The Lost Prophet of Architecture

Few thinkers are more difficult to categorize than architect Christopher Alexander. Is he a visionary genius of the built world? An intolerant utopian? A New Age Martha Stewart for narcissists? Or all of the above?

by Wendy Kohn

Christopher Alexander believes he has the answer to one of the supreme challenges of human existence: How do we create beauty? Once the province of artists and architects, the question has become one of the great democratic conundrums, engaging more and more people as affluence, education, and leisure breed discontent with the ugliness of suburban sprawl, dysfunctional cities, and soulless houses and office buildings. In large numbers, city dwellers and suburbanites alike have been following Alexander, and this vast audience thinks he is on to something.

His fame rests on *A Pattern Language*—a book that appeared 25 years ago—and a stream of subsequent writings. Translated into six languages and often one of the 1,000 top-selling titles on *Amazon.com*, *A Pattern Language* is among the most widely read architectural books of all time, and is commonly called a design "bible." When it appeared in 1977, *Architectural Design* magazine declared that "every library, every school, every environmental action group, every architect, and every first-year student should have a copy." Today, it has legions of devotees, some of whom simply value its practical advice, while others savor its New Age speculations. The enthusiasts include yuppies fixing up their country houses in

Vermont, gray-haired do-it-yourselfers in comfortable shoes, and ponytailed counter-culturalists. Real-estate agents proudly present copies to their clients once the deal is done and renovations are about to begin.

Alexander's ideas have also influenced fields far beyond architecture, from poetry to organizational management, but nowhere have they been of more consequence recently than in the world of computer software design. In the late 1980s, a few leading software engineers started using Alexander's definition of *pattern* (a three-part rule, which expresses a relation between a certain context, a problem, and a solution) as a blueprint for analyzing computer routines and sharing successful design patterns. He is said to have influenced Herbert Simon and other early

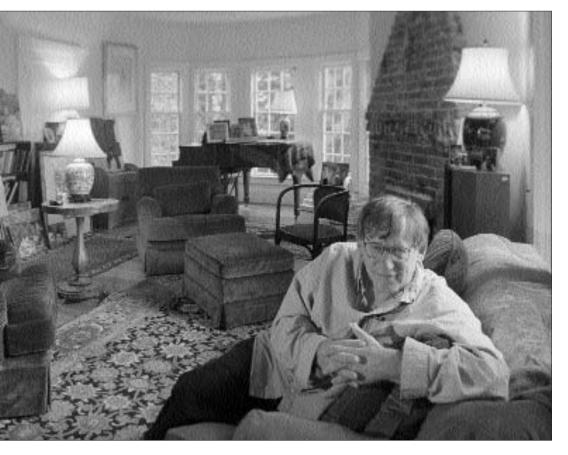*Alexander at home: a surprising intersection of theory and practice*

giants of computer science, and today labs at AT&T, Motorola, and Siemens use his ideas to train their designers, document ideas, and write new software. Techies avidly discuss Alexander's oeuvre on the Web.

Yet Alexander's own colleagues in the American architectural establishment will have nothing to do with him. After warmly embracing Alexander early in his career, his most natural audience has effectively air-brushed him out of its current canon. In the past 15 years, few undergraduate or graduate architecture programs have included *A Pattern Language*—or any of his other writings—in their syllabuses, and even those architects who have been influenced by his ideas are rarely willing to say so out loud. His critics dismiss him as a utopian, a messianic crank, and a contrarian who produces words instead of buildings. Although Alexander speaks with deep insight about some of the central questions of our lives, the gap between popular enthusiasm and professional antipathy for him is likely to widen over the next several months with the publication of his new four-volume opus, *The Nature of Order: An Essay on the Art of Building and the Nature of the Universe.*

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The son of two archaeologists, Alexander was born in Vienna in 1936 and raised in England. His soft voice still bears the traces of his Sussex upbringing, and he is almost self-effacingly polite. He graduated from Trinity College, Cambridge University, in 1958 with degrees in mathematics and architecture. He dismisses his architectural training; he "learnt nothing, thought it was absurd." But he went on to pursue a Ph.D. in architecture at Harvard University, and wrote a dissertation in which he attempted to introduce mathematics into architecture. Published as *Notes on the Synthesis of Form* in 1964, it received, in 1972, the first Gold Medal for research ever given by the American Institute of Architects.

