

TIMES OF CREATIVE DESTRUCTION



SHAPING BUILDINGS AND
CITIES IN THE LATE C20TH

ALEXANDER TZONIS AND LIANE LEFAIVRE



Times of Creative Destruction

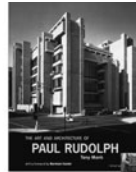
Times of Creative Destruction is about the years that followed the end of WWII, one of the most seminal and dramatic epochs in human history, during which extraordinary star-buildings were born, cities exploded, and an unprecedented world of a 'Third Ecology' emerged. Never before was there such a flurry of daring mega-constructions, 'star' buildings by star architects attained by star developers, along with technological feats, and flourishing spatial acrobatics. But, for all its exhilarating creativity, this was also an era of unanticipated, intractable, irreversible destruction, reducing the uniqueness and diversity of cultural, social and ecological peaks and valleys of our world to a 'desert flatland', environmental inequality and unhappiness.

This book critically discusses and reevaluates these contradictory events, bringing together and commenting on a selection of shorter key texts by Tzonis and Lefavre, the product of a rare research and writing partnership. The works, published between the early 1960s and the present, are significant as documents that inform about the period. They are also important and timely because of their critical and influential role in the debates of this era, both creative and destructive.

Alexander Tzonis is Professor Emeritus at the University of Technology Delft. He was educated at Yale University and taught at Harvard University between 1967 and 1981, at the College de France and at Tsinghua University. Among his publications are, *The Shape of Community* (Penguin, 1972) with Serge Chermayeff, *Towards a Nonoppressive Environment*, (1972).

Liane Lefavre is Professor Ordinaria (retired) at the University of Applied Art in Vienna. Her books include *Leon Battista Alberti's Hypnerotomachia Poliphili* (MIT Press, 1996) and *The Child, the City and Power of Play* (Tsinghua University, Beijing, 2010).

Among the books Lefavre and Tzonis authored together are *Classical Architecture* (1986), *Emergence of Modern Architecture* (Routledge 2004), and *Architecture of Regionalism in the Age of Globalization, Peaks and Valleys in the Flat World*, (Routledge, 2011).





This page intentionally left blank

**Alexander Tzonis and
Liane Lefaivre**

**Times of Creative
Destruction**

Shaping Buildings and Cities
in the late C20th

First published 2017
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2017 Alexander Tzonis and Liane Lefaivre

The right of Alexander Tzonis and Liane Lefaivre to be identified as author of this work has been asserted by her in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data

A catalog record for this book has been requested

ISBN: 9781472476449 (hbk)

ISBN: 9781315550916 (ebk)

Typeset in Frutiger and Galliard
by Florence Production Ltd, Stoodleigh, Devon, UK

Cover photograph: Harvard Stadium Stairs, April 1969, photograph by Li Chung Pei

Contents

<i>Illustrations</i>	<i>ix</i>
<i>Preface and acknowledgements</i>	<i>xi</i>
Introduction	1
Times of creative destruction	
1963 Alexander Tzonis, 'Search for a new urbanity: commentary'	23
1967 Alexander Tzonis, 'Structure and randomness in museum architecture'	28
1967 Alexander Tzonis, 'Lobbies. Ambiguous voids in the urban fabric.'	31
1967 Alexander Tzonis, 'Ideological architecture. The Obsolescence of Egyptian tomb style at the time of technological catacombs'	34
1969 Alexander Tzonis, 'Letter from Harvard'	42
1969 Alexander Tzonis, 'Transformations of the initial structure'	44
1969 Alexander Tzonis, 'The last identity crisis in architecture'	54
1975 Liane Lefaivre and Alexander Tzonis, 'The populist movement in architecture'	76
1974 Liane Lefaivre and Alexander Tzonis, 'The mechanical vs. divine body. the rise of modern design theory in Europe'	94
1977 Alexander Tzonis and Liane Lefaivre, 'Sentimental geometry and the therapeutic landscape'	102
1978 Alexander Tzonis and Liane Lefaivre, 'The narcissist phase in architecture'	109
1981 Alexander Tzonis and Liane Lefaivre, 'The grid and the pathway'	123

1984	Alexander Tzonis and Liane Lefaivre, 'The question of autonomy in architecture'	131
1989	Alexander Tzonis, 'The bastion as mentality'	146
1990	Liane Lefaivre, 'Eros, architecture and the hypnerotomachia poliphili'	153
1990	Alexander Tzonis, 'Huts, ships and bottleracks: design by analogy for architects and/or machines'	164
1990	Liane Lefaivre, 'Dirty realism. Making the stone stony'	173
1991	Liane Lefaivre and Alexander Tzonis, 'Lewis Mumford's Regionalism'	181
1992	Alexander Tzonis and Liane Lefaivre, 'Planning and tomatoes'	189
1996	Alexander Tzonis and Liane Lefaivre, 'Skin rigorism'	197
1998	Liane Lefaivre and Alexander Tzonis, 'Beyond monuments, beyond Zip-a-tone, into space/time: Shadrach Woods's Berlin Free University, a humanist architecture'	208
1999	Alexander Tzonis, 'Pikionis and transvisibility'	222
2001	Alexander Tzonis, 'Is architecture entering Le Collège de France?'	232
2002	Alexander Tzonis, 'Community in the mind. A model for personal and collaborative design'	240
2005	Liane Lefaivre, 'Puer ludens'	254
2013	Alexander Tzonis and Liane Lefaivre, 'Region making'	262
2015	Liane Lefaivre and Alexander Tzonis, 'Putting on a pretty face'	276
	<i>Conclusion</i>	281
	<i>List of publications whose covers were used for the design of the Frontispiece composition</i>	283
	<i>Index</i>	285

Illustrations

Frontispiece Stream of publications that contain articles by Tzonis and Lefaivre. Design by Marta Rota

1	Paul Rudolph building drawing, 1962	8–9
2	Louis Kahn, Philadelphia Plan, 1953	10–11
3	Tzonis's project for social housing for refugees from Asia Minor in Dourgouti, Athens. Existing shack, Greek government project, end of 1950s	20
4	Model of Tzonis's Dourgouti project, 1963	21
5	Tzonis-Chermayeff, page from joint notebook c.1966	22
6	<i>Novum Organum</i> cover, 6 January edition, 1969	41
7–15	Whole-page reproductions of all pages of Tzonis's article 'Transformations of the Initial Structure', <i>Perspecta</i> 12, 1969	45–53
16–30	Whole-page reproductions of all pages of Tzonis's article on 'The Last Identity Crisis of Architecture' for <i>Connection</i> , 1969	55–69
31	Giancarlo De Carlo, Urbino, plan analysis	72
32–33	From 'The Bastion as mentality', Francesco di Giorgio Martini drawings of bastions from 'trattato ottavo', Codice Magliabechiano, Florence, Biblioteca Nazionale (62v-61v)	144
34–35	Leonardo da Vinci's 'Visual Pyramid' and 'shadow pyramid'	145
36–37	Le Corbusier conceptual diagrams and Tzonis's analysis	162–163
38–43	From 'Beyond Monuments', Split, Toulouse – Le Mirail, Frankfurt, Berlin, Zip-a-tone	205–207
44	Drawing of the Path by Dimitrios Pikionis early 1950s	223
45	Photo of the Path by Dimitrios Pikionis early 1950s	223
46–47	Playgrounds designed by Aldo van Eyck	253

