

Architectural Evolution and Mathematics

The intriguing speculations of Charles Jencks foreshadow an architecture that may not be ours but that of a society yet to come.

AN OFTEN-OVERLOOKED feature of architecture is that it is not a self-contained discipline. The perimeters of architecture are inherently blurry, a condition that causes discomfort to some, but attracts others, accounting for many of the field's most interesting personalities. Charles Jencks is one such personality.

The polymorphy of the architectural vocation is key to Jencks's theoretical writings. The fact that building design has always been a sprawling enterprise, involving numerous intertwined activities—painting, sculpture, engineering, art history, politics, literature, and more—attracts flamboyant, larger-than-life figures.

Michelangelo di Lodovico Buonarroti Simoni (1475–1564) worked on Pope Julius II's tomb for 40 years, dividing his attention between works of genius, feuds with rivals, neurotic patrons, squabbles over money, and obscenity charges.

Filippo Brunelleschi (1377–1446), architect, as well as master goldsmith, designer, mathematician, and military engineer, lost a fortune in a 15th-century version of the “Spruce Goose,” the gigantic aircraft built by American tycoon Howard Hughes and flown once for just a mile: Brunelleschi's project, a gigantic ship, sank on its maiden voyage.

Stanford White (1853–1906), architect of homes for high society and notable community structures, counseled his patrons on objets d'art, interior décor, and event planning, gloried in a reputation as a lady's man, and was shot dead by the jealous scion of an industrial dynasty—at New York's Madison Square Roof Garden, which he had designed. The ensuing trial inspired books, films, and the Broadway musical *Ragtime*.

That architecture is generously endowed with such colorful figures—more so, say, than entomology or actuarial science—in no way demeans it. On the contrary, it provides a meeting place where mainstream ideas publicly collide or mesh with those of the fringe. Such interactions can be spectacular, thought-provoking, entertaining, bewildering—or all of these, as Charles Jencks's *oeuvre* demonstrates.

Born in Baltimore in 1939, Jencks read literature at Harvard University before earning a master's degree in architecture from the Harvard Graduate School of Design and a



doctorate in architectural history from London's University College. A sculptor, furniture designer, and prolific author, he has introduced scientific motifs, themes, and connotations into his acclaimed landscape architecture, while devoting his theoretical commentaries to the universe of information as revealed through mathematics, physics, and genetic research.

Jencks's designs draw on the contours and configurations of the theory of complexity and chaos, of fractals, and of the building-blocks

of life, as defined through science. In works such as the *DNA Sculpture* at Kew Gardens, London; his private 30-acre Garden of Cosmic Speculation near Dumfries, England; and the Scottish National Gallery of Modern Art Landform in Edinburgh, Scotland, Jencks established an imposing presence as a creative force in the grand manner, offering not only a visual panorama, but a stimulating pageant of the mind.

His formidable books provide a literary framework for the inspiration he has drawn from scientific advances. He has carved out for himself a niche as a man in the forefront of sensibility, commanding a broad, up-to-date view of the maps of the universe that physicists, molecular biologists, and the new algebraists are drawing for us, and relating these to our environmental experience.

Jencks's seminal book *The Language of Postmodern Architecture* (1977, followed by numerous editions) helped give the term “post-modern” wide currency and defined him as a torchbearer of historical and architectural change. His writings include *Modern Movements in Architecture* (1973); *Bizarre Architecture* (1979); *Late-Modern Architecture* (1980); *Signs, Symbols, and Architecture* (1980); *Skyscrapers—Skycities* (1980); *Kings of Infinite Space* (1983); *Towards a Symbolic Architecture* (1985); *What Is Post-Modernism?* (1986); *Post-Modernism: The New Classicism in Art and Architecture* (1987); *The Prince, The Architects, and New Wave Monarchy* (1988); *The New Moderns* (1990); *Heteropolis: Los Angeles, The Riots & Hetero-Architecture* (1993); *The Architecture of the Jumping Universe* (1995); *Architecture 2000 and Beyond* (2000); *Le Corbusier and the Continual Revolution in Architecture* (2000); *The Garden of Cosmic Speculation* (2003); and

The Iconic Building: The Power of Enigma (2005).

At first glance, some may see Jencks as a kind of intellectual P.T. Barnum, a showman exhibiting an entertaining but superficial cavalcade of terminologies. But he is a serious thinker, whose thought has three governing aspects. One is that he displays through his career a fairly consistent quest—that of trying to join architecture to cosmology. This quest leads logically to the second defining element of his work, which is that although Jencks seems to view architectural history from a privileged position that is somehow outside of this history, he does quite clearly fit into a broader context within literary and intellectual history.

