

Therapy or Redemption? The Environmental Critique

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In other words, our image of happiness is indissolubly bound up with the image of redemption.

- Walter Benjamin

CONSTRUCTION AND INHABITATION

Architects voice many criticisms of their profession, complaining that they are not consulted about important aspects of construction such as initial planning or the allocation of resources. Although the profession has a long history and identity, the boundaries of practice are ambiguous and overlap with those of other disciplines and trades. Whether it is by the skills required or by the kinds of work involved, architects have never completely succeeded in distinguishing themselves from other building professionals or even from experienced building owners. The professional project of the last century failed to obtain an exclusive category of architectural responsibility, such as that achieved by doctors and lawyers. It is doubtful if any strategy, legal or practical, can fully secure those professional boundaries and that fact suggests the institutional nature of the complaint.¹ In Robert Gutman's view much of this structural condition results from the different perspectives with which architects and their clients view buildings.² Design and construction can answer many needs, from shelter to individual expression to investment. The hopes and responsibilities of ownership differ substantially from the technical and imaginative practices in which architects are trained. However these differences operate at another, deeper level, which arises from the distinction between construction and inhabitation. Whereas construction is a spatially and temporally discrete activity, easily defined and professionalized, the activities of inhabitation are diffused among many people and occasions.

In the narrow sense, architecture only "houses" its inhabitants, but in many ways the profession has attempted to extend control to the very habits with which people negotiate their buildings. This was the subject of Adolf Loos's tale of the "Poor Little Rich Man," who hired a famous architect to "Bring Art to me, bring Art into my home." The architect complied and, after disposing of all the man's possessions,

produced a completely and beautifully designed home, including even the "ashtrays, light switches, cutlery -- everything." The location and use of each object was noted in the architect's drawings, which had to be consulted if any dispute or confusion arose. The moral of the parable is simple. "He was precluded from all future living and striving, developing and desiring. He thought, this is what it means to learn to go about life with one's own corpse. Yes indeed. He is finished. He is complete."³

The dreams of architecture as a total work of art continue to prosper, but until a building actually becomes a museum, that is until it dies, it is relentlessly transformed by its inhabitants. These adaptations are both physical and imaginative, permanent and transient, and they shape much of what we recognize as characteristic of architecture. The difference between construction and inhabitation represents the limit of architecture as an authored work of art, as either the realization of a single vision or as a finished and completed artifact.⁴

The architectural profession itself is not homogenous nor has it wholly ignored these limitations. In part, it has responded through specialization, generating professional offshoots like interior design, historic preservation, and environmental design, as well as competing agencies, like engineering and construction management. Each of these specialties has its physical subject - furnishings, old buildings or the environment - which also focus on conceptual concerns - identity, cultural history or health. The practice of historic preservation, for example, has flourished through the re-use and re-presentation of cultural artifacts.⁵ Older buildings offer the appeal of familiarity, which, however real, is often and publicly preferred to new construction. In other words, some of the more trenchant critiques of the total work of architecture can be located in architectural practices that offer alternative or modified justification for their employment. I am not suggesting that the profession reacquire its specialties (fulfilling the professional project), nor that the public's desires are simply correct, but rather that the difference among these practices offers a valuable, critical understanding of architecture. Ultimately, the existence of

and competition among these various practices poses a broader, general question: what mediating roles does architecture perform? This is partly a question about what people do with their buildings, but especially how they imagine them and how those images in turn affect their sense of themselves.

Those are ambitious questions and will be developed in the examination of a single, and still developing, architectural specialty -- environmentalism. The fact that environmental practices are neither wholly professionalized, nor wholly architectural, makes them particularly interesting. Its terms are not only in flux, but are passed among a variety of discourses, both popular and professional. Environmental questions are generally approached as an aspect of ethical responsibility applied to the determination of good or bad practices based on relative ecological value. These are then translated into the standards and techniques of responsible construction. My concern, however, is with the terms they offer for the discussion of architecture with its inhabitants, with the image of the future they imply, and how that future happiness is constituted. To the extent that these images are absent from normative architectural practice and contradict the dream of the total work, they constitute a substantial critique of current practice. On the other hand, these are largely questions of representation and architecture is ultimately bound to the manipulation of visibility.⁶ The difference between environmental aspirations and the capability of building construction to realize them forms the subject of this paper.