This page intentionally left blank

Preface and acknowledgements

There is an aura of unavoidable ambiguity over the text of this book. It is a book of current architectural history, about events that happened over the past half century but, at the same time, it is the authors' account of their lives, writing and researching in a rare collaborative partnership, not only as observers and passive reviewers of these years but also as active participants. For this reason, in the book the authors do not appear as 'I' or 'we' but as Tzonis and Lefaivre, perhaps a weak way of asserting their dual role.

This book assembles a selection of their writings published in Europe, North America, South Africa, Israel, Japan and China in major international academic and professional journals, leading art magazines, introductions or contributions to collective publications and conferences.

Why this title? Why is 'creative destruction' associated with architecture? Of all human products, architecture has been traditionally referred to as the most serene and stable, perhaps even frozen. On the other hand, from the last century onwards, this traditional view has been changing. Architecture has been increasingly allied with creative energy, firing forms of supreme verve and inciting new ways of living. But the same creative architecture has also been associated with destruction. Destruction in this context is not meant in the sense of 'urban renewal', which knocks down small or ageing buildings to replace them with new, vigorous (and more profitable) ones, a practice widely known since the times of Haussmann that confirms the dictum that destruction (in its most extreme form war) is the 'father of all things'. What is meant here by destruction is the universal, irreversible flattening of human and natural worlds, a catastrophe affecting structures and infrastructures, ways of living, social emotions and ties. It ruins the very resources that sustain life. In return, it promises nothing but a desert.

This is a highly hypothetical 'prophecy'. History and criticism have a humbler job. Bringing together these texts and linking them along a reflective path may make visible connections that others do not see. History and criticism may thus enable the grasping of patterns and forces that control and propel the fatalistic 'creative destruction' development, whether it is born of design or happenstance. Perhaps history and criticism may bring to light some of the creative ideas of the past which, although they had tremendous potential to improve architecture and stem the destructive forces at work within it, have been left unfinished or suppressed.

Conceivably, history and criticism can help find ways to arrest the blind process of 'creative self-destruction' carried out by architects, developers and clients by bringing some critical planning into our future times.

The book contains a collection of documents written since the 1960s and the historical path that links them. Our special thanks go to colleagues and friends who have helped with this book as well as those who inspired and supported us in our long-term project:

Serge Chermayeff, Jacqueline Tyrwhitt, Rickie Washton, Donald Watson, Jerzy Soltan, Shadrach Woods, Giancarlo De Carlo, Bob Maltz, Ed Barnes, Stuart Wrede, Manfred Ibel, Peter Papadimitriou, Mary Otis Stevens, Lucius and Annemarie Burckhardt, Geert Bekaert, Etienne de Cointet, Jean-Pierre Halevy, Jean-Pierre Lesterlin, Jean Zeitoun, Bruno Fortier, André Schimmerling, Jacques Guillerme, Stan Anderson, James Ackerman, Richard Pommer, Gerhard Fehl, Anthony Alofsin, Gerald McCue, Richard Hatch, Eugenio Battisti, Eduard Sekler, Luis Fernandez Galiano, Juan-Antonio Fernandez-Alba, Orestis Doumanis, Marvin Malecha, Toshio Nakamura, Richard Ingersoll, Sebastiano Brandolini, Aldo van Eyck, Leo Oorschot, Anthony Tischhauser, Jean-François Drevon, Catherine Cooke, Cesare de Seta, Jacques Le Goff, Rick Diamond, Mohsen Mostafavi, Liangyong Wu, Kongjian Yu, Wang Lu, Wang Shu, Li Xiaodong, Philip Bay, Hoang-El Jeng, Heng Chyekiang, Zhang Li, Michael Levin, Wytze Patijn, Valerie Rose, and Joeri Van Ommeren. Many thanks to Li Chung Pei for the permission to use his April 1969 photograph. We are grateful to Sade Lee, our editor, for insightful advice and most effective support.

We also thank Marta Rota, who curated the archive of our writings, the source of this selection, and advised on the cover and visual structure of the book.

Introduction

The years that followed the end of World War II were among the most creative and dramatic in human history. Extraordinary buildings were born, cities exploded and an unprecedented world of a 'Third Ecology' emerged, an ecology forcing together indivisibly the natural and the artificial. Never before had the world experienced such an upsurge of seminal design and innovative mega-constructions, of technological feats and flourishing spatial acrobatics. Yet, for all its exhilarating creativity, this was also an era of unique destruction, unanticipated, intractable and irreversible, that obliterated the quality of the cultural, economic, social and ecological environment.

Architectural movements and theories related to such crucial periods are usually thought to take form in books. But periodicals, journals and general public magazines have been just as important. One could argue that the ideas of modern architecture were actually born, incubated and challenged for the first time in periodical publications such as *Mercure de France*, *Mémoires de Trévoux*, *Gazette de France* and *Journal des sçavans* in the seventeenth and eighteenth centuries in France, which was at the forefront in modern times. Ever since, on both sides of the Atlantic, in Japan and, more recently, in China, publications in journals, like stepping stones, marked the trail of new thinking in architecture.

To recount and reevaluate these contradictory events, a selection of critical texts by Tzonis and Lefavre, issued in such periodical publications between the early 1960s and today, have been brought together. They are the product of a rare research partnership, published and debated during this period.

The selection was made from an original list of over 400 articles that appeared originally in a number of publications, among them: *Arts Magazine*, *Art Voices*, *Perspecta*, *Connection*, *Novum Organum*, *Deutsche Bauzeitung*, *Le Carré Bleu*, *Bauwelt*, *Progressive Architecture*, *DMG-DRS Journal*, *Journal of the Society of Architectural Historians*, *Journal of Architectural Education*, *Papers by the Faculty of the Department of Architecture of Harvard University*, *Dix-Huitième Siècle*, *Harvard Architectural Review*, *Bouw*, *Cultures – UNESCO*, *Architectural Design*, *VIA*, *Arquitectura y Vivienda*, *Arquitectura Viva*, *Design Book Review*, *Archithèse*, *A+U*, *Casabella*, *ARCH+*, *Spazio e Società*, *Le Moniteur Architecture AMC*, *Harvard Design Magazine*, *Frontiers of Architectural Research*, *Journal of the National Academy of Art, China*.

