

# Minimal information content in Finnish architecture

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## LIVING IN THE NORTH

In this essay I look at how various ideas and conceptions of Finnish architecture have endured and discuss theoretical accounts suggesting why they do so.

The reception of works can be said to depend to a significant extent on attributing meaning that we have learnt in advance, and resemblance may be more easily discernible when the factors share a minimal information content, just as the abstraction of the smiley face

☺ could represent everyone.

This then may allow us to see no contradiction between peasant symbolism, humanism, modernity and estrangement, so central to the construction of "Finnish Architecture", as well as allowing parallels to examples in other cultures, be it Danish or Japanese.

... that absurd period of the flowering of the birch-bark culture, when all that was clumsy and coarse was considered so very Finnish.

Alvar Aalto on Finnish Jugendstil architecture<sup>1</sup>

In Finland, architecture is and remains the prisoner of foreign policy. Architects feel that their duty is to sustain the image of a young and dynamic nation through expressive architecture that reflects their technical know-how and closeness to nature. This mythical nation avoids unnecessary intellectual play and produces a straight-forward matter-of-fact environment for others to admire. The opposite of this is Sweden, where architecture is motivated by the needs of its citizens. While Finland wants to be a nation, Sweden is first and foremost a society (...) Sweden and Finland are neighbours who don't understand each other and who don't understand they are free. Who does? Kai Wartiainen<sup>2</sup>

I wish to use the above polemical assertion by Kai Wartiainen, Finnish architect and professor of architecture at KTH in Stockholm, not as a statement of fact but as a text worthy of scrutiny, as an introduction to a discussion of how various ideas and conceptions of Finnish architecture

have endured, and to suggest some different theoretical accounts of why they do so. The rhetorical cleverness of Wartiainen's statement lies in its juxtaposition of an essentialist assertion about the nature of Finland and Sweden against the question of freedom or subjectivity. It thus raises the questions of how we might speak about cultural phenomena in a critical way, why certain ideas persist or how anything new is created. As a final case-study I will critique a piece of recent research by architect/researcher Petra Ceferin, who attempted to uncover the deliberate institutional construction of a public understanding of "Finnish architecture".

### Essentialism vs Constructivism

Whilst wishing to avoid drawing up a diagram of the history of ideas in regards to the various interpretations of essentialism vs nominalism vs realism vs idealism vs constructivism vs naturalism, some definitions are necessary. Briefly, constructivism is the view that all knowledge is constructed rather than discovered and that it is impossible to tell, and unnecessary to know, if and to what degree knowledge reflects an ontological reality: essentialism is the belief in the real, true essence of things, the invariable and fixed properties which define the 'whatness' of a given entity. Though the natural sciences are the standard benchmark of essentialism, or more properly realism, one can also ascertain more constructed varieties, what one could term an essentialist constructivism, paramount among which are phenomenology (arguably a form of idealism), as for instance in Heidegger's view that essence – as the unconcealment of entities – is historical, in that each period is characterized by a particular way in which Being/beings are disclosed (e.g. technology in medieval vs modern times). Social theory contrasts this to a constructivism which recognises contingency, where culture has a relational rather than an atomic structure, raising the issue of the arbitrary character of cultural archetypes, such that culture becomes defined at best as a site of contestation, a field of practices of domination, sub-ordination, identification and refusal.

The pedigree for the socio-political viewpoint can be traced to the Marxist viewpoint that the dominant class of society, empowered by the economy, acts in all things to retain their position of power; to the Weberian view on the monopolization of ideal or material goods or opportunities; and the Bourdivin view that through 'symbolic power', in a

word 'culture', a class structure (or fields of action such as architecture and "Finnish architecture") is created that legitimates itself and reproduces inequality.<sup>3</sup> The most powerful tool in the reproduction is 'naturalization', i.e. that things are naturally the way they are, either due to normative cultural reasons ("this is what we do in our culture") or natural meritocracy (e.g. genetic reasons). In architecture this naturalization would be fought over as an avant-garde practice balanced between peer-group and public recognition and elitist control.<sup>4</sup>