THE ENVIRONMENT

As a subset of the broader social issues, architectural environmentalism is a specific response to concerns about indoor air pollution and the limitations of natural resources. The central concept of contemporary environmentalism, sustainability, revolves around two related concerns: the care of the commons -- air, water, and soil -- and the protection of future health.

The use of common resources is generally conceived of as an issue of conservation or efficiency. It's methods originate in the 19th century biological principle of ecology, which revolutionized the concept of organism by connecting development and behavior to environment. Broadly speaking, this insight has subsequently developed into advanced systems theory and its emphasis on connections rather than parts. In her history of the subject, Anna Bramwell has identified the deeper ethical sense of the word itself:

The resonance's of the new term went beyond biology. It carried overtones of the Greek word *Oekonomie*. As used by Aristotle, this originally meant the proper functioning of a household unit, the *oikos*. A soundly organized working household was the basis of a viable state. It was as self-sufficient as possible. It husbanded its resources, and avoided waste and disorder - as we still say that something is done with economy.⁷

The economical operation of a "household", whether it is a public, private or commercial institution, produces visibly recognizable characteristics. That visual character is suggested by Christopher Alexander's phrase -- the rhythm of repair -- and is the goal, for example, of the detailed specifications of homeowners associations that prescribe the length of lawn grass and the painting of trim.⁸ Architectural borrowings often seek to reproduce exactly these visible traces of inhabitation, copying forms from cultures and institutions in their periods of prosperity. It is ironic that the elegant "machine" detailing of ships which was adopted by early modernists in the spirit of *neue sachlichkeit* had relied on the legendary maintenance habits of sailors. The degree to which painted pipe rails and flush surfaces exhibit lack of attention is perhaps rivaled only by the painted wood fretwork they replaced. The dissonance between image and operation is a general condition of the discrepancy between the visual goals of construction and the provisional activities of inhabitation. Ecological resource imperatives translate into the elimination of waste which more properly belongs to the habits of occupation and operation than to the immediate concerns of construction. Certainly the management of resources is influenced by siting and design, but the public interest in heating bills is a concern of a particularly transient order.

It is the logic of health that reaches furthest into the imagination. The broadest topics of sustainability -- natural reserves, world population growth, resource allocation, industrial pollution -- all address physical survival. The aspirations of environmentalism are therapeutic in the most medical sense of the word and seek to ensure that survival by technical and political means. However the logic of health is itself historical and changes with beliefs about ourselves and the world. It is at the intersection of those beliefs with the equally changeable expectations held about buildings that the critical dimension of this topic arises. Images of health and of therapeutics shifted radically at the beginning of the modern era, then early in this century, and appear to be changing again.⁹ The image of what buildings are capable of has also changed in close relation with the concepts of the body and its vulnerabilities.¹⁰

The interaction between location and health is an ancient topic, embedded in the medical corpus from the beginning.¹¹ It was noted by Vitruvius, who observed the varying influence of climate and situation on the residents of an area. He offers us the first environmental ethic of architecture, suggesting that "we may remedy by art the harm that comes by chance [of location]." The subsequent recognition that the artifacts of those arts can in turn alter the location and even cause secondary harm is simply the inverse of that strategy. Inseparable from observations about climate and health are assumptions about race, class and eventually national character. Vitruvius cited commonplaces from his Mediterranean perspective which are still current: "northern peoples steeped in a thick climate amid reluctant air, are chilled by the damp and have sluggish minds."¹² The remedies of art for those differences are more elusive. Identity and therapy are never much

separated. Then, as now, for example, dining is among the most regulated of social occasions and the most refined of arts. Diet is equally the concern of medical therapeutics and of philosophers.¹³ The environmental tactics of architecture are formed in the combination of social habits governed by taste with the images and therapies of health.

