A cartouche is an ornamental figure that serves as a frame for an inscription or a decoration within a space, which usually has a scroll-like, or an oval or lozenge, shape.
[80] Marc-Antoine Laugier, *An Essay on Architecture*, (1753) 1977, 66.

stripped to its essentials is it ready for ornament, which in turn is necessary if the building is to delight—and it *must* delight, he says, to be genuine Architecture—a dictum that also recalls Garbett's prescription.[81] "Good" ornament *must* clearly be perceived as *structurally* superfluous, while "bad" ornament creates doubt as to whether it is essential or not (an attitude Loos championed). For Laugier, therefore, "only the ornaments that appear distinctly dispensable are lawful."[82]

Laugier accepted his century's nuanced attention to status and class in his prescriptions for maintaining social hierarchy or propriety in architecture. "The decoration of buildings ... must always be in relation to the rank and quality of those who live in them,"[83] an assertion he illustrates with dicta for the use of every kind of marble and in reserving the Classical orders for churches, palaces and public buildings.[84] At this point, one suspects Laugier and Lodoli would part ways for good: Lodoli might suggest that the decoration of buildings was also determined by the rank, function and quality of the *materials* chosen.

Ornament clearly appears to be losing some purchase here since Alberti's day. As far as I know, Alberti never overtly outlawed certain kinds of ornament as Laugier did. Certainly according to Laugier's argument, Alberti's system of engaged pilasters, developed especially as good ornament,

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[81] Here Laugier aligns himself with Alberti and Summerson.
[82] Amir H. Ameri in "On The Exorcise of Theory," *Art History*, the International Journal of the Association of Art Historians, London, Vol. 16, No. 2, 1993, p 336-348. Retrieved 28 December 2004. http://web.pdx.edu/~ameri/folder/Publications/Writing/Writing.html. I am indebted to Mr. Ameri for his reasoning on ornament.
[83] Laugier, *Essay*, 90.
[84] Laugier's position is not outrageous: of course we design differently according to the user. One might also suggest that the reason so much "affordable housing" is increasingly successful and imaginative today, creating memorable, handsome, and functional places in which to live, is that architects do indeed recognize the "rank and quality" of those who inhabit housing that is "affordable."

would now be a case of "bad" ornament: the pilaster looks as if it bears weight when in reality it is superfluous, an issue didn't appear to bother Alberti.

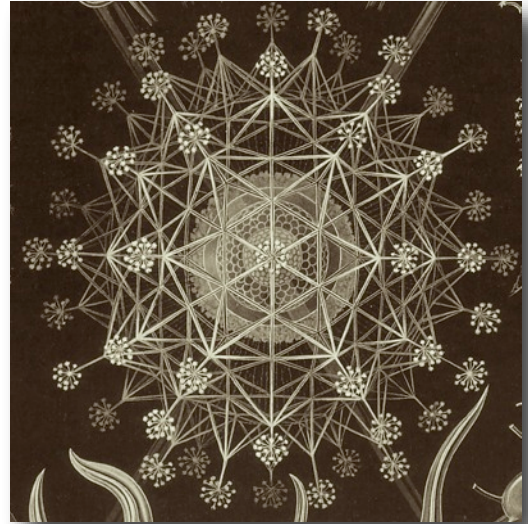
Laugier's stringent rules were meant to dramatically and drastically correct with a short, sharp jerk, but there is no inherent logic or even structural veracity (such as his remarks on arches) to these ultimately arbitrary dicta. The fact that Laugier also aligned himself with Plato as a believer in the existence of an ideal beauty which Laugier attempted to quantify. This ideal beauty is beyond attainment for either art or nature and transcended either historical period or culture; Laugier attempted to prove his hypothesis scientifically by conducting "experiments" to prove that architectural beauty was an objective quality. "Beautiful" buildings, he asserted, produced consistently positive responses.

Laugier's criterion of the objective in beauty, in fact, anticipates some of the core concepts and quantitative analysis of environmental psychology, in particular the feelings of "empathy" that a building may inspire in certain viewers. (Alberti believed this too, as I've noted, but I venture that he might gauge the success of an ideal beauty not by a viewer's immediate emotional response but by the criteria was accomplished: whether fame was won, praise bestowed, handsome children whelped, decorum preserved, etc. Beauty was a means to an end, hardly objective. If architecture accomplished those criteria, it was beautiful, it delighted.)

Nineteenth century architectural theorists such as Hermann Muthesius, Adolf Goller, and Heinrich Wölfflin developed the idea of empathy further by asking exactly how architecture is apparently able to integrate such disparate issues as empathy, emotion, memory and aesthetic and intellectual pleasure. These inquiries had important implications for the understanding of ornament, since emotional appeal is central to the role of ornament in architecture.

the rise of divisions and dualities

In his *Critique of Judgment* (1790), Immanuel Kant separated *artist*, with its related concepts of independence, genius and originality, from the craft of the *artisan*, defined as a "skilled (esp. manual) worker, a mechanic." Genius, according to Kant, was beyond the reach of reason and education. This division foreshadowed a divorce between science and the arts, which previously had been "linked at the very inception of our Western tradition."[85]

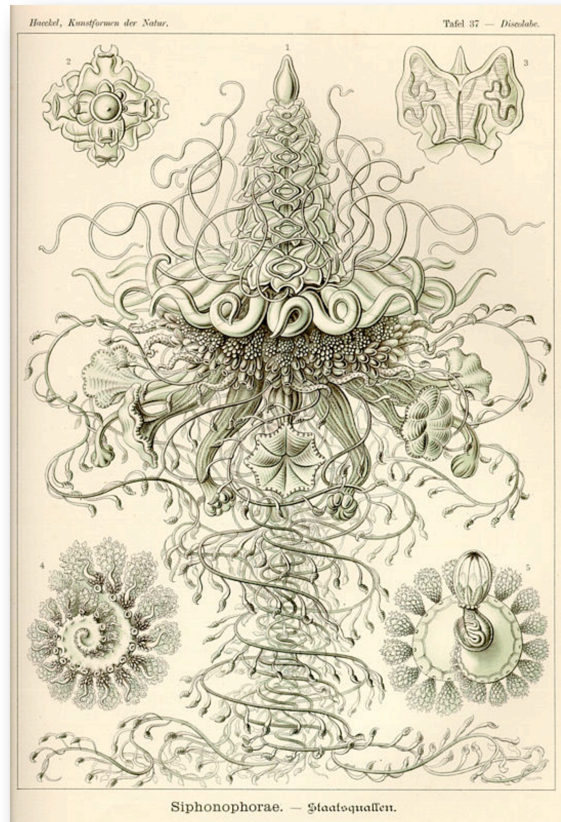


The trend to establish new disciplines and fields of study accelerated with the upheavals of the Industrial Revolution. Even the word "scientist" had to be invented: In 1833, the poet Samuel Coleridge asked the brilliant polymath William Whewell, 1794 – 1866, professor of Moral Philosophy and master of Trinity College, Cambridge, to invent the English word "scientist" for what had been known as a "natural philosopher" or "man of science,"[86] Science itself, derived variously from "to cut," "to discern," and "to know," or really any systematic recorded knowledge. The very fact that it was a poet who asked a polymath to invent the word indicates how much closer disciplines were to one another around the Enlightenment.

Continuing the 18th century trend, much of 19th century science was devoted to creating categories of specimens and types, aided by tools such as the electron microscope, which led to seminal products

[85] Alberto Pérez-Gómez, "Hermeneutics as Architectural Discourse." http://www.tu-cottbus.de/BTU/Fak2/TheoArch/Wolke/eng/Subjects/972/Perez-Gomez/perez-gomez_t.html. Retrieved 2006.
[86] Snyder, Laura J., "William Whewell", The Stanford Encyclopedia of Philosophy (Fall 2008 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/fall2008/entries/whewell/>. According to the Trinity College website, Whewell quickly responded to Coleridge's request in a letter.

such as the Periodic Table of Elements, 1870,[87] Gray's Anatomy, 1858, or the disturbing drawings by naturalist/philosopher/artist Ernst Haeckel's (1834 – 1919). (Haeckel intentionally exaggerated aspects of his depictions of natural forms in *Kunstformen der Natur*, or *Artforms of Nature*, in order to support his theories. These included a special form of categorization: the superiority of the races led by—surprise—the white European male.)



Simultaneously, structural engineering began to diverge from architecture as a separate discipline. The concept of the master-builder lost popularity as architects, aided by Alberti's successful reification of *the architect*, became professionals and gentlemen, perhaps because by the 19th century there was now too much to know or perhaps it was beneath the dignity of an architect to get dirty making buildings. (Notably, until the late 1970s, the bylaws of the *American Institute of Architects*, the A.I.A., discouraged the participation of architects in actual construction; instead, for well over a century architects were conjoined to "observe" construction to protect the architect against liability and to allow the architect to act freely on the client's behalf.[88]) In *Seven Lamps of Architecture*, John Ruskin

[87] The Periodic Table of Elements known today was designed by Dimitri I. Mendeleev, another version was compiled by Lothar Meyer in 1869.
[88] The A.I.A. now acknowledges the concept of "design-build" and the need for collaboration among related from the very start, a concept called "Integrated Project Delivery." Many more architects and builders today have rejected the old barriers between designing and making or designing and developing, opting for titles like architect-contractor or designer-builder, the contemporary label for master builder. The need to know materials intimately, at a physical level, and to understand building because they have built, delivers a product, they believe, more cost-effective and certainly closer to realizing their intention and, along the way, providing "Ruskinian joy." .

further widened the distance, separating **Architecture,** with the capital A, from **building,** relegated to mere lower-case "b." Architecture is capable of and responsible for communicating beauty and moral values; building is not.

Like Alberti and Laugier before him and his own contemporary Garbett, Ruskin also divided ornament into two camps: one comprising the elements of design necessary for making construction beautiful, to the glory of God and in accordance with nature (thus attaining the status of Architecture); the second, ornament that is "extraneous or superfluous," such as a necklace: an accessory (although many of us would argue that an ensemble would lose its point without a specific accessory; what else is style and fashion?) According to Ruskin, the first type of ornament acts to complete the formation of the beautiful, which could not be accomplished without ornament. In other words, without ornament, we have no Beauty, and without Beauty, it is impossible to have Architecture. The second kind of ornament, not surprisingly, impedes beauty.

Above, the first Temple of Hera, 560 b.c.e.; below, the Parthenon, 438 b.c.e.

Earlier, the history of ornament was largely collective and anonymous. Ornament was extroverted and reached out to a community that received it as a familiar frame of reference. It was a consensual relationship. Before industrialization, craftspeople handed down traditions—tools and how to use them; patterns and how to generate them—that required learning and mastery based on observation and repetitive practice. Ornament was primarily generated from local materials, apart from those exceptional projects paid for by those of wealth and power who could afford distant exotic materials. While art reveals the will of an artist, ornament speaks to and for many.

In other words, ornament was habit. It was conventional, in the positive way shared values can be.

Stylistic changes that might seem minutely incremental to us were radical moves in another time. For example (assuming we, like Alberti and Laugier, consider various inflections of the Order as ornament), the Temple of Hera[89] at Paestum in southern Italy, 560 b.c.e., is quite different to the younger Parthenon, Athens, 438 b.c.e. The proto-Doric limestone basilica, pitted and gnarled, is far less refined than the stonework at the marble Parthenon. The older basilica instantly conveys the feeling of monumental forces at work. The echinus (the broadly curved 'pillow' of stone atop each column that serves to distribute the weight of the entablature above it) is almost flattened by the crushing weight of the horizontal load, while the exaggerated entasis of the stout, shortish columns strain and bulge from their huge loads. Although the proto-Doric and the Doric is of the same family and tradition, the Parthenon is the culmination of many subtle adjustments in convention that achieve a building more delicately proportioned than Paestum, while remaining as athletic and as vital as its predecessor, if not as taut and foreboding. Yet it took at least four generations to witness that change,

[89] The Temple of Hera, goddess of women and marriage, wife and sister of Zeus, was mistakenly labeled by 18th century archaeologists as a “basilica, ‘which is a Roman civic structure, often where justice is dispensed, and not a Greek temple for worship and ritual. Nonetheless, the label stuck.

in one Order, the Doric, and in one material, stone. And while I admire the Parthenon, quiescent in its serenity and grace, I love Paestum with its dark, foreboding energy. It is 19th century sublime.

In contrast to such slow and steady transitions, the history of Western art after Kant accelerated challenges to artistic convention by emphasizing a chronology of unique authors rather than championing tradition's continuity. With the rise of iron and steel construction, this growing distance among the different forms of art and craft was particularly exacerbated in the case of the building arts. The new materials, including large plate glass, meant yet another, second, messy divorce in the traditional language of architecture, in this case between structure and cladding. In earlier ages, stone or wood construction had told stories about loads, materials and cultures. The compressive forces of gravity, for example, could be understood through the splay of Ionic detailing or the spread of the stylized acanthus leaves on a Corinthian column or the swelling of the echinus, as as metal artist/educator Arthur Paley has pointed out. Ornament, he says, is stylized symbolism. "The best historic ornament explains and makes visible these unseen structural and spatial tensions," he asserts.[90]

After structural steel was introduced, cladding was no longer obligated or privileged to communicate these stories as monolithic materials had done. The idea of "seed" vs. "shell" (in German, "kern" vs. "hulse," or inner structure vs. outer cladding) became popular during this time. Ornament could act as a dress that robed a body, a notion advanced most famously by the great German 19th century architect and theorist Gottfried Semper. He hypothesized that the earliest building cladding originated as walls of grasses or fiber mats used as spatial dividers. As people started to need and make permanent, more robust walls, he speculated that these primal textile walls became vestigial in

function, but continued as the façades for the thicker load-bearing walls.[91] Even pigment and paint could become a "bodiless coating" that permitted a dematerialized architecture of pure form, Semper's highest ideal.[92] Given this ideal, his concept of "masking" in architecture, that is, a profound and intimate connection between surface and what lies beneath it, has been described as the dialectic between the *Kern* and *Hülse*, cladding and frame, inner and outer. That is, rather than either-or, it is both.

Thus, not surprisingly, Semper conceived of ornament as holistic, in which ornamentation and architecture could be perceived as a whole, a belief that Alberti held as well, as we have seen. Ignoring Semper's nuanced thinking on the reciprocity of ornamentation and architecture, and his recognition that ornament displayed the primal human need for *making* (and thus would be an inevitable and integral element of architecture), this "seed-vs.-shell" hypothesis reified into the idea that concealing the *kern* under the *hülse*/shell was illegitimate to those who sought to expose structure and connections, a reification that then instantly implicated ornament. In direct reference to Semper. some scholars have proposed that Greek etymology suggests that there was no linguistic or physical divorce between kern and hulse: the Greek word *hylê* (the root of hulse, or shell) that Homer used to describe the boat of his protagonist Odysseus referred both to its structural timber *and* to its "living surface": that is, to both inner core and outer representation.[93]

Anyway, how can we tell with certainty which is kernel and which is shell? If one considers the

[90] Arthur Paley, in "Architectural Art: Affirming the Design Relationship, a Discourse," proceeds, symposium,. American Craft Museum, New York, 1988, 27.
[91] Mallgrave, o cit, 31-33.
[92] Ibid.
[93] See Scott Rimmer, *The Symbolic Form of Architecture*, M.Arch. Thesis, Virginia Polytechnic and State University, 1997. He points out Semper's more nuanced approach to ornament and quotes Indra McEwen's book, *Socrates' Ancestor*, regarding the etymology of *hylê*; 65

body, for example, is our bony skeleton the kern, with our flesh the hulse, or is our body the kern and the hulse our garment, our clothing? Applying a tectonic argument to one's body might sound far-fetched, until we remember, say, all of Greek architecture.

These etymological quests, as well as much of history, seem to hint at a more peaceable kingdom, where the either-or position on the morality of ornament was more tempered, more common sense, even on a theoretical level. This attitude resonates especially with a kind of contemporary architecture based on the conflation of "seed" and "shell," seen, for example, in new materials such as "extreme textiles" in which structure and cladding merge as skin, in turn generating new possibilities for ornament.

But apart from the issues swirling around building materials and technologies, by the 19th century even the old cultural stories that informed the ongoing tradition of architecture had now also become suspect. Western history had become a burden rather than an inspiration. "I believe, in fact, that we are all suffering from a malignant historical fever," wrote Friedrich Nietzsche in his 1873 essay, *The Use and Abuse of History for Life*.[94] Ancient history, he said, "degenerates in that moment when it no longer inspires and fills with enthusiasm the fresh life of the present. Then reverence withers away. The scholarly habit lives on without it and orbits in an egotistical and self-satisfied manner around its own center. Then we get a glimpse of the wretched drama of a blind mania for collecting, a restless compiling together of everything that ever existed."

http://scholar.lib.vt.edu/theses/available/etd-494114149741201/unrestricted/etd.pdf

[94] Friedrich Nietzsche, http://en.wikisource.org/wiki/On_the_Use_and_Abuse_of_History_for_Life. Translated by Adrian Collins.

Nietzsche contrasts enervation, ennui, passivity and a stultified life with struggle, freshness, curiosity, creativity. New materials and technologies promised just such an opportunity: to imagine the future rather than cataloguing the past.