Concerning the structure of this book, there are no chapters. The articles written over the years are presented in chronological order. Rather than following chapter divisions, the book situates them along the geopolitical, social, economic and cultural path of the creative and destructive times since the early 1960s. This means that the articles become stepping stones, as it were, linked together by an unbroken, sweeping narrative flow, relating a process of creative destruction more than half a century long, from the early 1960s until today. The heading for this part of the book is 'Times of Creative Destruction. The early 1960s until now'.

The period covered here, indeed, stretches from the early 1960s to the present. The opening article, Tzonis's 'Commentary', an aphoristic, critical statement by a graduate student at Yale, was written in 1963. Like several manifestos at that time by the younger generation, it found fault with 'establishment' architecture, freewheeling and plan-less in the US, bureaucratic and state-controlled in Europe, both seen as destructive of the environment, 'place' and community.

This realization came as a surprise following the massive construction and unprecedented reconstruction activity that together with the miraculous economic growth was changing the face of the earth, coming soon after the end of World War II, when humanity had emerged out of a struggle that had annihilated millions of people and destroyed masses of structures and infrastructure. However, during this creative period, place and community were ruined and there was serious environmental and social damage that led the younger generation to complain bitterly that the much-publicized post-war 'miracle' and its vast building work did not contribute to 'increasing happiness'.

What went wrong? What went right? How and why? These questions are bound up with the evolving tension at the core of creative destruction. They will re-emerge during the overall period covered here, when creativity, construction and growth were regularly followed by destruction and the rolling back of progress – and vice versa.

Among the major developments the book dwells on are the reactions to the negative effects of 'planned', 'reconstruction' and 'urban renewal', the vanishing 'community' and 'place' and the emergence of the issue of 'alienation' in the post-war projects. The book discusses the impact of the new concepts of 'randomness', 'open' design and 'systems' in architecture, urbanism and aesthetics, arguing that buildings, built-complexes and any art form should not be seen and treated as isolated fragments but as components of an overall urban tissue. The advent of 'ground-up' opposition to elitist design, the 'populist' movement, 'self-help' and 'participatory' and 'counterculture' design of the late 1960s are analysed and assessed in a broader socio-economic framework and the impact of the state's fiscal crisis on architecture and planning. The critical discussion addresses the unexpected turn to elitism, postmodern and anti-modern

design, the decline of socially engaged rationalist architecture and planning and engagement with broader technological or moral issues, followed by the regression to professional 'narcissism', the rise of the movements of design 'autonomy' and 'dirty realism'. The analysis of the more recent events deals with the effect of globalization and privatization of the human-made environmental phenomena enforcing inequality, far removed from the ideas of 'planning', 'system' and 'place'. Finally, the book discusses the massive decline of environmental, social and cultural quality and the reaction to these developments through the movement of 'critical regionalism' and the tendency for a return to the idea of planning, place and community.

This page intentionally left blank

Times of creative destruction

The early 1960s until now

By the early 1960s, when negative reactions to post-war architecture and urbanism began to rise, one remarkably critical voice, surprisingly, was President Kennedy's.

In our time, the accession to power of world leaders is not generally significant from the point of view of design. This was an exception, however, brought on by the urban crises of the time. Soon after his inauguration, Kennedy delivered a 'Special Message to the Congress of the United States' on 9 March 1961, dedicated to 'Housing and Development', clearly assuming a radical stance that had been abandoned by government administrations since Roosevelt's death. Among the surprising policy points he made that day, he attacked the 'the present patterns of haphazard suburban development' in the US that he saw as 'contributing to a tragic waste in the use of vital resource now being consumed at an alarming rate' and pointed to the 'encroachment of blight and slums' due to undue speculation. He argued that what was needed was a 'comprehensive metropolitan or regional development' for 'effective nerve centres' in order to reshape the 'eroding central cities' and to shift approach to urbanism away 'from slum clearance to slum prevention, to conservation and rehabilitation of existing residential districts'. He announced a national housing policy for achieving 'a decent home and suitable living environment for every American family' and juxtaposed the ideal of community with the current condition of 'blight and decay,' urging for laying 'the foundations for liveable, efficient, and attractive communities of the future'. A memorable phrase clinched his speech: 'Our communities are what we make them. We as a nation have before us the opportunity – and the responsibility.'

Remarkably, the speech also pointedly criticized the poor state of knowledge related to these urban issues in universities. 'We have lagged badly in mobilizing the intellectual resources needed to understand and improve this important sector of our civilization,' he wrote. Noting that 'the problems related to the development and renewal of our cities and their environs have received comparatively little attention in research and teaching,' he pledged 'long-term federal commitment'.

Many of the views aired in Kennedy's speech had already been spelled out before the elections by critics, a few professionals and young academics. Harvard scholars, in particular Charles Haar, who had a joint appointment between the Design School and the Law School, were, directly and indirectly, important policy shapers. Kennedy's talk also echoed a number of writings that had taken a critical stand against 'establishment' approaches to the built and natural environment by Jane Jacobs, Michael Harrington, Kevin Lynch, Serge Chermayeff and Rachel Carlson. All were dealing with the social and physical quality of the environment, the ecological crisis and 'community'.

But Kennedy, more than anyone else, succeeded in bringing to the fore the mounting anxieties and disapproval of a growing distressed general public about the condition of the environment, a public that asked for new ideas and action. Years later, in 1993, Alan Temko, in his book *No Way to Build a Ballpark*, recalled 1962 as the time Americans became aware that 'suddenly the country was being ruined before our eyes, smashed, raped, poisoned, stunk up and not least disfigured by inhumane and even hideous buildings'.

Kennedy had good reasons to complain about 'the problems related to the development and renewal of our cities and their environs' having 'received comparatively little attention'. Most of these burning issues could not have been more at odds with the mainstream nonchalant point of view of the architecture profession. Revealing in this light is a series of three issues of the leading American professional journal *Progressive Architecture* (March, April and May 1961). Thomas H. Creighton, the editor of the journal, organized an annual Design Award Program and subsequently put together a virtual symposium entitled the 'Sixties, the State of Architecture'. The participants of the symposium considered projects produced during the second half of the 1950s by leading US architects, such as Manure Yamasaki, Eero Saarinen, Edward Durrell Stone, Philip Johnson, Paul Rudolph and Walter Gropius, and came to the conclusion that, since there was no overall direction that characterized them, the situation was 'chaos'.