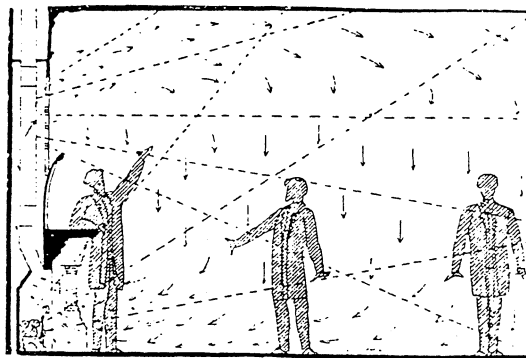
The development of ecological science in the late 19th century coincided with the disciplinary beginning of public health and corresponded to radical changes in the conception of the body and of illness. This is a complex story in which the new germ theories of the 1870's were overlaid on older ideas of contagion and cleanliness.¹⁴ The success of causal rather than symptomatic therapies was nothing short of miraculous, while the techniques of public and private sanitation were refined and made scientific. The house itself became a "vector of disease" and its maintenance a medical tool. By understanding the mechanisms of infection, through air, water, dirt, and human contact, strategies for the protection from illness were developed.

The public was urged to take individual measures, such as improving household ventilation and plumbing, boiling and filtering drinking water, and isolating the sick within the household, to protect their loved ones from debility and death.¹⁵

The habits of inhabitation were scrutinized and reformed. The image of architecture was altered as the very "stuff" of buildings was understood in precise relation to its infectious potential. The passive, mechanical understanding of the body which underlay the new medical practices implies an entirely different relation to its environment, which is then inherently threatening.

There are no more fascinating tales from this period than "the dire cautions about 'sewer gas,' " or about the fetid air in swamps, called *malaria* (literally bad air) or *virus*. Those terms have been adapted to scientific explanations, but infection by polluted air is understood analogically. In medieval alchemy and medicine they were explained as a kind of staining, in which "a small drop of dye-stuff suffices to color a large amount of fluid."¹⁶ With the discovery of carbolic acid (CO²) and its role in human respiration, those analogies received increasingly mechanical explanations, but the equivalency between pollution and infection remained. Illness was a violation of corporeal boundaries by hostile agents. The passivity of this mechanical body did not eliminate the responsibility of its defense, which, like the equivalency of climate and national character, suggested a new moral code of domestic hygiene. In her treatise on "The American Woman's Home," Catherine Beecher illustrated this connection.

No other gift of God, so precious, so inspiring, is treated with such utter irreverence and contempt in the calculations of us mortals as this same air of heaven. A sermon on oxygen, if we had a preacher who understood the subject, might do more to repress sin



than the most orthodox discourse to show them when and how and why sin came.¹⁷

The diseases and epidemics which characterized life in the newly industrialized cities were initially battled at just this moral, household level. Strategies of construction and inhabitation were nearly identical. As part of their nationwide campaign, the anti-tuberculosis society recommended the addition of sleeping porches to allow threatened lungs a regular, at-home sanitarium treatment. Where such constructions were not possible, they instructed people to sleep with at least one open window.¹⁸ Such habits were every bit as persistent as the constructions were durable. Generations of children born after the development of antibiotics were instructed in this procedure even as the rationales for its practice evolved. So too with building standards; as evidence about the mechanisms of infection progressed, public popular tales about the danger of moist basements or inadequate sewage lines passed into public health law and eventually became common practice.

There has been a renewed attention to ventilation levels in the recent environmental agenda. This has largely resulted from the increased occurrence of "sick building syndrome", which developed when ventilation standards were reduced in the early 1980's to conserve energy. The discussion of air quality in the reexamination of those standards, particularly of CO², has some powerful resonance's with Beecher's sermon on oxygen and the late 19th century fears of carbolic acid. At that time proselytizing health officials claimed that "nearly half of the deaths in New York City resulted from inhaling vitiated air" rich in carbolic acid, while medical and popular guides cited the horrifying tales of suffocation in the Black Hole of Calcutta and on the voyage of the *Londonderry*.¹⁹ It is a small step to Le Corbusier's "international interpretation of scientific techniques" and the "single building for all nations and climates, the house with *respiration exacte*."²⁰ That was contemporary with the first use of air conditioning in public buildings and with tests to determine proper ventilation rates.²¹