Alexander observed in *Notes* that the typical design project faced by practitioners in

the building boom after World War II was becoming ever larger and more complex, and the results ever less satisfactory. Other architects responded that big problems simply required big architecture—ambitious innovations and entirely new mechanical solutions, such as people movers and prefabricated modular rooms. For Alexander, the problem was the architectural profession itself: Because architects avoided quantifying or rationalizing the way they made decisions, there was no standard by which to judge whether their buildings were successful. Instead of placing a traditional big bold entrance right on the street, for example, an architect designing an office building might disguise its main entrance by blending it into a glassy, repetitive structure. The decision would be defended as artistic inspiration, and people decades hence would have to live with an anonymous, disorienting building. Alexander was determined to eliminate uncomfortable designs that he saw as mere flights of artistic fancy.

Diagrams were the answer he proposed. After enumerating each of the requirements of a project—the need for southern light in a garden, the need for memorable public squares in a district—the designer would develop a series of diagrams describing the interrelationships among them. Then, in a spectacular high-tech twist (at least for 1964), the resulting algorithms would be fed into a computer for analysis. The product would be a kind of schematic showing the designer how and where the various parts of the project should fit together. As pure analysis, the idea was brilliant, addressing one of the most time-consuming steps in design.

Even in this early, acclaimed proposal, however, Alexander displayed one of the characteristic inconsistencies that have since come to infuriate his fellow architects: In order to create buildings of true individuality, perfectly suited to their purposes, he proposed to control methodically the individuality of their designers. Yet even as architects acknowledged the usefulness of his tool, Alexander himself began to move beyond it. Within a decade of the publication of

Notes, he had jettisoned his first theory of design on the grounds that it was too removed from the information anyone could glean from careful, plain observation of his surroundings. From 1963 through 1998, Alexander taught architecture at the University of California, Berkeley, and generated an almost constant flow of words to describe different components of his philosophy. The "complicated and formal" method he had proposed in *Notes* was "unnecessary," he wrote, because he had realized "you can create, and develop, these diagrams in the most natural way, out of your experience of buildings and design."

In 1967 Alexander, along with Sara Ishikawa and Murray Silverstein, established the Center for Environmental Structure. Ishikawa and Silverstein joined him, and three others, in writing *A Pattern Language*. Still going strong in the Berkeley hills, the CES is an independent nonprofit that functions as a design firm, a laboratory for testing Alexander's perceptions, and an intellectual launching pad for his ideas. (He maintains an active website, *www.patternlanguage.com.*) Nearby is Alexander's own home, a sunny, informal, 1920s structure adorned with plenty of comfortable chairs and strewn with mementos of his travels around the world.

At the CES, Alexander's single-minded focus has been on observing the natural and built environments, doggedly logging his observations, and distilling from them consistent underlying rules. Patterns of desirable relationships between windows and walls, entrances and streets, and neighborhoods and entire cities are deduced from his own, his students', and his CES colleagues' repeated observations of existing places they love. The best-known product of all this study has been *A Pattern Language*, a kaleidoscopic manual for transforming the world, complete with instructions for effecting the transformation.

The book contains nearly 1,200 pages of text, black-and-white photographs, simple hand-drawn diagrams, and the occasional table of experimental results. It works in conjunction

Alexander's Eishin School, Tokyo

with a subsequent volume called *The Timeless Way of Building* (1979), which elaborates the philosophy behind the more famous work.

In 253 individual lessons, or "patterns," *A Pattern Language* shows how to weave together a "language" of patterns to form everything from window seats to cities in ways that satisfy the human need for functionality and beauty. It breaks places down into component parts, such as fronts and backs, stairs and floors and windowsills, or roads and parking lots and stores. It then describes how to make a good rendition of each particular part and how to assemble the parts into a whole. The text speaks directly to "you," in plain language, about where closets should go in your house (between rooms, on interior walls) and where sports facilities should go in your town (scattered throughout, easily visible from the street). It's a book of architectural recipes.

Alexander manages, with astounding economy, to provide answers to problems in planning and building faced not only by architects but by anyone planting a garden or trying to make sense of the morning commute. His great skill is to speak plainly where others speak abstractly, to simplify where most of his colleagues perceive, and generate, only complexity.

