LUDWIG MIES VAN DER ROHE'S SCRUPULOUS BUILDING OF THE HYGIENIC HOUSE

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Ludwig Mies van der Rohe's independent practice began during a period when the contemporary idea of the hygienic house included new conventional arrangements of toilet, tub, and lavatory. The present study investigates how Mies learned to build in conjunction with the conventionality of personal hygiene — with special attention paid to the construction of the window for bath and toilet rooms.[1] While all windows mediate relations between inside and outside, *the window of hygiene* specifically mediates between intimate body functioning and the external world. Thus, the size, shape, and placement of this window in the household facade may describe an experiment aimed at an *informed* representation of the hygienic body in the world. Moreover, the degree to which changing patterns in this window's construction correspond to or anticipate essential architectural developments indicates the significance of hygienic mediation to architectural knowledge. In order to best understand how the building of hygienic windows in the modern hygienic house is an epistemological act, we must first recognize that the same possibility occurs in acts of bodily grooming.

Through the body, individuals build their knowledge and appreciation of the socially-constructed world in which they dwell. According to Joseph Rykwert, body-based learning entails incremental assimilations of knowledge based upon that which we know most intimately; "and the ultimate innermost intimacy is that of each one of us with his own body."[2] This abstraction is made more concrete when we recognize that the thin layer of skin defining the physical limits of our bodies serves as our fundamental reference point for discriminating between body and non-body, self and other, individual and world. Relative to these basic epistemological discriminations, that named as "dirt" represents disorder or chaos. In her seminal study of cultural attitudes toward pollution, *Purity and Danger*, Mary Douglas argues that our ideas about "dirt" express symbolic systems and are not simply the consequence of science's hygienic discoveries.[3] While the history of dirt records changing notions of hygiene, these notions reflect not simply progressive changes in sanitation but also social arrangements of power and subordination and of goodness and evil. For example, the cultural politics of plumbing emerge in Adolf Loos's 1898 article titled "Plumbing." Here Loos welcomes the assertive engagement of life which naturally entails becoming soiled. But for him this engagement but be strictly followed by cleansing, otherwise the accumulations become "dirt" and thus useless and unhealthy ornamentation. He declares that only through proper hygiene can Germanic peoples attain moral fortitude and world dominance. His statement that the "plumber is the pillar of culture" indicates the symbolism associated with hygiene.[4]

Significantly, the cultural politics of "dirt" are interpreted at an intensely personal level. According to Douglas, the body's openings are critical to the hygienic epistemology as they represent the precise thresholds between body and non-body, between self and other. Relative to these personal experiential portals, bodily fluids are ambiguous substances that challenge differentiation as they cross the quintessential territories between self and other. For instance, excreta, such as semen and menstrual blood, often appear as symbols of creative formlessness, having the power to overturn the established body-centric order.[5] As ambiguity potentially obscures, threatens, or subverts order, society formulates hygienic rituals and taboos, which in turn are supported by hygienic architecture.

In the first decade of the 20th century, a major synthesis occurred in the specifications for *the place of personal hygiene*: the "bathroom." In the United States and England, the "bathroom" consisted of a toilet, tub, and lavatory in a room with a window permitting daylight and ventilation while securing privacy through its diminutive proportions. Significantly, Germany's early "bathroom" often did not include the toilet which was located in a separate room. Mies van der Rohe's early houses, including the Reihl House (1907) and the Perls House (1910), enjoy the conventional spatial separation of the toilet from bathroom which allowed one person to bathe while another used the toilet. Moreover, the spatial distinction between bath and toilet rooms points to the distinct signifying role played in Germanic culture by the toilet and related scatological phenomena. According to folklorist Alan Dundes, "German folklore (and for that matter German literature and culture generally) demonstrates a propensity for anal eroticism."[6] Anality serves as a symbolic locus for addressing a wide range of issues, acting as an analogical topic for life's central themes. In their study of modern German literature,

Dieter and Jacqueline Rollfinke point to the wide range of literary representations served by the scatological motif:

> *Sometimes scatology provides light humor; very often it is part of the author's gentle or biting satire; at times we shall even see the excremental employed in a reversal of values. In the latter case, the writer clearly demonstrates that those elements condemned by society as excremental really represent the nobility of life, whereas those parts of human life that society considers valuable often should be discarded and despised. Then there are writers who have an ambiguous view of excrement. They acknowledge it as part of nature and the life cycle and see some good in it, but they never manage to free themselves totally from a certain revulsion. Finally, there are those extreme pessimists who see the world as a mountain of excrement and agree with Martin Luther's low opinion of our corporeal existence ...*[7]

The Rollfinkes demonstrate that German writers use scatology in a highly controlled fashion to call forth essential characteristics of Germanic life.