The latter genetic argument is offered by evolutionary psychology. Its concept of *memes* offers theoretical tools for the discussion of cultural identity, though not without coming close to committing the naturalist fallacy; i.e. arguing from 'is' to 'ought', from fact to norm. In attempting to bring the "success story" of the natural sciences to the social sciences, it argues for breaking down the issues into causes and effects and, moreover, natural selection. Briefly, a 'meme', as postulated by biologist Richard Dawkins, is a hypothetical unit of cultural information, which would form the basis for cultural evolution in a similar way that he sees genes as the basis for biological evolution.<sup>5</sup> A meme is thus an idea or type of behaviour that can be copied by another; e.g. tunes, beliefs, clothes, designing buildings, etc., even the notion of 'tradition' itself. A cultural trait is thought to have evolved in the way it has simply because it is advantageous to itself. Something might be accepted despite its lack of 'truth' or pathological behaviour, but because it was a good 'replicator'. In biology cancer is such a replicator. Nikos Salingaros and Terry Mikiten have even argued *analogously* (though the analogy is soon forgotten) that 'modern architecture' is a cancerous replicator.<sup>6</sup> Adaptive design has been abandoned, they argue, and instead the spread of architectural styles depends strictly on factors governing meme propagation in a society. Salingaros and Mikiten argue that a minimalist style possesses an unbeatable advantage over more complex styles because of its low information content: simplicity, novelty, utility and formality. These characterizations hold what could be called enduring mimetic potency, that is, cultural reproducibility. They compare the success of the methods of modernism to those used in commercial advertising, with the focus on the seduction by rhetorical imagery.<sup>7</sup> Interestingly, what brings the evolutionary psychology and Bourdivin views together is the

reductionist belief that one of the functions of art is to gain status, and that connoisseurship of 'difficult' or elitist art serves as a way of gaining cultural capital or power.

### The reproduction of Finnishness

In establishing a conceptual framework for cross-cultural psychology one may thus be drawn to the perennial question of nature versus nurture. For instance, early anthropologists were concerned with ascertaining universal versus relativist aspects of cognition, giving examples, for instance, of how 'primitive peoples' viewed space differently from Westerners. Though there is still some research into cultural difference through brain domain specificity,<sup>8</sup> the predominant view has been that indeed different cultures may conceptualize the world differently, but that such conceptualizations change over time, as shown by Aalto's view on Jugendstil, in the epigram fronting this paper. I mention this because still in the 1980s Norwegian psychologist Frode Strømnes was doing experiments to test his hypothesis that Finns (as speakers of a non-Indo-European language) constructed time and space differently from Westerners: the overlapping of two-dimensional space in time for the former and of three-dimensional space in time for the latter.<sup>9</sup> But one would hardly need such scientific evidence for cognitive relativism to defend an essentialist-phenomenological position. For instance, Juhani Pallasmaa picked up on Strømnes' research to defend his broadly phenomenological position, arguing that "We Finns tend to organize space topologically on the basis of an amorphous 'forest geometry', as opposed to the 'geometry of the town' that guides the thinking of traditionally urbanized Europe".<sup>10</sup> Despite appearances, Pallasmaa's suggestion should probably not be read as implying that the "Finnish concept of space and time" is more primitive than or closer to the truth of human perception than the Western model.

Christian Norberg-Schulz has been paramount in Heidegger-inspired essentialist descriptions of Nordic architecture, even claiming to explain what Nordic architecture *truly is* and how Finnish building is a "successful translation of the Finnish environment into architectural form".<sup>11</sup> Typical for essentialism, Norberg-Schulz understands identity diacritically: the essence of the North is that it is not the South. For him, the North is a world, scarcely understood, of moods as determined by the light, while the South is the birth of Idea and Form, each entity becoming discrete:

As a land of forests it [Finland] is characterized by endless extension, which is emphasized by lack of relief and distinct spaces. To the space of the forest belongs the cloven light that contributes to the impression of incompleteness. Here architecture has its main task to create places in the indefinite...