The scale of what he considers runs from the minuscule (Pattern 201: "Waist-High Shelf") to the grand (Pattern 16: "Web of Public Transportation"). "Accessible Green" (Pattern 60) gives some sense of the variety: "People need green open places to go; when they are close they use them. But if the greens are more than three minutes away, the distance overwhelms the need." A logarithm is presented to prove the point: "Simple inspection of these data shows that while the probability measure, P, drops in half between one and two blocks. . . ." The solution is to supplement the few large city parks with many small greens, and Alexander and his coauthors provide simple specifications and cross-references to other useful patterns. The whole business requires only five pages. Problem solved.

Alexander's building-block approach demystifies design by making a building—or a city—understandable as simply the sum of basic parts. What's particularly engaging to Alexander's legions of readers outside the architectural profession is that his building blocks are not just bricks and mortar. Children and corner stores and sports and pets are equally elements to be considered in the design mix. A Sunday morning ritual such as reading the paper in a cozy kitchen

nook becomes an essential consideration of good architecture. No wonder this child of the 1960s has been compared to Martha Stewart, "with New Age metaphysics thrown in."

But Alexander's New Age notes are not just thrown in. They are an essential, paradoxical, maddening, and sometimes alarming element of his work. Describing the "timeless way of building" in his book of that name, he writes:

> It is so powerful and fundamental that with its help you can make any building in the world as beautiful as any place that you have ever seen.
>
> It is so powerful, that with its help hundreds of people together can create a town, which is alive and vibrant, peaceful and relaxed, a town as beautiful as any town in history. (italics in original)
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> Without the help of architects or planners, if you are working in the timeless way, the idea is that a town will grow under your hands, as naturally as the flowers in your garden.

One of the most apparent of Alexander's unavoidable contradictions is the deep devotion to romantic visions and utopian principles that exists alongside an equally persistent drive to quantify, prove, and universally pronounce "scientific" bases for his architectural prescriptions, just as Karl Marx labored to provide a scientific basis for his vision of a stateless society. Rigorous experimentation proves that his patterns and methods will work, Alexander insists. His commitment to absolute certainty and his tendency to issue commandments about freedom have earned him a label in some quarters as a New Age totalitarian. At the same time, his repeated claims that he can prove his increasingly metaphysical ideas are undercut by his oracular pronouncements. "When a building works," he declares, " the space itself awakens. We awaken. The garden awakens. The windows awaken. We and our plants and animals and fellow creatures and the walls and light together wake."

Where does one begin to argue with that?

Alexander's patterns have never been truly tested. Some of them (for example, rooms must have windows on at least two sides) are

so well known that they have become almost synonymous with his name, and most appear to make a good deal of sense. (Some, however, such as his thoughts on communal sleeping and bathing arrangements, are badly dated, or at least very culturally specific.) One could easily compile a list of wonderful spaces that violate any number of Alexander's pronouncements. Even within his beloved Alhambra, some of the most masterful and delicate domed rooms are all the more powerful for the minute amount of daylight entering through a single wall. At the University of Oregon, which hired Alexander as its master planner in the early 1970s, his work has been the basis for new building on the campus since 1974, with good effect. But the California Institute of Technology, another architecturally distinguished campus, has grown successfully over the same period as well—without Alexander's help.

If you are designing a house, *A Pattern Language* will undoubtedly help suggest all sorts of details to think about. But a creative architect can devise ways to satisfy your particular needs with the kind of individuality and style that Alexander never admits. In promoting his own ideal architecture and its "scientific" basis, he seems to pretend that artistry, invention, and personal style can be excised from the act of architecture. But, of course, his patterns and his examples of their use possess a style of their own: quaint, homey, and tending to the traditional. That style may appear as uncontroversial as family values, but to treat it as universal would be both naive and disingenuous.

What, then, so moves Alexander's readers—and so clearly makes a contribution to architecture? Given how much of our lives we spend in buildings of one type or another, we are all at least latent experts in architecture, and Alexander makes connections between places and the way they affect our experience of them that are unmatched. Alexander's confidence is thrilling. To realize his whole vision is beyond the capacity of any individual reader, but to focus on individual spatial solutions that appear eminently doable is not.

