

**JOHN ORMSBEE SIMONDS
BARRY W. STARKE**



F O U R T H E D I T I O N

LANDSCAPE ARCHITECTURE

A MANUAL OF ENVIRONMENTAL PLANNING AND DESIGN



LANDSCAPE ARCHITECTURE

A Manual of Environmental Planning and Design

FOURTH EDITION

*Completely revised with emphasis on the shaping of a
better environment for living and the care of planet Earth*

JOHN ORMSBEE SIMONDS
BARRY W. STARKE

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LANDSCAPE ARCHITECTURE

This text is gratefully dedicated

To my teachers, whose gifts to all who would accept them were the open mind, the awakened curiosity, the discerning eye, and the compelling vision of that which is higher, wider, deeper, and greater—and worth the striving for . . .

To my students, who in thoughtful agreement or in lively dissent have proved a reverberating sounding board and provided a stimulating climate for discussion and research . . .

To my partners and colleagues in practice, for whom the planning of a better environment for living is a strong and vital compulsion . . .

And to lovely Marjorie, my wife, help, and inspiration.

John Ormsbee Simonds

This book is further dedicated to all landscape architects who, in the spirit of John Simonds, strive to make the world a better place; to my wife, Laurie, who supported me in the effort; to my office staff, who made the necessary adjustments; to my assistant, Susan, who personally adopted the cause; and to the people and firms who generously contributed their “Best in Show.”

Barry W. Starke

Prologue

On the afternoon of December 12, 2004, my phone rang, the caller ID read “John Simonds,” and a dreadful thought flashed through my mind. It had been several years since John and I had talked following two years of intense communication preparing for the American Society of Landscape Architect’s Centennial Celebration. John was not well at that time and I feared it was his family calling to say that John was gravely ill or had passed away. Following my hello, the sound of John’s voice engendered a sigh of relief and what he was about to say would shift my emotions from fear to total elation.

“Barry, would you consider working with me as the coauthor of the fourth edition of *Landscape Architecture*?” I couldn’t believe what I was hearing. Then another flash—a flashback to November 22, 1963. Most people who were old enough at the time remember this as the day John F. Kennedy was assassinated and, to a person, remember where they were and what they were doing at that time. On that day I was in the library at the University of California, Berkeley, completely absorbed in John Simonds’s first edition of *Landscape Architecture*. Of course, the assassination of John F. Kennedy was an event that touched everyone, but for me personally the impact that event would have on my life and career was clearly secondary to the one that John Simonds’s book would have on my future and future generations of landscape architects.

When John first published *Landscape Architecture* in 1961, it was before the digital revolution and modern methods facilitating the practice of the profession, including computer-aided design and Geographic Information Systems. However, what John presented in the first and subsequent editions of *Landscape Architecture* is as applicable today as it was when first published. John’s genius in communicating the principles of landscape architectural planning and design, through his writing, sketches, and shared words of wisdom of others, is indeed timeless and will no doubt help shape the next century as it has the last.

During the following months we exchanged ideas and worked on the fourth edition. John’s role was to complete the revised manuscript and mine was to review the manuscript, gather photographs—as John described “Best in Show”—of works of landscape architecture and related subjects to illustrate the book. He considered the writing of *Landscape Architecture* as his most significant professional accomplishment and, of course, working with John as coauthor has been one of the great honors of my career.

Then, on May 26, I received the phone call that I had feared the December 12 call to be. After a fall and a brief stay in the hospital, John returned home, where he passed away near family and friends. When John died, he had already finished the manuscript, leaving his wife Marj in charge of final editing. With renewed vigor and commitment to John's legacy—the legacy of one of the most influential landscape architects of the twentieth century—my work shifted into high gear and, as Marj likes to say, “the rest is history.”

Barry W. Starke

Foreword

Landscape Architecture has been written in response to the need for a book outlining the land-planning process in clear, simple, and practical terms. In a larger sense it is a guide book on how to live more compatibly on planet Earth.