Today's ventilation standards come in either a prescriptive or a diagnostic form. The prescription identifies the minimum quantity of outdoor air per person to be supplied by the mechanical system. The diagnostic standard establishes a maximum level of CO², which is a by product of both

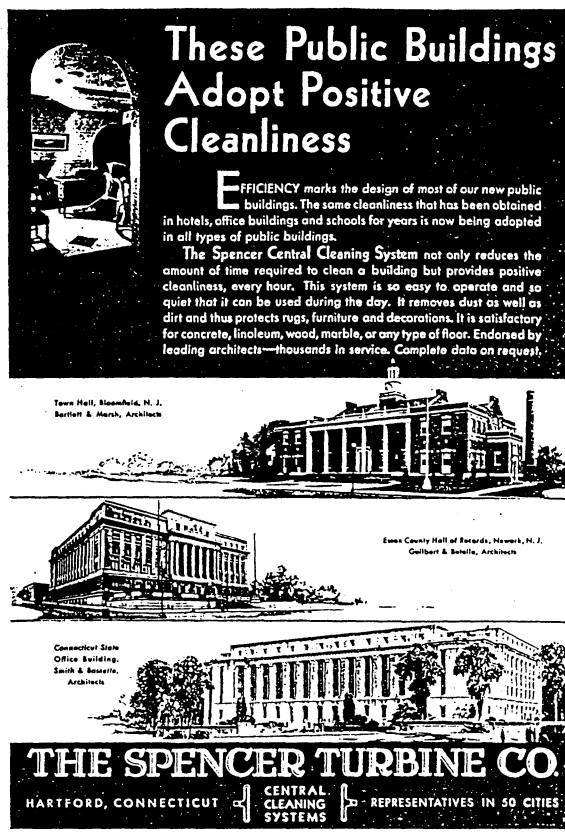
combustion and human respiration and which can be measured directly. Though based on field tests, both measures are ultimately indices of that level of ventilation at which people stop noticing each others bodily odors.²² There are no precise medical standards for such low concentrations of CO₂ or even for most common pollutants, whatever the real health effects. And so precise ventilation requirements should vary from culture to culture with beliefs about smell. I am not citing this fact to impeach the standard, but rather to indicate the deep continuity between architecture, social habits, health concerns, and the everyday, environmental sense of smell.

The adaptation of historic of terms like virus, malaria and infection can offer some insight, because although the shifts in meaning are profound, traces of the earlier beliefs persevere, particularly when attached to bodily function. As Oswei Tempkin demonstrates, explanations of infection always involve social pollution beliefs.²³ The seemingly precise medical fears by which buildings have become tools of therapy, are blurred with individual and social identity. Ultimately, the ailments under treatment are not disease as such, but the chronic condition of living, which is bounded by the horizon of mortality and the consequent fear of and fascination with pollution, diminution and death. No therapy, built or otherwise, can permanently relieve these concerns and environmentalism operates in the shadow of these fears. The residue of anxiety unsolved with medical technique is the subject of environmental architecture.

The popular agreement enjoyed by the environmental agenda reinforces the importance of this critique to contemporary architectural practices. It is, however, an agenda built on fear and many environmental architects have attempted to find a more positive expression for these issues. William McDonough's widely promulgated "Hannover Principles" of sustainability emphasize the concepts of interdependence and responsibility. But the difficulty of addressing the underlying fears remains and he turns to the vague terms of spiritual monism:

3. Respect relationships between spirit and matter. Consider all aspects of human settlement, including community, dwelling, industry, and trade in terms of existing and evolving connections between spiritual and material consciousness.²⁴

This kind of proposition can only lead to rote symbolism in which technical solutions are concealed by reference to a seemingly natural, ecological religion. I am not dismissing the problem, but the challenge of the environmental critique is to recognize the crisis of secular meaning without erecting artificially sacred or spiritual systems. This is a less discussed aspect of the modern condition, but it seems that the marginalization or suppression of religious discussion in the ascendance of scientific reason leads to the appearance of occult and spiritualist discourse.²⁵ The continuities of language and of human therapeutics suggest that the fears of environmental imperatives may conceal other motives, which