It is no wonder, then, that the collision of new social conditions, materials and mass-production technologies in the 19th century meant a new round of urgent debate. How and why should one convey moral truths and values? What should buildings represent and say? This century enjoyed more access to more architectural history than ever before. The growing middle class, for example, was constantly treated to distillations of distant traditions in the form of world's fairs and great exhibitions and photographs. Choices were suddenly endless, aided by new modes of production courtesy of the assembly line, enabling anyone to kit out their living room in Moorish to Chinese paraphernalia. For Western Europe, the century's curse was the "the

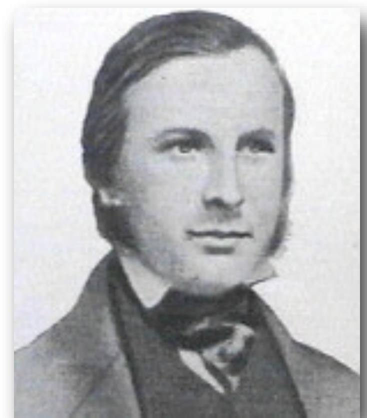
Page from Owen Jones' Grammar of Ornament, 1856.

dilemma of style" as J. Mordaunt Crook memorably titled his mid-1980s Oxford lectures, the basis for his brilliant book of the same name.[95]

Owen Jones, author of the seminal *The Grammar of Ornament,* 1856, may have inadvertently accelerated this eclecticism.[96] Jones introduced his style-hungry fellow Victorians to colorful two-dimensional images of ornament and figuration, which he classified according to geography and period, beginning his book with "Ornament of Savage Tribes " and concluding with "Leaves and Flowers from Nature."

in Proposition 36 of his 37 *General Principles in the Arrangement of Form and Colour, in Architecture and the Decorative Arts*, Jones does warn his reader that the "principles discoverable in the works of the past belong to us; not so the results [which would mean] taking the ends for the means."

Despite his caveat that only the principles and not the results should or could be appropriated from historic styles of ornament, and despite his firm belief that one should "idealise" and not copy nature as the basis for ornament, it was too late. He opened Pandora's box. His gorgeous little book is eye-candy, with beautifully drawn, neatly organized "snapshots" of styles of ornament. Menu driven, it is the 19th century equivalent of a 21st century drop-down menu. The book's impact was enormous.

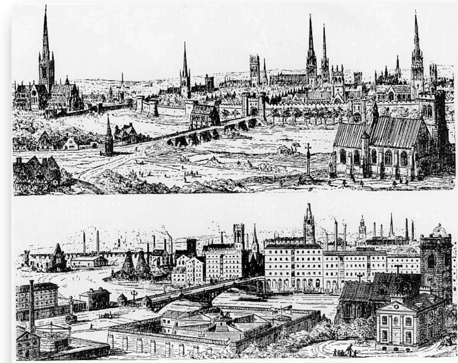


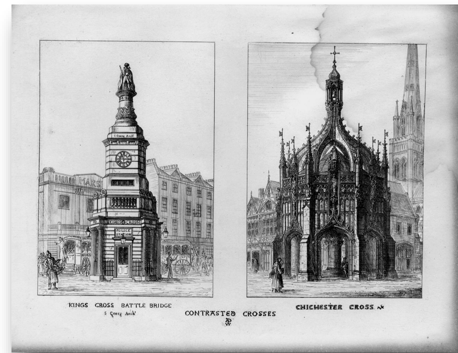
Augustus Welby Northmore Pugin

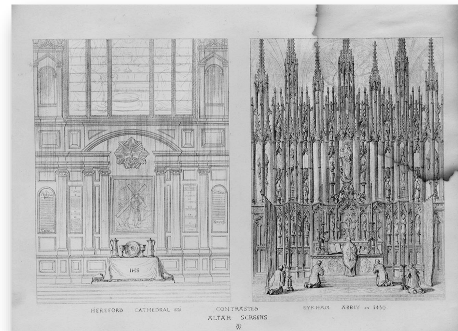
[95] J. Mordaunt Crook, *The Dilemma of Style: Architectural Ideas from the Picturesque to the Post-Modern, London: John Murray, 1989.*
[96] Thomas Beeby, "An Ornament of Grammar/Grammar as Ornament," *Via*, 1977, 3, 11.

Pugin

In a typical architectural history survey class, where the relevant material invariably outweighs the time available to discuss it, one usually rushes by Augustus Welby Northmore Pugin (1812 – 1852) with a tangential nod while galloping full tilt towards John Ruskin. Both were fervently religious, unhappy and moralistic, and both went insane toward the end of their lives. But Pugin comes off as the crazier and more zealous of the two, lashing together Catholicism and English architecture in bonds fiercer than marriage. "Mercurial, passionate, and eccentric," wrote historian David Watkin, Pugin was "a febrile genius who married three wives in 12 years [and fathered at least eight children] and was dead by the time he was 40 … he made no distinction between work and religion, art and love."[97]







Pages from Pugin's Constrasts comparing the Classical and Gothic sensibility at various scales

In order to realize his vision of an acceptable present, he absorbed the lessons of the past on annual trips to the Continent, particularly France, his father's homeland, making a regimen of studying abbeys, churches and cathedrals. What he did not visit, he read about in the books he collected for his huge personal library. Only 22 when he co-designed the facades and interiors

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[97] David Watkin, "An Eloquent Sermon in Stone," Summer, 1998, *City Journal* (@ The Manhattan Institute, http://www.city-journal.org/html/8_3_urbanities-an_eloquent.html

of the Gothic-style Palace of Westminster, 1860,[98] Pugin started his training under his father, a French nobleman and a Catholic, an accomplished architect who had worked, ironically, for the well-known Classicist John Nash, designer of Regent Street, Buckingham Palace and Marble Arch.

Interior of St. Giles, Cheadle, England, 1846

Pugin was the first writer to use morality and truth as the *primary* basis by which to judge architecture, linking the doctrine of Catholicism (in his view the only true Christian faith) to the Gothic style in his *The True Principles of Pointed or Christian Architecture,* 1841, although the Church itself has rarely taken an official position regarding one architectural style over another, as Watkin has noted. At 24, he wrote *Contrasts; or a Parallel Between the Noble Edifices of the Fourteenth and Fifteenth Centuries and similar buildings of the Present Day; Shewing the Present Decay of Taste*. The "decay in taste," of course, was the then-current vogue for Classical architecture, and he showed his vehement distaste not only through his words but also in how he manipulated the graphics illuminating the text. When Pugin drew Gothic examples, his drawings are animated, with a robust, three-dimensional quality that is richly textured, illuminating the style's capacity for hierarchies of depth. He also emphasizes its flexibility in accommodating many scales from cities to individual detail. When Pugin depicts Classicism, however, his drawing

[98] Pugin rejoiced at the destruction of the Classically designed old Palace of Westminster in the fire of 1834 and

technique renders scenes that look flat and banal with no flourish of chiaroscuro.

He fanatically advocated Gothic, or “pointed” architecture (including ornament) not only because he believed the “principle”—he refused to call it a style—revealed profound moral truths, but also because the style was *English*, and represented true Englishness at a period when the sun never set on the British Empire. The Gothic fit both religious and political aspirations, so Pugin regarded new building types, particularly railway stations, as perfectly appropriate vessels for Gothic architecture, because they were *English* innovations and thus worthy of “true” architecture.

For Pugin, as for Ruskin after him, the question of ornament was a critical one and worthy of earnest consideration. However, his approach to ornament appears contradictory. On one hand, Pugin’s first tenet in *True Principles,* “that there should be no features about a building which are not necessary for convenience, construction, or propriety” seems to sanction the kind of stately, ornate Gothic decoration he designed for the House of Lords at Westminster under Sir Charles Barry. However, his second tenet, that ``all ornament should consist of the essential construction of a building” seems both to recall Lodoli and to anticipate a flock of Modernists.

But when one looks to his work, such as his English masterpiece, St. Giles Church, Cheadle, England, 1846,[99] two apparently pugilistic dicta are resolved: Pugin’s astonishing ornament, more voluptuous than any I’ve seen, feels inevitable. It grows out of an architecture that, in turn, grows out of the structure that is integrated with the programmatic purpose of the building, addressing both “essential” construction and Pugin’s idealization of Catholic propriety. This brand-new church, every inch ornamented to create a consummate *Gesamtwerk*, actually reconstructed much older Catholic

is also credited with the major design of Big Ben, completed in 1854, two years after Pugin’s death,
[99] Pugin also designed sumptuous projects such as St Aidan’s Cathedral in Enniscorthy, County Wexford, beautifully restored in 1994, and the banqueting hall at Lismore Castle.

liturgical paradigms. For example, he inserted a rood screen between nave and chancel, people and clergy, a gesture that even in 150 years ago, at the height of the "Oxford Movement" propounding the return to Catholicism, created unease, as this formal tectonic division heralding a return to Rome was not at all common.

Encaustic or inlaid tile (in which different colors of clay are used instead of a topcoat of colored glazes) at St. Giles, Cheadle, 1846. Image Source: Tiles and Architectural Ceramic Society

Pugin was labeled a "radical functionalist" because he ordered his buildings according to interior functions which would be expressed in the exterior massing, however that played out. "The great test of Architectural beauty," he wrote, "is the fitness of the design to the purpose for which it is intended, and that the style of a building should so correspond with its use that the spectator may at once perceive the purpose for which it was erected." Apart from the word "beauty," this utterance could be pure Modern-speak, where function/program determines form. At St. Giles, the massing reflects the plan, which in turn reflects the program, that is, client needs. The result is an asymmetrical but balanced composition, i.e., an anti-Classical composition.

Pugin, in fact, abounds in contradictions,[100] which makes him all the more interesting. The early Victorian architect reminds the reader that "we should never make a building erected to God appear

[100] See David Watkin, *Morality and Architecture, The Development of a Theme in Architectural History and Theory from the Gothic Revival to the Modern Movement 1977republished in expanded form as Morality and Architecture Revisited (Chicago: University of Chicago Press, 2001.)*

better than it really is by artificial means,"[101] refusing to recognize that any building and all means are artificial ... including his masterpiece, St Giles. Twenty pages later, Pugin flatly contradicts himself by saying that one of the "great arts of architecture is to render a building more vast and lofty in appearance than it is in reality."

Whatever one thinks of his feverish religiosity, it would be a mistake to underestimate Pugin's brilliance as an architect (as I initially did, doubting the architectural ability of anyone who wrote so dogmatically). At the end of the day his remarkable body of work, a produce of 16-hour days, endures beyond his words. Pugin clearly was a master of sensitive and spirited spatial composition, in addition to his other artistry in designing ceramics, stained glass, wallpapers, textiles, memorial brasses and church plate. He loved the theatre, haunted Drury Lane, excelled at stage design and creating special effects and tricks of perception on the large stages of Covent Garden, where ballet, opera and orchestral music had been performed since the 18th century. These techniques were all useful tools in creating sacred space deeply imbued with "ornaments of the altar" necessary to create a different order of good theatrical experience.

He demanded that architecture must not "lie": he decried clocks cast as Roman warriors in chariots as "lacking in propriety," echoing Ruskin and Loos. He despised classical facades whose "monotonous fronts" concealed the specifics of function, calling them "caricatures of pointed design" with their "mock castellated work, huge tracery, … ugly mouldings [and[no-meaning projections." All of these architectural displays were erected without any clear function, he argued: merely a means of "showing off" what architects could achieve instead of "carrying out what was

[101] David Watkin, *Morality and Architecture, 1977, 44-5.*

required."[102] By requiring that ornament be limited to that arising from essential construction, according to historian Edward Ford, "Pugin set up a model that equated rational building with monolithic construction, in which the structural materials are also the finish materials," an attitude seen in contemporary architecture which conflates skin and structure, ala Garbett.[103] In other words, Pugin seems to deny any ornament that is added after the fact; certainly not all of his ornament is affiliated with "essential construction" *per se* but rather with the purpose of the space, often liturgical. That, not structure alone, legitimized Pugin's ornament.

Ruskin circa 1860

"The Realization of the Ideal" indeed, The caricature in Vanity Fair, Feb. 17, 1872, tells the story of Ruskin's outsize intellect and doubtless his ego as well.

Ruskin and place

Unlike Pugin, John Ruskin (1819 – 1900) was not an architect, and while he did not design he certainly possessed a potent "three-dimensional imagination."[104] And Ruskin's manner, observed as "emotional and nervous," had little impact on his professional (if definitely not personal) reputation as "the most original man in England."[105] His presence was so sweeping and passionate a force in

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[102] Augustus Welby Northmore Pugin, *An Apology for the Revival of Christian Architecture in England,* (London: John Weale, 1843),   11

[103] Edward R. Ford, *The Details of Modern Architecture*, (Cambridge, Mass. and Lon: MIT Press, 1990.) PAGE NUMBER.

[104] See Jeff' Vandermeer's essay at http://www.jeffvandermeer.com/2008/12/29/60-in-60-15-ruskins-on-art-and-life-penguins-great-ideas/

[105] William Sloane Kennedy, edtr., *On Art and Life* (New York: John B. Alden, 1886),   12-13.

Victorian society that it propelled architecture and ornament into matters of burning popular consequence.

His "compulsive moralizing," to use distinguished architect and educator Thomas Beeby's term, can surely be tedious. Nonetheless Ruskin was also a gifted thinker and a patient, generous, and eloquent writer who took time to develop his ideas fully. While we may dismiss much of what he wrote, some convictions he held have more merit than ever.

Ruskin sought to simultaneously rekindle the individual's role in making ornament; restore the moral calibre of England through a Gothic lens; and define beauty in terms of seemly arrangements, which could only be realized through the intense observation of Nature (and in Ruskin's world, it is definitely capitalized.)

This impossibly ambitious brief obviously not only promises but happily delivers contradictions at every turn.

By bringing in the *how* of making ornament—the skill and art of the individual craftsman—Ruskin introduced a new dilemma: even as he elevates the role of the craftsman in making ornament, he often doesn't like the result. Yet this true romance with the individual, while a messy business, became a matter of urgent concern throughout the 19th century, taken up by William Morris and of course Karl Marx and Friedrich Engels, whose prescience about the implications of modernity for the fragmentation of the individual is still riveting reading and, like Ruskin's writings, more pertinent than ever ... In any case, *how* ornament comes to be in the world—i.e., the craftsman—rather than just considering its lineage/appropriateness/symbolic/potential for family success, is one

of Ruskin's new ingredients in the question of ornament; the other is an insistence on a balanced asymmetry, or "dynamic symmetry."

Ruskin does provide a critical rule for that individual maker of ornament: they must think.[106] "Ornament," Ruskin writes in "The Lamp of Beauty," the fourth essay in *Seven Lamps of Architecture*, "must consist of such studious arrangements of form as are imitative or suggestive of those which are commonest among natural existences, that being of course the noblest ornament which represents the highest orders of existence."[107] Humans are the most noble, followed by animals; flowers and stones are more noble than rock.

What is the place for ornament, he then asks? It is "the written or sealed impression of a thing sought out, it is the shaped result of inquiry and bodily expression of thought."[108] When in doubt, he implores, learn from Nature.

Ruskin encouraged (as Pugin practiced) a balance of well-proportioned asymmetry, which is natural, he said, in contrast to the static bilateral symmetry of the Renaissance. (Today, such "dynamic symmetry" is a well-known topic in cognition science and adopted by some early Modernist architects including Richard Neutra.) Historian John Dixon Hunt notes that:

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[106] I used "they" intentionally. See the "On Language" column, "All Purpose Pronouns," Patricia T. O'Conner And Stewart Kellerman, New York Times Sunday Magazine, July 21, 2009.
[107] John Ruskin, *Seven Lamps of Architecture,* (New York: John Wiley and Sons, 1885),   107.

> *Ruskin's architectural studies were intimate with his botanical, geological and mineralogical studies. Subtle irregularities of wall surfaces or sculptural detail are art's instinctive recall of organic form. "Nature abhors equality, and similitude," Ruskin wrote, "just as much as foolish men love them." Thus, "all good ornament is … aborescent [treelike]" and all good art aligns itself with "the greater unity of clouds, and waves, and trees, and human souls, each different …" Hence, too, Ruskin's hatred of mechanical restoration, where Gothic irregularities are eliminated, and of Pugin's Floriated Ornament, "without lovely and vital transgressions of symmetry."*[109]

Another Ruskinian premise is that successful ornament elevates the mind and encourages moral thought and behavior, by then a very old idea, as Abbot Suger and Bernard have demonstrated. Ornament must be rightly located to effect this. "The question of greatest external or internal decoration depends entirely on the conditions of probable repose," he writes.[110] Accordingly he provides examples of proper location. Railway stations, he scoffed, are not the place to carve columns with "patterns from Nineveh" because people are rushing about "in misery." There, "keep them [ornament] out of the way." Instead, it would be better to increase salaries for efficient servants and able workmen, he says, an astoundingly astute comment, putting paid to bread and circuses. In contrast, fountains, "where the happiest pause takes place in the labour of the day … and the sound of the kind word or light laugh mixes with the trickle of the falling water …" are perfect venues for street ornament, he instructed.