For several architects, including Philip Johnson, chaos expressed the flight from the 'prison house' of the so-called Miesian 'functionalist box', typical of a great part of post-war architecture. But Johnson went one step further from simply denouncing functionalism. He declared that 'the only principle that I can conceive of believing in is the Principle of Uncertainty' – a remark opening the door to a freewheeling architecture, hardly constructive for a country facing urban and environmental crisis.

The idea of the 'chaos' of the 1950s was a concept that legitimized self-promotion through a belief in architecture for architecture's sake rather than as a 'social art', as many architects believed during and after World War II. It became

the driving force behind the formation of the self-proclaimed 'Procrustes Club'. Its credo was that architects could feel free, like the legendary Procrustes himself, to stretch or chop the client's specifications to fit the iron bed of an architectural idea, independently of the requirements of the project. Openly elitist and outspokenly anti-functionalist, the 'club', which in fact was a small informal group of architect friends, one of whom was Philip Johnson, was influenced to a great extent by Sigfried Giedion's call of 1943 asking for a new 'monumentality,' that disregarded functionality and social needs – despite Giedion's assurances that he supported social architecture – and that rejected the role of architecture not only in maintaining the quality of the physical environment but also in respecting the resources and cultural values of the region.

Given the fast-improving conditions of the US, several American architects and schools of architecture in the 1950s became sympathetic to the Procrustean doctrine and most education institutions remained cut out of the new problems that the human-made environment presented. However, most of them remained rather pluralistic.

Typical is the case of the Yale Department of Architecture. Paul Rudolph had been part of the Procrustean circle. In 1958 he was appointed chairman of the Yale Department of Architecture as Louis Kahn was leaving the department. Rudolph had pursued a practice characterized by experimentation with new construction technologies and new building types, mostly single structures responding to the regional challenges of a semi-tropical region in Sarasota, Florida (Paul Rudolph, 'Regionalism in Architecture', *Perspecta* 4, Yale, pp. 12–19, 1957).

However, at Yale, Rudolph turned away from novel technical thinking and regionalist concerns. He focused instead on the creation of new types of complex institutional buildings responding to new urban technological and economic realities. Yet he was not completely absorbed by the insular formalist Procrustean approach. One of his goals, against mainstream tendencies, was to tame the 'chaos' resulting from the freewheeling use of structural potentials, which other architects had welcomed. He also avoided a regression to the reductive, inhuman, 'functionalist box'. Towards this goal he tried to develop a finite, rule-based, combinatorial typology of elementary spaces able to generate an infinite repertory of combinations of spaces (recalling similar elementarist efforts by early F. L. Wright and pre-war De Stijl). In the case of the Arts and Architecture Building at Yale, he produced a complex with no fewer than thirty-seven spaces on a multitude of levels and with an equal variety of lighting conditions.

Like many buildings of the period in search of a humane architecture, the building was indifferent to human associations. While the complex was 'space-rich, it was 'place-poor'.

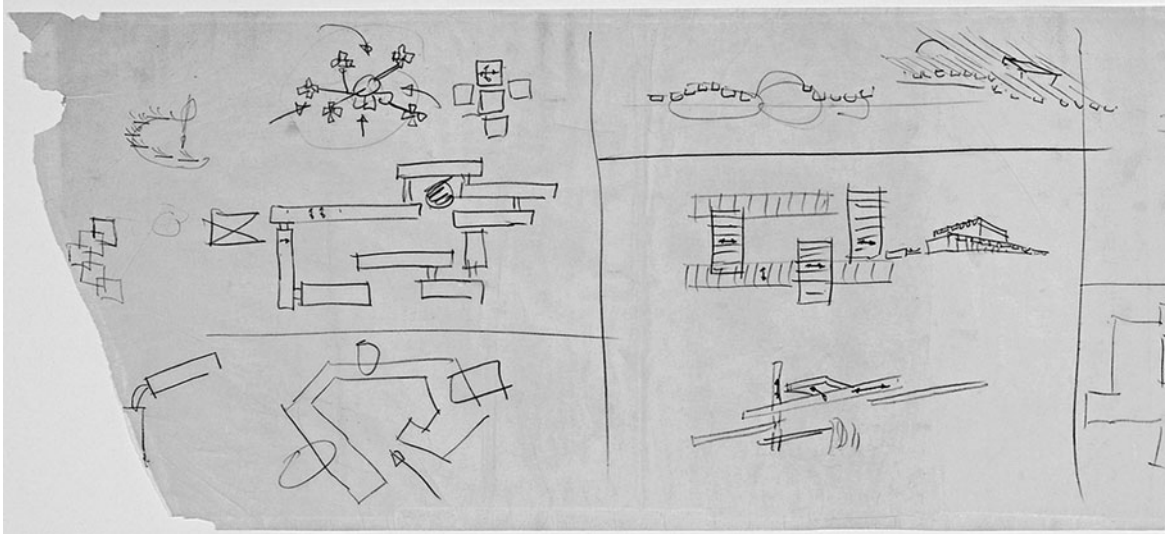
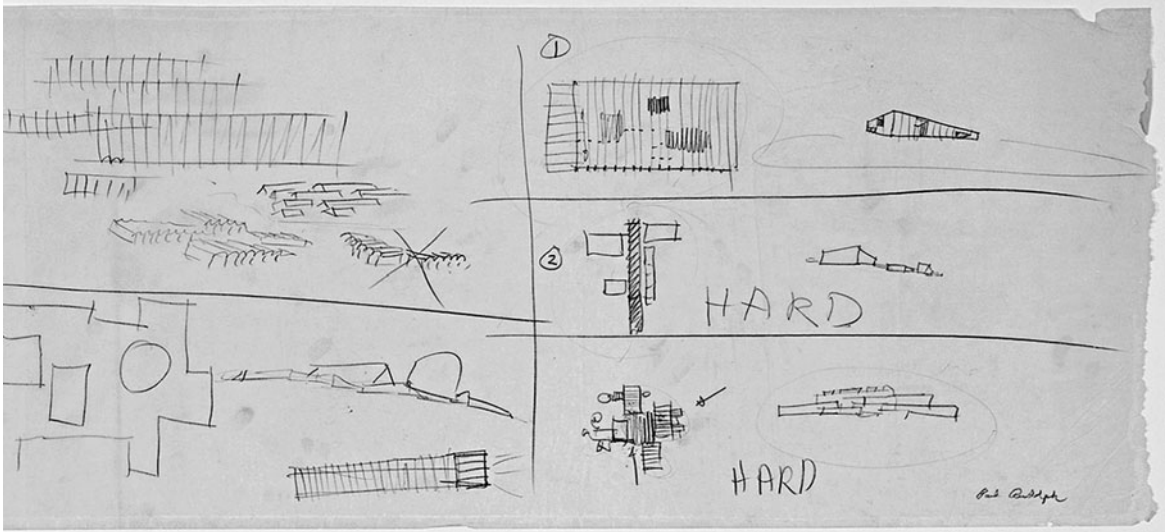


Figure 1

Paul Rudolph typology drawing, 1962. This sketch by Rudolph was done at almost midnight in one of his unscheduled night visits (his home and office being a few minutes away from the studio), that were on the still-unoccupied top floor of Kahn's gallery. There was no fear about theft and vandalism at that time. Rudolph came to Tzonis's desk, looked at the scheme and sketched on the yellow drafting role his theory about building types to make Tzonis conscious of what he was trying to do in his scheme. He never corrected anyone drawings directly. He only sketched options on the side

There were other efforts to make American architecture responsive to the new needs of the environment and break away from the confines of recent tradition. Many tried to invent new types of buildings fit for the new transportation needs, especially the need for parking in cities that by the beginning of the 1960s was seen as the major destructive force of the urban environment and social quality.