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In her seminal study of pollution taboos, Mary Douglas noted the oddly artificial sacredness with which anthropologists approached primitive rituals, while these same observances were treated as everyday activities by the practitioners. The modern concept of magic was developed to distinguish rituals utilizing impurity and taboo from those involving kinds of holiness recognized in modern religions. Her analysis develops the important distinction between individual and social beliefs which may in fact be contradictory and appeal to different forms of reason. The expectations of magic are not necessarily equivalent to those of technology with which they are usually compared. Douglas classes our modern procedures of hygiene and cleanliness with magic ritual in because of their social and provisional character. Although modern culture is highly fragmented, its various memberships and boundaries are constructed with ritualistic, social practices. Given the secularity of public culture, these are the source of environmental meanings to which we should attend rather than reinventing universalistic religious concepts.

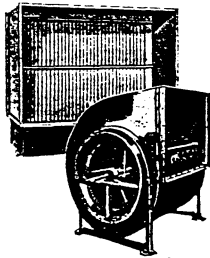
If we look past the medical aspect of therapeutic concerns to their everyday context, the highly formalized definitions of dirt and pollution have the affirmative sense sought by environmentalists.

In chasing dirt, in papering, decorating, tidying, we are not governed by anxiety to escape disease, but are positively re-ordering our environment, making it conform to an idea. There is nothing fearful or unrea-

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There can be real consequences to infection, on which the advertisements for household cleansers, air conditioning, and public concern about the environment all operate. But the ritualistic aspect of building maintenance, its regular cleaning and repair, speaks of another quality in these mundane habits. In Douglas's words: "so far from being aberrations from the central project of religion, they are positive contributions to atonement." Even among the fragments of modern culture, these activities offer a provisional kind of redemption through the practices of construction and inhabitation. It is a "weak" redemption, but a momentary unity can be glimpsed in these instrumental and symbolic demonstrations. Architects of different schools find a rarely discussed concord with each other and with their clients in the cleanliness and cleanability of bathrooms.^f

The environmental critique suggests two tentative conclusions. The first is to remind environmentalists that the substance of modern fears about survival are themselves deeply social and historical in character. The second is a modification of that first environmental ethic. The harm that inevitably comes by chance of location can be addressed by art, but it is the everyday art of redemption.