These qualities in his writing go far with both the Saturday morning crowd at Home Depot

and the organic foods set. Frank Lloyd Wright, for example, also wrote about how the mundane components of architecture should function. But you would be hard pressed to find much practical use for his ideas. Here he is on walls: "My sense of wall was not a side of a box. It was enclosure to afford protection against storm or heat when this was needed. But it was also increasingly to bring the outside world into the house, and let the inside of the house go outside. In this sense I was working toward the elimination of the wall as a wall to reach the function of a screen."

But Alexander's appeal derives from more than his commonsense approach. Many of his enthusiasts no doubt agree with him that artists, architects, and others sacrificed the common cause of beauty during the 20th century in the interest of more idiosyncratic, rarified pursuits. Alexander gets to the heart of everyday life in a way that dignifies the importance of our rituals and offers useful tools to support them. Say what you will about the vision behind it, *A Pattern Language* contains a vast supply of practical ideas and principles. Even its detractors concede that it is probably the most informative book on architecture ever written.

House for a Small Family

Few parents feel happy to give up the calm and cleanliness and quiet of the adult world in every square inch of their homes. To help achieve a balance, a house for a small family needs three distinct areas: a couple's realm, reserved for the adults; a children's realm, where the children's needs hold sway; and a common area, between the two, connected to them both.

The couple's realm should be more than a room, although rooms are a part of it. It is territory which sustains them as two adults, a couple—not father and mother. . . . The children come in and out of this territory, but when they are there, they are clearly in the adults' world. See COUPLE'S REALM (136).

The children's world must also be looked upon as territory that they share, as children, CHILDREN'S REALM (137); here, it is important to establish that this is a part of the house, in balance with the others. Again, the critical feature is not that adults are "excluded" but that, when they are in this world, they are in the children's territory.

The common area contains those functions that the children and adults share: eating together, sitting together, games, perhaps bathing, gardening—again, whatever captures their needs for shared territory. Quite likely, the common territory will be larger than the two other parts of the house.

Finally, realize that this pattern is different from the way most small family homes are made today. . . .

Even though there is a "master bedroom," the sleeping part of the house is essentially one thing—the children are all around the master bedroom. . . .

Therefore:

Give the house three distinct parts: a realm for parents, a realm for the children, and a common area. Conceive these three realms as roughly similar in size, with the commons the largest.

common area

parents' realm

children's realm

—From *A Pattern Language* (1977)

Christopher Alexander

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"When I wrote *A Pattern Language*," Alexander says, "I thought everything was going to be fine from now on, that this was going to solve the problem. It sounds so funny but actually it is what I thought." For all its achievements, *A Pattern Language* did not, according to its principal author, go far enough. "It's a very illuminating book I think, but it doesn't really put generative power in people's hands, not to the extent that I wanted to." He began working on *The Nature of Order* even before *A Pattern Language* was finished. For years, drafts of the work have circulated among his colleagues and admirers—unbound stacks of pages, curly edged and marked up with questions. Quotations have been traded among software designers—always eager for new tidbits from their guru—before a word was published. Although it sounds "immodest," Alexander thinks his new work will "change everything."

A Pattern Language boiled down the built environment into 253 patterns. *The Nature of Order* presents 15 basic "structures" that underlie the patterns and account, Alexander argues, for true beauty in every realm, from a person's face to a birthday party to a mountain stream. "Strong centers," "alternating repetitions," and "contrast" are a few of the properties that work together to produce the pleasurable sensation of beholding beauty.

Having solved what he describes as the "kind of straightforward" problem of what makes something beautiful, Alexander moves on to elaborate a "new, extended idea of truth" that follows from his solution. An ensemble of four individual 480-page treatises, *The Nature of Order* earnestly lays out the argument that "all space and matter, organic or inorganic, is more or less alive." Throughout the text, he asks repeatedly, "Which one has more life?" and invites the reader to compare photographs that may show two buildings, two rugs, or a chair and a Matisse painting. In every case, Alexander believes there is a discernible, living energy that we all innately perceive but have been "educated" by our overly mechanistic society to ignore. That energy contributes to a quality he calls "wholeness," which we experience as beauty.

Alexander speaks of his "squeamishness," at first, over following his logic to this overhaul of reality. He admits that the idea that everything is alive is "suspicious or potentially ridiculous." But he believes it, and as you too follow his straightforward explanation and his directions through numerous "proofs," you might just be charmed, at least for a moment, right into his alternate universe.