An essentialist account is also evident in the reasoning of Norberg-Schulz's teacher, Sigfried Giedion, who categorically stated that "Finland is with Aalto wherever he goes".<sup>12</sup> Aalto first appeared in Giedion's *Space, Time and Architecture* in the second edition (1949/first edition 1941). Leading up to his obsession with the curved contours of the Viipuri Library (1927–35) and the Savoy Vase (1936) to the Finnish Pavilion for the 1939 New York World Fair, Giedion retraces the history of modern architecture, the first stage concerned with finding new forms of construction and the second with finding new forms of artistic expression. But with these achieved it was possible "[for Aalto] to strive for further development and to dare the leap from the rational-functional to the irrational-organic",<sup>13</sup> albeit that the 'organic humanisation' of Modernism "already lay concealed within the functional conception."<sup>14</sup> In thinking that form is an embodiment of a whole *Weltanschauung* of a period and place, the source for Aalto's "organic modernism", Giedion finds, however, in the nature of Finland, both of which "to many still appears rude and almost barbaric."<sup>15</sup> If tradition (and its attributes such as 'cosiness') is antithetical to the estrangement so central to Modernism, it could be replaced here by ascetic primitiveness.

One of the reasons why ambitious students (and presumably Wartiainen) find such essentialism embarrassing is because it seems to imply that nothing truly new can ever be made – though instinct tells us that can't be correct – or, less dramatically, that their work will always be interpreted from the essentialist point of view as a reflection of nationality or geography. But architecture cannot be simply derived from nature or nation. When Frank Lloyd Wright said that his forms follow the nature of the materials, they were in fact following Wright's understanding of what was the essence of the materials, and the same goes for Aalto or Pietilä: natural forms do not belong to nature but to culture, and any conception of natural or essential forms is thus subject to change.

Instead of direct experience, the reception of works depends to a significant extent on attributing meaning that

we have built up in advance. As Juan Bonta argued, a canonical interpretation of a phenomenon such as a building is a cumulative result of many previous responses, distilled by repetition and reduced to the bare essentials; a process of filtering rather than growth.<sup>16</sup> Within the process of filtering there is a necessity to reconcile contradictory aspects among diverse initial speculations. Furthermore, it could be argued, resemblance is more easily discernable when the factors *share a minimal information content*, just as the abstraction of the smiley face ☺ could represent everyone.<sup>17</sup> What limits the interpretation is the context.

Hence, not content with arguments related to a rationality of economics and tectonic realism, even contemporary minimalist glass boxes in Helsinki get interpreted in terms of “Finnishness”: historian Pekka Suhonen, for instance, saw the wooden elements in the otherwise glass-boxed Sanoma House in Helsinki as alluding to traditional Finnish wooden boats.<sup>18</sup> How is this possible? In terms of the Peircean semiotic notion of conventional (i.e. learnt)<sup>19</sup> symbols, “natural objects” such as wood become a learnt sign of Finnishness, and thus may be used as quotations within a larger argument of progress, arguably also fuelled by a marketing rhetoric of cultural difference within global capitalism. For example, in deliberating on the competition-winning-based designs he and Ilmari Lahdelma made for the Finnish Forest Museum Lusto (1994) and the Kaustinen Folk Art Centre (1997) Rainer Mahlamäki argued that despite the national overtones of the buildings’ functions, they didn’t want to have symbolic meanings in the choice of materials or form – “that the essence of folk culture is birch-bark shoe romanticism” – to which their answer had been to design ‘abstractions’.<sup>20</sup> However, while endorsing the view that the great modernist principle of “producing something which hasn’t been done before” is still valid, he argues that when designing public buildings in Finland one must to some extent follow the cultural requirements. It should not, he argues, conflict with the value-world of society: it must correspond to the preconceived ideas. Thus, in the case of the Folk Art Centre, the aim was to create a building with a *kantele* character, while in Lusto the original choice of concrete was meant to avoid the expectations of programmatic romanticism, though in the final scheme it was clad in timber:

The architectural and material decisions [in Lusto] reach towards traditional Finnish architecture and folk building without compromising their modern premises.<sup>21</sup>

We may conclude that whether endorsing romanticism or trying to deconstruct it, essentialist ideas about national architecture were still forcing their hand. Reima Pietilä was thus a rare example of an architect embracing the theoretical possibilities of such a cultural determinism:

I think in my native language, Finnish. I talk whilst I draw – the rhythm and intonation of Finnish govern the movements of my pencil. Do I draw in Finnish? ... The local cases and rationalistic vocabulary of the Finnish language are the elements of my genuine way to express topological architecture and space.<sup>22</sup>

Commentators have not only sensed a continuity in Finnish architecture that seems to transcend international stylistic categories. Architectural isomorphisms have also been discerned transculturally between traditional and modern Finnish and Japanese architecture, and likewise between Danish and Japanese approaches.<sup>23</sup> On one level, this is a matter of taking direct stylistic ‘borrowings’, Japonism, but of more interest are the deeper isomorphisms. Juhani Pallasmaa states that the similarity of aesthetic aspirations in Finland and Japan is evident in

the preference for visual reduction and restraint, appreciation of natural materials and subdued colours, the interplay between elements and rhythms of nature and manmade geometry and a distinct sense of humility.<sup>24</sup>

This can even allow comparisons between what has otherwise been seen as the diametrically opposing schools of thought of Alvar Aalto and the so-called constructivist school associated with Aulis Blomstedt.

