It is ironic that, despite the widespread popularity of home as a concept, describing the experience of at-homeness is so problematic. While the idea of home is universally understood and sought after, understanding its more subjective, lived-meaning is complicated by the home's private, interior nature. How one is "at-home" is often hidden from public, "objective" scrutiny. Home, by virtue of its sheltering and concealing nature, deflects from view the everyday, mundane experience of its occupants.

Researchers, therefore, have had difficulty gaining access, sometimes literally, to the home's interior. It is even more difficult to access the home's "psychological" interior. Indeed, as Freud pointed out, not only are our innermost psychological sanctums hidden by neuroses or "defenses," they are often hidden even from ourselves.

Academic, political, and commercial researchers would all like to have a clear view of the thoughts, feelings and behaviors of people in their homes. As anyone trying to sell a product or idea will attest, to gain access into someone's home will almost assure a "sale." According to Leslie (1993. p. 696) "The private space of the home serves as an ideal conduit—a controlled point for the dissemination of advertising and other public messages."

The desire to feel connected to the larger world from within our homes has become a two-way street. The traditional boundaries between home, work, and public life have given way to the telephone, pager, television and computer which provide direct links between the world at large and our most private spaces and moments at home. We can now "log on" to the World Wide Web and visit "home pages" anywhere, and can "telecommute" to our "virtual offices" without stepping out the door.

Yet telecommunication technology not only brings to us information and entertainment; it can also collect "personal data" and manipulate our behavior to make us better "consumers." Access to people's homes has become a goal for a growing number of interests. A key to "unlock" the essential features of the lived-experience of home, therefore, would be highly sought after.

One potential means for examining at-homeness is what can be called an *ecohermeneutic* approach to interpretation derived from the Latin word *oikos* or "home," which gives us our prefix "eco" (economy and ecology). This prefix is linked with hermeneutics to form ecohermeneutics, the study of the "home" of meaning (Day 2002).

Whereas mainstream ecology is interested in the home life of plants and animals, ecohermeneutics is the study of the human habitat and how meaning flows to and from that habitat. A deconstructive understanding of the concept of home, coupled with an experiential understanding of at-homeness, might provide a "ground" from which to make diagnostic and ethical judgments benefiting both individuals and society.

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Inside and Outside in Wright's Fallingwater and Aalto's Villa Mairea

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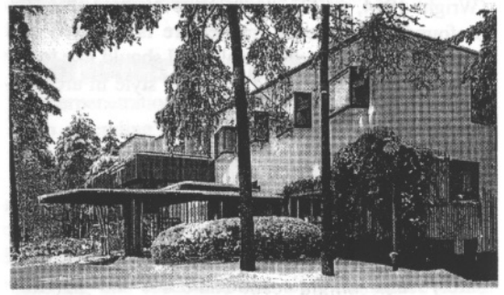
Assefa is an Ethiopian architect who recently completed his master's work in Architecture at Kansas State University. This essay is abstracted from his thesis, "Interpreting Frank Lloyd Wright's Fallingwater and Alvar Aalto's Villa Mairea Using Karsten Harries' Natural Symbols and Thomas Thiis-Evensen's Architectural Archetypes." Because of space requirements, many of Assefa's specific architectural examples relating to the two houses have not been included. Interested readers can find more thorough discussion in his thesis. *© 2003 Enku Mulugeta Assefa.*

The philosopher Karsten Harries writes that a key task of architecture is "interpreting the world as a meaningful order in which the individual can find his place in the midst of nature and in the midst of a community" (Harries 1993, p. 51). Harries argues that, too often, buildings don't respond to the needs of human dwelling because they are made arbitrarily instead of being let to arise out of the real-world requirements of particular people, places and landscapes. As an expression and interpretation of human life, a non-arbitrary architecture involves design that both listens to and incorporates nature and culture.