The scatology of architecture reveals itself in the construction of the German toilet and, etymologically, in the nineteenth century German word for toilet room: *Abtritt*. By 1910, the *Flachspüler* was adopted as one of Germany's two principle toilet types. Its bowl uniquely holds the user's excrement in the flattened area well above the water trap. The flattened area acts as a temporary holding vessel, allowing individuals to inspect their excrement before permanently flushing it away. As a conventional construct, the *Flachspüler* allows *self* knowledge to be derived through the interpretation of one's excrement as an indication of *internal states*.[8] The practice of interpreting excrement as a *self* sign was common to Romans who also enjoyed the augur's practice of reading animal entrails, interpreting omens.

The cultural history of the *Flachspüler* is recorded in the 19th century German word for the toilet room: *Abtritt*. Significantly, this word also refers to a variety of interpretive activities.[9] For example, hunters used *Abtritt* in regard to the tracking of a buck, during which they would scoop up the trodden down section of earth and hold it in sunlight to estimate when the track was produced. This usage of the term hints at the act of making a close reading to determine the temporal distance between self and other. In more general usage, the word signified casual departures, such as taking a break from work, or more profound departures, such as death, the leaving of one profession for another, the turning away from religion, the actor's departure from the stage, and the judge's departure from the courtroom. *Abtritt* also signified the giving up of one's right to something, such as the right to a parcel of land. When *Abtritt* was used in reference to the toilet room, it affectionately referred to "the secret place" (*heimliches Örtchen*).

The potential for delicate interpretations occurring in conjunction with toilet room hygiene demands the scrupulous construction of the toilet room's bodily apertures: its *door* and *window*. The toilet room door and window mediate between those on the inside and the outside. This mediation is most critical at the household's entry threshold which serves to control the relation between residents and guests. The serious nature of the toilet room door construction is described in the following critique of contemporary building practices, written in 1917:

> *The examples are not seldom that a door from the hall leads directly to the toilet room so that the insides (dessen Inneres) are exposed to the seated group in the hall after every opening of the door. Such an orientation can only be called one of the biggest design mistakes.*[10]

This harsh assessment is offered in Muthesius' *Wie Baue Ich Mein Haus?*, a text beginning with Goethe's pronouncement, "Everyone is allowed to make mistakes; you are not allowed to build them." Muthesius contended that architects must scrupulously create a building fabric so that acts of intimate bodily hygiene can be facilitated with unmistakable propriety. Similar to well-groomed body openings, the carefully-constructed toilet room door lends a certain representational clarity to the boundaries between self and other.

To some degree, the toilet room window has even greater representational significance than the door as it contributes to the household's formal exterior representation, the house's formal or public face.[11] It is when we notice his knowledgeable constructions of the toilet room window, that Mies van der Rohe emerges as an scrupulous builder. The architect's incremental building of knowledge is already evident by the time he erects his second house, the Perls House. Here he integrates the hygienic body into the building fabric by cleverly locating the toilet room near the entry while placing the window on the side elevation. This arrangement represents a clear epistemological advancement over the earlier Riehl House where the *public* front door was adjacent to the *private* toilet room window, thus threatening propriety and creating what Muthesuis would consider a serious breach in the architect's social responsibility.

Also indicating Mies' steep learning curve, the extant elevation drawings of the Perls House document his thoughtful construction of the house's exterior skin. Consider the *windows of hygiene* originally set forth in the drawing sheet that apparently had been made in order to secure a building permit. On the front elevation, the three small shutterless windows correspond to the second floor bath and toilet rooms. As this arrangement potentially breaches the Germanic sense of propriety by depicting the locations of the private hygienic domains on the *formal face*, the architect reconstructed the elevation drawing. With prudence Mies reduced the number of windows to two, enlarged them, and added shutters. This strategy masks the location of *the secret hygienic places*, veiling them behind an elevation treatment characteristic of a bedroom. In the original side elevation Mies attempted to present a certain formality by constructed all the windows as a pair of casement windows. He queried one of the casement pairs,

separating them with the wall defining the toilet room. As both the curious construction and the large size of the individual casement are deemed inappropriate for the forthright modern, hygienic house, the architect rebuilt the window as one in a series of small windows, masking the entry toilet room's precise interior location without denying the need for hygienic intimacy.