Blomstedt perpetuated the belief, stemming from the 18<sup>th</sup> century, that architecture could be controlled through mathematical reason alone, without *mythos*. This was also a continuation of the Corbusian idea that beauty in architecture is evinced by the existence of primary forms and mathematical harmony. But Blomstedt also employed Hans Kayser’s neo-Pythagorean harmonics and developed his Kenno proportional system on the basis of the Japanese Ken standard measurement, which he detected also in the architecture of

Mies van der Rohe.<sup>25</sup> This line of argument was then taken up by Blomstedt's students, for instance by Kirmo Mikkola and early Pallasmaa, in works that evoked both Japanese architecture and Miesian essentialism (albeit that some structures didn't endure the Finnish climate).<sup>26</sup> Still, in each case the architecture was seen both as an abstraction of and subjugation to nature. Indeed, Blomstedt argued that

The higher the level attained in a certain form of civilization, the more resources become refined in the direction of simplicity – the palette becomes barer.<sup>27</sup>

If Plato rejected mimesis in art because it cannot achieve the truth of the original idea, the neoplatonically inspired abstraction in Modernism – exemplified by Kandinsky, Mondrian and van Doesburg – opted for anamnesis and attempted to create a perfect non-mimetic, virtually immaterial art. In this view, evident also in Blomstedt's writings, purity is guaranteed by a universal vision of harmony.<sup>28</sup> Thus the point would be not to see cultural phenomena as the essence of architecture but merely a local materialization of universal proportional systems. Indeed, the work of Mies hardly gets linked to German culture but with a universal classicism based on architecture's essence being one of proportional systems. On the other hand, one might try to “geographically locate” such universalism in Eurocentrism.<sup>29</sup>

In discussing this ease of detecting isomorphism at low levels of information, it's important not to forget that Minimalism in art was supposed to allude to nothing; in striving for non-referentiality the viewer's pure experience of observation would become the content of the work. But as Rosalind Krauss has emphasised, Minimalism from the very beginning located itself within the technology of industrial production, thus lending itself to replication and a break with the irreproducibility of the unique art object, as well as creating the potential for the market to restructure the aesthetic original.<sup>30</sup> Thus while Minimalism may have been conceived originally as a form of resistance to mass/consumer culture<sup>31</sup> through its banalized and commodified objects, thus restoring the immediacy of experience, it nevertheless held the formal potential for capitalist production.

In the case of current Minimalist architecture in Finland, the objectlikeness of elitist artworks is re-invented under the guise of making buildings into non-representational art

works. For instance, architects Heikkinen and Komonen have described their projects for Vuotalo Cultural Centre and the Max Planck Institute with reference to the works of Minimalist artist Donald Judd.<sup>32</sup> But when directly asked whether they are Minimalists, Heikkinen and Komonen cleverly replied that what they do is 'Maximalism': “We do not try to reduce the unnecessary in our buildings; just the opposite, we try to gather, concentrate in them... the essence of architecture.” This is indeed the point that Pallasmaa makes about abstraction, inspired by thinkers such as Gaston Bachelard: “The real significance of the abstract concept is not outward simplicity and limited content; on the contrary, it is a simple concentrate of meaning and association.”<sup>33</sup> As Bachelard himself asked: “How can a (poetic) image, at times very unusual, appear to be a concentration of the entire psyche?”<sup>34</sup>

### Modernism, estrangement and the peasant symbol

Finnish architecture is routinely characterized with the positive features of nature, landscape, and the use of natural materials. Finland is also usually seen as a country that embraced Modernism; and while that is primarily associated with instrumental progress, one would also have to account for its other associated values, especially central to the arts, such as *estrangement* or *alienation*.