It introduces us to an understanding of nature as the background and base for all human activities; it describes the planning constraints imposed by the forms, forces, and features of nature and our built environment; it instills a feeling for climate and its design implications; it discusses site selection and analysis; it instructs in the planning of workable and well-related use areas; it considers the volumetric shaping of exterior spaces; it explores the possibilities of site-structure organization; it applies contemporary thinking in the planning of expressive human habitations and communities; and it provides guidance in the creation of more efficient and pleasant places and ways within the context of the city and the region.

This book is not intended to explain all forms of the practice of the profession or to explicate the latest technology. Nor is it proposed that the reader will become, per se, an expert land planner. As with training in other fields, proficiency comes with long years of study, travel, observation, and professional experience. The reader should, however, gain through this book a keener and more telling awareness of our physical surroundings. The reader should also gain much useful knowledge to be applied in the design of homes, schools, recreation areas, shopping malls, trafficways . . . or any other project to be fitted into, and planned in harmony with, the all-embracing landscape.

This, at least, has been the express intent.

The work of the landscape architect
(architect of the landscape)
is to help bring people,
their structures, activities, and communities
into harmonious relationship
with the living earth—
with the “want-to-be” of the land.

The Hunter and the Philosopher

Once there was a hunter who spent his days tracking the wide prairies of North Dakota with his gun and dog and sometimes with a small boy who would beg to trot along.

On this particular morning, hunter and boy, far out on the prairie, sat watching intently a rise of ground ahead of them. It was pocked with gopher holes. From time to time a small striped gopher would whisk nervously from the mouth of his den to the cover of matted prairie grass, soon to reappear with cheek food pouches bulging.

“Smart little outfits, the gophers,” the hunter observed. “I mean the way they have things figured out. Whenever you come upon a gopher village, you can be sure it will be near a patch of grain where they can get their food and close by a creek or slough for water. They’ll not build their towns near willow clumps, for there’s where the owls or hawks will be roosting. And you’ll not be finding them near stony ledges or a pile of rocks where their enemies the snakes will be hiding ready to snatch them. When these wise little critters build their towns, they search out the southeast slope of a knoll that will catch the full sweep of the sun each day to keep their dens warm and cozy. The winter blizzards that pound out of the north and west to leave the windward slopes of the rises frozen solid will only drift loose powder snow on top of their homes.

“When they dig their dens,” continued the hunter, “do you know that they do? They slant the runway steeply down for 2 or 3 feet and then double back up near the surface again where they level off a nice dry shelf. That’s where they lie—close under the sod roots, out of the wind, warmed by the sun, near to their food and water, as far as they can get from their enemies, and surrounded by all their gopher friends. Yes, sir, they sure have it all planned out!”

“Is our town built on a southeast slope?” the small boy asked thoughtfully.

“No,” said the hunter, “our town slopes down to the north, in the teeth of the bitter winter winds and cold as a frosty gun barrel.” He frowned. “Even in summer the breezes work against us. When we built the new flax mill, the only mill for 40 miles, where do you think we put it? We built it right smack on the only spot where every breeze in the summer-time can catch the smoke from its stack and pour it across our houses and into our open windows!?”

“At least our town is near the river and water,” said the boy defensively.

“Yes,” replied the hunter. “But where near the river did we build our homes? On the low, flat land inside the river bend, that’s where. And each spring when the snows melt on the prairie and the river swells, it floods out every cellar in our town.”

“Gophers would plan things better than that,” the small boy decided.

“Yes,” said the hunter, “a gopher would be smarter.”

“When gophers plan their homes and towns,” the boy philosophized, “they seem to do it better than people do.”

“Yes,” mused the hunter, “and so do most of the animals I know. Sometimes I wonder why.”

LANDSCAPE ARCHITECTURE



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THE HUMAN HABITAT

People are animals, too. We still retain, and are largely motivated by, our natural animal instincts. If we are to plan intelligently, we must acknowledge and accommodate these instincts; the shortcomings of many a project can be traced to the failure of the planner to recognize this simple fact.