Louis Kahn, who between 1947 and 1957 taught at Yale, had developed highly innovative urban design plans for the future midtown Philadelphia. Kahn felt that to model the dynamic character of the modern traffic in towns he had to experiment with new means of graphic notation and poetic prose. In his new plans the city was represented as a complex hierarchy of movements, resembling a score of contemporary music, rather than as a three-dimensional static urban design space composition of solids and voids, with the exception of the gigantic parking facilities inspired by Buckminster Fuller structures. The project was shown in the Museum of Modern Art and was received positively, especially by young people. However, quantitative, analytical tools to grasp the environmental and social quality of the city were absent (Towards a Plan for Midtown Philadelphia, 1951–53, *Perspecta* II, August 1953).



Most architects, on the other hand, turned to more conservative solutions in an attempt to recruit historical precedents. The Yale historian Carroll Meeks suggested early railway stations, in particular Italian monumental ones. In this spirit, Rudolph, commissioned to design a modern mega-parking for the city of New Haven, was inspired by a historical precedent, the Roman aqueduct. The project introduced into the humdrum New Haven urban setting drama and sublimity. Yet the historical precedent did not help him to design a truly functional facility. In addition, the narrow and unreal requirements of his client to bring the automobile in big numbers into the heart of downtown, the programme asking for the parking to cut New Haven from its surrounding vital areas, excluding any typological or urban innovation, led to the intractable conclusion that historical precedents could not be of any help.

In most of these cases, history was reduced to narrow formalistic historicism, less a discipline to understand the world, natural and social, than a low-level handmaiden of design fostering bygone tastes. It applied skin-deep nostalgic tools drawn from simplified theories of the picturesque adapted to Victorian conformism and drew from ideas of the 'City Beautiful' architecture of 'good manners', whereby new buildings obeyed etiquette of 'sociable behaviour', to quote Trystan Edwards's (1924) *Good and Bad Manners in Architecture*.

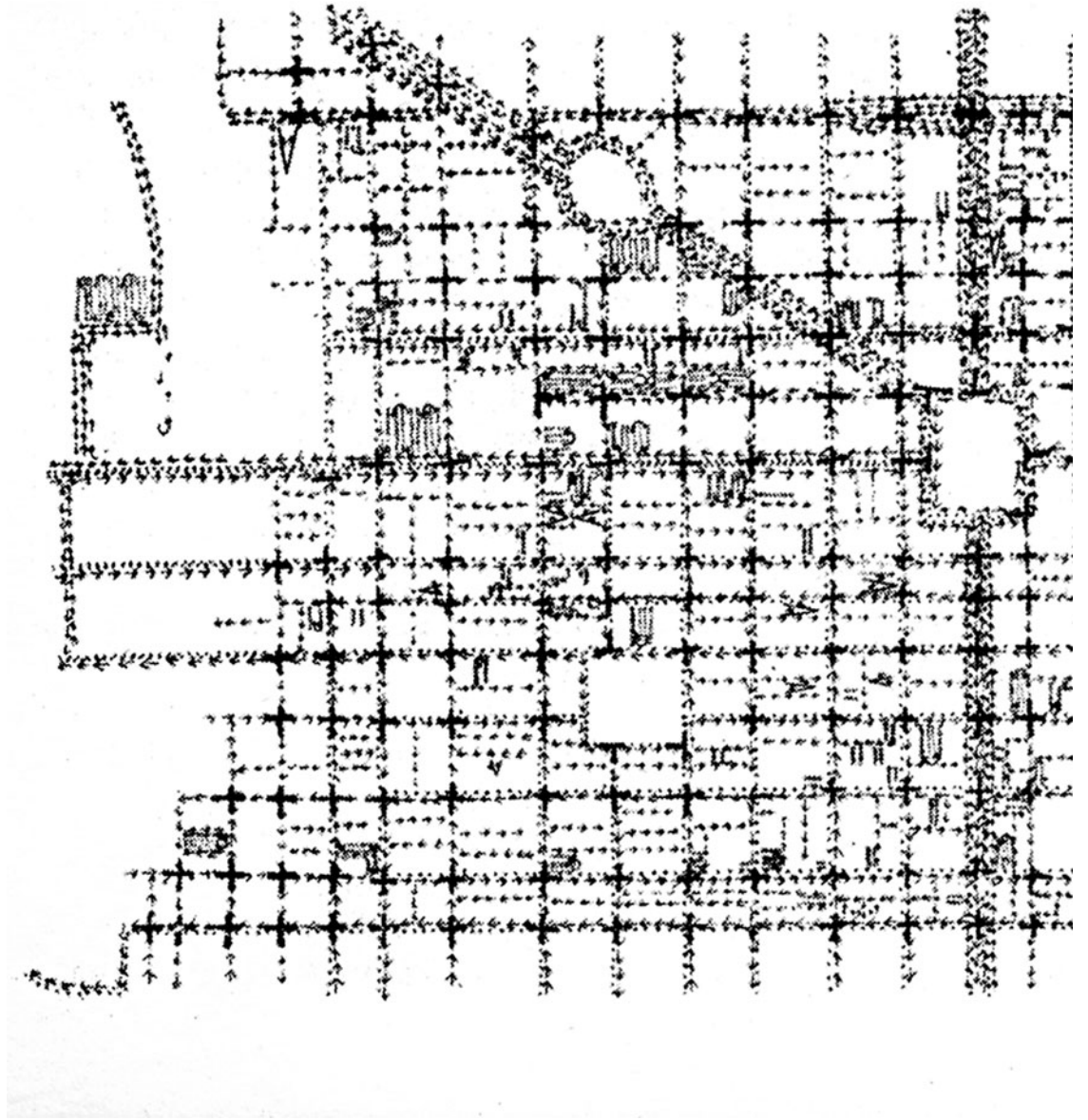
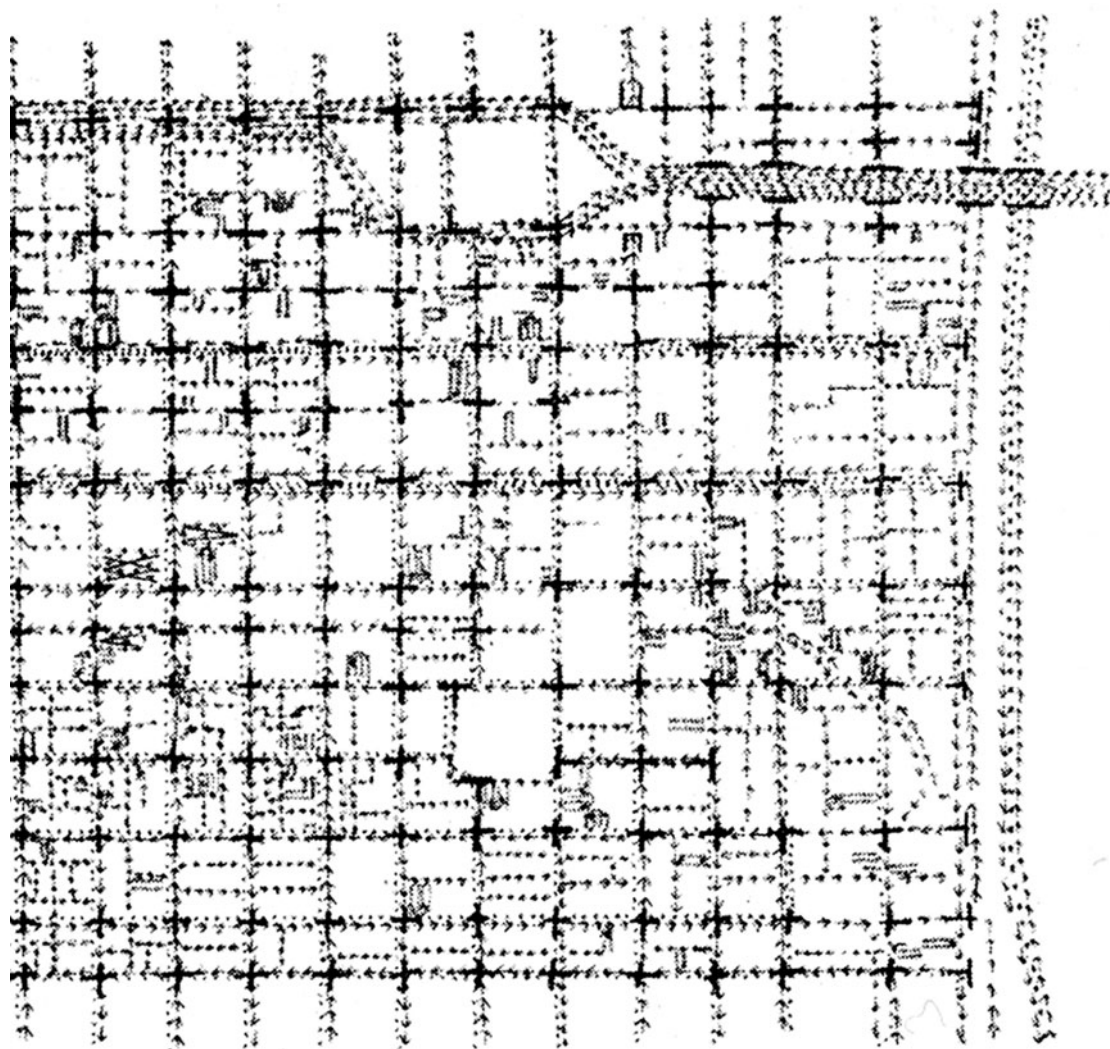