Although its roots lie far back in the Judeo-Christian tradition, the concept of alienation first gained prominence in the philosophy of Hegel, and later Marxism, psychoanalysis and existentialism. In ‘modern architecture’ there could be said to exist a fundamental conflict between familiarity and estrangement, between architecture as an autonomous art and dwelling. This could be said to be a consequence of architecture's lingering attachment to the aesthetic, and can be traced back to Nietzsche (for whom the discordance between art and truth aroused dread because the former appears as somehow more truthful than empirical truth) and before that to Romanticism and Kant in securing autonomous domains of aesthetic, cognitive and moral judgement – which could be said to constitute post-Cartesian modernity. Alienation has a more recent characterisations in Russian formalist Victor Sklovskij's notion of *ostranenyje* [‘making strange’] and in Theodor Adorno's *negative dialectics* – modernist works of art ask us beyond our ability to redeem their claims conceptually, demanding acknowledgement

while simultaneously resisting being fully understood or explained.<sup>35</sup> For Sklovskij, "habituation devours art works"; art works exist, he argues, "that one may recover the sensation of life, it exists to make one feel things, to make stone stony".<sup>36</sup> The technique of art is "to make objects 'unfamiliar', to make forms difficult, to increase the difficulty and length of perception because the process of perception is an aesthetic end in itself and must be prolonged." This thus presents a novel interpretation of artistic development: *art need not express new content but make strange habitualised form*.

This idea of alienation has, of course, been more problematic in architecture because of its concern for notions of dwelling and shelter. Recognizing this dilemma, Pallasmaa has argued that "Architecture and the home are contradictory concepts".<sup>37</sup> In this regard, Pallasmaa approaches the position of Adolf Loos, who once argued that while the house as home is the store of pleasant memories and the shelter of the individual, art (including the art of architecture) questions complacency and wants to draw people out of their state of comfort.<sup>38</sup> Put rather differently, Kaj Nyman has argued that with the post-war rationalisms, continuing up until the postmodernist turn, beauty was deconstructed, containing its counterpart, ugliness,<sup>39</sup> but that this was not a conscious deconstruction (as occurred later) but an 'accidental' one, where the user is forced to re-gestalt his/her environment.

The above claims would need to be analysed in terms of geo-political and historical contingency (e.g. the movement for attaining Finland's sovereignty as a nation connected to the construction of a national identity as a Western capitalist state), and cognitive agency based on various semiological isomorphisms based on 'scarcity' – consonant with Runeberg's words in the Finnish national anthem "Vårt land är fattigt, skall så bli"; that is, compatibilities between Finland being a sparsely populated country with a predominantly rural culture, rural poverty, origins, asceticism, Lutheranism (and its work ethic and non-confrontationalism), pietism, modernism, aesthetic minimalism and rationalization (to the point of bureaucratization). In a rather extreme formulation of this rhetoric of scarcity, Finnish architecture has even been described as embodying an archetypal *silence*, both phenomenologically and critically; in comparative terms of social structure and architectural form but also as the defensive character of Finnish critical dialogue.<sup>40</sup>

Øystein Sørensen and Bo Stråth have shown that the Enlightenment – as the cultivation of the public sphere – has formed the development trajectory of the Nordic countries, though one unlike any other Western standard, in that it has the peasant as its foremost symbol.<sup>41</sup> This peasant was not the backward, uneducated or idealised figure of *Sturm und Drang* romanticism, but an active participant in political processes. Moreover, this was Enlightenment paradoxically driven by the powerful presence of Christianity. The peasant symbol has persisted in Finland, but also building close to nature has been a virtual self-evident fact, even in the cities. Due to the dominance of the Agrarian party, the post-war reconstruction in Finland was not used as a motive for a policy of urbanisation; and reconstruction began instead in the rural areas. But subtle changes become evident, for instance, in the gradual modernization of seemingly rural house types for reasons of instrumental progress – making them cheaper to build/afford/maintain.<sup>42</sup> An anti-urban critique has been persistent, epitomised by the founding of Tapiola Garden City in 1953 and the general 'forest town' planning. It should also be mentioned that in Finnish mythologies and narratives (e.g. Kivi's novel *Seven Brothers*) the forest is not a place of alienation, but of protection – from urbanity.

