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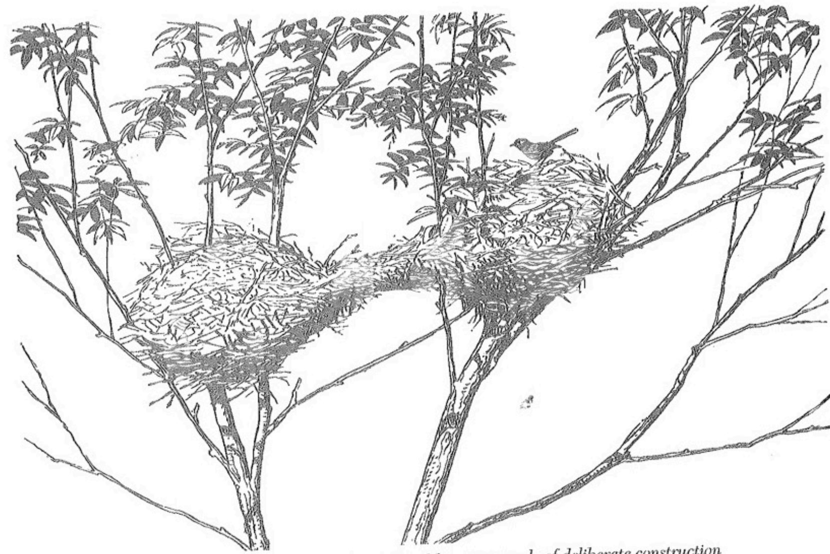


1. Nest of the South American rufous-breasted castle builder, an example of deliberate construction in the animal kingdom.

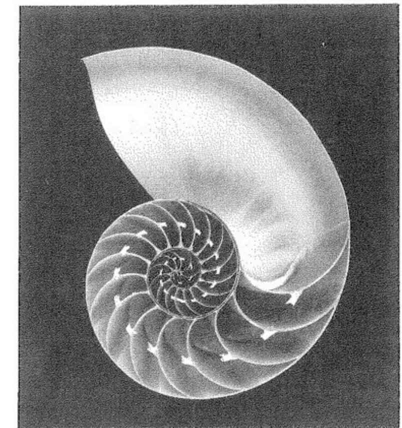
Architecture, the Unavoidable Art

Architecture is the unavoidable art. Every moment, awake or asleep, we are in buildings, around buildings, in spaces defined by buildings, or in landscapes shaped by human artifice. It is possible to take deliberate steps to avoid looking at painting, sculpture, drawings, or any of the other visual arts, but architecture constantly touches us, shapes our behavior, and conditions our psychological mood. The blind and deaf may not see paintings or hear music, but like all other humans they must deal with architecture. More than being merely shelter or a protective umbrella, architecture is also the physical record of human activity and aspiration. It is the cultural legacy left us.

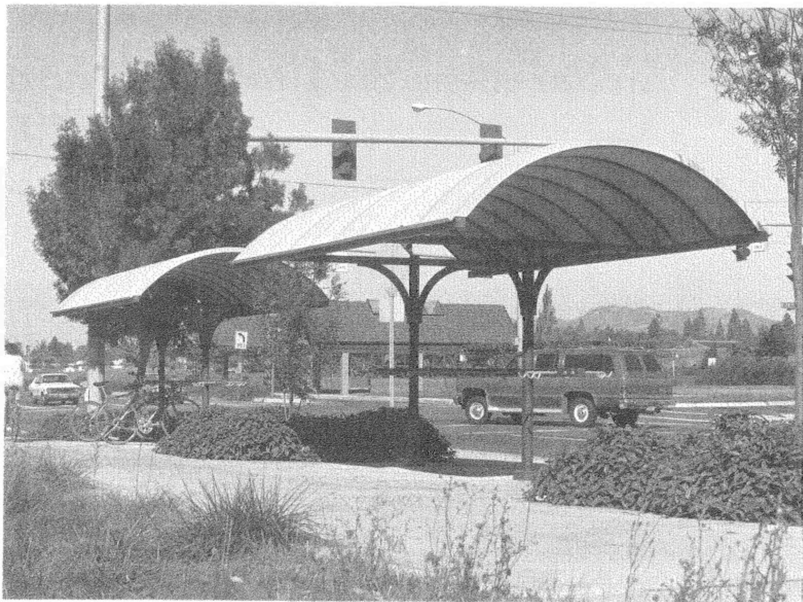
The architect Louis Kahn wrote that "architecture is what nature cannot make."[1] Humans are among several animals that build, and indeed some structures built by birds, bees, termites, to name but a few, are like human engineering in their economy of structure. The rufous-breasted castle builder of South America weaves two chambers connected by a cantilevered tube between the two, creating a double-chambered nest in the form of a dumbbell [1]. Certain blind termites build soaring arches of mud, starting at two distinct springing points, pushing their sections upward until they meet in the air. Mollusks, such as the chambered nautilus, build their houses around them, creating a hard shell of calcium carbonate.

