In her introductory biographical note, architect Nili Portugali describes her early and unsatisfactory encounter with the quantitative methodologies of late 1960s' architecture and planning: 'The projects that grew out of this basically mechanistic methodology met the physical and social needs of their users, but only partially answered their emotional and spiritual needs'. Her subsequent studies at the Architectural Association in London weren't much of an improvement: 'I found a school where the main theme in teaching architecture was conceptual... man's environment was conceived as a mere metaphor for science fiction, completely ignoring and even belittling anyone who tried to speak about the emotional–human experiential relations between man and place'.

As the philosopher A.N. Whitehead observed, 'as we think, we live'. Portugali was witnessing the essentialist mode of thought of the Western philosophical tradition that began with Plato and Aristotle, and that left a recognizable mark on designers and planners of the 1960s. As late Enlightenment modernists, they sought to create orderly, rational, structures grounded in the essential categorical nature of things. Within these categorically correct structures, human experience could take its place, like water flowing into elegant, well-crafted vessels. As designers we didn't have to be too concerned with that experience, except as an incidental and rather mysterious visitor after the fact.
Phenomenologist philosophers like Edmund Husserl and Martin Heidegger turned that essentialist quest on its head, and looked inductively for clues to the comprehensible processes that give rise to experience. It is from experience, after all, that all knowledge arises in the first place. All else is supposition and deduction from this *a priori* condition. So a true science will necessarily begin with experience, and then look to understand the structures that occur from there. From that understanding, useful lessons can be drawn about how to generate desired outcomes more successfully.

Like the phenomenologists of philosophy, Portugali decided to turn away from the neat conceptual world of the planners, and look inductively for useful insights in the phenomena of user experiences. What is it about the human environment that consistently gives rise to the experience of certain human feelings and experiences? How can we understand the structures that do this, and the processes that created them? How can we, as designers, find reliable processes and rules to create them ourselves? I kept searching for a way to design new towns, villages, buildings or gardens with the same soul and heart-touching quality we experience in the various places we really love and want to come back to again and again. I took photos and tried to record and understand the visible structures of those organic places, using them as a model for the new projects I planned. The outcome made me understand that no place is independent of the reality to which it belongs, and that planning a new environment with that desired quality involves not just an application of an existing model, but a deep understanding of the *rules and processes* that led to its creation.

When Portugali went to study with Christopher Alexander at the University of California in Berkeley, she was gratified to find in him a fellow phenomenologist. Alexander, too, had begun his career with a strong focus on quantitative and sequential processes – notably in his first book, *Notes on the Synthesis of Form* – but with his training as a physicist, he was also well aware of the hot topic of *holism* in science: the simultaneous interaction of many variables.

Holism has a gauzy, pseudo-scientific association, which is unfortunate: it has proved itself a very useful structural concept. Portugali notes that holism, and its close corollary organism, are part of ‘a worldview which stands in recent years at the forefront of the scientific discourse as a whole (in disciplines like cosmology, neurobiology, psychology, particle physics and brain sciences, and is linked to recent theories of complexity)’. It happens to resonate strongly with elements of Buddhism, as Portugali also discovered – a fact that puts her in the company of Robert Oppenheimer and Werner Heisenberg, as much as Oliver Stone and Richard Gere.

Portugali's text could benefit from a more complete explanation of holism and phenomenology, and the sense in which she uses those terms. But it is hard to fault her much for this: after all, hers is not a work of philosophy, but a case study of a particular approach to architecture, and the real aim is to present the work and discuss its evolution. She does this in great detail. Indeed, next to the verbiage of many architectural monographs, hers is clear enough.

As she outlines, holism is really nothing other than the recognition that structure is not only a collection or combination (or replication) of constituents, but a distinct pattern of interrelations between them. As Jane Jacobs wrote in her 1961 classic *The Death
and Life of Great American Cities, quoting Dr. Warren Weaver: What makes an evening primrose open when it does?... What is the description of aging in biochemical terms?... What is a gene, and how does the original genetic constitution of a living organism express itself in the developed characteristics of the adult?... [These] are all problems which involve dealing simultaneously with a sizable number of factors which are interrelated into an organic whole.  

And yet, as Jacobs argued, the methods of planners up to that time consistently misunderstood this characteristic aspect of 'the kind of problem a city is'.

Alexander, too, argued eloquently for a more holistic approach to architecture, and advanced a detailed theory for its application in a modern technological context. As Portugali notes, it was a theory of how parts relate to wholes – how they work together to create an overall balance and harmony. His was not merely an armchair theory, but a theory of how to carry out these processes: ...my close study of his work and research, made me realise, this time in a clear and implementable way, what lies behind the harmony in architecture, and what operative processes lead to its implementation.

Perhaps surprisingly, Portugali describes her approach as 'pure functionalism'. But it is a functionalism derived from the whole, not from an atomic collection of parts. Drawing on analogies to Shaker buildings, Buddhist philosophy and other sources, she describes the fundamental difference between collections and assemblies of fragmented parts, and the process of differentiation.

This notion of differentiating from an existing condition – of transforming an existing whole – is key to Portugali's design method, and Alexander's. 'The process of creation has to be inspired by what is already there, and our task as artists or architects is to discover, identify and revive those visible and hidden forces', she says.

In the pages that follow, Portugali lays out a remarkably diverse set of projects: public buildings, mixed-use commercial projects, private houses, and community master plans, spanning urban and rural conditions, homes for wealthy, and high-density housing for those of modest income.

It is notable that Portugali's work cannot in any sense be classified as 'historicist'. It does not refer to any particular style, nor does it include the mix of stylistic elements that architectural critics love to hate – the dreaded 'pastiche'.

And yet, neither is it obsessed with invention and constant newness. There is an ordinariness about it, a familiarity, and yet a sense of uniqueness, striking beauty and dignity too. It does not seem too concerned with being 'of its time', date-stamped as fashionably current.

Portugali notes that she does not try to reconstruct the past, nor does she try to avoid re-creating it. Rather, she simply follows the patterns that are appropriate for a site and context, which are often the same ones that have been appropriate in the past, and are likely to be appropriate in the future. This is how she hopes to meet the ultimate test of architecture, the test of time. It is in these patterns, and not any particular
attempt at style, that the buildings find their accommodation to a particular physical and social context, and form a genuine tradition.

For many architects, accustomed to dazzling new approaches and marketable 'branding', this is rather hard to understand. It is tempting to dismiss such architecture as too ordinary, too unremarkable. And yet, what is truly profound and powerful in our lives – the sun, a forest, a beautiful view – these things, too, are, by conventional standards, ordinary and unremarkable. And yet, for people living their lives – as opposed to architects trying to impress one another, or grab the attention of the market – these are surely the things that really matter.

This is Portugali's (and Alexander's) humanist design philosophy: insistent that technology, of whatever time and place, must above all be the servant of human well-being. To assert that the technology of a particular time must be given priority to express itself, is simply to assert that this technology should take precedence over human life – an inversion of the proper relation of tool and user, technology and humanity.

There is in this sense a universality to Portugali's work that is in one sense unremarkable and in another, in the context of so much contemporary architecture, radical and revolutionary. Together with other former students of Alexander, and other like-minded practitioners around the world, Portugali's quiet revolution may be the one that passes the ultimate test of time.

Notes

1 Page 9.

2 Page 10.


4 Portugali, p. 12.