Proportion and the abstraction of Nature are also critical. Ruskin devoted many words to the branch-like stone window tracery in churches, using the tracery to illuminate correct and incorrect abstractions of Nature.[111] There was a time, he said, of "not more than fifty years," when stone

[108] Ibid., 108
[109] In his review, John Dixon Hunt quotes from *Looking at Architecture with Ruskin* by John Unrau in The Journal of the Society of Architectural Historians, Vol. 39, No. 4, Dec.1980, p 323-325. Pugin's Floriated Ornament, a series of 31 plates of highly symmetrical "ornaments" was published in 1849.
[110] Ibid.,112.
[111] Ruskin typically capitalized nature.

tracery, which, apparently rooted to the ground and disappearing into the sky like a tree, embodying the interlocking of the celestial and the earthly, was in harmony. During that time, the tracery outlined openings in ways that permitted the viewer to pay attention *not to the stone* but to the changing colors of the light over time, i.e., God as light. However, when tracery "*caught the eye* of the architect" [Ruskin's italics] the architect concentrated on the tracery instead. Now, "it lost its essence as a structure of stone" and was reduced to "the slenderness of threads" or a "silken cord." "When all the art of the architect is applied to disprove the first conditions of his working, and the first attributes of his materials, *this* is a deliberate treachery."[112] In other words, tracery should be the medium, not the message, not nuanced self-consciousness but propelling a larger conversation.

Like Pugin, Ruskin turned to the Gothic as the best vehicle for revealing Nature's glory, the primary source for authenticity. He believed that by setting too high a value on rationalism, pagan Classicism participated in Christianity's downfall and in humanity's travails in the throes of industrialization. Not surprisingly, though he took great pleasure in analyzing buildings and observing the natural world, Ruskin opposed the analysis of perspective geometry or other mathematical tools that would, perhaps, rationalize the design process, undermine the Romantic, and recall the Renaissance. In contrast, the Gothic, especially the rich variety found in Venice, was more perfect than any other style in acknowledging individuality and in what Ruskin called "rudeness," one of the six hallmarks of the Gothic sense he writes about (in *On Art and Life,* a truly remarkable volume of Ruskin's writings compiled by W.M. Sloane Kennedy in 1886, as well as in the earlier *The Stones of Venice*, 1853.)[113] *Rudeness*, or *savagery*, applied to taking risks and the "rudeness" or originality rather than the pursuit of perfection. As he wrote,

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[112] Ruskin, o cit., 57.

[113] These are Savageness, Changefulness, Naturalism, Grotesqueness, Rigidity and Redundance. Interestingly as Jeff VanderMeer points out in his blog, *60 in 60*, http://www.jeffvandermeer.com/2008/12/29/60-in-60-15-ruskins-on-art-

in the work of man, those which are more perfect in their kind are always inferior to those which are, in their nature, liable to more faults and shortcomings. For the finer the nature, the more flaws it will show through the clearness of it; and it is a law of this universe, that the best things shall be seldomest seen in their best form…"[114]

The inspiration for this audacity of rudeness is God's own vehicle, Nature (capitalized befitting 19th century Romantics), whose medium is the hand of the individual, which is imperfect and therefore Nature's perfect vessel. In other words, to be human and to be natural and imperfect is of God and is perfect.

Linguistic Divisions:
building vs. Architecture

There may be ancient distinctions between the words building and architecture. Building may arise out of an unlettered building tradition, related to old German and Anglo words; words, for example, that philosopher Martin Heidegger employed in his famous 1951 essay, "Bauen, Wohnen und Denken" ("Building Dwelling Thinking). The prettier Italianate words probably entered the language of construction earlier. These Latin words became central as exposure to Renaissance architectural treatises deepened.

If so, one might infer that two languages evolved, one for architecture, another for building. One might further suggest that the language for architecture might be linked to a material, i.e., stone. The Latin word columna (column) describes a vertical element, and usually "column" was a word reserved for stone. Columns are most likely to be used for civic architecture or on traditional, Classically derived, house façades; one typically doesn't encounter 'columns' on a building site for tract homes (except, perhaps, in some areas of the American southeast.) A builder, in contrast, would use the word post, derived from Old English, which also indicated where that element should be placed. In other words, 'post' implies a pragmatic action, a physical and possibly sweaty action, not an abstract or theoretical thought. Post usually conveys the idea of wood, not concrete, steel or stone.

In Gothic architecture ornament was made by the hand of an artist working at his pleasure, Ruskin imagined, in contrast to a slave "in the old Greek and present English fashion," employed to reproduce the conventions of Classicism.[115] And he ranked ornament according to how liberated or duty-bound the craftsman was with three ratings, Servile Ornament, Constitutional Ornament, and Revolutionary Ornament. Servile, in which the execution of the "inferior workman" is entirely subject to "the intellect of the higher;" Constitutional,

and-life-penguins-great-ideas/ . VanderMeer also points out that Ruskin also addressed the builder in "translating" his perhaps esoteric principles for the builder craftsman. For builders, these six principles are *Savageness or Rudeness, Love of Change, Love of Nature, Disturbed Imagination, Obstinacy, Generosity*." See also William Sloane Kennedy, edtr., *On Art and Life* (New York: John B. Alden, 1886).

[114] John Ruskin. "The Nature of Gothic," from *The Stones of Venice*, Vol. 11, (1851 – 3, reprinted Cambridge, MA: Da Capo Press, 2003), 7.

[115] See Ruskin's *Stones of Venice*.

in which the workman has some say but still "rendering obedience to higher powers," and Revolutionary, in which "no executive inferiority is admitted at all."[116]

Thus, he elevates and ennobles the intimate, triangulated relationship of the imperfection of the human, the object, and meaning. "The right question to ask, respecting all ornament, is simply this: was it done with enjoyment?" Ruskin asks in *Seven Lamps*. (Accordingly, we should be able to make ornament with joy and very badly, aesthetically speaking, or very poorly, in terms of workmanship, and it would still technically qualify as good ornament.) "True delightfulness," he insists, "depends on our discovering in it the record of thoughts, and intents, and trials, and heartbreaking, of recoveries and joyfulness of success." In other words, the creation of ornament is a record of personal investigation; it is the mark of the human being instead of the machine.

Ruskin's views on labor are obviously deeply entwined with his conception of ornament. Even if it were true that medieval craftspeople regularly experienced "joy," to locate the source of ornament in the individual craftsperson meant conjuring a medieval England that never existed. Visiting a nail factory once, Ruskin bemoaned that the young women on the assembly line were not more commodiously dressed in clothes befitting their gender, oblivious to the point that factory work is by and large not particularly suited to dressing like a silken summer's ray.[117] Furthermore, because he drew emotional well-being from his own occasional forays into manual work, performed at his convenience for as long as he wished in circumstances he devised, he was "almost totally oblivious to the value of technology in reducing the exhausting manual labour that is as emotionally

[116] "Nature of Gothic," op cit., 9. Retrieved August 23, 2009 from Google Books.
[117] Finn Fordham, "Mothers' Boys Brooding on Bubbles: Studies of Two Poems by Geoffrey Hill and Derek Walcott," *Critical Quarterly*, Volume 44 Page 80 - April 2002, doi:10.1111/1467-8705.00401

destructive as the repetitive rhythm of the machine," Herbert Sussman notes, a contrast to Pugin's early and bracing embrace of technology and mass production.[118]

"It is not the material, but the absence of human labor, which makes the thing worthless; and a piece of terra cotta, or of plaster of Paris, which has been wrought by the human hand, is worth all the stone in Carrara [marble] cut by machinery," he wrote, ignoring Alberti and Laugier's dicta on the use of material according to status and function.[119] But Ruskin being Ruskin there were nonetheless caveats on materials. He infused his writing with words like "deception" and "deceit" in materials that were painted or treated. With regard to "the false representation of material" he writes, "The question is infinitely more simple, and the law more sweeping: all such imitations are utterly base and inadmissible."[120] Ruskin's catalogue of deceit came under three heads. The first is the suggestion of a mode of structure or support other than the true one, such as the pendants in late Gothic roofs, here in line with Laugier. Second, the painting of surfaces to represent some other material than that of which they actually consist (as in the marbling of wood) or the deceptive representation of sculptured

COLOR ACCORDING TO BRUNO TAUT:

"Flight from Colour? All the duller!"
We can find examples of color in architectural ornament anywhere at any time in history, but it might be rewarding to recall some ideas about color held by the Early Modernists, since the default image of their work is black and white photographed in sepia or Adobe Photoshopped sepia. Bruno Taut (1880-1938), a German architect known today for his Glashaus exhibited at the Cologne Werkbund in 1914, was fascinated by the psychological and physiological impact of color. In 1919 Taut wrote his manifesto, "Call for Coloured Architecture." Signed by Walter Gropius, Peter Behrens, Hans Scharoun, Max Taut, Adolf Behne and many others, Taut's manifesto declared,

"We do not want to build any more joyless houses, or see them built… Colour is not expensive like moulded decorations and sculptures, but colour means a joyful existence. As it can be provided with limited resources, we should, in the present time of need, particularly urge its use on all buildings that must now be constructed. We categorically denounce the absence of colour even if the house is in the midst of nature. There are not only the lush landscapes of spring and summer, but also the snow-covered scenes of winter, which cry out for colour. Let blue, red, yellow, green, black and white radiate in crisp, bright shades to replace the dirty grey of houses."
Sean Kisby, Welsh School of Architecture, quotes from Taut's "Call" in his essay "Bruno Taut: Colour and Architecture,"
http://www.kisbee.co.uk/sarc/taut/taut.htm

Taut believed that color was also necessary because "it was a social duty of the architect to offer the inhabitants of social housing schemes 'an identification with their relatively modest living environment through the use of colour." Thus, he was calling for color for two reasons: one, for its ability to precipitate an emotion, in this case joy, and the second because color was a superb way in a chaotic, war-torn environment to weld emotional connections to the environment. See "True Colours: the glorious polychromy of the past suggests a strong historical need for colour, despite current reductive fashions - color in architecture," by Peter Davey in The Architectural Review, November 1998.

[118] Herbert L. Sussman, *Victorians and the Machine*, Cambridge, Mass.: Harvard University Press, 1968, 95.
[119] Ibid, 50.
[120] Ruskin, o cit., 43.

ornament upon them. Third, the use of cast or machine-made ornaments of any kind.

Experiencing the authentic was equally important for a viewer/user as well as for the craftsperson. Iron columns painted to look like figured and worked marble could not be experienced in the same way that columns of real marble could, with their hand-chiselled ornament, natural figuring, grain, and in the way light peculiarly struck the “real” material. However, cannot one say that a *trompe l’oeil* artist using paint to convey marble on iron has the same potential for “rudeness” and for personal creativity as a carver? If concrete columns are painted and burnished to look like marble in a Catholic church, as they were by Italian craftsman brought to Pasadena, California in the 1920s to paint the concrete columns to look like the most sensual of marbles for St. Andrews Catholic Church, (completed 1927 and based on the Byzantine St. Sabina’s, 432 c.e.), so that recent immigrants, the original Italian faithful, remembered their Ambrosian roots, does this not obey Ruskin’s sixth lamp, the lamp of memory, even if it also “Servile” Ornament? (On the other hand, the acclaimed murals by Italian muralist Carl Wostry are at least an example of Constitutional if not Revolutionary Ornament.)

“Nothing can be beautiful that is not true,” he famously said. In fact, “falsity” made him ill. He writes of “cheap modern churches” with their “flat roofs with ventilator ornaments … the gilded or bronzed wood … and, above all, the green and yellow sickness of the false marble.” He demands to know, “Who are they that like these things? who defend them? who do them? [stet!],” and admonishes that “such things are serious obstacles to the repose of mind and temper which should precede devotional exercises.”[121]

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[121] Ibid. 45.

For Ruskin it was not deceitful or untruthful to clad structure in another material (as distinguished from at least one of Pugin's tenets) as long as one did not pretend that the cladding material was other than what it really was, a similar threshold to Laugier's. There are inherent practical difficulties here, of course. Cladding in other materials often makes sense because some larger structural members, particularly certain species of wood, or unplaned wood, (as architect Bernard Maybeck was wont to do), do not lend themselves easily to finish work. In cases in which the material is appropriate for structure as well as finish, it is almost invariably more expensive if the intent is to expose the material, because the architect or designer will want to achieve a specific aesthetic appearance requiring higher quality and/or additional labor. Ruskin understood this, and basically enjoined architects to pick their battles: one should never "demand an exact finish, when it does not lead to a noble end … Demand no refinement of execution where there is no thought, for that is slaves' work, unredeemed."[122] Again, the act of thinking, that hallmark of human dignity, is key to realizing Ruskinian ornament

All that notwithstanding, imitations in materials were disallowed. What about imitation is so vile? Why is it "lying"?

Ruskin answers the question in "The Lamp of Truth," the second chapter in *Seven Lamps*: "We resent calumny, hypocrisy and treachery because they harm us, not because they are untrue."[123] In contrast to art, in which we understand we are looking at the product of imagination, he continues, architecture does not have this luxury: responsible to the greater society, it is particularly culpable. ***Note: Ruskin's aim is not truth for truth's sake -- that adage associated with Modernism and honesty to materials -- but in preventing harm to society***.

[122] Ford, ibid. 125.

If we accept the premise that ornament is an independent art form that is yet dependent on its substrate, that is, if ornament is performing its own work apart from the work done by structure, does the "honesty" of the material matter? Would we be "harmed"? It seems to me that what ornament *is* and what it *does* are two different questions. The first may address a material's physical properties and treatment, while the other does not need to. Besides, as soon as a tool has touched a material its nature is being changed, apparently well on the road to calumny, deception and treachery.

Disagreeing with the premise of "honest" materials and methods, author Brent Brolin has also asserted that new construction techniques alone do not "demand" a new kind of ornamental language:

> *Few materials have only one "nature." Is it in the nature of clay to be cast? built up in slabs? thrown? Should wood be turned? carved? glued and built up? laminated and bent under steam and pressure? chopped up, mixed with adhesive and spit out into moulds? One technique is no more "natural" than the next … the idea that the nature of a material or technique actually determined form was just another tool to control taste. Ironically, it ignored one of the more important ingredients in the creative process: the compulsion of skilled artisans to push materials and techniques as far as they can to triumph over the intractable.*[124]

It is helpful to recall some context here: at "The Great Exhibition of the Works of Industry of all Nations," held in the Crystal Palace during a long hot summer in 1851, critics observed how shoddy English goods had become since the introduction of mass-production. Manufacturers often grafted the quick fix of the machine-made ornament onto poorly made objects. Thus, a drive for thoughtfully designed, robust products also fed the urgency of these reformers. It was a social evil, they believed, to impose such sloppy goods on everyone, but especially heinous when directed toward the nascent middle-class, ignorant of aesthetics and vulnerable to the immorality and "harm" exemplified by

[123] Ibid. 23.

such “bad” ornament, exacerbated even further when added to *utilitarian objects* for *purposes of active and occupied life* per Loos and Ruskin.

While Ruskin and his fellow travellers were right inasmuch as man did in fact lose control over the machine, “the logical mistake they made consisted in an all too narrow definition of technics, in failing to recognize the technical nature of every kind of material production,” according to Arnold Hauser.[125] In other words, the craftsman/artist cannot be separated from the machine, because the craftsman/artist has *always* used tools and devices to make craft and art.

The English architect who mustered the courage to confront the new forms of industrialization was William Richard Lethaby, 1857-1931, professor of design and ornament at the Royal College of Art in London, who founded both the Arts Workers Guild and the Arts and Crafts Exhibition Society. “The age of iron and glass has arrived—we must face it like men!”; one wonders whether he moaned it, proclaimed it, or quietly acknowledged it to his friends.[126]

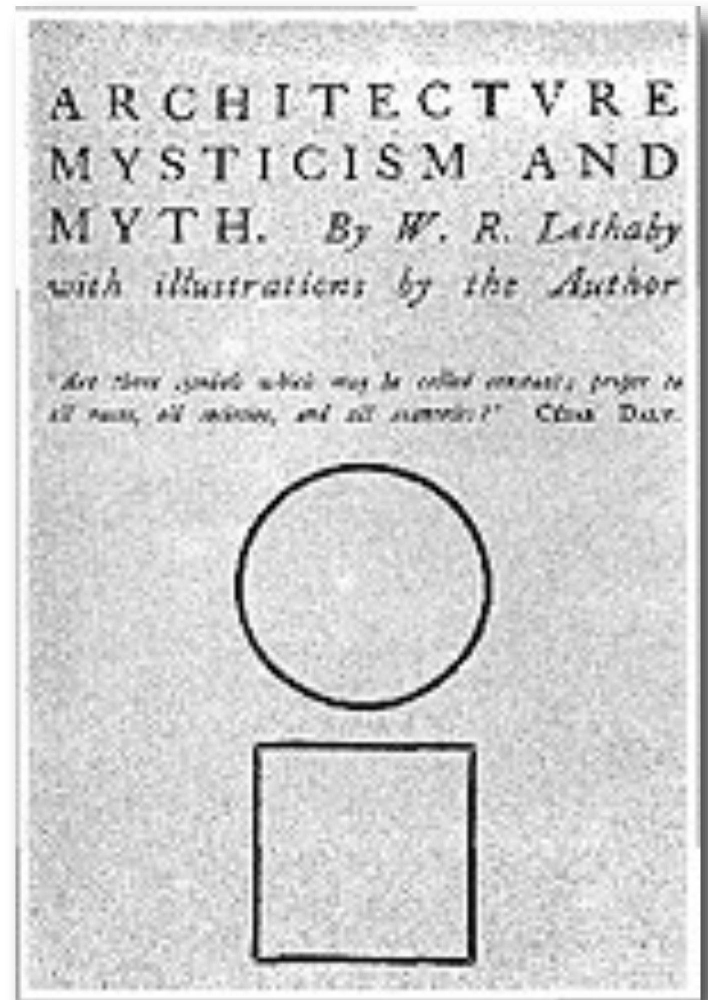
Lethaby embodies the shifting ideological trends at the end of the 19th century. A friend of Ruskin, Lethaby was initially an advocate for the Gothic style but became a central figure in the Arts and Crafts movement. Like Otto Wagner, he struggled valiantly with a new paradigm. In *Architecture, an Introduction to the History and Theory of the Art of Building* (1911), Lethaby seems to refute Ruskin in his allusions to rationalists such as Laugier and Lodoli, joining forces with his near-contemporary, the French architect Viollet-le-Duc, whose studies of Gothic cathedral construction

[124] Brent Brolin, *Architectural Ornament: Banishment and Return,* New York: W.W. Norton & Co., 1995, 123.
[125] Arnold Hauser, *The Social History of Art,* Vol. 2, 1952, 822.