The shell of the chambered nautilus can serve as a useful metaphor for the human built environment. As the nautilus grows, it adds a new and larger chamber to its curved shell, the vacated chamber then being filled with nitrogen gas to add buoyancy to the enlarged mass; the older parts of the shell, however, remain as a record of the history of the animal [2]. Architecture is the chambered nautilus shell of the human species; it is the environment we build for ourselves, and which, as we grow in experience and knowledge, we change and adapt to our expanded condition. If we wish to retain our identity, we must take care not to eliminate the "shell" of our past, for it is the physical record of our aspirations and achievements.

It was once customary to think of architecture as consisting only of those buildings



2. Section through the shell of a chambered nautilus. The shell is constructed by means of an unconscious biological process.



3. Lane Transit District Bicycle Shed, Eugene, Oregon, 1984. The bicycle shed is part of a cluster of buildings, including an area bus terminal, designed to encourage use of public transportation.

that we deemed "important," the great buildings for church and state that necessitated substantial expenditure of energy and funds. Perhaps this was because, in past centuries, histories of architecture were written largely by architects, princely patrons, or court historians who wished to sharpen the distinction between what they had achieved in contrast to the surrounding mass of vernacular buildings. In his compact *Outline of European Architecture*, first published in 1943, Nikolaus Pevsner began by making the distinction that "a bicycle shed is a building; Lincoln Cathedral is a piece of architecture" [3, 4].[2] Conventional wisdom often makes the same distinction, as demonstrated in the story, now a part of folklore, of the metal building manufacturer who made barn structures and offered the buyer a wide choice of historical ornamental clip-on door frames—Colonial, Mediterranean, Classical, among many others. After a windstorm had damaged a number in one area, the factory representative telephoned customers to find out how the structures had fared. One customer, whose Colonial door frame had been stripped off while the barn itself survived, replied, "The building's fine but the architecture blew away."[3]

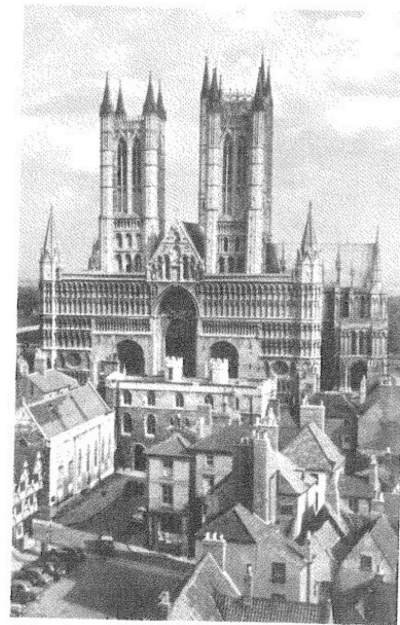
If, in fact, we were to study the "architecture" of Lincoln Cathedral, or of Notre-Dame in Amiens, France, or of any cathedral for that matter, without taking into account the "buildings"—that is, all the humble houses that made up the city around them—we would arrive at an erroneous concept of the position occupied by the church in the social and cultural context of the Middle Ages. We must examine *both* the cathedral *and* the ordinary houses surrounding it, for all of the buildings as a group constitute the architecture of the Middle Ages. So, too, if we wish to understand the totality of the architecture of the contemporary city, we need to consider all its component elements. For example, to understand Eugene, Oregon, we would need to examine the bicycle sheds and the bus transfer shelters that are an integrated part of the transportation system [3]; there bicyclists can lock their bikes under a roof and transfer to motorized public transit. The bicycle sheds are part of a municipal ecological response, an effort to enhance the physical living-environment by encouraging modes of transportation other than private automobiles.