A unifying tradition, which seeks to know the world both scientifically and philosophically, links up with Jencks's third governing characteristic—his location within the intellectual stream of European critical theory.

Jencks's membership in this unifying tradition diminishes his revolutionary cache somewhat, but helps us understand him. To explain this, it is instructive to look at the kinship between Jencks and the 18th-century Italian architect, engineer, archaeologist, stage designer, and artist Giovanni Battista Piranesi, creator of a series of etchings depicting the buildings of ancient and later Rome and the interiors of imaginary prisons. These images exemplify the power of visual representations and three-dimensional structures to express emotions linked subtly to philosophical ideas. Their overwhelming impression today is anachronistic: they convey an angst that is peculiar to our age. Sir Kenneth Clark correctly observes that they evoke the oppressive visions of writer Franz Kafka (1883–1924). But they do much more.

Piranesi's vast, sheer, clifflike walls, labyrinthine spaces, mysterious colonnades, terrifying abysses, shadowed passageways, and massive, sinister stoneworks, of incon-

ceivably remote origin, presage other dramatic and colorful 20th-century figures—poets, artists, mathematicians, philosophers, essayists, fiction writers, and architects.

Piranesi and Jencks share with these creators an attempt to translate into a material vocabulary, visually or verbally, the emotional and cognitive impact of information that is dramatically exotic, not only to our lives as individuals, but to virtually all that our social systems

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equip us to anticipate. This program of information is essentially a development of European endeavor in the history and sociology of ideas known as critical theory. It seeks to relate extremely abstract ideas—especially those related to the ways in which society changes—to the activities of everyday life. Jencks reflects this program by trying to connect highly abstract cosmological ideas to the practicalities of architectural and landscape design.

The program generally acknowledges the momentous implications of science and technology. Its practitioners have sought to study the philosophical effects of science and technology in fields such as economics, politics, morals, psychology, and sociology. Much writing has been devoted to the emotional content of such effects, including those of existentialists Soren Kierkegaard, Jean-Paul Sartre, and Martin Heidegger, but the visual content of critical theory—a visual existentialism—has yet to find its

voice. Jencks is a contributor to this struggle, although he may not be fully aware of the role he will play.

A fuller evaluation of Jencks's achievement is bedeviled by two problems, which will continue to impede an appreciation of his ideas until further work addresses them. One is the very issue that has obstructed the extension of critical theory into architecture and the other plastic arts: the fact that it is extremely hard to articulate the abstract insights and concerns of critical theory in the vocabulary of image, visual style, urban design, and three-dimensional structure. The difficulties seem to take us to the edges of language, as is illustrated by an embarrassing experiment conducted by two French writers, Alan Sokal and Jean Bricmont. Irked by what they regarded as gibberish parading as postmodern theory, they deliberately contrived a nonsensical scholarly paper written in the fashionable argot of critical theory. It was published in a respectable, peer-reviewed journal, causing a furor and leading them to write a book, *Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science* (1998).

Such debunking is amusing because there are so many easy targets for it among writers who have lost themselves in the thickets of philosophical language. The trouble is that, like the crusade against metaphysical writing in the first half of the 20th century, it throws out many babies with the bathwater, condemning sincere writers who are engaged in worthwhile efforts to develop a new idiom. Jencks's strivings warrant serious respect. However, his writings are often opaque and fail to do justice to his intellectual passion, and his theoretical canon would be more compelling if it were better and more lucidly organized, with less highbrow journalese.

The second problem is that even though Jencks has won distinction

as an architect, the imaginative landscape of his books overshadows the philosophical content. It is no insult to say of any thinker that his reach exceeds his grasp, and it is difficult not to gain the impression from Jencks's writings that what he is after is not so much a new kind of architecture as a new type of civilization. Yet, one longs for a satisfying statement of what this new civilization would be like.

Piranesi, too, though an architect, found scant outlet for his vision in his commissions, contenting himself at last with pictorial accomplishments that eventually connected not with the architects but with the surrealist artists and filmmakers of the 20th century. Similarly, the structures best suited to express Jencks's earnest enthusiasms may not be realizable in his lifetime or with the tools available to him, requiring the technologies of a future civilization in which he seems to wish he had been born. If so, the value of his ideas is likely to become optimally intelligible only when they are better explained in terms of intellectual history and the physical as well as philosophical challenges emerging around us.

Jencks's intriguing speculations carry with them more of the intellectual baggage of the past than he may wish to acknowledge, and foreshadow an architecture that may not be ours but that of a society yet to come. **UL**

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