[126] J. Mordaunt Crook, *The Dilemma of Style*, 1987, 234, quoting from W.R. Lethaby, A National Architecture, 1918, 300.

led to his unfailing confidence in a rational architecture. Lethaby defined Gothic as a true architecture devoted to the discovery of the nature of forces in a building (recalling Lodoli), “not the product of an act of design by some individual genius.’’[127,128]

With regard to ornament, Lethaby complained that modern buildings “have too much that is merely capricious.” Architecture must be “an endeavor after perfect structural efficiency.”[129] That “perfect structural efficiency” was analogous, he said, to naval ships, bicycles or even English plum puddings (confusing gastronomy with building, Crook remarks wryly in *The Dilemma of Style*.[130]) To Lethaby, ornament is not a vital element restored, necessary



The original cover to Lethaby’s Architecture, Mysticism and Myth, 1892

[127] Lethaby, *Architecture*, 242
[128] Both Ruskin and Lethaby believed that the Gothic style was exemplary because individual artisans contributed to a collective vision not propelled by a single author. Ironically, however, it is the Gothic style, more than any other style in history, that calls one person its inventor. That is Abbot Sugér, regent to Louis VII, one of the new breed of French rulers who sought to distinguish themselves from the Vatican and the Pope through new architecture. Gothic architecture, so light, transparent and ethereal compared with the Romanesque, so physically daring, that it readily symbolized the new, youthful and vigorous and thus challenging the inertia and authority of the Catholic Church as embodied by the Romanesque.
[129] Ibid., 249
[130] Mordaunt Crook, *The Dilemma of Style: Architectural Ideas from the Picturesque to the Post-Modern*, Chicago: University of Chicago Press, 1987, 233.

equipment, or something whose incorporation finally realizes beauty. Ornament is something to be stripped away. "The enemy is not science, but vulgarity ."[131]

Despite Lethaby's public posture and strident writings regarding "perfect structural efficiency," a book he wrote almost two decades earlier clearly takes pleasure in ornament's rich symbolic role in a tone of gentleness and even wonder. *Architecture, Mysticism and Myth,* 1892, reveals a deep appreciation for past cultures anchored by religion and symbolism. He easily uses the word "magic" as he delineates the built expression of symbols ranging from Shinto shrines to Byzantine mosaic pavement, hardly the vocabulary of hunting ground of structural rationalists such as Laugier. (It may be telling that Lethaby's father was both a lay preacher and a gilder.) Throughout *Architecture* Lethaby muses over the symbolic representation of myth and nature in design in chapters with poetic titles such as "Pavements Like the Sea," "The Jewel-Bearing Tree," "The Planetary Spheres," and "Ceilings Like the Sky" and discussions about the primal meaning of the circle, the cardinal directions and the 365 days of the year as orienting tools the ancients used to order their buildings. And while he doesn't shy from discussing the ruthlessness of those leaders who forced their people to build greatness, he mourns the demise of myth and the potential loss of architecture's purpose and intention. He writes,

> *Old architecture lived because it had a purpose. Modern architecture, to be real, must not be a mere envelope without contents. As M. Cesar Daly says in his "Hautes Etudes," if we would have architecture excite an interest, real and general, we must have a symbolism, immediately comprehensible by the great majority of spectators. But this message cannot be that of the past—terror, mystery, splendour. Planets may not circle or thunder roll in the temple of the future. No barbaric gold with ruddy bloom, no jewels, emeralds half a palm over, rubies like an egg, and crystal spheres, can again be used more for magic than for beauty. No terraced temples of Babylon to reach the skies, no gold-plated palaces of Ecbatana, seven-walled, no ivory palaces of Ahab; nor golden houses of Nero with corridors a mile long; no stupendous temples of Egypt at first all embracing, and then court and chamber narrowing and becoming lower, closing in on the awed worshipper and*

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[131] William R. Lethaby, *Architecture, Mysticism and Myth*, Mineola, N.Y.: Dover, 2004, reprint of second edition of work London: Percival & Co., 1892), p 19.

> *crushing his imagination; these all of them, can never be built again, for the manner and the materials are worked out to their final issue … Those colossal effort of labour, forced on by an implacable will, are of the past, and such an architecture is not for us, nor for the future.*
>
> *What, then, will this art of the future be? The message will still be of nature and man, of order and beauty, but all will be sweetness, simplicity, freedom, confidence, and light; the other is past and well is it, for its aim was to crush life ….”* [132]

Is Lethaby really convicted by the dreamy ideal he paints of modernity? “We must give up designing the broken-down picturesque which is part of make-believe,” Lethaby concluded, after clearly cherishing it in his text.[133]

Eagle Star Insurance Building, William R. Lethaby , 1900, Birmingham, England,.

http://skyscrapercity.com/archive/index.php/t-198209.html vBulletin v3.0.7, Copyright ©2000-2005.

Perhaps his real enemy was neither science nor vulgarity, but that there was nothing left to imagine: if architecture and ornament were propelled by myth and primordial mysteries ended, what was architecture’s purpose?

[132] Ibid., 7-8.
[133] Ibid., 19.

And while Lethaby may have admired Gothic architecture for its rational construction, Modernist architect Richard Neutra noted that Lethaby wrote that in its soaring verticality, the Gothic style "had the mystery of the great forests behind it," a prophetic comment that spoke not to the style's structural prowess but its poetic symbolism ... and, whether Neutra intended it or not, Gothic architecture's allusion to nature and to our connection to nature through our evolutionary biology (see Part IV.)

While Lethaby struggled on with this frustrating paradox of modernity, rationalism vs. primordial myth, his built work reflects one of ornament's roles, that of being an integral part of the building's purpose in that it communicates our role and place in our community. To Lethaby, that "community" could be as vast as the cosmos. His Eagle Star Insurance Building, Birmingham, 1900, has been called the "quietest revolution" in architectural history: its classically divided facade with allusions to Tudor in overall detailing is nonetheless very pared down. Its ground floor windows are symmetrically placed but abruptly aligned with the sidewalk which no historicist building would dare do. Even so, Lethaby invokes the ancient symbol of the egg at the top of the building on its flat, painted cornice, thus creating a contemporary design which also integrated symbolism and the metaphysical universe he so loved. (Perhaps here the egg suggested that insurance is a kind of rebirth after death or destruction, since the egg embodies the promise of repetition over time.)

Adolf Loos's early talks may have been a source for Lethaby's *Architecture*, published a year later. For example, Lethaby also named the tattoo as the first order of primitive ornament, just as Loos did earlier. Comparing inauthentic modern man with the authentic primitive who wore tattoos with no self-consciousness, the Austrian had written,

> *The modern man who tattoos himself is a criminal or a degenerate. There are prisons in which eighty percent of the prisoners are tattooed. The tattooed men who are not in prison are latent criminals or degenerate aristocrats. If a tattooed man dies in freedom, then he has died just a few years before committing a murder. Man's urge to ornament his face*

> *and everything within his reach is the prime origin of the fine arts. It is the babblings of painting. All art is erotic.*[134]

Without Loos's characteristic derision, Lethaby wrote:

> *After all, we must remember that beauty may be unadorned, and it is possible that ornamentation, which arises in such arts as tattooing, belongs to the infancy of the world. It may be that it will disappear from our architecture as it has from our machinery.*

Why both Loos and Lethaby picked human body tattooing as vehicles for their derision seems too coincidental, and tattooing itself, as the analogy to building ornament, initially odd. However, our bodies, like buildings, inhabit real environments. The body is the vehicle for being-in-the-world. Skin is a surface that communicates before skeleton, bones, structure, just as a building's surface does.

But in contrast to that definition of building ornament which confines it to something applied, extra, and perhaps even temporary, body-marking—excluding the temporary stamps of partiers and children—is permanent (unless one decides to undergo an expensive and painful removal process that is far more difficult than removing paint from a building). Indeed, photojournalist Chris Rainier, author of *Ancient Marks, The Sacred Origins of Tattoos and Body Marking*[135] has observed, "Indigenous cultures considered that the body is *incomplete* without tattoo … " a view of ornament reminiscent of its definition in architecture as *necessary equipment*. And, depending on if, how, and when it is exposed, a body tattoo speaks, just as architectural ornament speaks. It reaches out to those in similar "tribes" and distinguishes the wearer from those who do not belong, do not understand, or disapprove of such markings. It both separates from and joins to one person to a group. Rainier writes that:

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[134] Adolf Loos, *Ornament and Crime*, 1908.
[135] Chris Rainier, *Ancient Marks*, San Rafael, California: Palace Publishing Group, 2006.

> *Traditional cultures worldwide are experiencing a renaissance in body markings, which they see as meaning-laden paths to empowerment that honour both the individual and the community. In the West, body marking satisfies a yearning to reconnect with the primordial pulse of ancient ways, thus connecting to something larger than the individual, more profound than daily existence, and deeply rooted in a sense of global community … Millennia after the dawn of man's awakening, we continue to etch the geography of our bodies as we have always marked the landscape of the Earth. In creating these sacred forms, we forge a critical element of human existence—our identity.*[136]

In requiring personal, portable, and permanent marks of community, contemporary tattooers are saying that they place their trust not in the built landscape around them to accomplish that primal task of linking us to others through a *place* that we call our own. Instead, living in an increasingly mobile society that eschews the roots of extended family, a society that only occasionally successfully establishes place, and statistically favors divorce, body-markers directly harness the always reliable, ever-visceral flesh to proclaim a connection to community. We bring the potential of our tribe *with* us.[137]

Of course, anyone who wears any clothing at all has already made a choice of how to "speak" in the world, but body-markers reinforce their differences to themselves and to the rest of us far more daringly (at least in the Western world, in contrast to native cultures) and in any case, emphatically. For many contemporary tattooers, ornamenting their bodies is a positive gesture of cultural criticism and defiance. A tattoo *confers* identity, as Garbett and Loos *et al*. knew so well. Indeed, for Mahatma Gandhi, the wearing or not wearing of ornament by Indian women symbolized a much more abstract idea: a free or an enslaved India. In 1920, when he traveled across India gathering support for his nation's sovereignty, he was quoted as saying:

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[136] Chris Ranier, *Ancient Marks: Charting Sacred Origins of Tattoos*, Santa Barbara: Media 27, 2004, ___.

[137] It must be noted that tattooing is not always a matter of personal choice. It may also be imposed, as is the practice in prisons, most notoriously, Russian prisons, where a weaker prisoner might be branded by a stronger, and thus be considered the stronger prisoner's property. In addition, there is a strict caste system of tattoos according to one's rank and criminal history, a specific tattoo representing a genre of crime.

> *Referring then to the glorious scene which the ladies' meeting at Ahmedabad had presented, he [Gandhi] said, "Little girls from eight to sixteen took off their rings and necklaces to give them to me. And they had promised me that they would not ask for new ones from their parents. For what is the use of wearing ornaments when India has been widowed? There are no men in India worth the name today, that she would love to bedeck herself with ornaments. She will look smiling and gay when men in the real sense of the word are born and then Indian women will be able to wear their ornaments proudly."*[138]

Removing one's ornaments took courage because the wearing of such confirmed a woman's place in a social order; removing it bluntly placed her in opposition to that social order. In fact, the precious metal and jeweled ornaments that women slipped off their necks and arms helped to fund Gandhi's fight for independence, finally won from Great Britain in 1942. For Loos, *not* ornamenting the body—or the artifact, or the building—was also an act of cultural criticism, because the inauthentic use of ornament hides and denies a thing's essential identity.

Loos's Critique of Ornament

Loos's famed essay is so well-known and so very poised for comment, as he intended, that the

[138] *Day-To-Day With Gandhi, Secretary's Diary* by Mahadev H. Desai, Vol. 3, *October 1920 To January 1924*. http://www.forget-me.net/en/Gandhi/day2day3.txt.

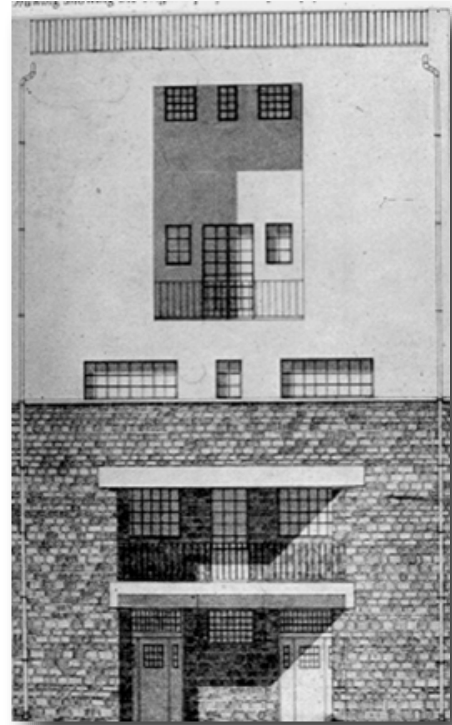
number of scholars who have definitively and patiently explained what he "really meant" have actually been well outnumbered by bloggers and generalists – a kind of "a fight not joined is a fight not enjoyed" appeal quite unique in the hushed halls of architectural scholarship.

The bottom line is that Loos understood quite well, almost hysterically, part of his deep charm, ornament's power and its essential role in bridging, knitting, unifying. What horrified him was the attempt to bridge, knit and unify that which had no business with each other, the authentic and the inauthentic, lest the latter infect and finally engulf the former.

In domestic architecture, he argued, one must retreat from the fragmentation and brokenness inherent, complicit, and perhaps even requisite in the face of modernity, embodied in the writings of Walter Benjamin, Ernst Bloch, Karl Kraus, and most poignantly, in Robert Musil's masterpiece, *Der Mann ohne Eigenschaften (The Man Without Qualities*), 1921, whose theme illuminated the existential horror in which the outer world, not one's inner essence, instigated action: Loos's houses at least could provide a physical barrier so that whatever wretched condition the inner man suffered, it would be in some way protected from the gaze of the public and capricious modernity. In contrast, in public architecture, where there can be no retreat, one must model authenticity without quarter.

It is not easy, from our vantage of our long and highly nuanced embedment in the post-post-post Industrial Revolution, with the absurdity of malleable "privacy" settings on Facebook presenting various faces to our various publics even while the notion of privacy itself is quaint and pathetic, to grasp how intolerable Viennese buildings and the society they represented, were to these writers. A reminder, then, from the following passage by Egon Fridell, author of *A Cultural History of the Modern Age*, 1933, which captures the feeling of suffocation Loos reacted to with such indignant vehemence, as Jan Zwicky points out in his essay "Integrity and Ornament" where he quotes from

Fridell:



> *These rooms of theirs were not living rooms but pawnshops and curiosity shops: Rococco mirrors in several pieces, multi-colored Venetian glass, fat-bellied Old German pots, a skin rug on the floor complete with terrifying jaws, and in the hall a life-sized wooden Negro … in the drawing room an Empire suite, next door a Cinquecento dining-room, and next to that a Gothic bedroom. Through it all, the taste for ornament and polychrome made itself felt. The more twists and scrolls and arabesques there were in the designs, the louder and cruder the colour, the greater the success. In connexion with this there is a conspicuous absence of any idea of usefulness or purpose; it was all purely for show.*
>
> *This brings us to one of the main features of the times: delight in the unreal. Every material used tried to look like more than it is ... Whitewashed tin masquerades as marble, papier mâché as rosewood, plaster as gleaming alabaster, glass as costly onyx … The sideboard boasts copper vessels, never used for cooking … On the wall hang defiant swords, never crossed [meaning they had never seen combat], and proud hunting trophies, never won … The butter-knife is a Turkish dagger, the ash-tray a Prussian helmet, the umbrella-stand a knight in armour, and the thermometer a pistol armour …*[139]

Fridell goes on in this vein, his every word damning how those who created these hot "successes" squeezed oxygen out of the room. Is it surprising that for Loos "ornament is no longer organically related to our culture, it is no longer the expression of our culture"?[140] He believed that the unrelenting "ornamenting" of objects of everyday use revealed a society that could not tolerate things as they really were. Worse, nothing endured, an observation particularly exasperating to this son of a stone mason, a profession grounded in permanence and truth in materials. Architecture had been relegated to the pencil, Loos scorned, at the expense of the tool, of joinery, and of

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[139] Jan Zwicky quotes Fridell from A *Cultural History of the Modern Age*, Vol. III, Charles Francis Atkinson, trans., New York: Alfred A. Knopf, 1933, p 299-300, in her essay, *Integrity and Ornament*, in Crime and Ornament (Toronto: YYZ Books, 2001), 207.