Pevsner's emphatic distinction between architecture and building is understandable, considering the limits of his compact book, for it made the material he needed to cover much more manageable. Pevsner's view grew out of the extended influence of the nineteenth-century critic John Ruskin, who made the same distinction in the second sentence of his book *The Seven Lamps of Architecture* (London, 1849). He began this by observing, "It is very necessary, in the outset of all inquiry, to distinguish carefully between Architecture and Building." Ruskin wanted to concentrate his attention on religious and public buildings, but he also recognized that architecture was a richly informative cultural artifact. In another of his many writings, the preface to *St. Mark's Rest* (London, 1877), he cautioned that "great nations write their autobiographies in three manuscripts—the book of their deeds, the book of their words, and the book of their art. Not one of these books can be understood unless we read the other two; but of the three, the only quite trustworthy one is the last."[4] As Ruskin correctly recognized, to understand the architecture of the past, of any period or culture not our own, we must absorb the history and literature of that period, the record of its acts and thoughts, before we can understand fully what message the architecture conveys. Architecture, then, is like written history and literature—a record of the people who produced it—and it can be "read" in much the same way. Architecture is a nonverbal form of communication, a mute record of the culture that produced it.

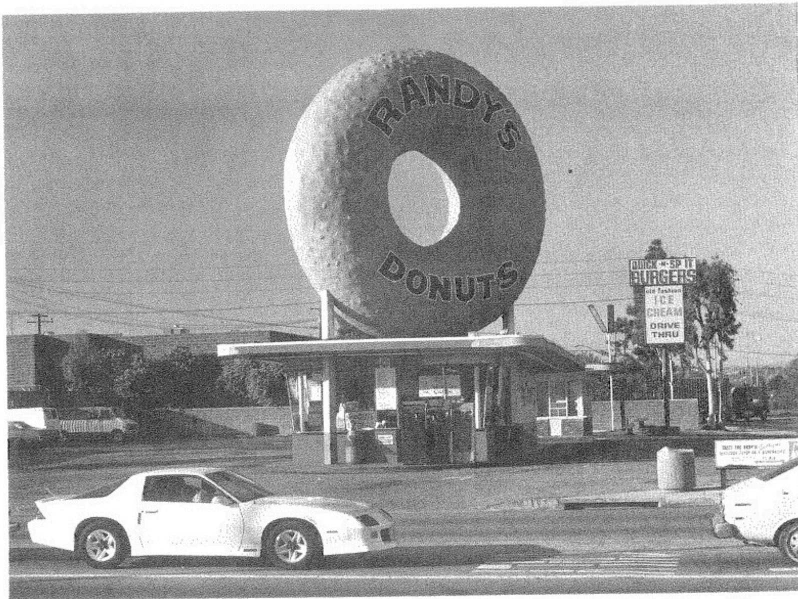
These ideas—the totality of the built environment as architecture, and the environment as a form of dialogue with the past and future—underlie this book. Architecture is

understood to be the whole of the environment built by humans, including buildings, urban spaces, and landscapes. And while it is not possible in a book of this size to examine in detail all types of buildings in all ages, the reader needs to keep in mind the idea that the broad spectrum of building of any period, and not just a few special buildings, constitutes its architecture.

Unlike other creatures that build, humans think as they build, so that human building is a conscious act, a reflective act, an act that embodies countless decisions and choices. This is what distinguishes human building from birds' nests and bees' combs, for they build as the result of genetic programming. Humans build to satisfy a need, but even as they do so, they give expression to feelings and values; they are expressing in wood, stone, metal, plaster, and plastics what they believe vital and important, whether it is a



4. Lincoln Cathedral, Lincoln, England, 1192–1280. This building was constructed as a public demonstration of both church power and civic pride.