### The Construction of "Finnish Architecture"

In her thesis-based book *Constructing a Legend. The International Exhibitions of Finnish Architecture 1957–1967*,<sup>43</sup> Slovenian architect Petra Ceferin examined a very specific construction: how a group of architects and associated professionals set out to propagate an image of Finnish architecture abroad. From 1957 to 1967 no fewer than nine different exhibitions were organised by the Museum of Finnish Architecture (founded 1956) for distribution, around first Europe, then further afield. It was through these exhibitions, Ceferin suggests, that an identifiable image of "Finnish Architecture" was first created. There is a certain leeway in terms of what buildings were exhibited, but all could be said to be promotions of Modernism, packaged in an exhibition design emphasising mood (e.g. darkened exhibition spaces), naturalness (e.g. presence of nature, wood, etc). Indeed, the exhibitions' hosting nations often marvelled at the modernist spirit of the Finns, forward-looking but still close to nature, as if the exhibition presented a place not previously

touched by human hands: not Corbusian *tabula rasa*, but rather a new frontier.

Ceferin remarks that the organisers she interviewed saw no conspiracy at work. She thinks they were deluding themselves, at best, and raises a number of examples of hard evidence to the contrary. The most blatant evidence is the manipulation of photographs to back up some essentialist idea behind the works. Old buildings were erased from the views, obtuse camera angles chosen, and tree branches literally dangled in front of the camera. Though Ceferin doesn't state so, the Museum's attitude could be shown to be propaganda for its historicism: an institution that calls itself a museum displays work from the present day, suggesting that the work forms a new link in the chain of architectural development, without there being sufficient distance to merit such a judgment.<sup>44</sup>

But this raises the question, how could it have been done otherwise? Does not selection necessarily imply exclusion? Ceferin suggests that on the one hand certain symbolically important buildings were excluded, such as Sirén's Parliament building, while on the other hand the production of more vernacular-based type-houses – and both Aalto and Blomstedt also designed these – was also not included. While the exhibitions could be tied to the socio-political programme of progress, Ceferin sees the lack of the display of everyday life (the lack of people) in the exhibition photographs as being in conflict with Finland's reputation for a “humanised modernism”. But taking this for a contradiction, Ceferin does not fully understand the complexities of Finnish architectural discourse. For Blomstedt, at least, Humanism was about human progress and the creation of an absolute architecture: for him the duty of the architect was to defend man's right and unity to basic values of life through order and harmony.<sup>45</sup>

Ceferin's admirable striving for transparency could be dismissed as something of no ultimate consequence, for the reason that it's “interpretation all the way down”, with nothing essential uncovered in the transparency. After all, Aalto's Viipuri Library and Säynätsalo Town Hall are seen to have great merit – raising the question “Seen by whom?” – irrespective of the photographs taken with branches dangling in front of the camera, and irrespective of Aalto literally and metaphorically building up the site of the Säynätsalo Town Hall to achieve the *Stadtkrone* and Italianate motifs

approached by natural grass-lined steps, or irrespective even of the buildings having been designed by a famous architect, thus giving cultural capital to their host communities.

The counter-argument to the evolutionary psychologists' viewpoint is to press them on their own contradictory admission that it's in fact possible to “tell your genes to go and jump in the lake”.<sup>46</sup> The counter-argument to the essentialist view is to consider Wittgenstein's anti-essentialist notion of family resemblance – in the sense of a factor *a* sharing a resemblance with *b*, which shares with *c*... and so on, but that no discernable resemblance exists between *a* and say *e*, and that there is no essential 'thread' between *all* of them – allowing us to still recognise difference; thus, for example, making Aalto's work a vehicle for the synthesis of values alien to Finnish culture.<sup>47</sup> And the counter-argument to the Bourdivin “sociologist-as-divine-spectator” viewpoint, concerned with the social production of architecture, is to stress not so much the autonomy of the art of architecture but people's experiential response: the environment might be a social construction, but we each learn to live with what we have, and make it our own.