[140] Allan Janik and Stephen Toulmin, *Wittgenstein's Vienna*, Chicago: Ivan R. Dee, 1973, 97.

craftsmanship, which he discusses as much and as urgently as he does ornament.

Loos sought to restore integrity and meaning to society by severing the relationship between the object and the hypocritical society that created it. If his approach to making buildings is considered in that spirit, as a sharp local and temporal correction rather than attempts to establish a new and permanent style, as prescriptive rather than proscriptive, we might read his words differently also. Otherwise, how can he banish something and then tell us how to employ it?

Nonetheless, the relationship between Loos and ornament is subtle, apparently contradictory, and ambiguous.

First, far from being a non-traditionalist, he advocates the Classical tradition. An architect, he famously said, was a "mason who [had] learned Latin." Loos admired Vitruvius, whose *Ten Books* was a beloved reference according to his friend, the artist Oskar Kokoschka, who recounted that Loos took great pride in owning one of the first editions of the Italian work.[141] Some writers have asserted that he employed the Golden Section (the ratio of 1:1.6, ubiquitous in nature) on some of his façades and preferred Classical bilateral symmetries, in contrast to the asymmetry others in the *avant garde* regularly employed; both qualities can be seen in the house he designed for Dada artist Tristan Tzara, 1925, in Paris. (The Golden Section generated the proportions of the rough and smooth portions of the façade and bilateral symmetry occurs around the vertical axis.)[142]

Second, Loos is the consummate interior decorator and shop designer whose façades are sleek,

[141] Tournikiotis, ibid.,p 17. The author cites Oscar Kokoschka's *Ma Vie* (My Life).
[142] Ibid., 66.

glossy mediums of advertising opening into seductive, dignified interiors. Yet his hero is the dignified "humble man in overalls" who maintains the anonymous tradition of making, quite the opposite, in a way, of Ruskin's "joy of the craftsman" whose individual imprint on the work is anything but anonymous. In contrast, Loos's man goes about his work without seeking notoriety.

is it ornament or design? how Loos confused the issue

If we consider Loos's famous American Bar, 1907, in light of his use of "ornament," we see a demonstration of a lack of masking. In a tiny, bejeweled cave measuring 20 ½ feet by 15 feet, Loos integrated decoration and ornament rendered in his spare palette of luxurious materials such as rosewood, mahogany, mirrors, dark green leather, onyx, brass and a black-and-white checkerboard of marble tiles. These materials are detailed to create a refined environment scaled for intimacy and *eros*.

The American Bar, Käntnerstrasse, Vienna, 1907

The ornament is the series of inverted stepped pyramids of veined marble in each ceiling bay. The strategy provides a three-dimensional plane that is both animated yet sheltering and readily recalls Loos's respect for geometric shapes seen in the strong profile, for example, of the Egyptian pyramid. Below the ceiling and above the figuring of the dark wood walls, mirrors on three sides extend the upper space to apparent infinity, creating a

ceiling that simultaneously, curiously, provides a sense of expansiveness and a sense of shelter. The result is protection without suffocation. The shelter is real, and the emotional response of liberation is real, though manipulated through illusion.

Adolf Loos with his beloved friend, the poet Peter Altenberg, whose painting by Oskar Kokoshka hangs there still.

Loos details these materials in ways that fulfill many of the criteria for architectural ornament: they create scale, rhythm, communicate cultural values, make/meld boundaries, secure our environment, facilitate memory, and help create a sense of place. However, apart from the (repeating) array of inverted pyramids, there is no device here that *specifically* imposes an external element from outside or is a reference to something beyond the scope of the room, a requirement purists of ornament require, in addition to the obvious lack of figuration. They might readily agree that the space is alluring and handsomely designed, but well might argue it is *not* ornamented space.

Nonetheless, the bar satisfies deeply.[143] Just as Abbot Suger accomplished in St. Denis, Loos gave me the opportunity to be more alive, more emotionally engaged, with the environment, with myself, with my companion(s) ... a kind of "structural coupling," a word quite appropriate here, to describe the symbiosis between the self and its environment. Loos gives us the gift of wanting to inhabit this space, and with abandon.

[143] You could trust me on this, but better yet, take someone and go. The martinis are renowned but water will do just as well if you're not a drinker.

being brave: a layperson's guide to Loos and ornament

Like Ruskin, Loos freely acknowledged, even perhaps relished the perception that many of his ideas appeared to be paradoxical, calling the people who took the time to follow him "brave."[144] So, let us be brave.

1. What was "ornament" to Loos?

Loos traveled often and had a first-rate first-hand knowledge of architectural history. As I mentioned, he well understood the legacy of ornament, its power, and its special role in architecture, especially its ancient ability to irrevocably impose something "other" on a building. That positive legacy was not affiliated with contemporary inauthenticity.

Lamp, Adolf Loos, 1901-2: In its sturdiness, it embodies "lastingness." Textured brass shade and supports with a bone switch. Note that the shade is based on the ancient circle, that the fringe is "necessary" to the function of the lamp in creating a dappled, gentle light.

Backing into what ornament *is* via what it *is not*, Loos portrayed the ornament he damned as having two attributes. First, bad ornament had become the wrong kind of "mask," in contrast to appropriate masks of propriety and anonymity. Second, it was ephemeral and thus debauched.

To call a new system of ornament an "innovation" was wrong, he tells us, if its goal was merely to produce a new fashion, which in turn limited its durability. In contrast, "lastingness," a quality Loos embraced and bequeathed to protégés like Neutra, is essentially optimistic: we acknowledge a future in which our contributions

will continue to bear witness. People will continue to use things that had, have, and will have value to us. Making something last, he is saying, defies a culture that values appearance and capriciousness. He doesn't argue against innovation *per se*, since everything that is made was once also new: even "timeless" objects were innovative at some point. Rather, he questions its motives.

"Ornament is observed with great care, one could even say with reverence, for we know today that ornament must be a symbolic language, in a certain sense a holy script. This cannot be devised or invented, it is always the creation of a human community which in ornament creates for itself a universal and universally comprehensible language." – Edward Führ (Cottbus) quotes Bruno Taut from Taut's essay, "The new dwelling. The woman as creator" (Leipzig: Klinkhardt and Biermann, 1925 [1924[in his essay, "I shall eat roast beef: Ornament and practical aesthetics in Modern Architecture," in Isabelle Frank / Freia Hartung (ed.), The Rhetoric of the Ornament, Munich 2001. On-line http://www.tu-cottbus.de/Theo/Lehrstuhl/deu/ornament_engl.htm

2. What ornament, if any, does Loos permit?

"An ornament is legitimate if and when it is clearly and distinctly lining; [it is] not to be confused with the lined material."[145] Simply, something should not pretend to be what it is not. In 1898 he wrote, "with respect to stucco, the principle of lining would be as follows: stucco can contain any ornament save one—the brick frame." (In Viennese building practice, stucco was rough-cast and applied over brick.) Wood could be painted any color except the color of wood.[146] Like Semper and Ruskin, Loos "espoused the realistic portrayal of stucco as a skin."[147] Stucco could not be treated to appear as its brick substrate, an admonition that showed his respect for the craftsman of stucco. Renowned as a sensualist who favored fine materials, in fact *all* materials were precious to Loos. With wood and stone, Loos would expose and exploit its grain, precisely specifying the cut, orientation and polish of each piece. And just as Ruskin preferred hand-rendered plaster of Paris to

[144] Adolf Loos, "Architecture," 1910, reprinted in *The Architecture of Adolf Loos*, London: Arts Council of Great Britain, 1985, 106.
[145] Edward Führ, "I Shall Eat Roastbeef, Ornament and Practical Aesthetics in Modern Architecture," http://www.tu-cottbus.de/BTU/Fak2/TheoArch/Lehrstuhl/deu/ornament_engl.htm. He is the editor of the *International Journal of Architectural Theory* and professor of Theory and Architecture at Brandenburg University, Cottbus, Germany.

[146] Panayotis Tournikoitis, *Adolf Loos,* Princeton: Princeton Architectural Press, 1994, 58.
[147] Ibid., p 63–66.

machine-cut Carrarra marble, for Loos, a material did not have to be exotic to use it with authority and in such a way as to stir the viewer's emotions and imagination.[148].

Loos's position also acknowledged that the paradigm of monolithic construction, *a la* Pugin or block masonry, was now largely superseded by a layered type of construction. In his houses for private clients (environments *verboten* to the illiterate and vapid taste of the Viennese public), Loos often used "false" (i.e., nonstructural) beams of polished wood to residential interiors to add rhythm and weight to certain spaces, arguing that they were "honest" fakes. In Loosian terms, such beams, applied and irrelevant to structure, could nonetheless not be considered ornament because they did not undermine the room's authenticity.

Loos, again like Ruskin and Laugier, is not interested here in ornament's role as mediator, that is, as a "habitat for metamorphosis," but in the precise manner in which a material shows its face to the world. Does this concern for "honest" materials have anything to do with that definition of ornament as mediator? Not in my opinion. I believe that in this instance, Loos is not really referring to ornament in its historic roles at all, but as a catch-all to critique architecture itself. Loos knew full well ornament's power, and I think he deliberately chose it as a vehicle for his dissatisfaction with architecture. He confused the issue, and easily succeeded in confusing me.

Author Tournikoitis points out that Loos's ideas about clothing clarified the latter's attitude toward ornament. An outfit of "revelatory transparence" should, by its simplicity, reflect a truthfulness and purity in man.[149] This outfit does not need ornamentation. However, one may add *decoration*, not to

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[148] Ibid.

[149] Ibid., 24.

mask but rather to collude in this transparency in order to participate in the cultural mores of society, that is, in an authentic society. According to Loos, if I am not a member of society but an ignorant outsider or an unfortunate misfit, wearing a tie would be *ornament* because I am not being authentic, not being truthful to my real status as an outsider and misfit. (In contrast, a tie on the neck of a barrister, overtly a typical anchor in society, would be decoration, reflecting truthfulness.)

All this assumes, of course, that this society enjoys a common culture. What happens when it does not, and everyone has conflicting barometers as to what is acceptable?

Loos and Sigmund Freud concurred that civilization is synonymous with the repression of erotic instincts, or at least the deferred gratification of those instincts.[150] To place one's individual signature of *eros* on objects and buildings was particularly distasteful to Loos. Insofar as ornament, in the hands of those Viennese bourgeois Loos attacked in order to defend something better, expresses *eros* (thus "infantile" and irrational), it had to be repressed. In contrast, art was free to embody the irrational, the erotic, to deny consensus, to be revolutionary, independent, impractical.

Loos illustrates his point with a pragmatically sexist example that would make sense to Helen Gurley Brown: Insofar as ornament embodies and communicates *eros*, and *eros* is the spirit behind elementary expressions of art, and women need ornaments to get a man, ornament would be permitted to women to entice men. As Loos put it bluntly in an 1898 essay, "Ladies' Fashion," women had to be a

> *"riddle to man, in order to implant in him the desire for the riddle's solution … It is an unnatural love. If it were natural, the woman would be able to approach the man naked. But the naked woman is unattractive to the man. She may be able to arouse a man's love, but not to keep it."*

[150] They both also collected Greco-Roman antiques.

(In other words, men may dress anonymously, lucky they, but women are doomed to the life-long pathology and rat race of pricey ornamentation, and, in so doing, separate themselves from their own truth and authenticity … clearly less important than getting the guy. As we all know, women cannot partake of the universal paradigm of the suit: when she wears one—bliss not to have to think about cladding, bliss to assume instant authority, with interior pockets, no less—she needs to transcend allusions to Greta Garbo or her sexual orientation, quite a time-consuming task of self-analysis and brooding, or perhaps that's just me.) Or maybe it's not so serious: we ornament ourselves to play, to heighten the moment, to give spice to life. We architects, after all, eschew color perhaps because that is cool, practical, requiring no thought while we attend to the gravitas of the intellect, but perhaps it is out of fear of disobeying tribal injunctions, and therefore only cowardice.

Loos's bedroom for his wife in their apartment on Bösendorferstrasse in central Vienna. The floor is white angora fleece atop a blue carpet; the armoires are hidden behind the drapes of white Batiste rayée, which also covers the walls. See August Sarnitz, Adolf Loos, 1870-1933: Architect, Cultural Critic, Dandy, Taschen, 2003,

Whatever one thinks of Loos and the politics of gender, he seems at least to grudgingly acknowledge the requisite role of fantasy and *eros* in maintaining the species. Take note of the bedroom the 32-year-old architect designed for his first wife, (one of four women he partnered, usually dancers), the 18-year-old actress Lina Obertimpfler. The room is as sexually charged as any bedroom imaginable: a white bed floats above a floor of white angora sheepskins that even ride up the frame of the bed in front of white linen curtains. Virginity, purity and sexuality meet in a luxurious cave overtly intended for touch, for the exploration of lust in a private place not only verboten to the public but utterly undomestic as well. "It is an architecture of

silence, of a sentimental and erotic approach," writes Tournikiotis. However, Loos also shows us that expressing *eros* can be accomplished without traditional conceptions of ornament. Rather, the various textures, color, the scale, together, providing the properties of ornament, create the setting for the ultimate jeweled "ornament," the white-blonde Lina herself.[151]

Is this an ornamented room, or a room without ornament?

In contrast to Loos and his ladies, one of the most speculative but notorious stories about Ruskin is his dismay in encountering his wife's pubic hair after his wedding to Effie Grey, who had the marriage annulled after seven chaste years. (Ms. Grey proved she was still a virgin.) Though "the mound" is one of woman's chief ornaments, the quintessential natural, definitely functional and indicative of the Creator's hand, so to speak, it proved insurmountable to Ruskin, so to speak, who in theory should have, one would think, far more than most men recognized ornament in all its feral glory when he saw it in the flesh. A theory of Semperian cladding or integrated ornament indeed. And Ruskin then loved a ten-year-old girl who grew into an anorexic young woman whose early death drove Ruskin insane; would she have ever sprouted ornament?

These facts are prurient but disturbing to me. How could Ruskin be so blind? Apart from its more responsible urbanistic roles of melding/dissolving boundaries or imbuing scale, ornament is about pleasure, impudence, the potential for disorderly conduct, sensuality, the daemonic, *eros*. It is part of the human body, part of the body of a building, part of the urban fabric of a city. All bodies exist within the physical realm. Many of the men in our pantheon of writers are notorious for controlling ornament and establishing social propriety through architecture. How much to control is, perhaps, a

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[151] (Loos would have three other wives or companions as well, including two dancers and a photographer, and

question of one's time and place in history. In defining two broad "camps" for designers, author Natalie Ilyin writes that an action stems from love or fear: "People who grow solidly into their place in the world design to express their astonishment at its beauty, their comfort in their natural sense of that place, their love of that place. People who do not feel that they belong in the world as they find it design to create the world as they know it could be. They want to create a space for themselves in that ideal world. They want to create a foundation for themselves, the launching pad they should have had."[152]

Looshaus, Michaelerplatz, Vienna, 1911

If Ruskin had dared to enjoy his wife, if they had taken pleasure in each other and created such a foundation, would he have written less or written less harshly about those peers whose ornament he did not approve?

***2. To use the forms of Western classicism is not a revival but sustaining a tradition*.**

To be of one's time and to be modern did not divorce one from tradition but rather to be part of it. In many buildings Loos used cornices, pediments, friezes adorned with garlands of flowers or walking figures, moldings. He used the Doric, Tuscan, and Ionic Orders, especially the Tuscan, an early order based in Roman history and far cruder and simpler than the Greek Doric. Loos used the Orders as somber ways of dressing a public building, communicating strength and formality as well as cultural continuity. More importantly to our discussion, these elements did not have to function as structure.

all seemed to have adored him long after the relationships ended.)

For example, the Tuscan columns adorning the façade of the infamous Looshaus at Michaelerplatz in Vienna, 1911, play no structural role. Vertical loads are accommodated at thickened side columns instead.

Thus, while Loos was clear about how cladding should be represented, he was not concerned with an “honest” revelation of structure but with a larger cultural integrity. What is also noteworthy about the Looshaus is how it respectfully honors its neighbors, specifically utilizing the height and cornice level of the surrounding historic buildings. Additionally, the thickened cornice, dividing the green marble at street level from the stucco above, provides a welcome sense of scale and affords the pedestrian with a subtle sense of protection. These gestures strengthen the immediate urban fabric while maintaining the building’s individual character: a Garbett-polite building indeed, despite the contempt showered on it at the time.

Loos employed both the Doric and Ionic orders even more freely in some of his unbuilt designs, such as the *Project for the Monument to Franz Joseph*, 1917, a composition in which unadorned stone office towers stand atop what appears to be the Altar of Zeus at Pergamum on an Acropolis-type site. In of his smaller public buildings, there are modest examples of conventional, classically derived ornament, such as stucco wall friezes of vine and leaf patterns, in built venues like the Ebenstein Fashion House, 1897.

Ornament, when he did use it, was for public consumption.