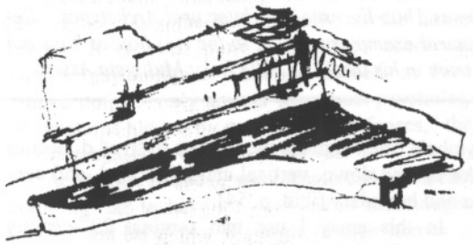
Harries claims that one need in creating a non-arbitrary architecture is understanding what he calls *natural symbols*—the underlying patterns of experience that mark the essential qualities of human nature and life, for example, qualities of direction, of weight, of materiality, of light and so forth. Natural symbols often express themselves in lived dialectics like up and down, vertical and horizontal, and center and boundary (ibid, p. 54).

In this essay I use two seminal 20th-century houses—Frank Lloyd Wright's Fallingwater and Alvar Aalto's Villa Mairea—to examine the natural symbol of *inside and outside*, which for Harries is one crucial lived relationship sustaining successful architecture and place (Harries 1988, pp. 192-93).



I choose these two houses because of their similarities in intention and design. Both houses were conceived and implemented within the same decade—the 1930s. Wright was 68 years old when he built Fallingwater and had already designed dozens of other remarkable residences when he began the house in 1935. In contrast, when Alvar Aalto began Villa Mairea in 1938, he was still fairly young and had not designed a single large residence.

Aalto's client, Harry Gullichsen, admired Wright's Fallingwater, which provided a major inspiration for Aalto's sketch phase of Villa Mairea—note one of Aalto's early drawings for the house, below. The phenomenological architect Juhani Pallasmaa (1998, p. 78) writes that "resemblances in [the] ambience [of the two houses] are not so clear in the drawings or even the photographs, but the actual experience of the two houses forces one to a comparison."



Both architects shared a common creative ground in drawing on nature to discover timeless patterns for their architectural designs. Wright professed that he "could draw inspiration from nature herself" (Wright 1954, p. 22), while Aalto claimed that "the profoundest feature of architecture is a variety and growth reminiscent of natural life. I should like to say that in the end this is the only real style in architecture" (Aalto 1998, p. 34).

Inside and Outside

The creation of an inside automatically shapes an outside, which then relates to inside in a dialectic relationship. Inside establishes physical security and safety from nature's elements and society's demands and also facilitates a sense of identity for the person and group (Jacobson et al. 1990).

In Wright and Aalto's houses, a powerful sense of insideness is generated, first, by *opacity*, which, in Fallingwater, is expressed in roughly dressed stone masonry walls and, in Villa Mairea, by white-painted, solid walls. In contrast, the *transparency* of glass windows in both houses opens inside to outside and thereby connects the two.

In both houses, the architects created a strong sense of insideness yet, at the same time, devised masterly ways to connect inside and outside and thereby create a robust continuity between the two. This inside-outside relationship can be said to translate into environmental and architectural experience in four different ways: (1) *in-betweeness;* (2) *interpenetration generated by inside*; (3) *interpenetration generated by outside;* and (4) *intermingling*

In-Betweeness

In-betweeness involves a place neither inside nor out. It incorporates a threshold whereby a strong dialogue between the inside and outside occurs with a unique in-between experience as the result. For Wright, in-betweeness was an intentional aim: "We have no longer an outside and an inside as two separate things. Now the outside may come inside and the inside may and does go outside. They are of each other. Form and function thus become one in design and execution if the nature of materials and method and purpose are all in unison" (Wright 1954, p. 50).

Fallingwater's deep doorway located at the east main entrance is one in-between place as are the projecting terraces that, as extensions of the rooms within, are neither in nor out. The depth created by the terraces and the overhanging volumes above give the balconies a quality of outdoor rooms. As in-between spaces, they become thresholds mediating the contrasting domains of insideness and outsideness. The trellis-like openings projecting from the guest bedroom to the south and the trellis stretching to relate the house to the north driveway are other important elements transforming inside and outside to an in between.

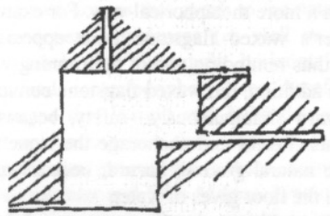
For Aalto's Villa Mairea, in-between places include the deep, projecting main entrance canopy, the covered terraces below the studio, the west side of the flower room, and the terrace that leads to the sauna. Perhaps the most powerful in-between experience is fostered by the entrance canopy, which works as a threshold that mediates the lived-transition between outside and inside. Exposure gradually decreases from the wide open outside to the entrance canopy and then to a tight passageway that gives an impression of entering a narrow cave.