Figure 2
Louis Kahn, Philadelphia Plan, 1953



•••• staccata → po parking > garage + intersection.

Thus, the failure of architectural practice of the 1950s and 1960s was, to refer to Kennedy's speech again, to 'conserve and rehabilitate existing residential districts' and fit new buildings into pre-existing historical urban fabrics.

In this spirit, Rudolph tried to integrate the Arts and Architecture Building, a Wrightean pinwheel scheme, into the Chapel Street fabric of the other Yale University buildings and Peter Millard designed his New Haven fire station buildings as transitional components 'responsive' to town's urban fabric and vistas (Robert Stern, *Perspecta* 9–10, 1965).

The let-down of this historicist tactic was even more evident in Eero Saarinen's Styles and Morse Colleges at Yale (1958–1962), where the architect tried to 're-urbanize' architecture adapting the scheme to the surrounding Yale buildings by employing eclectically 'picturesque' neo-historicist tools. But the complex failed to capture the identity of the 'cognitive map' (to use Kevin Lynch's term), not to mention 'lifestyle' of the New Haven Yale eclectic neo-Gothic colleges, emerging as an alien 'kitsch', disruptive element to the city. The colleges raised highly unsympathetic remarks such as those by Reyner Banham in the *New Statesman* review ('Morse and Stiles', *New Statesman*, 13 July 1962).

Rudolph as chair of the Yale Department of Architecture sensed that architectural education had to open up to new ideas coming from many directions and specializations. However, he expressed this into educational policy by inviting criticism, even of his own work, and he did not hesitate to invite dissenting visiting critics, such as James Stirling, at that time.

In his 1962 lecture at Yale, Stirling had presented his early regionalist Preston Housing in Lancashire 1957–1961. Rather than designing it with adherence to Procrustean, abstract, global principles, the project was conceived in the context of the 'region', the pre-existing slums, and tried to preserve the rich structure of social contact and the humanness of what Stirling had called the 'horizontal approach' of nineteenth-century housing, with its many opportunities of meeting. He stressed the social functionality of the slum, which was later to be misinterpreted as 'nostalgia'. (Mark Crinson, 'Picturesque and Intransigent', *Architectural History* 50, 2007, pp. 267–295.)

Similarly, once more in a talk delivered at Yale, in March 1964, concerned about the declining diversity and identity of regions as well as the waning of community in current architecture, Ed Barnes presented as an alternative project: the Haystack Mountain School. It was later published in Yale's yearbook, *Perspecta* 9 (New Haven, 1965).

'Continuity' was the key concept Barnes used, a concept borrowed from Ernesto Rogers, who had used it a few years before, attaching it to the title of the Milano

magazine he had directed since 1953, *Casabella*. For Rogers, 'continuity' meant the need for architecture to sustain contact between individuals in order to empower community. It also meant physically interrelating the 'space between buildings, their scale and colour and mood'. Finally, it meant connection with the surrounding region, with its identity as it emerged out of natural evolution and history, as opposed to current professional practice, which supported individualism, 'fragmented, fugitive, and often shallow' and a practice carried out 'in a highly competitive, building-by-building way'.