[152] See Natalie Llyin,Ilyin hasing the Perfect (

3. Ornament, labor and money

Loos's pugnacious essay also implicates ornament as an economic drag. "The omission of ornament means a reduction in manufacturing time and an increase in wages … Ornament is wasted labor power and hence *wasted health*." (A century later, environmental psychologists, architects and urban planners would all argue that the *lack* of thoughtful ornament is a source of "wasted health.")

Given that contemporary manufacturing methods provide ways of making nearly anything, a simple arithmetic of *architecture + ornament = wage decrease* is at long outdated unless one is speaking of handcrafted ornament ... and of course, on the minimalism does not come cheap, and may be equally "hand" crafted. Many of us surround ourselves with set-design-type dwellings and hip, "functional" objects that are just as irrational in their costliness and limited functionality as any butter dish *cum* Prussian dagger. (For those concerned with "wasted health," the life cycle of materials and products makes a far more compelling argument.) For Loos, however, ornament seems to be anything that speaks to brief life spans, to ever-changing styles, to anything unsustainable: again, ornament is the medium for critiquing architecture and Viennese society. It is a symptom, applied if you will, to the disease.

Despite his condemnation of ornament as a waste of money, he is quick to admit that his position also stems from personal taste: jettisoning unmindful ornament is not the result of self-denial. He *prefers* roast beef and plain gingerbread, he says:

> *I will not subscribe to the argument that ornament increased the pleasure of the life of a cultivated person, or the argument which covers itself with the words: 'But if the ornament is beautiful! …' To me, and to all the cultivated people ornament does not increase the pleasures of life. If I want to taste a piece of gingerbread, I will choose one that is completely plain and not a piece which represents a baby in arms of a horrider, a piece which is covered over and over with decoration … The supporter of ornament believes that the urge for simplicity is equivalent to self-denial. No, dear professor from the College of Applied Arts, I am not denying myself! To me, it tastes better this way. The dishes of the past centuries which used decoration to make the peacocks, pheasants and lobsters appear*

> *more appetizing produce the opposite effect in me. I look on such a culinary display with horror when I think of having to eat these stuffed animal corpses. I eat roast beef.*[153]

Loos preferred to limit himself to roast beef and an architecture of limitation in a culture of over-compensation. In a memorable statement from a talk given in Berlin in 1965, the philosopher Ernst Bloch reminded his audience that not all of us are required to "eat" roast beef. "Birth forceps must be smooth, but by no means sugar tongs. The strictly functional implement serves and emancipates us best, indeed only, when it is free of decoration … However, this assertion has nothing in common with the application to all interior and exterior architecture of forceps purity, which serves only to elevate the depravity of ornamental imagination so as to justify egg cartons and glass boxes." Bloch, like Ruskin, speaks to the appropriate "place of repose" for ornament. Forceps and railway stations do have something in common, after all.

Louis Sullivan, from the frontispiece of a 1934 edition of Kindergarten Chats, first published in 1918 and based on a series of articles begun after 1900.

Sullivan, master of live buildings

A continent away from Loos, Louis Sullivan immersed himself in an architectural exploration in a setting that was a complete contrast to that which Loos inhabited: we often hear the phrase *fin-de-siecle* Vienna but rarely *fin-de-siecle* America. In contrast to the Habsburg Empire's crumbling paradigms, the U.S. was exploding with growth. Chicago, Sullivan's home, was the heart of that sense of power and

[153] Adolf Loos, "Ornament and Crime," reprinted in *The Architecture of Adolf Loos*.

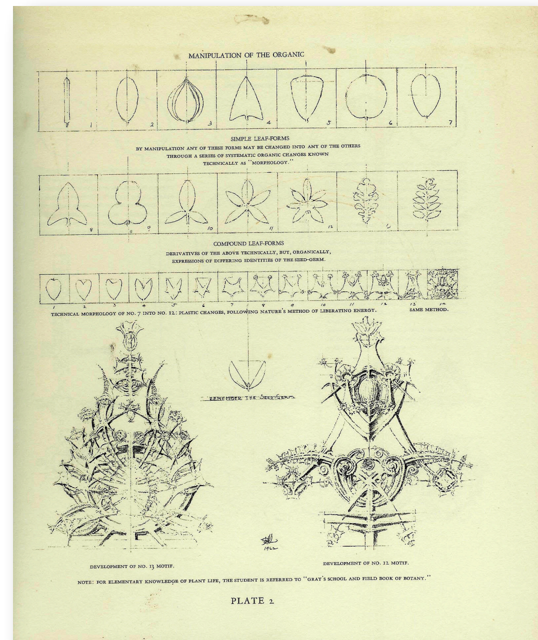
potential. Sullivan lived in the world Loos only visited, when he worked at various menial and drafting jobs in New York and Chicago between 1893 and 1896. The city's forceful vitality carried none of the enervating, "false" weakness Vienna embodied. It required no surgical tools for excision. Sullivan did not seek to remove or eliminate ornament, no matter how it was defined. On the contrary, words and phrases such as "sexual energy," "voluptuous," "writhing," and the like are common parlance in others' descriptions of his ornament.

Somewhat straining credulity in his breadth, Louis Sullivan is considered both one of the world's great ornamenters and a founding father of the skyscraper. Author, educator and ornamenter Bloomer emphasizes that Sullivan operated within the canon of Western ornament, that is, "within the tradition as an idiom and an enrichment." This relationship to tradition is one reason why Sullivan is so pivotal: He electrified the world with an inventive and highly personal ornamental system just as he was devising methods for understanding, advancing, and treating the definitive building type of the 20th century.

Sullivan infused ornament with an unparalleled personal energy at the same time Loos was editing his notorious essay. The American's ornament is unforgettable in its almost frightening intensity, far more spiky and prickly than the softer swirls draping the interiors of his contemporaries, European *Art Nouveau* designers, either in his ornament as a rigorous, repetitive field of patterns fully integrated into the fabric of the building, or adding explosions of specific "ornaments" to specific

points of a building.

Sullivan is a conundrum to those who shy away from messiness, here demonstrated in apparently contradictory talents and values in one individual. Based on his indisputable link skyscraper and his famous adage of form and function, he has plenty of Modernist "street cred" based on his. Yet his obsession with what critic Reyner Banham called his "vegetable obsessiveness[154] made him an embarrassment to these same early Modernists obsessed with Frederick Taylor, Henry Ford and the straight line. And because his ornament, while traditional in its use, is unmistakably his. It's hardly anonymous, whereas much historical ornament is based on long generations of craft and beyond the stamp of an individual.



A page from Sullivan's A System of Architectural Ornament*, 1924.showing the process of designing ornament*

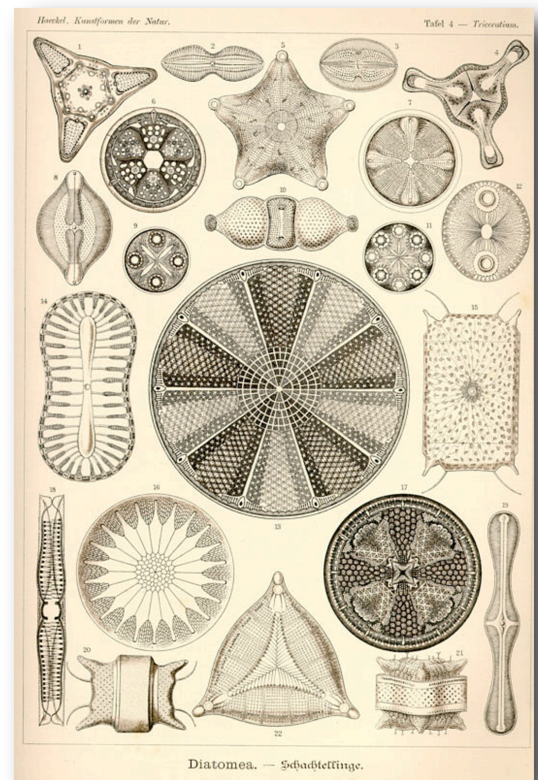
Sullivan's ornament never feels as though it is imposed from without. It does not feel applied. Instead, his ornament really does manifest what "organic" is actually supposed to feel like, "as though the outworking of some beneficent agency had come forth from the very substance of the material and was there by the same right that a flower appears amid the leaves of its parent plant."[155]

[154] John Szarkowski, Tereence Riley (introduction), *The Idea of Louis Sullivan,* London: Thames & Hudson, 2000 xi. Banham's report appeared in *The Architectural Review*, March 1958 and called out Szarkowski's fascination with Sullivan's work "in all its vegetable obsessiveness."

To what degree did Sullivan draw upon tradition? Fusing historical knowledge, an understanding of geometry, and botanical form was a given for mid- and late 19th century Western designers on both sides of the Atlantic.

Beeby in his essay, *The Grammar of Ornament/Ornament as Grammar,* which connects the tradition of ornament to the work of seminal Modernists rarely associated with that tradition, pointing out that figures including Wright and Le Corbusier, as well as, predictably, Sullivan, were all deeply informed by the experience of studying (meaning copying and poring over) the rules of traditional ornament.

It is interesting to note, for example, that in 1876, the architect William Lee Baron Jenney, one of Sullivan's employers and mentors, ordered a number of books on ornament for the University of Michigan Library. They included *Flore Ornamentale* (1866) by Victor Ruprich-Robert, professor of composition and the history of ornament at the *Ecole imperiale et special de dessin* in Paris; *Art Foliage For Sculpture And Decoration; With an Analysis of Geometric Form, and Studies From Nature, of Buds, Leaves, Flowers, and Fruit* (1873) by James Colling; and *Plants, Their Natural Growth* (1874) by Edward Hulme.[156] Sullivan himself went directly to the source, Paris, to study at the Ecole des Beaux



Ernst Haeckel, plate, Kunstformen der Natur (Art Forms of Nature), 1904

[155] Michael Lewis, *Louis Sullivan after Functionalism,The New Criterion*, Vol. 20, No. 1, September 2001.
[156] See Theodore Turak, "French and English Sources of Sullivan's Ornament and Doctrine," *The Prairie School Review*, Fourth Quarter, Vol. XI, No. 4, 1974, 6.

Arts from 1874 to 1875. He lived around the corner from where Ruprich-Robert, 1829 – 1887, a member of the "Nèo-Grecs," a group exploring exotic Eastern monuments for the sources of Greek architecture, taught a course on ornamental motifs.[157] For example, some of Ruprich-Robert's drawings depict images from Persepolis (Iran), the famous temple of Cyrus II, 500 b.c.e., remarkable for its blithe overlapping and mixing of Egyptian, Mesopotamian and Greek influences. Sullivan copied many of Ruprich-Robert's drawings, a standard *Ecole* technique.

Nature, man and personal freedom were Sullivan's gods. He did not believe in the Christian Deity or that He revealed Himself in nature, quite a radical departure from a saying earnestly thrown around today. He wrote:

> *So the last veil lifts, the reality-man is found sound to the core, the quintessence of power, the dreamer of dreams, the creator of realities, the greatest of artificers—the master craftsman. The modern dream (obscure, inarticulate as yet) is to be found, on the reality of man and his powers, a civilization befitting him and his powers.*[158,159]

Man was the measure, the observer, and instigator of form.

In his 1924 book, *A System of Architectural Ornament*, published three months before his sad death, Sullivan shows how he developed his ornamental language. His point of departure is typically a simple, symmetrical linear outline of a shape "still largely in the mechanical mode," such as a square, or a circle and triangle, whose "simple forms" are of "ancient discovery and use." Sullivan refers to his diagram as "the Seed-Germ" that "is the real thing; the seat of identity, the container of

[157] David Van Zante, William Jordy, Wim De Wit, Rochelle Berger Elstein, *Louis Sullivan, The Function of Ornament*, (Wim de Wit, edtr.), New York: Chicago Historical Society, St. Louis Art Museum, W.W. Norton, 1986, 26.
[158]Wright did, after his own fashion. He is quoted as saying, "I believe in God, only I spell it Nature."
[159] Louis Sullivan, *A System of Architectural Ornament*, New York: Eakins Press, 1967. First published in 1924. From Sullivan's introduction, 27 January 1924.

energy."[160] The germ blossoms, grows, and sprouts new formations under his hand: it "effloresces," to borrow one of his favorite words, because he harnesses the "energy lines" apparent from the center or the periphery. "Here then appears the will of man to cause the inorganic and rigid to become fluent through his powers … all lines are energy lines, this may be called plastic geometry," he writes, several times directing his readers to "*Gray's School and Field Book of Botany*." (*Elements of Botany* by Asa Gray, biologist and early confidante of Charles Darwin, was published in 1836; *Elements* was the first botanical textbook to be published in the U.S.) By adding plantlike curves or layers of secondary lines, Sullivan achieves "fluency," a completed image that may or may not be symmetrical (implying that an overall balance, symmetrical or not, will only be realized in a context.)

John Szarkowski's image of Sullivan's 1890 Auditorium Building in The Idea of Louis Sullivan, first published by the University of Minnesota Press in 1956 and reissued by Bulfinch in 2000.

While the drawings are beautiful, they are oddly mild-mannered compared to the raw urgency of the quasi-mystical text accompanying them. Seen in person, the final product, ornamental panels of metal and terracotta, almost burst from their frames yet feel firmly under control, here meant in the way of inviting *eros* onto the scene, with caveats. Here an often frenzied *eros* flawlessly mediates the architecture and reaches out to the city.

[160] Ibid.

Many of Sullivan's commercial buildings (his houses are far more restrained, similar to those of Loos in reserving ornament for public, not private, buildings) never fail to draw upon nature in original ways while never straying far from established historical precedents, as author Bloomer has pointed out. At the Auditorium Building in Chicago, 1890, designed in partnership with Dankmar Adler, Sullivan maintained te the base/torso/capital organization of a Classical building. The monumental rusticated granite blocks defining the building's base and supporting the massive, sensually curved corbels at the entrances create the sensation of crushing elephantine weight. That stonework recalls not only recent precedents, such as Henry Hobson Richardson's Marshall Field Store (Chicago, 1887), but many older works such as George Dance II's Newgate Prison, London (1769) or Andrea Palladio's Palazzo Thiene (1540) or the Palazzo Medici by Michelozzo, (1459), affirming Sullivan's election to stand within history.[161]

Above the rustication, however, the Auditorium changes abruptly, with a combination of smooth surfaces and verticality so that the building easily takes on its role of an American commercial building intent on depicting raw capitalism. On the interior, graceful plant motifs race over large wall surfaces. In sum, the building may be a work of artifice but is utterly alive in how each ornamental treatment seeks its proper place and imbues the whole with presence.[162]

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[161] At the Auditorium, is the rustication ornamental or are they ornament? They confer texture and scale, and in recalling Classical antiquity introduce something "other" into the architecture. At a micro scale, in order to achieve a particular effect, the rustication assumes a pattern: the craftsperson or machine controlling the tool working the stone must take care that most of the time, a particular depth of particular size of particular distance from other marks is controlled. It is not "perfect," for perfection would engender a subtle static quality to the rustication. In my opinion, this is embellishment, not ornament.

[162] To see and apprehend Louis Sullivan's work and genius, I recommend *The Idea of Louis Sullivan,* Boston: Bulfinch Press / Little, Brown and Company, 1984, by John Szarkowski, whose agenda was to present Sullivan in words and in photographs. His poignant presentation sears Sullivan into the mind. University of Minnesota Press, 1956.

As is often pointed out, Sullivan did not say "form follows function."[163] The phrase he did introduce appears in "The Tall Office Building Artistically Considered," from *Lippincott's Magazine*, March 1896:

> *Whether it be the sweeping eagle in his flight, or the open apple-blossom, the toiling work-horse, the blithe swan, the branching oak, the winding stream at its base, the drifting clouds, over all the coursing sun,* ***form ever follows function****, and this is the law. Where function does not change form does not change. The granite rocks, the ever-brooding hills, remain for ages; the lightning lives, comes into shape, and dies in a twinkling. It is the pervading law of all things organic and inorganic, of all things physical and metaphysical, of all things human and all things superhuman, of all true manifestations of the head, of the heart, of the soul, that the life is recognizable in its expression, that form ever follows function. This is the law.*[164]

Ornament was clearly "functional" to Sullivan, necessary to celebrate "the plastic control of the inorganic," and to "transmute into the image of [man's] passions that which of itself has no such power … man in his power brings forth that which hitherto was non-existent."[165]

In other words, the function of ornament is not only to breathe life *into* the building, but to exude a sense of life *from* and *beyond* the building. Just as each living thing can be said to communicate its essence through its most characteristic behavior, as Edward Führ has pointed out, the ornament in Sullivan's buildings attempts to project something essential not only about the spirit or energy of the building it adorns, but something ineffable beyond that.[166] In Sullivan's hands, the effect of ornament extends from the mass of the building to both other parts of the urban fabric and to the pedestrian. In so doing, ornament humanizes the scale of the street.

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[164] Louis Sullivan, "The Tall Office Building Artistically Considered", *Lippincott's Magazine*, March 1896.
165 Sullivan, o cit.

frank lloyd wright: nature patterns and eye-music

Wright's *The Natural House* was published in 1954 as an explanation of his USonian houses (US = United States). The USonians[167] were his version of the later, smaller, affordable house typically made of brick, wood and glass. Most of us think of these as unornamented structures, as essays in texture and natural materials, and thus to be sharply differentiated from his earlier work such as the opulent Prairie School houses, the textile concrete block houses in Los Angeles, and his fantastical Midway Gardens or the Imperial Hotel.