The Human Animal

Homo sapiens (the wise one) is an animal (a superior type, we commonly assume, although neither history nor close observation altogether support this assumption).

A human standing in the forest, with bare skin, weak teeth, thin arms, and knobby knees, would not look very impressive among the other creatures. As an animal, the bear with powerful jaws and raking claws would clearly seem superior. Even the turtle seems more cunningly contrived for both protection and attack, as do the dog, the skunk, and the lowly porcupine. All creatures of nature, upon reflection, seem superbly equipped for living their lives in their natural habitat and for meeting normal situations. All except the humans.

Lacking speed, strength, and other apparent natural attributes, we humans have long since learned that we can best attack a situation with our minds. Truth to tell, we have little other choice.

Intelligence, by one definition, must be the ability to respond adaptively to the environment—that is, the ability to plan a course of action based upon information gained through the senses.

John Todd Simonds

We alone of all the animals have the ability to weigh the factors of a problem and reason out a solution. We are able to learn not only from our own experiences but also from the disasters, the triumphs, and the lesser experiences of untold thousands of our fellows. We can borrow from and apply to the solution of any problem the accumulated wisdom of our species.

Our essential strength—the very reason for our survival and the key to all future achievement—is our unique power of perception and deduction. Perception (making oneself aware of all conditions and applicable factors) and deduction (deriving, through reason, an appropriate means of procedure) are the very essence of planning.

Down through the dim, chaotic ages, the force of the human mind has met and mastered situation after situation and has raised us (through this planning process) to a position of supremacy over all the other creatures of the earth.

We have, in fact, inherited the Earth. This vast globe on which we dwell is ours, ours to develop further, as an agreeable living environment. Surely, we, with our twinkling minds, should by now have created for ourselves a paradise upon this earth.

Have we? What have we done with our superlative natural heritage?

We have plundered our forests.

We have ripped at our hills and laid them open to erosion and ever-deepening gullies.

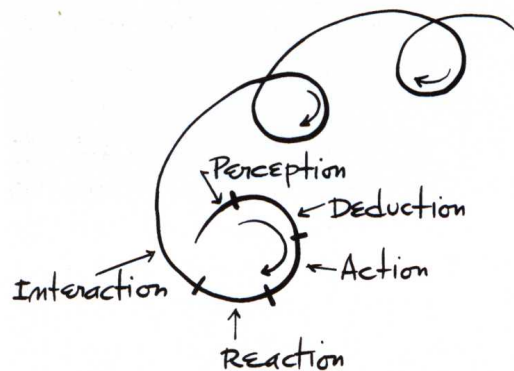
We have befouled our rivers until even the fish and wildlife have often been killed or driven off by the stench and fumes.

Our trafficways are lined with brash commercial hodgepodge and crisscrossed with senseless friction points.

We have built our homes tight row on dreary row, with little thought for refreshing foliage, clean air, or sunlight.

Looking about us with a critical eye, we find much to disturb and shock us. Our cluttered highways, sprawling suburbs, and straining cities offend more often than they please.

We are the victims of our own building. We are trapped, body and soul, in the mechanistic surroundings we have constructed about ourselves. Somewhere in the complex process of evolving our living spaces, cities, and roadways, we have become so absorbed in the power of machines, so absorbed in the pursuit of new techniques of building, so absorbed with new materials that we have neglected our human needs. Our own deepest instincts are violated. Our basic human desires remain unsatisfied. Divorced from our natural habitat, we have almost forgotten the glow and exuberance of being healthy animals and feeling fully alive.



The thought processes of perception-deduction are in turn implemented by the physical processes of action, reaction, and interaction. These five dynamic drives form ever-repeating cycles and spin the intricate webbing of all human life.

And what is man? Amongst other things he is an organism endowed with a multiple organ, the brain, supported by the senses and the glands, in which the formative property of organic processes is applied to the memory records of experience. The brain orders its own records, and all mental processes express this basic activity. Art and science, philosophy and religion, engineering and medicine, indeed all cultural activities are based on the ordering of experience and the exploitation of the resulting design.

Lancelot Law Whyte