The implication of Alexander's new worldview is that a question such as "Is this house/artwork/city good or bad?" has a definitive answer. *The Nature of Order* is Alexander's resolution of his career-long struggle to eliminate any debate over style or personal taste. He has spent 35 years running himself and others through the same exercises of perception he presents in the book. The result, he argues, proves his conclusions about what is more-or-less beautiful, and shows why we should always pick the thing with the greatest amount of "life." Does that building, neighborhood, region, window, or roof detail have it or not? The more life, or "wholeness," an object, scene, building, garden, street, or region possesses, the better we will feel about it.

Book 1 of *The Nature of Order*, titled *The Phenomenon of Life*, describes the deep structures that account for life and explains how to recognize them. The subsequent three volumes explain, respectively, how to make life, how a world built according to Alexander's principles would look and feel, and how his theory can, in effect, repair the world. If all this sounds grandiose, it is, sometimes alluringly so. Alexander dives fearlessly into the depths of what accounts for beauty—and comes up with answers.

He proposes an objective basis for what we have taken, in the wake of the Enlightenment, as purely subjective. In his scheme of things, debate is no longer possible over the relative beauty of things—be they buildings or paintings, stage sets, or beaches. Alexander believes that the architectural profession has "gone bonkers" because it thinks that what's good and bad is merely a matter of opinion. His absolutism solves the problem. With beauty defined as "life," its alternative becomes death.

As in his earlier work, Alexander has arrived at this new theory—that the source of beauty is definable, and that it is based on the objective truth of our perceptions—through his own experience. As before, he believes he has proven his discovery, and he intends it to be a tool we all can use to create more beauty in our lives.

And what if our perceptions differ from his? Well, we're in the sway of misguided mechanical thinking. We're choosing death. Alexander's theory is based on one of his most problematic convictions—that "ninety percent of our feelings is stuff in which we are all the same and we feel the same things." At this point, you can't help but wish that Alexander's pragmatic side, his insistence on being "a very plain, down-to-earth person," had triumphed over his need to reveal The Truth.

It's not hard to see why Alexander has alienated so many of his fellow architects. The simultaneously intimate and all-knowing tone of his writing sounds unbearably condescending to practitioners who take pride in having invented some of their own solutions to the problems of architecture. "Chris is so passionate to discover the truth, he believes he has," comments a former colleague at the University of California, Berkeley. It comes as no surprise that Alexander is not tolerant of others' ideas. He has a reputation for fits of anger, showers of insults, and storming from rooms when opposed. "Chris's answer to my doubts about *The Timeless Way of Building*," recounted one of his former students "was to say 'Find out your psychological problem that prevents you from agreeing.' His technique is to attack one's motivation for questioning. And if there's anything that honest, intellectual inquiry is about, it's about *not* refraining from questioning."

Alexander wants a grand unified theory to solve problems, while architectural education has rewarded pure, idiosyncratic invention. One architect observes, "We *are* still in the reign of the individual architectural genius, who produces work that cannot be clearly explained or accounted for by anything that's gone before. To reduce the act of design to a series of rules or commonplace patterns is to

raise the curtain on the wizard."

In the last decade or so, alternative materials, technologies, and building practices have given life to a new ideal of sublime architecture. Santiago Calatrava's Milwaukee Art Museum, a filigree of bone-white joints gleaming at the edge of Lake Michigan, exemplifies the new ideal. Two wings composed of 72 fins act as a gigantic shading device, folding or rising in a gorgeous arc as sun and wind change course. Frank Gehry has convincingly proven in Bilbao that the power of a single, iconoclastic building can elevate an entire province. Although architects succeed all too rarely at Gehry's lofty level, Alexander's claim that any and all idiosyncratic, artistic architecture is unpleasing and absurd seems stubbornly provocative.