The wide transparent glass openings used in both houses, particularly in Fallingwater, play a crucial role in facilitating in-betweeness. Wright often omitted walls and vertical frames from window corners to dematerialize solid walls. The absence of walls and frames opens a new opportunity to see the outside. More importantly, these glass corners bring attention to the fragility of the wall, thus dissolving its presence and merging inside with outside.

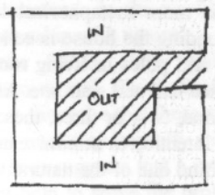
Interpenetration

Interpenetration is another way in which the continuity between inside and outside can be expressed and works in two ways as shown in the drawings, below, depending on the relative strength of inside or outside. On one hand, the inside can project itself into the outside—for example, the projecting terraces of Fallingwater. Here, I call this situation the *interpenetration of the inside*. On the other hand, outside can be brought inside through some sort of enclosure shaped by the building—for example, Villa Mairea's wrapping around an inner courtyard. I call this situation the *interpenetration of the outside.*

In both situations, inside and outside are brought together in a more intimate relationship—in the first instance, through an architectural element that becomes a physical link with outside; in the second instance, through a spatial link whereby outside space is cradled and contained.



interpenetration of inside out



interpenetration of outside in

Interpenetration of the Inside

Fallingwater expresses interpenetration of the inside through physically fusing with the landscape on the house's north side through a projecting trellis; on the east side, through a projecting stone masonry wall; and on the west side, through a balcony that glides over rock outcropping. On the house's south side, a plunge pool—part of the building and only separated from the stream Bear Run by a low wall—creates interpenetration between the building and water.

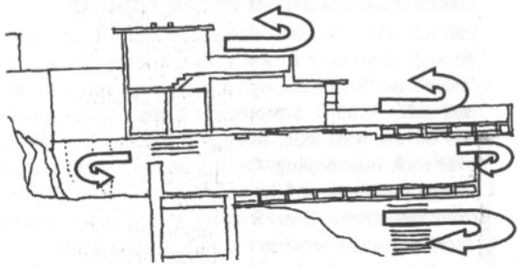
Yet again, the horizontal stone masonry wall at Fallingwater's east main entrance interpenetrates with outside to subtly usher visitors toward entry. In a similar way, Villa Mairea's meandering entrance canopy stretches out to meet visitors and invites them inside. In this sense, by projecting inside out, the entry designs of both houses strongly weave the buildings with their surroundings by leading visitors in.

Anther example from Villa Mairea is the unusually curved entrance canopy, which swings towards the direction of the access road and joins its movement. Similarly, a covered terrace leading to the sauna behind the house penetrates into the forest to strongly weave the building with the landscape, a connection that is also accomplished by rustic stone masonry on the east side of the house.

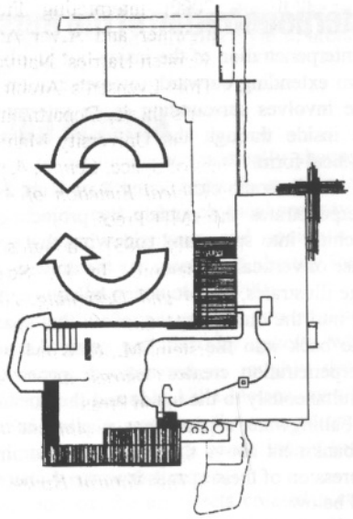
Interpenetration of the Outside

If interpenetration of the inside out involves physical form extending outward, interpenetration of the outside involves surrounding space intermingling with the inside through the enclosure and cradling of physical form.

On its south side facing Bear Run, Fallingwater interpenetrates the outside by projecting balconies reaching into space and endowing that space with a sense of vertical presence. As the drawing on the next page illustrates, the projecting balconies, by penetrating into the outside space, allow that space to penetrate back into the building mass. As a result, the interpenetration creates defined spaces that belong simultaneously to the inside and the outside. Because of Fallingwater's precarious placement on the rock embankment above the stream, the dominant spatial expression of these spaces is *vertical*—between above and below.