Similar to the Perls House, at the Urbig House (1917) and Feldmann House (1922), Mies located the entry toilet room window on the side elevation. But unlike the earlier house where the entry falls on the short elevation of the rectangular plan, in the later houses the entry is centered in the long elevation with the toilet room hidden behind the corner pillar. In *Das Bauformenbuch: Die Bauformen Des Bürgerlichen Wohnhauses* (1898), Professor Brausewetter argued that conventional esthetic wisdom determined the corner pillar to be equal to or larger than the pillars between windows.[12] Mies follows these guidelines for corner pillar sizing at the Urbig House, but this results in the dilemma where the hygienic pre-room has an incongruous large window, proportioned for living spaces. Although the Feldmann House retains the traditional cubic volume and symmetry of the Urbig House, Mies stripped away the classical pilasters and directly challenged the conventional rules for corner pillar sizing in an effort to make the building skin serviceable to contemporary Germanic domesticity. Through his architectural reformation, Mies achieved conditions allowing the building skin to be a lifelike plastic medium. Here he stretched the corner pillar of the front elevation to accommodate both the toilet room and pre-room, while leaving the corner pillar at the rear elevation intact. His situational altering of rules provides a measure of continuity to complement his experimentation.

Having gained confidence from his earlier experiments and the lessons learned, Mies boldly stated in reference to the Concrete Country House (1923) that he cut window openings strictly on the basis of "view or light."[13] He inferred that desired modes of hygienic dwelling, rather than worn out formal traditions, governed his decision-making. For example, in the Lessing House (1923), we find a large opening cut for the library contrasting with the tiny window of the toilet room. Like at the Feldmann House, Mies stretches the building skin to shield the pre-room from public view. Yet, unlike the Feldmann House, the stretching here cannot be detected as the wall has been cleansed of classical iconography and its restraining compositional rules. Testifying to unprecedented plasticity in the building fabric, the walls of the Brick Country House (1924) stretch to the horizon screening the private realm from the public realm, on one side, and from the service realm, on the other. Similarly, a solid wall of brick on the upper portion of the Wolf House (1925) screens the bedrooms from the public realm.

Also exemplifying Mies's incremental mastering of hygienic architectural knowledge are the three construction stages of the Wolf House's *public face*. In the earliest stage, the windows of the toilet rooms, pre-room, and storage room are rectangular and grouped closely together. The same arrangement occurs a month later, but here the windows are taller, with this added height differentiating the main living level from the upper sleeping level. Hand rendering over the lower portion of the windows nearest the entry indicates the decisive step towards making these hygienic openings sufficiently private. In the final north elevation, the hygienic spaces have a horizontal shape held near the ceiling, providing daylight and ventilation, but also, and most importantly, gracious hygienic privacy. Confirming this interpretation is the entry elevation detail, showing a well-dressed woman walking below the lady's coat room window which is held well above eye level. Ornamentally, the windows' horizontal shape refers to the sudden horizontal surfacing in the final elevation drawing, where all the windows are given a slight horizontal character along with the ferroconcrete balcony cantilever which extends to the horizon.

In the Nolde House (1929), Mies fluidly manipulates both elevation and plan in his pursuit of ideal hygienic domesticity which, to him, means superior hygienic privacy coupled with formality. The three stages of this house's construction document his conclusive experimentation.[14] In the first stage the hygienic spaces — both toilet rooms and bathroom — are located at the plan perimeter. Later, he attempts to shield the hygienic bedroom realm behind screen walls. Finally, he resolves to moving all the hygienic spaces to the house core. This mode of building is entirely consistent with the architect's career-long endeavor of separating the entry hygienic space from the public and becomes the preferred strategy employed later in the Cantor (1946), Farnsworth (1946), Caine (1950), 50 feet by 50 feet (1950), and McCormick (1951) Houses.

By removing the hygienic spaces from the perimeter to the core, Mies creates the ultimate *secret place* for hygienic rituals to take place. In addition to creating the secluded contemplative realm of the hygienic body at the house core, he is able to render the perimeter skin with ultimate hygienic propriety. The Nolde House presents a revolutionary exterior that completely removes the bodily windows from the public realm, allowing the exterior skin to frankly mediate the world beyond, while the core mediates the personal, hygienic world within. The differences between the outer and inner worlds become clarified with the Farnsworth House's delicate transparent outer skin and opaque inner skin.

At the core of the Farnsworth House, individuals interpret their private anthropomorphic landscape in contemplative security. Outside of the core yet still within the body of the house, individuals interpret the socially-constructed Natural landscape beyond the perimeter. In his description the Farnsworth House, Mies explicitly references the more obvious aspects of this epistemologically-founded construction.

> *Indeed, we should strive to bring Nature, houses, and people together into a higher unity. When one looks at Nature through the glass walls of the Farnsworth House it takes on a deeper significance than when one stands outside. More of Nature is thus expressed—it becomes part of a greater whole.*[15]

Complementing and giving flesh to this statement is the architect's careful manner of hygienic, body-centric building that lead to and facilitated the idealized edifice.