Barnes believed that architecture was at a watershed: 'The day of putting architecture on a pedestal [was] over,' he affirmed. 'I am arguing for an architecture which is in harmony with its environment . . . When we discuss the need for continuity, we must not overlook the vital need for change and even revolt.'

Barnes was a student of Gropius but these ideas were very American, though not of the Procrustean group or mainstream professionals we mentioned before (on a personal level, however, Barnes was on very good terms with the group). His design thinking drew from the pragmatist and regionalist traditions of the country – as did, in fact, the early work of Paul Rudolph, as much as from the dissenting critical writings of Lewis Mumford on the moral, social and ecological responsibility of architecture.

Similar ideas were shared by architects in Europe, among them Peter Smithson, John McHale, Enrico Peressutti, Shadrach Woods and Giancarlo De Carlo, all of them, with the exception of Peressutti, part of the rebellious group of post-World War II young architects, Team X, all of them invited to Yale by Rudolph.

Team X became visible as a group when it was entrusted with the preparation of the agenda for the CIAM (Congrès internationaux d'architecture moderne) Tenth Meeting, which was to be held at Henry van de Velde's Kröller-Müller Museum in Otterlo in September 1959. Founded in 1928, one of the main goals of the organization was to generate congresses and events promoting the modern movement in architecture. Consistent with the character of international humanitarian organizations of the first part of the twentieth century founded to foster world progress and harmony, its character was bureaucratic, liberal and elite.

Furthermore, although it declared architecture to be 'a social art' devoted to human emancipation and to urbanism as opposed to individual buildings for the privileged, it did not succeed in enlarging its traditional architectural scope and, apart from inviting artists and engineers, it remained mostly alien to new cultural, social and anthropological thinking concerned with alienating space, place and community.

Place, community and alienation became key issues for Team X, which tried to do away with CIAM's bureaucratic structures, inherited from its pre-World War II past. It eliminated an Executive Council and the projects were now discussed without the intervention of a chairman. Six days of the congress were devoted to the presentation of projects and two days to evaluation and discussions. In Otterlo, the discussions were dominated by Team X members, one of the most vocal ferocious being Aldo van Eyck.

The target of van Eyck's attacks was the post-war projects of reconstruction, housing and public buildings, products of welfare state administrations. In contrast to the US benign neglect attitude, where very little was done in terms of housing and public services, devastated Europe launched major projects of reconstruction – 'housing for the greatest number' – soon after the war was over, ironically to a great extent through American aid.

Thus, while Kennedy's message denounced the negligence, inaction or 'haphazard development' during the years after World War II, which resulted in 'blight', 'decay' and 'waste' in the environment and the destruction of community, for van Eyck, while 'the material slum has gone – in Holland', he asked, 'what has replaced it? Just mile upon mile of organized nowhere, and nobody feeling he is somebody living somewhere. No microbes left – yet each citizen a disinfected pawn on a chess board, and no dialogue.'

The idea of buildings as places for *dialogue* and as the essential determinant of good life (Maurice Friedman, Martin Buber's 'Narrow bridge' and the Human Sciences, in M. Friedman (ed.), *Martin Buber and the Human Sciences*, Albany, SUNY Press, 1996, pp. 3–28) and community that van Eyck referred to had originated to a great extent in the writings of Martin Buber, mainly in his book *Ich und Du* (1923), with which van Eyck had been familiar since his student years. Buber's writings were part of a major debate about 'alienation', whose roots went back to the nineteenth century to the writings of Feuerbach and Marx that lead to the critique of modern society and the market as agents of the destruction of the dialogue that holds together human community. It was a reality that those who conceived and constructed the massive post-World War II welfare state projects ignored and suppressed.

Van Eyck claimed that the reconstruction programmes produced masses of alienating spaces for the 'greatest number' but not 'places' for human dialogue (what he defined, borrowing Buber's term, as the 'realm of the between'), such as were the playgrounds for Amsterdam that he designed in the late 1940s and early 1950s, realms 'engaged in the world', objects whose meaning is 'in use', to quote Wittgenstein in his *Philosophical Investigations* entangled with a lived-in context.

To the architecture of post-World War II projects, van Eyck juxtaposed his Children's Home, commissioned by the City of Amsterdam in 1954, consisting of places for dialogue rather than spaces of alienation. To amplify his point, he presented images of Dogon tribal architecture in Bali, he had visited and documented tribal settlements loaded with symbolic meaning (at least as interpreted by outsiders) characterized by tightly knit built fabric enabling encounters between members of a highly interwoven community (John Voelcker, 'CIAM 10, Dubrovnik 1956', *Architect's Year Book* 6). He writes that 'the local communities regrouped themselves' around the playgrounds very often' (John Voelcker, 'Polder and Playground', *Architect's Year Book* 6, 1955, pp. 89–94).

In an effort to universalize its message, Team X invited the American architect Louis Kahn to be keynote speaker at the conference. Kahn was not so well known at that time. Born in 1901, he had realized very few buildings. But many young architects were spellbound by his few projects, his drawings and his dense aphoristic writings, which brought into architecture an aura of monumentality, poetry and ethos in contrast to the banality of mainstream practice in the US that Kennedy censured.

Few, if any, in the audience of the Otterlo meeting knew that Kahn was more than charismatic and inspired. In fact, during the Depression, the Rooseveltian New Deal 1930s and the war years, Kahn, on his own and in collaboration with George Howe and Oscar Stonorov planned and designed community projects and social architecture, architecture carried out with the participation of the users, and co-authored pamphlets promoting these ideas. But, by 1959, when the New Deal ideas were successfully suppressed and, like most of his contemporaries, he had abandoned his activism, his talents and vitality were channelled into becoming an architect's architect, although his commitment to social architecture and community remained unshaken.

At the time of his invitation by Team X, he was professor at the University of Pennsylvania, where he had received his architectural education. Kahn's speech at Otterlo was the speech of an angry young man, anti-conformist and full of creative ideas. He urged young architects to conceive of new kinds of buildings: 'We're living in an era of new space demands, new things, which are so fresh and unfamiliar that most minds are unable to identify a single image.' Yet the 'wonderful resources' designers have at their command are going to waste because of the permissiveness of the times, leading to what he called the 'mess of copying and re-copying' rather than innovative use.

During the conference he presented his plans for the future midtown Philadelphia we mentioned above and the Richard's Laboratories in the University of Pennsylvania, Philadelphia, where Kahn expounded his new model of the built

environment, consisting of a dual system of 'served' (for services) and 'servant' (for places for dialogue).