NOTES

- ¹ Two recent studies of these conditions are: Judith Blau, *Architects and Firms: A Sociological Perspective on Architectural Practice* (Cambridge: The MIT Press, 1984) and Dana Cuff, *Architecture: The Story of Practice* (Cambridge: The MIT Press, 1991).
- ² Robert Gutman, *Architectural Practice: A Critical View* (Princeton: Princeton Architectural Press, 1991)
- ³ Adolf Loos, "The Poor Little Rich Man," *Spoken into the Void: Collected essays 1897-1900* (Cambridge: The MIT Press, 1982).
- ⁴ The constructed nature of authorship and authority is described in Michel Foucault, "What is an Author," *The Critical Tradition: Classic Texts and Contemporary Trends*, Edited by David H. Richter (New York: St. Martins Press, 1989).
- ⁵ The efforts and successes of preservationists to control the modern image of the city is briefly described in the last chapter of M. Christine Boyer, *Dreaming the Rational City: The Myth of American City Planning* (Cambridge: The MIT Press, 1983).
- ⁶ For the problems of visibility and representation in this context, see William Braham, "Eyes That Do Not See? The Practice of Sustainable Architecture," *Practices 3/4* (Spring, 1995).
- ⁷ Anna Bramwell, *Ecology in the 20th Century: A History* (New Haven: Yale University Press, 1989): 41.
- ⁸ Evan McKenzie, *Privatopia: Homeowner Associations and the Rise of Residential Private Government* (New Haven: Yale University Press, 1994).
- ⁹ Erwin H. Ackernecht, *Therapeutics: From the Primitives to the 20th Century, with an Appendix: History of Dietetics* (New York: Hafner Press, Division of Macmillan, 1973). The changing nature of current images of health is examined in Emily Martin, *Flexible Bodies: Tracking Immunity in American Culture -- From the Days of Polio to the Age of Aids* (Boston: Beacon Press, 1994).
- ¹⁰ The environmental relevance of these images was first made evident to me by Ivan Illich, *H2O and the Waters of Forgetfulness: Reflections on the Historicity of "Stuff"* (Berkeley: Heyday Books, 1985).
- ¹¹ Oswei Temkin, *The Double Face of Janus and Other Essays in the History of Medicine* (Baltimore: Johns Hopkins University Press, 1977). pg. 459.
- ¹² Marcus Pollio Vitruvius, *On Architecture [De Architectura]*. (Cambridge: Harvard University Press, 1931). Book VI, Chapter I, "The Influence of Climate upon Architecture."
- ¹³ The coincidence of habits in dining, architecture and philosophy is vast subject that might begin with the work cited by Semper in his tracing of the closeness of architecture and clothing: Athenaeus. *The Deipnosophists*, In Six Volumes. (London: William Heinemann/ New York: G.P. Putnam's Sons, 1927). This connection might also suggest the accuracy of the Futurist attack on pasta. Filippo Tommaso Marinetti, *The Futurist Cookbook* (1932) (San Francisco: Bedford Arts Publishers, 1989).
- ¹⁴ Georges Vigarello, *Concepts of Cleanliness: Changing Attitudes in France Since the Middle Ages* (Cambridge: Cambridge University Press, 1988).
- ¹⁵ Nancy Tomes, "The Private Side of Public Health: Sanitary Science, Domestic Hygiene, and the Germ Theory, 1870-1900," *Bulletin of the History of Medicine*, 64 (1990), 509-39.
- ¹⁶ Oswei Temkin, *The Double Face of Janus and Other Essays in the History of Medicine* (Baltimore: Johns Hopkins University Press, 1977). pg. 461.

- ¹⁷ Catherine E. Beecher and Harriet Beecher Stowe, *The American Woman's Home: Or Principles of Domestic Science; Being a Guide to Formation and Maintenance of Economical, Healthful, Beautiful and Christian Homes* (New York: J. B. Ford and Company, 1869).
- ¹⁸ Mark Caldwell, *The Last Crusade: The War on Consumption, 1862-1954* (New York: Atheneum, 1988):33-6, 60.
- ¹⁹ Gavin Townsend, "Airborne Toxins and the American House, 1865-1895," *Winterthur Portfolio: A Journal of American Material Culture*, 24, 1 (Spring 1989): 29-42.
- ²⁰ Le Corbusier, *Precisions* (Paris, 1930). For the development of Le Corbusier's ideas about respiration and the *mur neutralisant* see Reyner Banham, *The Architecture of the Well-Tempered Environment*, 2nd Edition (Chicago: University of Chicago Press, 1984).
- ²¹ The pioneering efforts of what are now ASHRAE standards were commissioned by New York State health officials in the 1930's. C.P. Yagley, E.C. Riley and D.I. Cogins, "Ventilation Requirements," *ASHRAE Transactions*, 42 (1936): 133-162.
- ²² "The Ventilation Rate Myth," *Energy Design Update: The Monthly Newsletter on Energy-Efficient Housing*, Vol 13, No. 9 (September, 1993): 9-10.
- ²³ Oswei Temkin, *The Double Face of Janus and Other Essays in the History of Medicine* (Baltimore and London: The Johns Hopkins University Press, 1977).
- ²⁴ "Hannover Principles" by William McDonough Architects in *AIA Environmental Resource Guide. A Quarterly Publication of the American Institute of Architects* (1735 New York Avenue, NW, Washington, DC 20006), 1992-94: Education 4.1-13.
- ²⁵ An excellent summary of the close relationship between modernism and the occult is in Leon Surrette, *The Birth of Modernism: Ezra Pound, T.S. Eliot, W.B. Yeats, and the Occult* (Montreal: McGill - Queen's University Press, 1993).
- ²⁶ Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (New York: Frederick Praeger, 1966).