Although limited in scope, the present research pointed to concrete indicators of a thoughtful construction process that was at once imaginative and astute in the exploration of culturally-sensitive issues. The architect's hygiene-related inquiry proceeded, facilitated, and suggested a rationale for Mies's emerging Modernism. At the core of this Modernism was a body-based epistemology, entailing a measured breaking away from traditional building techniques. Incrementally, Mies challenged each historical detail that represented an impediment or encrustation to a mode of building scrupulous hygienic houses. Rather than foolishly eradicate building traditions, Mies critically and selectively adapted these traditions to better serve hygienic dwelling. He learned from the past — his predecessors, his past work, and, most importantly, he critically challenged his own *in-process* experiments, allowing hygienic aims to be further clarified. Mies approached the building tradition caution, as if it was a body to be maintained or groomed. He did not characterize past techniques as encumbrances or "dirt" to be cast away until he inspected them carefully, deriving whatever useful lessons he could. While Mies van der Rohe's work has long been appreciated as thoughtful construction consisting of "clean detailing," perhaps, in the end, his body-centric, hygienic building process may serve as one of his greatest contributions to architectural knowledge.

NOTES

[1] The present analysis follows author's earlier research. See "A Topical Analysis of Personal Hygiene in Ludwig Mies van der Rohe's House Building as a Prolegomena to the Study of Pragmatic Building," Ph.D. Dissertation, University of Pennsylvania (Michigan: UMI, 1997), Part I.

[2] Joseph Rykwert, "Uranopolis or somapolis?" in *Res* 17/18, Spring/Autumn (1989), p.15.

[3] Douglas' position that the body and its hygiene serve as a model for socio-cultural behaviors is followed in spirit in the analyses of Robert Parker, *Miasma: Pollution and Purification in early Greek Religion* (Oxford, 1983) and Michael Newton, *The Concept of Purity at Qumran and in the Letters of Paul* (Cambridge, 1985).

[4] Adolf Loos, "Plumbers" in [*Neue Freie Presse* July 17, 1898]. Trans. J. O. Newman and J. H. Smith in *Spoken into the Void* (Cambridge: MIT Press, 1982).

[5] Occasionally, the ambiguity of body boundaries is seen by the individual and society as desirable, as in the case of the breast-feeding or in conventionally approved sexual encounters. However, in times of societal stress—economic, political, or moral—boundary definition becomes critical and marginal elements of society are cleansed, that is, witches are burned and sodomites are hanged. See Douglas' chapters "The System at War with itself" and "The System Shattered and Renewed," p. 140.

[6] Alan Dundes, *Life is Like a Chicken Coop Ladder: A Portrait of German Culture Through Folklore* (New York: Columbia University Press, 1984), p. 144.

[7] Dieter and Jacqueline Rollfinke, *The Call of Human Nature* (Amherst: University of Mass., 1986), pp. 3-4.

[8] Alexander Kira notes that this practice of examining stools "is still considered a sound and common health practice, as it was in Pliny's time." Kira, Alexander, *The Bathroom: Criteria for Design* (Ithaca, New York: Cornell University, 1966).

[9] See "Abtritt" in Grimm, Jacob, and Wilhelm Grimm, *Deutsches Wörterbuch* (Leipzig: S. Hirzel, 1854).

[10] Hermann Muthesius, *Wie Baue Ich Mein Haus?* (Munchen: F. Bruckman, 1917), p. 690.

[11] In *Body, Memory and Architecture*, Kent Bloomer and Charles Moore refer to the house's front facade a the "formal face" which "is always fitted up for the public eye" (New Haven, Yale University, 1977), pp. 120-121. The *public face* contrast with the less formal, more intimate aspects of the dwelling arranged along what Christopher Alexander et al. refer to as an intimacy gradient," see *A pattern language: towns, buildings, construction* (New York: Oxford University Press, 1977), pp.610-613. In the country house the intimacy gradient extends from front to rear and in the courtyard house it extends from front to center.

[12] A. Brausewetter, *Das Bauformenbuch: Die Bauformen Des Bürgerlichen Wohnhauses* (Leipzig: E.A. Seemann, 1898), p. 14.

[13] We follow and extend Wolf Tegethoff in his general analysis of Nolde House design development, see *Mies van der Rohe: The Villas and Country Houses* (New York: Museum of Modern Art, 1985), p. 99.

[14] Mies van der Rohe, "Building," G, no.2 (September 1923), p. 1. Translated in Neumeyer, pp. 242-243.

[15] Mies van der Rohe, quoted in Christian Norberg-Schulz, "Ein Gespräch mit Mies van der Rohe," *Baukunst und Werkform*, Vol. 11 (November 1958), pp. 615 f. Partially translated in Tegethoff, p. 130.