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## Notes

1. Alvar Aalto's view in the 1920s, cited in Göran Schildt, *Alvar Aalto. The Early Years*, New York, Rizzoli, 1984, p.160.
2. Kai Warttiainen, "Model Societies", in Jari Jetsonen (Ed.), *Little Big Houses*, Helsinki, Rakennustieto, 2001, p.86.
3. Pierre Bourdieu, "Social space and symbolic power", *Sociological Theory*, 7(1), 14–25, 1989.
4. See, for instance, Garry Stevens, *The Favored Circle. The Social Foundations of Architectural Distinction*. Cambridge, Mass., MIT Press, 1998.
5. Richard Dawkins, *The Selfish Gene*, Oxford, Oxford University Press, 1976.
6. Nikos A. Salingaros & Terry M. Mikiten, "Darwinian processes and memes in architecture", *Datutop* 23, 2002.
7. The "lie" of Modernism, it's argued by another evolutionary psychologist, Steven Pinker, is that it is based on a false theory of human nature, the so-called Blank Slate, the view that the sense organs present the brain with a tableau of raw colours and sounds and that everything else in perceptual experience is a learned social construction. If Modernism's purpose was to diagnose and cure the sickness of humankind, that human nature could thus be changed and that the transformed humans would thus construct a better society, evolutionary psychology's counter-examples are found in the normative view that art should reflect the perennial and universal qualities of the human species, and moreover, looking to the sciences (just as indeed the Bauhaus studied Gestalt psychology) for the universality of basic artistic taste. The most remarkable conclusion to be made from such an argument is that to say one likes a modernist work would be a case of (at best unknowingly) lying to oneself or of pathology. Steven Pinker, *The Blank Slate. The Modern Denial of Human Nature*. London, Penguin, 2002, pp.400–420.
8. For instance, Tadanobu Tsunoda has demonstrated that the domain of the brain of Japanese people for cogniting the sounds of nature such as bird song is also the same one used to cognite traditional Japanese atonal music, while a different domain cognates tonal (Western) music. See J.V. Wertsch et al (Eds.), *Sociocultural Studies of Mind*, Cambridge, Cambridge University Press, 1995.
9. See G. Griffiths, "'Drawing in Finnish'? Notes on Cultural Relativism", *Datutop* 21, 2001.
10. Juhani Pallasmaa, "Culture, Identity, Environment", in Nina Vakkilainen (Ed.) *Built Environment – Identity – European Integration*, Helsinki, Suomen UNESCO, 1991, p.III.
11. Christian Norberg-Schulz, *Nightlands. Nordic Building*, Cambridge, Mass., MIT Press, 1996, p.195
12. Sigfried Giedion; *Space, Time and Architecture*. 2nd edition, Cambridge, Mass., Harvard University Press, 1949, p.455.
13. Sigfried Giedion; "Alvar Aalto". *The Architectural Review*, Feb. 1950, p.77.
14. Giedion, 1949, p.60.
15. Ibid., p.468.
16. J. P. Bonta, *Architecture and its Interpretation*, London, Lund Humphries, 1979, p.143.
17. See Ernst Gombrich, "Expression and Communication", in *Meditations on a Hobby Horse*. London, Phaidon Press, 1963, p.56. Gombrich emphasises the information science viewpoint that signals don't convey information as railway trucks carry coal, but rather have an information content by virtue of their potential for making selections. Images 'carry information' only in so far as there is an agreed interpretation of the symbols between sender and receiver.
18. Suhonen interviewed in *Helsingin Sanomat*, 13.II.1999, on the opening of the new building.
19. A symbol "depends either on convention, a habit or a natural disposition of its interpretant". Justus Buchler (ed.), *Philosophical Writings of Peirce*, New York, Dover Publications, 1986, p.105.
20. Timo Koho, *Heurekasta Kiasman*. Helsinki, Rakennustieto Oy, 2002, pp.76–80.
21. Elsewhere the architects argue that "The characteristics of wood, delicacy and richness in nuances, are accentuated against the concrete." Finnish Forest Museum Lusto (with Mikko Kaira), *ARK*, 5–6/1994, p.48
22. Reima Pietilä, *Intermediate Zones in Modern Architecture*, Helsinki, MFA, 1985.
23. From the 1930s onwards, Danish architects (e.g. Erik Chr. Sørensen, and Ebbe and Karen Clemmensen) specifically drew on themes in Japanese architecture – e.g. planning in terms of the flow of open spaces, the study in 'the nature of materials' and the contact between interior and interior – both from direct sources and via other western architects, primarily Wright, and later Mies and the Bay Region architects of California. Fred Thompson "En spaltet national-identitet", *Arkitekten* 25, 1996.
24. Juhani Pallasmaa, "Japan in Finnish Architecture – Japanese Influences on Alvar Aalto and Finnish Rationalism", English manuscript: published in Japanese in the magazine *Kenchiku Nunka*, Tokyo, 1999.
25. Helena Sarjakoski, *Rationalismi ja Runollisuus. Aulis Blomstedt ja Suhteiden Taide*, Helsinki, Rakennustieto, 2003.
26. Juulia Mikkola, "Finding an excuse", *ARK*, 2/2004.
27. Aulis Blomstedt, "Rakennustaiteen näköaloja", *Arkitehti*, 6–7/1956, 99.
28. Mark A. Cheetham, *The Rhetoric of Purity*. Cambridge, Cambridge University Press, 1991, pp. 52–53.
29. Mitchell Schwarzer, *German Architectural Theory and the Search for Modern Identity*. Cambridge, Cambridge University Press, 1995.
30. Rosalind Kraus, "The Cultural Logic of Late-Capitalist Museum", *October*, nr.54, Fall 1990, p. 5.
31. Wilfred Wang, "Minimalismen – En krise i samtiden", *Arkitekten*, 03, Feb. 1998, p. II.