He justified the idea through an economic-technological argument: since mechanical services that were faster, more voluminous and more complex were taking up more than 50 per cent of the budget of the building they deserved recognition and their own domain. He also advanced a humanistic argument: the division between service and served in buildings was needed to control and contain technology not to disrupt and destroy interaction, the integrity of places, where people met in 'community'.

Kahn's talk, like van Eyck's, employed a poetic language of emotional metaphors and expressive diagrams but did not supply any new effective methods to capture the reality of processes contained in space, creative or destructive.

This was the case in most schools of architecture in US and Europe. In 1960, Jose Luis Sert founded the Harvard Graduate School of Design Urban Design Program to face the new technological and social realities of the city. But the programme still employed traditional methods that treated urban projects as buildings, only on a larger scale. Architectural thinking remained imprisoned in the traditional frame of mind that cities and landscapes were just three-dimensional objects – like buildings. It failed to look at the environment as a 'process', a 'system' and a 'place' containing people and machines in need of being tamed: not just through a static scheme but to a dynamic 'plan'. No wonder Kennedy made the provocative remark that 'the problems related to the development and renewal of our cities and their environs have received comparatively little attention in research and teaching'.

Instances of pioneering research programmes were rare. They had begun to emerge during the war years, when many of the country's architects began to research problems related to the country's post-war urban, social and environmental needs. Related to that was the American Society of Planners and Architects (ASPA) that Joseph Hudnut, together with Oscar Stonorov, Serge Chermayeff, Jose Luis Sert and others, founded in 1943 to offer an alternative institution, one that was more creative and relevant to the problems and potentials of the period after the war.

More organized efforts took place after the war, as early as the early 1950s, such as the University of Michigan College of Architecture, which had established the Architectural Research Laboratory in the 1940s, and North Carolina State under Henry L. Kamphoefner, where Lewis Mumford, Buckminster Fuller and Serge Chermayeff lectured. However, a rising tide of research centres in architecture started at the end of the 1950s at the Joint Centre for Urban Studies at Harvard/MIT, at its equivalent at the University of Pennsylvania's Wharton School

and its Land Use and Built Form Studies, and at the Institute of Urban and Regional Development of Environmental Design at Berkeley. They tried to bring together many different disciplines, to conceive of new design tools and methods to understand and 'plan' the new artificial environment and cope with the intricacy and complexity of its 'qualitative' social, psychological and ecological aspects.

It is within this context of historical development that Rudolph invited Serge Chermayeff to Yale, first as a visiting critic and subsequently as professor (after Chermayeff resigned from his Harvard professorship) to head a research-oriented graduate programme in 1962.

Serge Chermayeff (Sergei Ivanovitch Issakovitch) was born in 1900 near Grozny, the capital of Chechnya. He was sent to England, where he attended Harrow and distinguished himself with an honours admission to Trinity College, Cambridge. But the collapse of his family's finances in the wake of the Russian Revolution and World War I put an end to any plans for further education. He followed an early career in theatre, interior and furniture design while the same time becoming involved in the major debates of that period in Britain about modern art, pacifism, engineering, science, economics, socialism, the welfare state and planning. His circle included Henry Moore, Ben Nicholson, Barbara Hepworth, Naum Gabo, Eric Gill, Raymond McGrath, Berthold Lubetkin, Leslie Martin, Owen Williams, Ove Arup, Bertrand Russell, Desmond Bernal, I. B. S. Haldane and Julian Huxley. During the 1930s Chermayeff participated in establishing the English chapter of CIAM, MARS (Modern Architecture Research Society), and was one of the architects invited to represent England at an exhibition at the Museum of Modern Art in New York (1937).

Among Chermayeff's European acquaintances were the Dutch architect T. Wijdeveld, the German musician Paul Hindemith, the French painter A. Ozenfant and the German-born architect Erich Mendelsohn, a group with which he planned to start an experimental Académie Européenne de la Méditerranée for the arts near Cannes, in southern France, in 1931, a plan that did not materialize. In March 1933, Erich Mendelsohn, having fled Nazi Germany, joined Chermayeff's architectural practice. Despite the economic crisis at that time, the new partnership was successful from the start. In 1934 it won the competition for the De La Warr Pavilion at Bexhill-on-Sea near Brighton, the setting for part of Graham Greene's *Brighton Rock*. Articles and letters appeared in the press with titles such as 'Alien Architects Invade Britain', their content jingoistic as well as anti-Semitic. By 1937 Mendelsohn left to work in Eretz-Israel and the partnership was dissolved.

In the US, Chermayeff focused immediately on education and research, proposing for the University of California at Berkeley a detailed programme for

'environmental design', a pioneering concept at that time. Interdisciplinary research had to play a most important role in design education as it already did in medicine, agronomy and chemical engineering. The programme emphasized the changing priorities in design education, shifting from being fixated with forms of isolated objects ('products') to shaping, understanding and organizing 'environments', or, in his words, 'away from making "things" to the understanding of "systems"' and the 'processes' that produce them.

Similarly, in 1946, Chermayeff, then President of the Chicago Institute of Design, openly attacked the American Institute of Architects for its 'Americanism' that claimed that the 'horrid . . . and bestial surroundings of the city slicker' were aesthetically gratifying, for being 'conspicuously unsympathetic to . . . the problem of housing' and for its 'neglect for research, a prerequisite for its solution'.

In 1951 Chermayeff moved to Cambridge, Massachusetts. After a short period at MIT he was appointed professor at the Graduate School of Design at Harvard. The transfer to Yale in 1962–1963 seemed strange at the time. Chermayeff had enjoyed great intellectual and material support within the Cambridge Harvard–MIT community, many of his friends being members of Kennedy's informal circle of advisors. The year of the publication of his book *Community and Privacy*, co-authored with Christopher Alexander, Chermayeff resigned from Harvard, accepting Rudolph's offer to become professor at Yale.

Yet this change might seem inexplicable given the support and amenities he found within the Cambridge community. In addition, Chermayeff was the right person to contribute to these endeavours, having been involved in Britain within the circle of culturally and politically progressive British intellectuals attached to the ideals of the welfare state, science, the rationally planned environment, and community.

What was special in Chermayeff's book, what made the public so excited about it, was that it combined criticism, in particular criticism about the failing quality of privacy in human settlements, with clear proposals about how to overcome the crisis, suggesting as solutions the introduction of new design methods based on rationality and driven by a new technological marvel, the computer.

Nevertheless, Harvard did not offer him the advanced programme and a laboratory with experienced students to pursue his investigations. Paul Rudolph did.

The list of the senior participants in this ongoing research seminar was a true *Who's Who* of experts, including Karl Deutsch in political science, Heinz von Foerster in cybernetics, A. D. Parr in ecology, Paul Weiss in philosophy, Charles