A perforated pane in cypress from the USonian Exhibition House built for the Guggenheim Museum, 1953.

Wrong. Ornament in the form of non-structural perforated panels, or "perfs" as they were known in the Wright studio, have been documented in at least 57 USonian houses according to scholar Palli Davis Holubar, who is researching this little known aspect of Wright's canon. The perfs are comprised of glass sandwiched between two thin rectangular wood boards (initially solid lumber, often tidewater cypress or redwood, and later plywood) and typically sized at approximately one foot by four feet. They were often ganged as a line of fixed or hinged clerestories above exterior walls, though sometimes located on interior walls as well, and can be found in some of Wright's commercial structures as well. Holubar's work-in-progress also connects the perf to the Japanese "ramma," carved wood transom pieces located above shoji screens, that Wright may have seen in the Ho-o-den,

166 Edward Fuhr's excellent essay, "I Shall Eat Roastbeef: Ornament and Practical Aesthetics in Modern Architecture," can be read at http://www.tu-cottbus.de/theoriederarchitektur/Lehrstuhl/deu/ornament_engl.htm

[167] The first "offical" USonian, the Herbert Jacobs House, Madison, Wisconsin, was completed in 1936, although some include the Malcolm Wiley House, Minneapolis, Minnesota, first designed in 1932 and revised and completed in 1934, as a pivotal prototype. The number of USonians vary according to scholarly source and

(the Japanese hall at the Columbian Exposition in Chicago, 1893), later placing one high in the rock walls of the Taliesin studio. Wright's *liebermeister*, Louis Sullivan, a collector of Islamic art objects, may have introduced Wright to the perforated wooden screens, *mashrabiya*, seen throughout the Middle East and India.

I'm using the perfs as an example of successful ornament because they acquit many of the ornament's properties and roles, here in a Modernist setting. To review :), these include the Ruskinian sense of placing an element to achieve a sense of inevitability in creating "place": ornament there and in no other place to acquit a task. The perfs introduced the "Other" into a composition, that is, a sense of something from the world beyond. They required the participation of the individual craftsperson – in fact, not one but two makers: first, the apprentice charged with designing this special ornament under Wright's guidance, and two, the homeowner who cut the perforations out, an incredibly tricky and labor-intensive assignment that performed by hired professionals would have driven up costs and undermined the goal of great architecture that was also affordable. Additionally, the perfs created figurative movement and a repeating pattern. As Wright said, [maintaining his use of punctuation and language], "Abstraction, the real form-pattern seen behind all appearances really making them what they are is continually being treated afresh ... We are beginning to think and see in simples. And simples are always abstract?"[168]

Holubar hypothesizes that the patterns (usually combinations of diagonal and straight lines akin to Native American imagery), reflect the abstractions of light and shadow patterns generated by the strong sun and landscape that played on the rock walls and floors at Taleisin West, patterns seen

criteria applied, anywhere between 50 and 100. In general USonians rarely exceeded 2,000 square feet; later houses of the 1950s with similar materials and methods well exceeded that size.
[168] Bruce Brooks Pfeiffer, ed. *Frank Lloyd Wright Collected Writings* (New York: Rizzoli, 1995), Vol. 4, 71.

everyday by the apprentices and draftsman in his famous Arizona atelier. In other cases, the perfs appear to be abstractions of a plan or elevation of a house. Thus, the perfs are quite traditional in that they are based on natural forms as much as the Doric Order, in this case the dry, stark landscape around Taleisin or an abstraction of the dwelling's plan or elevation, itself based on elements of nature. The perfs also continue Wright's own tradition of ornament in recalling the "laylights" of the Coonley Residence, Riverside, Illinois, 1908, where panels flush with the ceiling were constructed of patterns of built-up stickwork joinery and of course his famous textile blocks with many variations on perforated concrete block.

Perfs were multivalent workhorses of ornament. Typically located on a wall facing the street, the perfs provided privacy; these walls were low-ceilinged so the perfs were at eye level. Hinged perfs introduced buffered cross-breezes. However, their most important function was to add to the "plasticity" of the space by enlivening the interior with slow-moving dances of light, acting as organic paintings on the walls; "plasticity" being that sense of the animate living space, so crucial to Wright. The perfs were an example of "eye-music," as he elaborates below on ornament as an act of love:

> *"So every living thing bears witness to the need for love, expressing the poetic principle by what we call "pattern": visible in all organism. Creation as eye-music is no less expressive than ear-music because it too is heart-music appealing to human life at every core. Both melody and ornament reach us by way of the soul of all Creation and as we are made we respond."*[169]

Holubar notes, "I think he fully understood how exciting shadow is, and the idea that you could make shadows happen must have been equally exciting – you're going to have shadows anyway, so why not control them? You could almost trace the pattern you saw on the wall." Adding another layer to the multivalence of the perfs, she also believes that Wright used the perfs as the perfect

vehicles for bringing some freedom into the hard of drafting hours on end, "liberating the design instincts of the apprentices. Wright wanted quasi employees, yes, but he wanted them to love his art as he loved it … to foster free play with the drafting tools and focus apprentice eyes unto the considered visual environments of the different Taliesins. Through study with archived drawings and interviews with living apprentices, I might discover that Taliesin perforated boards are tangible evidence of Wright's responsibility to honor the artful process of drafting that involves abstraction, invention and playful self-abandon in mark-making."[170]

In *The Natural House* Wright upends any idea of ornament being applied: "Integral Ornament at Last!" proclaims the last section of five that describe the five new resources of what he calls "our architecture."[171] Somewhat echoing the Victorian Garbett, he defines integral ornament as poetry, as "the nature-pattern of actual construction … "[172] But he warns that since both poetry and ornament are "rash" and "dangerous" words, "I have used the word 'pattern' to avoid confusion or to escape passing prejudice."[173]

Wright fully defines his term thus: "not only *surface qualified by human imagination* but imagination *given natural pattern to structure*."[174] [his italics.] Many contemporary architects would approve this definition. It's very modern in that it means ornament without the sting of the baggage

169 Frank Lloyd Wright, A Testament (New York: Bramhall, 1957; orig. pub. Horizon Press), 157.
170 Interview with Palli Davis Holubar, February 15, 2010. I am also indebted to Peter Maunu, owner of the USonian Jack Lamberson House, Oskaloosa, Iowa, 1948, for generously introducing me to Wright's perfs as well as to Ms. Holubar. Perfs were designed but never built at the Lamberson House, co-owned by Peter's wife Irmi Maunu-Kocian, who has restored the house with Peter.
171 The five resources are an architecture that is **integral** in expressing the "livable interior space of the room itself … the outside comes inside and the inside outside; **glass**; **continuity**, in which the work of a post and beam is melded into one by the use of steel or plastics, leading to the phrase, '**plasticity**,' describing the flowing continuity of structure and surface working as a whole; acknowledging the **nature of materials** and the last, integral ornament.
172 Frank Lloyd Wright, *The Natural House*, New York: Horizon Press, 1954, 63.
173 Ibid.,64.

the word carries, as he clearly surmised. But perhaps better to watch what Wright did - pattern *per se* may have been what he said but it hardly approaches the subtlety of what he practiced.

In his book Wright attacks both the left-wing "Ornaphobia" (Modernists) and the right-wing "Ornamentia" (historicists), as he calls the two camps, and proceeds to distinguish *ornament*, which acknowledges the nature of materials and helps a building communicate an comprehensible role to the world, from the ornament*al*, which fails miserably. Whether it is a modern building, he writes, or a

> *period and pseudo-classic buildings whatever, and (although their authors do not seem to know it) most protestant buildings, they call themselves internationalists, are really ornamental in a definitely objectionable sense. A plain flat surface cut to shape for its own sake [that is the damming phrase] however large or plain the shape, is, the moment it is so sophisticatedly so cut, no less ornamental than egg-and-dart. All such buildings are objectionably ornamental because like any buildings of the old classical order both wholly ignore the nature of the first integrity [e.g., that a bank ought not to look like a temple but a bank]. Both also ignore the four resources and both neglect that nature of machines at work on materials. Incidentally and as a matter of course both misjudge the nature of time, place and the modern life of man.*[175]

Wright succeeded in creating ornament that spoke to the "nature of time, place and the modern life of man." His possible approaches of appropriating the nature around him, relating it to the Native American traditional imagery, or further abstracting the plan or section of a house, all speak to traditional ways to generate ornament. Interestingly, directly exploiting nearby landscape is exactly the approach used by the famous contemporary firm, Herzog and de Meuron for the de Young Museum in San Francisco, discussed later.

[174] Ibid.
[175] Ibid., 65, 66.

art deco and the skyscraper

In a very different way, modernity was also the subject of Art Deco, popular in the late 1920s, '30s, and '40s, which flourished in urban and typically non-domestic settings, or in any case stamped any setting with a chic urbanity. In cities, by articulating and embellishing the multivalent boundaries among street, building and pedestrian, Art Deco ornament mediated the familiar ground plane and the new vertical plane of the skyscraper projecting into the far-off sky. Art Nouveau ornament, Art Deco's younger sibling and based on curvilinear plant growth, belonged to the continenental 19th century city.

Art Deco and its subsets, Streamline Moderne, Hollywood Moderne and the PWA Moderne styles, basically describe styles of façade treatments. None describe architecture, and thus are usually not of interest to those analyzing modes of construction, the relationship of spaces, approaches to program, theory, etc. But as schools of ornament, they were innovative in their exuberant response to a new building type, the skyscraper, and successful in fulfilling all the tasks of ornament.

Art Deco parallels the beanstalk-like explosion of the skyscraper as an expression of the power of mercantile American commerce in the early 20th century. In contrast, Streamline Moderne swept along the ground plane, speaking to a different early 20th century impulse, the new disciplines of aerodynamics, velocity, acceleration and speed, taking its cue from ocean liners, aeroplanes, fast cars. While the spaces inside may have been no different from a symmetrically oriented Classical building, these early treatments of the 1920s and '30s were too busy having fun to worry about where they fit into definitions of architecture.

The architects commissioned to design and ornament skyscrapers were just as eager (though probably not as desperate) to realize a timely American architecture as their Victorian predecessors had been. As one critic complained in 1929, just as Art Deco swept to popularity:

> *We have almost always borrowed our ornament from Europe. The plan and construction of all our buildings, from houses to skyscrapers, is as distinctly American as their ornament is European. It has always been so, and the discouraging aspect of 'this modernism' is that we are continuing the same practice, for while we are evolving our own forms we are taking our ornament from the Exposition of Modern Decorative Arts in Paris [1925] or from European publications exploiting the modern movement …*[176]

The critic also pointed out that the America was different in that "the forms of our buildings are dictated by stern necessity—purpose, cost, and available materials; the ornament is an amenity," and decried that American architects didn't have time to develop original ornament. What emerged, however, was indeed a highly original ornament style based in traditional conceptions of ornament in terms of hierarchical placement on a building.

What science were they reading?

Charles Darwin's Origin of the Species (1859); Ernst Haeckel's Challenger Monograph (1887) and Kunstformen der Natur (1899); and D'Arcy Thompson's On Growth and Form (1917). On Growth and Form is a remarkable book by one of the century's great polymaths. Not only was it one of Louis Kahn's two favorite books, it is now assigned reading in some architectural schools, whether traditional or avant garde, rediscovered as a contemporary teaching tool in a new search for using natural forms and processes.[1] Other contemporary works include Jay Hambridge's The Elements of Dynamic Symmetry (1926); Sir Theodore Cook's The Curves of Life: Being an Account of Spiral Formations and Their Application to Growth in Nature, to Science, and to Art: With Special Reference (1914), and Matila Ghyka's The Geometry of Art and Life (1946). Le Corbusier , corresponded with Ghyka and with Andreas Speiser, author of Theorie der Gruppen von endlicher Ordnung (Group Theory of Ultimate Order), as well as mathematicians. Jones' Grammar of Ornament was also available, and was introduced to Le Corbusier, for example, by his teacher at La Chaux-de-Fonds School of Art, L'Eplattrenier. "From the beginning, Corbusier understood the implications of ornament, saying that '…ornament pure and simple is a thing of significance; it is a synthesis, the result of a process of putting together.'"[1]

Art Deco and its siblings specifically responded to the new zoning codes for tall buildings. Beginning in 1916 in New York, not surprisingly, "stepback laws" were established to retain light and air at street level. Tall buildings were required to step back from the street at specific heights,

depending on the width of the street below. The ziggurat quality of the resulting shape with its concise receding volumes afforded many opportunities for spectacular bursts of ornament at the ground plane, where the pedestrian and auto dwelt far below; the middle transitional parts of the structure; and finally the crown of the building. It is an excellent example of ornament fulfilling its tasks in exploiting the full range of transitions in scale, whether the ornament of a heating grille or a 20-storey tall ceramic relief; in the mediation of edges and boundaries (especially seen in entrances and roof lines). Famous ornamenters (and often the architects for the building as well) include Abbott, Merkt & Co., William van Alen, Claude Beelman, Francis Barry Byrne, Clinton & Russell, Holton & George, Robert Derrah, Rene Lalique, Liebenberg & Kaplan, Sumner Spalding, Joseph Urban, Wurdemann and Becket and others collaborated with other artisans and designers to create unified buildings that nonetheless reflected the individual contributions of an "external agent."

the modernists as ornamenters?

As I noted previously, Sullivan's exposure to nature through science was a common experience for most architects of his time. For architects with less interest or acumen in science there were other paths to nature. In his 1943 autobiography, Wright wrote that the Froebel blocks,[177] with which he played as a child under his mother's famous tutelage, awakened in him an awareness of natural patterns:

> *…the awakening of the child-mind to the rhythmic structure in Nature—giving the child a sense of innate cause and effect otherwise far beyond child-comprehension—I soon became susceptible to constructive pattern evolving in everything I saw. I learned to "see"*

[176] Alastair Duncan, *American Art Deco,* New York: Harry N. Abrams, Inc., 1986, 147, 148. Duncan quotes Thomas Talmade writing in *House Beautiful* Magazine, January 1929.
[177] Designed by Frederich Froebel (1782-1852), founder of the Kindergarten Movement and who studied stones and gems in Jena, Germany, a city renowned for its links to history and to the microscope, which played such an important role in 19th century science and thus to the very works and authors mentioned above.

> *this way and when I did, I did not care to draw casual incidentals of Nature. I wanted to design.*[178]

Many of those now famed for their rigorous interpretations of Modernism started in the decorative arts. Wright began his career drawing ornament as Sullivan's draughtsman and ended up, he said, often designing the buildings themselves because his master far preferred to design ornament rather than to do architecture. Mies van der Rohe began as a stucco decorator and furniture designer. Bauhaus founder Walter Gropius, Le Corbusier and Mies van der Rohe all spent time in the office of architect Peter Behrens, who in turn began as an artist, illustrator and bookbinder with strong links to the Arts and Crafts movement. While his A.E.G. Turbine Factory, 1910, is renowned as an Early Modernist icon because while its steel structure and Egyptianesque façade elevated the new god, industry, to civic monumentality, it should not be forgotten that Behrens was also the director of the newly established School of Applied Arts in Düsseldorf, beginning in 1903.

All of these influences taught these masters, Beeby argues, to use the timeless conceptual tools of ornamentists: grids and geometries, rotations and translations, inversions and reflections and to elect, maintain and elaborate primary and secondary axes in three dimensions.

However, the potential for these rules of ornament to take over and subsume architecture itself did not go unnoticed. In a little-known "but strangely prophetic" 1869 address given to the Royal Institute of British Architects by a critic named Robert Kerr, he "satirically redefined architecture as a cloak with which the architect transformed a dull structure into an eloquent *object d'art*," Beeby notes.[179] Kerr defined four categories of architecture: "structure ornamented," "structure ornamentalized," "ornament structuralized," and "ornament constructed." The first category is pretty

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[178] Ibid.,18. Beeby quotes Wright from *A Testament* (New York: Horizon Press, 1971), 19.

self-explanatory: take the carcass of the building and do something to it, as a steel-frame building was clad in classical garb. In the second case, "structure ornamentalized," the "structure is rendered in itself ornamental. That is to say, the necessary structural or constructive elements are arranged to have an ornamental effect;" and, apparently, less offensive than "structure ornamented.'[180] In "structure ornamentalized," structure and program still commands the composition, if less rigorously and more prettily than "structure ornamented." But in the third step, "ornament structuralized," the design "*begins* with the ornament rather than construction." Kerr's fourth and most damnable category, "ornament constructed," ignores or distorts both structure and program to achieve a particular look. Ornament reigns triumphant, even though we probably call it architecture. On an urban scale, "ornament constructed" is usually the appropriate label to characterize those isolated "gems" of buildings that undermine a well-knit urban fabric.

In the light of Kerr's categories, we see a prescient critique of Modernism, both in architecture and urban planning, particularly in the vital transitions in scale that have been lost through the neglect of

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successful ornament discussed in Part 1. Beeby compares the visual parallel between Le Corbusier's plan for "A City of Three Million Inhabitants" (1922) with a Greek reciprocating fret pattern found in many mediums and cultures. The vast gap in livability between the city as fret pattern, however cool, and the scale of the human being proved fatal for Modernism as a sustainable urban design policy. Corbu's visually alluring urban scheme merely magnifies a small pattern into a large one, and does not acknowledge the qualitative differences between the two.