Alexander seldom acknowledges that many architects have been grappling with the same problems as he has, and for just as long. In her 1961 tour de force *The Death and Life of Great American Cities*, Jane Jacobs introduced her topic in language Alexander himself might have used. "This book" she wrote, "is an attempt to introduce new principles of city planning and rebuilding, different and even opposite from those now taught in everything from schools of architecture and planning." Her homage to the grass-roots wisdom of informal architecture, to untrained and impromptu acts of building, makes Jacobs and her many followers natural allies for Alexander. In a similar but more formal vein, Bernard Rudofsky mounted an important exhibition at the Museum of Modern Art in 1964 called *Architecture without Architects*. Most architects of Alexander's generation are united by an abiding debt to Rudofsky's photographs of the repetitive, anonymous buildings that compose medieval Italian hill towns, much of the built environment of the Greek islands, and long-inhabited ancient villages throughout the world.

Participatory design processes, similar in spirit to what Alexander says is his own ideal approach, were pioneered during the 1960s and '70s. And in their classic *Learning from Las Vegas* (1972), Robert Venturi, Denise Scott Brown, and Steven Izenour mounted a broad populist attack on the same rarified, aloof architectural practices that Alexander has condemned. Yet you would not know any of

this from reading him. He speaks like an oracle, and rarely hears the echoes in his own pronouncements.

In *The Linz Café* (1981), which chronicles his design and construction process for a building in Austria, Alexander writes that modern architecture constitutes "an absurd and ridiculous—often even immoral—preoccupation with a world of pretense and show, which almost no one believes in . . . but which goes on and on, year after year, as designers, architects, artists, and interior designers go on trying to impress one another, and themselves, with their new 'conceptions.'" He frequently voices the rather mystical conviction that architects only sully what is ideally an organic process.

But "just as doctors are responsible for the health of all people," Alexander matter-of-factly states, "architects are responsible for the health of all physical environments." The catalog of his own completed works, which he likes to describe as "user-designed," is not extensive. A handful of modest houses in the western United States, the campus of Eishin School in Tokyo, student housing at the University of Oregon, some galleries in England, and a shelter for the homeless in San Jose, California, constitute the better part of it. "So far," he admits "the effect of this work of mine and of my colleagues has been small."

One of the most powerful ways architects have of influencing others is publishing their work. Yet for all the photographs Alexander has published in his books and on his website, rarely does one see more than a single snapshotlike view of the inside or outside of each building. Although most of his photographs—often slightly blurred—successfully evoke a mood, they prevent any analysis or comprehension of how architectural components have been crafted to create this mood. Many of Alexander's houses, at least in his pictures of them, appear so ordinary, rough at the edges, even slightly haphazard, that if you passed one, you would most likely rule out the involvement of any architect in its design. In their improvised appearance, they strongly resemble the hodgepodge stone, half-timber, and clapboard houses of southern England, where he grew up.

Alexander aspires to set architecture in motion more than to control and explicitly predetermine its form. He often calls for other architects to engage his ideas. These invitations may be sincere but Alexander makes it difficult for them to oblige. Seldom does he supply an architectural plan or any other conventional method for "reading" his designs. Indeed, he does not believe buildings should ever be graphically represented, in drawings or models, in the course of their design; nor does he believe in the standard contract between client and architect or contractor. Like most architects, Alexander believes that architecture has the power to change people's lives. But he seems to require an entirely transformed world before he even begins to build.

Alexander is right to argue that there's a crisis in the way we're creating the built world today. He's right, at a time when only a small percentage of all buildings are designed by professional architects, to say that there's a crisis within architecture itself. And despite its utopian overtones, his vision—"We shall feel the same about our towns, and we shall feel as much at peace in them, as we do today walking by the ocean, or stretched out in the long grass of a meadow"—is not difficult to embrace as an ideal. Throughout his career, he has struggled with the question of how to generate authentic, functional, and wholesome environments not just for wealthy clients of architects but for anyone with an interest. The vast scale of most new development today seems to require ever less personal design. If Alexander's theory of beauty can help us to mass-produce beautiful new communities, he will have changed our lives.

With *The Nature of Order*, Alexander challenges us to reconsider what is "real." And yet, the rigid control he demands over how we apply his ideas makes testing them exceedingly difficult, if not impossible. Frank Lloyd Wright wrote essays and gave speeches, but it was his built projects, exemplified by Fallingwater, that changed the world. Alexander claims not to want to "write about philosophy or about the nature of things" but to learn "how to make beautiful buildings." He has a vision. But if we cannot experience his vision in built form, Alexander is bound to realize his greatest fear—that his ideas will remain pristine, whole, even beautiful, and on the printed page only. ❏