In contrast, Villa Mairea's interpenetration of the outside much more involves a *horizontal* expression and, as with Fallingwater, the reason relates to topography. Though Villa Mairea is located at the crest of a gently rising hill, the actual site of the house stands is relatively flat. Aalto used this generous expanse as a space with which the house could engage spatially. As the drawing, below, illustrates, the u-shaped plan cradles the outside by forming a partial courtyard, which belongs to both inside and outside. The worlds of house and nature can meet as equals in this space.



Intermingling

In *intermingling,* architectural and environmental elements are used metaphorically to bring the meaning of outside in, and inside out. For example, the presence inside of natural outside elements can remind us of the outside, which we then experience vicariously. By echoing features of the natural site, intermingling enables us to be aware of the outside as we remain inside. In the opposite way, inside elements brought outside invite the safety, comfort, and culture of the inside out. Intermingling allows one domain to assert itself in the other, thereby establishing another kind of kinship and linkage between inside and outside.

In Fallingwater, Wright used the rock boulder protruding in front of the living room fireplace as one means to bring nature in. The association of the boulder with the fireplace powerfully expresses the phenomenon of the ground, which is particularly a feature of the outside. The outcropping creates a feeling that one is literally living with a primordial force of nature but in a secure, protected way. Similarly, Aalto used roughly cut natural stones in the Villa Mairea's living room fireplace, though this use is not as powerful as Wright's because these stones do not have the literal earth-sourced connectedness with site as Fallingwater's boulder does.

Both architects also use inside and outside elements in a more metaphorical way. For example, Fallingwater's waxed flagstone floor appears as wet ground thus reminding one of the running water outside. In addition, the waxed flagstone conveys safety and hazard simultaneously—safety, because of the strong attachment and anchorage the stone floor has with the natural ground; hazard, because of the impression the floor gives of water.

Aalto's effort to simulate a sense of the surrounding forest inside Villa Mairea is another example of intermingling at this more metaphorical level. The outside forest surrounding the house is echoed in the rhythm of columns and poles in living room, music room, library, entrance hall and staircase. Arranged in irregular groups of one, two, or three, these columns suggest a deliberate intention to minimize any regular geometry and to remind one of the natural world outside.

In an opposite way, Villa Mairea's covered outdoor terrace is an outside space given a quality of the inside by treatments peculiar to inside space. The terrace's clean, tidy, white-painted posts and beams suggest the inside, as does a rustic fireplace, which speaks to comfort and warmth.

In Fallingwater, Wright intermingles outside elements inside but, other than introducing pieces of sculpture, does little with intermingling inside elements outside. In contrast, Villa Mairea exhibits as much presence of inside elements in the outside as outside elements inside. The result is that the intermingling of inside-outside appears to be more balanced in Mairea than Fallingwater.

A Non-Arbitrary Architecture

In creating two houses that speak to the natural symbol of insideness-outsideness (as well as to other natural symbols like light-dark, horizontal-vertical, up-down, and center-periphery—see Assefa 2002), one can argue that Wright and Aalto demonstrate a non-arbitrary architecture that responds to and reflects a particular natural and cultural setting. In this sense, Fallingwater and Villa Mairea provide invaluable models for current design education by demonstrating an architecture that arises from and speaks to peoples' existence in the world, particularly the human relationship with nature.

Harries (1993, 1997) claims that Modernist, Postmodernist, and Deconstructive architectures are arbitrary in the sense that these styles could readily be other than what they formally and stylistically happen to be. Harries suggests that a return to what is essential might help to solve the problem of arbitrariness. As I hope I have begun to demonstrate here, the reference that Wright and Aalto make in their two houses to the essence of human life and landscape through creative use of the natural symbol of inside-outside clearly suggests one way to identify and discuss components of a non-arbitrary architecture.

But Harries also argues that natural symbols can never tell us how to build but, instead, can only help us to think about how our buildings might be made more thoughtfully (Harries 1997, p. 11). To create a non-arbitrary architecture grounded in human being-in-the-world requires a deep understanding of what human beings and nature are. With this understanding in hand, architects might have a powerful tool to envision architecture enabling people to find their place in the world.

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