5. Henry J. Goodwin, Big Donut Shop, Los Angeles, 1954. A building created in response to an automobile culture and a public desire for instant alimentary satisfaction.

bicycle shed or a cathedral. It may be a message clearly understood and deliberately incorporated by both client and architect, or it may be an unconscious or subconscious statement, decipherable by a later observer. Hence, the United States Capitol in Washington, D.C., has as much to tell us about the symbolism of republican government in the nineteenth century as the Empire State Building in New York City has to tell us about capitalism and urban land values in the twentieth century. Equally important as cultural artifact and as architecture is the Big Donut Shop in Los Angeles, built in 1954 by Henry J. Goodwin [5], for it reflects Americans' love of the automobile and their desire for instant alimentary gratification.

Architecture is the unavoidable art. We deal with it every waking moment when not in the wilderness; it is the art form we inhabit. Perhaps this familiarity causes us to think of architecture as only a utilitarian agent, as simply the largest of our technical contrivances, requiring of us no more thought than any other appliance we use throughout the day. And yet, unlike the other arts, architecture has the power to affect and condition human behavior; the color of walls in a room, for example, can help to determine our mood. Architecture acts upon us, creating a sense of awe such as one might feel walking among the huge stone columns of the hypostyle hall of the Egyptian temple at Karnak; or being pulled, as if by gravity, to the center of the vast space covered by the dome of the Pantheon in Rome; or sensing the flow of space and the rootedness in the earth of Frank Lloyd Wright's Fallingwater.

Part of our experience of architecture may be based largely on our enjoyment of these physiological responses—which the skillful architect knows how to manipulate to maximum effect—but the fullest experience of architecture comes from expanding our knowledge of a building, its structure, its history, and its meaning, while reducing our prejudices and ignorance.

We need to remember, too, that architecture, besides providing shelter, is a symbolic representation. As Sir Herbert Read wrote, art is "a mode of symbolic discourse, and where there is no symbol and therefore no discourse, there is no art."[5] This symbolic content is most easily perceived in religious and public buildings where the principal intent is to make a broad and emphatic proclamation of communal values and beliefs. If a building seems strange to us it is likely because the symbol being presented is not in our current vocabulary. To Americans who have no Gothic architectural heritage, the construction of the Houses of Parliament in London in the mid-nineteenth century in the medieval Gothic style might seem at first anachronistic. Yet it becomes more understandable when we remember that actual Gothic buildings were to be incorporated into the new complex and that, to nineteenth-century Englishmen, Gothic architecture was viewed as being inherently English and thus had a long connection with parliamentary government. The argument could be made that for them Gothic was the *only* appropriate style.

Architecture is the science *and* the art of building. To understand more clearly the art of architecture and its symbolic discourse, it is best to gain first an understanding of the science of architectural construction. So, in the following chapters of Part One, the pragmatic concerns of function, structure, and design are explored. Then, in Part Two, the symbolism of architecture as a nonverbal means of discourse is taken up.

NOTES

1. Louis I. Kahn, "Remarks," *Perspecta,* the Yale Architectural Journal 9–10 (1965): 305.
2. Nikolaus Pevsner, *An Outline of European Architecture* (London, 1943). This has remained a standard work and continues to be reprinted in its seventh edition.
3. Walter McQuade tells a similar story in "Where's the Architecture?" *Connoisseur* 215 (November 1985): 82.
4. Ruskin's *Seven Lamps of Architecture* is still in print. Because of the many editions of Ruskin's writings, the best source is the multivolume standard edition edited by E. T. Cook and A. Wedderburn, *The Works of John Ruskin* (London, 1903–12); for *St. Mark's Rest* see vol. 24.
5. Sir Herbert Read, "The Disintegration of Form in Modern Art," in *The Origins of Form in Art* (New York, 1965), p. 182.