32. Petra Ceferin, "Thoughts on light, geometry and snow, with Mikko Heikkinen and Markku Komonen". *Architectural Bulletin-Arhitektov bilten*, 2003.
33. Juhani Pallasmaa, "Our Future Lies in Modernism", *Arkkitehti*, 5–6/1980.
34. Gaston Bachelard, *The Poetics of Space*, Boston, Beacon Press, p. xiv.
35. Theodor Adorno, *Aesthetic Theory*, London, Routledge, 1984, pp.34–35.
36. Victor Shklovskij, "Art as Technique" (1917), in *Russian Formalist Criticism. 4 Essays*, translated and introduced by L.T. Lemon and M. Reis (Lincoln: University of Nebraska Press, 1965).
37. Juhani Pallasmaa, "Identity, Intimacy and Domicile – Notes on the phenomenology of home", *Arkkitehti*, 1/1994.
38. Loos writes "The house has to please everybody, contrary to the work of art which does not. The work of art is a private matter for the artist. The house is not. ... The work of art wants to draw people out of their state of comfort. The house has to serve comfort. The work of art is revolutionary, the house is conservative. ... Does it follow that the house has nothing in common with art and is architecture not to be included amongst the arts? That is so. Only a very small part of architecture belongs to art: the tomb and the monument. Everything else that fulfils a function is to be excluded from the domain of art." Adolf Loos, "Architektur," *Sämtliche Schriften. Ins Leere Gesprochen. Trotzdem*. Wien, Verlag Herold, 1962, p.317.
39. Kaj Nyman, "The architectural language of housing developments", *Arkkitehti*, 1/1991, p.29.
40. Roger Connah, "Sometimes and always with mixed feelings: Untimely notes on a culture of silence" and Kaisa Broner-Bauer, "Aarno Ruusuvuori and the continuity of Finnish modernism", in Malcolm Quantrill and Bruce Webb (Eds.), *The Culture of Silence*, College Station, Texas A&M University Press, 1998.
41. Øystein Sørensen and Bo Stråth, *The Cultural Construction of Norden*, Oslo, Scandinavian University Press, 1997, p.19.
42. See especially Kirsi Saarikangas; *Model Houses for Model Families*. SHF, Helsinki, 1993.
43. Petra Ceferin, *Constructing a Legend. The International Exhibitions of Finnish Architecture 1957–1967*, Helsinki, SKS, 2004.
44. This would require comparisons with other nations. In a review essay of Ceferin's book, I take up the example of Sweden. See G. Griffiths, "Architecture in the Service of Finnish Cultural Policy and 'Realpolitik'". *Ptah*, 1: 2004.
45. Helena Sarjakoski, "Aulis Blomstedt's Modular Studies and Ancient Egyptian Modernism", *Ptah*, 2003:1.
46. Pinker admits that not everything we do is simply reducible to our genetic dictates. For example, why should he himself choose to remain childless? Because he is happy that way and 'if my genes don't like it, they can go jump in the lake'. Steven Pinker, *How the Mind Works*. London, Penguin, 1997.
47. Ludwig Wittgenstein, *Philosophical Investigations*, Oxford, Blackwell, 1958.