In one of Beeby's most riveting observations, he demonstrates that consideration for ornament was the motive behind the design for the famed open plan of the German National Pavilion at the 1929 Barcelona International Exhibition by Mies van der Rohe with interior contributions by Lily Reich. The building was designed for a single official reception. Dissembled in 1930, it became the epitome of High Modernism for its sophisticated delineation of space.) Mies treated every plane in the composition as a discrete and independent element, imbuing each with a power and meaning not seen before. Mies's interior and exterior marble panels are carefully bookmatched, revealing the aesthetic impact of the earth's weight on one material over time. Experiencing them seems more like viewing paintings than looking at upscale wall panels. Architectural historian Paulette Singley writes that the reconstructed pavilion:

> *plays on the senses much as do those lurid, polychromatic reconstructions of the Parthenon …The marble wall ten feet high and eighteen feet wide made of a 'ravishing and rare marble called onyx doree with a venation that ranged from dark gold to white' is the center piece to a sumptuous material palette of travertine veneer, chrome plating, bottle-green glass, Tinian marble, black carpet and scarlet drapery …*[181]

Mies "did not actually begin the design until he had located an onyx block—from where he obtained

[180] Beeby, o cit.
[181] Paulette Singley, "Mortified Geometry and Abject Form," in *Eating Architecture*, ed. Jamie Horwitz and Paulette Singley, Cambridge, Mass.: MIT Press, 2004,   345. Quote in single italics excerpted from Franz

the non-load-bearing panels that delineate space in the building—that satisfied him."[182] The architect derived every subsequent proportion in the pavilion from the thickness, width and height of that large piece of stone, rather than imposing a preexisting grid on the design, Beeby asserts, and there is no doubt that Mies's heavily figured golden onyx is certainly as visually compelling as the white, gold and pink fiery froth of High Baroque ornament on the interior of Johann Balthasar Neumann's Vierzehnheiligen Church of 1743-72.[183] The onyx forms a backdrop for contemplation, much as Neumann's colored and treated stone and plaster provide a context for ecstatic worship. Both engage. Mies's rectangles and Neumann's curving shapes evoke an emotional response in the viewer: in their respective "places of repose," the marble is as breathtaking as Neumann's swoons of ornament, the former showing how space can be sacred, the latter pointing the way back to the Catholic Church in the face of the Reformation.[184]

Because the oynx is bookmatched, it sets up a repeating pattern at a small scale that is then repeated at a larger scale; additionally, each panel set is slightly different at this larger scale, a phenomenon examined in Part IV. In other words, Mies is working outward from the specifics of a piece of ornament, in this case the onyx block, to create "ornament structuralized" if not "ornament constructed." It is also architecture, imbued with intelligence even as it is ever pregnant as a source and inspiration for other ideas.

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[182] Ibid.,24.

[183] Glass, steel and four different kinds of marble (Roman travertine, green Alpine marble, ancient green marble from Greece and golden onyx from the Atlas Mountains in northern Africa) were used for the reconstruction.

[184] I remember as a tourist once accidentally stumbling into a church in Regensburg. It was near sunset. I "didn't like Baroque" and had grown up believing that the cult of the Virgin was wildly creepy. Then the ceiling of the church started to change. The light came in through the oval windows at the top of the nave in strange ways, and the ceiling started to burn. It was as though flames of gold and pink were lapping, caressing, shooting, streaking the gilded white and gold spaces. I was speechless, but turned and raced outdoors to find my wayward husband, shouting to come quick, quickly, I was desperate that he should see this. And though we missed some of the show, he saw "it," whatever "it" was. After the sun faded, and the church began to go black-and-white, I walked out with every cell in my body rearranged. I understood what Baroque was doing when he talks about the God of the Counter Reformation.

In contrast, Neumann's architecture could be characterized as "structure ornamented." Despite their differences, however, these two buildings share the same rigor in articulating a systematic, comprehensive grouping of architectural and ornamental elements in a *Gesamtwerk* rendered in a clear language.

Compared to Neumann's shaped three-dimensional shapes, Mies's marble panels, two-dimensional rectangles, may be spurned as ornament by those who believe ornament must convey a cultural narrative in a frankly rhetorical or figurative idiom.[185] Conversely, the panels may be embraced as ornament by those who define it in the broader terms of environmental psychology, where emotional connection, rhythm, scale, proportion and resonance with nature come into play (which is not to suggest these qualities are absent in other interpretations of ornament.) Choosing and detailing the custom, unadorned, non-structural materials, already bears the mark of the "craftsman's hand," be it Ruskinian-joyful or Loosian-humble. When Mies positions the marble panels into their places, stone became primordial ornament. To paraphrase Ruskin, the marble in the Barcelona Pavilion is "in its place" It must be in that place and in no other to contribute to the artistic whole of the Pavilion.

Located within the Pavilion, the famous 1925 sculpture by George Kolbe, variously named *Sunrise,*

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[185] Rhetoric in architecture refers to buildings that communicate. Before Johannes Gutenberg perfected the printing press in 1450, buildings were the perfect medium for communicating because they were the largest, the most permanent and thus most consequential of any art form.

Evening, and *Dancer*, is no less critical to the Pavilion as architectural ornament. The nude occupies a critical space bordered by two perpendicular walls composed of book-matched marble. Poised atop a rock in the L-shaped pool, she is an S-shaped curve of bent knees, turned torso and upraised arms. Historian Gill Matthewson writes:

> *She is veiled by a multitude of reflections; she both belongs, but is secondary; she is decorative, additional but somehow also essential; she controls the building yet seems trapped by its walls. She is an accessory to the building but views of the statue, immortalized in the original black and white photos and now in colour gloss, are iconic views for Modern Architecture and descriptions of the pavilion lead to her. An accessory she may be but also pivotal: the architectural focus of the building.*[18]

Because of her semi-enclosed setting, here Kolbe's figure recalls goddess statues in temples, whose sole existence is to house a deity. "So, if the statue can be seen as an ancient goddess figure, might this make the *Barcelona Pavilion* a pagan temple?" Matthewson asks. Such a switch in emphasis makes Mies's "temple" an ornament to the house of the goddess, who along with the marble speaks to forces of nature and life. In any case, she and the building depend on one another. She brings a great cultural legacy from beyond the boundaries of this otherwise abstract building. She is "otherness" indeed and is s ornament at its best.

the 21st century vs. 20th century

> *Modern architects, as Robert Venturi and Denise Scott Brown have asserted, were only "denying in theory what they were doing in practice." - Amir H. Ameri* [186]
>
> *"Postmodernism" remains a bad word among architects, evoking images of ponderous maroon pediments, flesh-coloured keystones, and linoleum floor tiles laid out according in a faux-Egyptianesque pattern. But … stylistic postmodernism is only one of a number of possible architectural manifestations of the postmodern condition and is not by any means the postmodern condition's fullest realization. - Kazys Varnelis .*[187]

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[186] Robert Venturi, Denise Scott Brown, Steven Izenour, *Learning from Las Vegas*, The MIT Press, Cambridge, 1972, 114. Quoted by Amir H. Ameri in Writing on, the Margins of Architecture, *Art History*, the International Journal of the Association of Art Historians, London, Vol. 16, No. 2, 1993, p 336-348.

[187] Kazys Varnelis, "Postmodern Permutations," first published in the MIT architecture department's *Thresholds*, July 1999 issue.

Varnelis's statement distinguishes an often-despised *style*, epitomized by Michael Graves' Portland Building of 1980, from the uncomfortably ambiguous *period* we live in. Stylistically, Postmodernist architecture attempted to reintroduce Classicism, and ornament along with it, in response to the austerities of the later Modernism of the 1950s and '60s, especially "corporate Modernism." As distinct from the richly textured Modernism by, say, Louis Kahn or Alvar Aalto, the period witnessed a Modernism no longer propelled by a social agenda but deployed by an overtly capitalistic one, resulting in big, smooth, predictable, "unsticky" buildings that rejected the street as the "primary public space and the façade as the public aspect of a building," according to critic Scruton.

Postmodernism sought to distance itself from the heroic, often intolerant rhetoric of Modernism with its emphasis on space and structure to a more humane inclusion of signs and symbols. Such a new reading would then engender new ways of looking at buildings that were ostensibly ordinary and vernacular; it would also lead to a more creative response to urbanism, both in making buildings that communicate to the public more effectively and in designing cities that are more intuitively understandable to their inhabitants. The language of Classicism, familiar and *de facto* rhetorical, was often employed as a reference, not as a revival. Practitioners such as Charles Moore brilliantly reinvigorated architecture, often in slightly comic, tongue–in-cheek versions of Classicism, and returned an impudence to architectural ornament that Modernism had determined as far too frivolous.

The movement's emphasis on restoring or reconstructing urban fabric on a large scale and the resurrection of ornament on a smaller one is usually dated to Robert Venturi's house for his mother, the 1964 Vanna Venturi house in Chestnut Hill, Pennsylvania. With its television aerial at the ridge line standing in for a traditional spire, its references to a classical broken pediment in its cornice, and the use of moldings in the façade, the Vanna Venturi house seemed to be grounded in the compositional techniques of Classicism, albeit with sense of irony missing in, say, Roman architecture as much as in any work of Modernism.

As Postmodernism evolved, the movement took many forms, fragmenting into highly personal responses to Modernism's perceived urban sterility. Earlier projects, especially those by Moore and Venturi, were often impudent in their sly "remarks" whose success depended on an insider's appreciation of the rhetorical language of classical architecture.[188] On some occasions, they would ramp up the comedy by using oversized fragments of classical architecture, or by locating Classical details in very un-Classical settings.

Labels for related movements such as *ironic classicism* or the more sober, archeologically accurate *canonical classicism* flourished (whose proponents would argue that they are not post-Modernists but continuing a tradition). Later, the movement matured: "By the late 1980's and 1990's the dominant variant of postmodernism adapted traditional architectural details in wholly original compositions, without the awkwardness and oddities of ironic postmodernism. [Postmodern architect

[188] Denise Scott Brown became a partner later on to form Venturi, Scott Brown and Associates. VSBA is now known as much for a humane modernism in philosophy, whatever style it may have helped precipitate decades ago.

Robert] Stern called this variant *creative postmodernism*, or *modern traditionalism*."[189] This variant is best represented by architects such as Allan Greenberg of Washington, D.C., whose projects are admired for their rigor, craftsmanship and Classical authority. Greenberg is an intimate with Classicism; one can witness his reverence in that he does not copy but uses the language with all the breadth and flexibility it is capable of, so in some way he is not post Modern at all but quite Loosian in seizing and embodying the valid continuity of tradition.

Philip Hammond's three-word definition of Postmodernism as "incredulity toward metanarratives" is "über-concise," as blogger Jason Jay puts it. The definition does not eliminate metanarratives, Jay says, but approaches them more critically, creating room for

> *a "post-postmodernism," "reconstructive postmodernism," or "integral" culture, where metanarrative currents emerge out of a field of deep, collective, reflexive inquiry (dialogue) that crosses boundaries of hegemonic power systems. Without that, postmodernism simply fragments any shred of moral clarity by discarding the possibility of discovering objective value and disabling any use of power to achieve the greater wholeness or good. I'm not a big fan of that form of "deconstructive" postmodernism that effectively disables right action.*[190]

That is, while we live in post-modern times, the stylistic constraints of Postmodernism are well behind us. That is probably a good thing: Postmodernism failed in the critically important area of scale, among others. Often its practitioners added ornament as engorged, enlarged solo elements on a building, instead of integrating patterns that acknowledged a hierarchy of scale that human beings can relate to. These additions did not mediate among elements on the building so much as interrupt them to draw attention to themselves alone.

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[189] "American Architecture," Microsoft® Encarta® Online Encyclopedia 2005 http://encarta.msn.com. Dr. Leland M. Roth, contributor.
[190] Jason Jay, 6 June 2005, 10:31 a.m. http://www.jasonjay.com/blog/000178.html

By the late 1990s, approaches to ornament had become far more catholic, ranging from championing of traditional ornament to exploring biomimetics (a 21st century term for an ancient idea, i.e., applying the principles of nature to design). Although these approaches vary and have divergent agendas, one goal they share is often to create more coherent cities and to turn spaces into places.

Along with an understanding of the role of scale, new materials and methods now provoke a much richer approach to design and ornament that in turn can lead to the "greater wholeness or good," whether that be interpreted in sustainable terms or in ways that create a more visually rewarding environment, so we exist neither in the distorted scale of Postmodernism or scale-less Hong Kong. That is because two important aspects of construction and design have changed since the heyday of Postmodernism.

The first is building technology. Cutting-edge architecture need no longer depend on traditional load-bearing systems that resolve vertical loads one way (gravity, dead or live loads) and lateral (wind or seismic) loads in a different way, typically with cladding imposed on a frame. In contrast, 21st century technology makes it possible to create a hybrid façade which is no longer solely a "façade" covering a body but a *melding* of façade and structure: a load-bearing membrane—that is, a multivalent surface that resolves both compression loads and tension loads as well as cladding. Alternatively, even if the surface is still conventional cladding secured by a structural frame, the cladding can become far more dynamic, for example, with liquid crystal displays that make a surface transparent, translucent or opaque, which might eliminate any traditional borders around a fenestration system. The obvious question is, what might this mean for ornament?

The idea of melding of façade and structure is not new. To recall, the Greeks perfected post and lintel architecture (an orthogonal architecture of the right angle and directly distributed vertical

loads), while the Romans and Gothic builders perfected "arcuated" architecture, or one based on arches, vaults and domes (which distribute the loads evenly over the more efficient arch). Both of these technologies are based on compression. However, much of contemporary public architecture increasingly exploits a third structural system, one based on tension. In Garbett's *Rudimentary Treatise of the Principles of Design*, 1850, the British Victorian architect writes:

> *But though there are three styles of construction, there have been only two systems of architecture—and only two styles possessing constructive unity, the Greek and the Gothic. The third constructive principle has yet to be elaborated into a system. The two systems are past and dead … the third is the destined architecture of the future.*[191]

One only has to look at the work of Venice, California-based architect Greg Lynn of Greg Lynn Form; Los Angeles-based architect Peter Testa; structural engineer Neil Thomas of Atelier One, London; the fabric and glass designer Toor Boonje, Einhoven and London; or "Extreme Textiles," an exhibit at the Cooper Hewitt Museum in 2004 exploring materials with exceptional strength and capabilities, to know that there is the possibility of a paradigm shift well beyond Garbett's "third constructive principle." Those changes in turn means a broader range of language is possible. Peter Testa's *Woven Skyscraper* of carbon fibers that are as much as five times stronger than steel, is a 40-storey "building," sure, but is it, perhaps, a weaving? a knitting?

Language surrounding architecture is unusually masculine, ornament is often linked to the feminine: structure is male (primary, structural) while ornament is female (secondary, decorative). In architecture-speak, we speak of "interventions"—an aggressive noun suggesting surgery. In contrast, ornament may claim "knitting" and "weaving," in connecting a building to the urbanscape, the landscape, to the human being. These are verbs that are historically associated with sitting women, that attend the task of reconciliation and that give weight to rootedness.; they may not so much

feminize the vocabulary of buildings and urban space as much as temper it. And it follows that if skin and structure are one woven object, the rules change for ornament as well.

As Pierre von Miess points out in a chapter prophetically titled "Fabric and Object" in *Elements of Architecture,* "Paradoxically, the Modern Movement has conferred upon *buildings* the object-status and upon *interiors* that of a fabric providing spatial continuity [italics added]."[192] Thus, new paradigms in architecture, it seems, would extend that fabric out into buildings and urbanity. As architecture evolves, new nouns and verbs will have to step forward.

Digital technology, computers, and technology also distinguish this richer arena both beyond Postmodernist design as well as Modernist criticisms of ornament. For example, computers and CAD-CAM technology denies Adolf Loos a vital cornerstone of his argument against ornament: that it wasted human labor. A century ago, making objects was pretty much the preserve of either large manufacturing facilities or the individual craftsperson. Now, the individual can harness markets and production techniques once inconceivable; the dissolution of the boundary between design and product is now within reach of Everyman. As Dutch designer Toor Boonje remarks with some excitement, "the modernist rationale of unadorned production starts to break down, when new possibilities arrive every day."[193]

Along with a new approach, opportunities in building technologies, a reinvigorated commitment to animating and creating community through sensitivity to scale and texture, and a renewed fascination in "forbidden" ornament and color, there is one more factor that will inspire new

[191] See "French and English Sources of Sullivan's Ornament and Doctrine," by Theodore Turak in *The Prairie School Review, Fourth Quarter, 1974.*

conceptions of ornament. That is the range of sciences that, in a completely different arena, confirm that our need for ornament is embedded in our physiology and psychology, our next and last layer. The perfs are comprised of glass sandwiched between two thin rectangular wood boards (initially solid lumber, often tidewater cypress, and later plywood) and typically sized at approximately one foot by four feet. They were often ganged as a line of fixed or hinged clerestories above exterior walls, though sometimes in the interiors as well.

[193] Pierre von Miess, *Elements of Architecture*, Lausanne: Van Nostrand Reinhold International, 1986, 77.