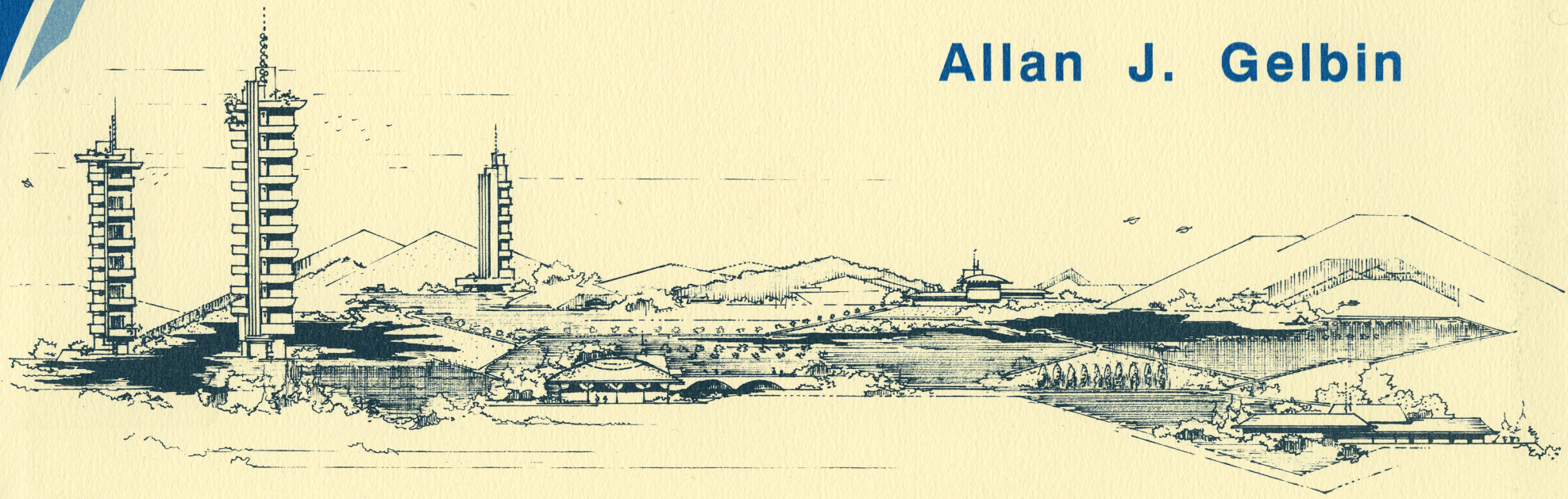
SUN, EARTH, AND SKY

Ideas for a New City

Allan J. Gelbin



PLAN OF CITY

1981 · 1989

A CITY ORGANICALLY RELATED TO ITS PLACE IN TIME, LOCATION, CLIMATE, AVAILABLE MATERIALS, AND CONSTRUCTION TECHNIQUES

DESIGNED TO CREATIVELY HOUSE THE VARIETY OF ACTIVITIES NECESSARY FOR THE NORMALCY AND WELL-BEING OF ITS CITIZENS . . . EXPRESSING THEIR GENUINE ASPIRATIONS . . . ALL WITHIN A DEMOCRATIC FRAMEWORK

1 Park pavilion
2 Restaurant, exhibitions
3 Power station
4 Central parking
5 Parking, rail-center
6 Outdoor concerts
7 Shops, apartments, offices, clinics
8 Botanical gardens
9 Medical clinic, heliopad
10 Cosmoseum
11 Library, apartment
12 Boat house, studios
13 Fire-control
14 Performing arts
15 Meeting house
16 School
17 Apartment tower—offices, shops, cinema
18 Motor Inn
19 Crafts-center, studio apartments
20 Farm
21 Park
22 Restaurants, galleries, apartments, shops
23 Single-family dwellings
24 Multi-family dwellings
25 Light manufacturing, labs, apartments
26 Orchards, vineyards, forest groves
27 Community center—arts, crafts, baths
28 Grand canal, marina
29 Offices
30 Aquaculture center
31 Auto service
32 Wind-generator—typical
33 Solar-collector—typical
34 Fields, woods
35 Baseball, rail-station
36 General aviation airfield—offices, lodgings
37 Freight transfer—hotel, rail-station
38 Auto parking, rail transfer station
39 Floating community center
40 Lakeside center—lodgings, shops
41 Botanical gardens—rare species
42 Lake
43 Wetlands, wildlife
44 Agricultural station
45 Track, paddock
46 Museum
47 Baths
48 Waterfall
49 Festivals, pageants
50 Zoo
51 Aquarium
52 Waste treatment, recycling
53 Performing arts center II
54 Aircraft manufacturing
55 Music center—auditorium, school
56 Playing fields
57 Convalescent home
58 Architectural museum
59 Commercial airfield
60 Dam
61 Country club, residential
62 Architectural design center
63 Seaplane base
64 Research center
65 Visitor reception center
66 Government offices, libraries
67 Grass mall
68 Government center
69 Governor's home
70 Reception center
71 Mobile home park
72 Main roadway—autos, trucks
73 Rail station
74 Exhibition, trade-center
75 Transmission towers
76 Sanctuary, cemetery

MAIN FEATURES:

CLEAN ENERGY
- Solar collectors, wind-generators, hydro-electric, photovoltaic, hydrogen-fusion. Underground radial distribution, eliminating poles and wires within sight

TRANSPORTATION
- Quiet inter-city network—attractive, compartmented, coaches

Principal Roadways
- Located at intervals of one-quarter mile. Ease of direction-finding within city's roadway layout. Road and map signs color-coded and coordinated. Electronic direction-finders in autos, trucks, aircraft

Minor roads
- For use by pedestrians to go almost anywhere; by walking, on bicycle, horseback, or by electric-cart

Freight
- Stations located beside all major roads near outer city limits. Large freight hauling minimized within city

Community Parking
- Locations of all major roadways near freight stations and inter-city transportation

Canals
- For private and commercial use

Airfields
- All fields for both commercial and private aircraft are widely separated. No menacing, noisy helicopters, or low air traffic over city

GOVERNMENT CENTER
- Living and communal facilities integrated or nearby. Direct trains and canal boats to major airfields

FARM
- Small and moderate size family farms permanently located within city

EARTHQUAKE PROTECTION
- All possible measures taken to avoid damage and destruction

FIRE
- Fire damage potential minimized due to integral building controls, building separations, and dispersed control-stations electronically interconnected

COMMUNITY CENTERS (multi-use)
- Easily accessible from all parts of the city

ALLAN J. GELBIN · ARCHITECT

scale

SUN, EARTH, AND SKY

IDEAS FOR A NEW CITY

ALLAN J. GELBIN

First Edition

Library of Congress Catalog Number: 89-91257

ISBN 0-9622827-1-5
ISBM 0-9622827-0-7 (softcover)

Printed in the United States of America

Dedicated to the memory of my parents

Herman S. Gelbin • Dinah B. Gelbin

ACKNOWLEDGMENTS

My thanks and gratitude to the following people for their permissions:

Bruce B. Pfeiffer	Director of Archives at the Frank Lloyd Wright Memorial Foundation, for the use of quotations from the copywrighted writings of Mr. Wright.
Joanna Barry	Editor at the University of Chicago Press, for her assistance relating to *When Democracy Builds*, by Mr. Wright.
Carolyn D. Koenig	Managing editor at the *Architectural Record*.
Gina Macooby	The Gina Macoby Literary Agency. For the use of quotations from *Architecture As A Home for Man*, by Lewis Mumford.

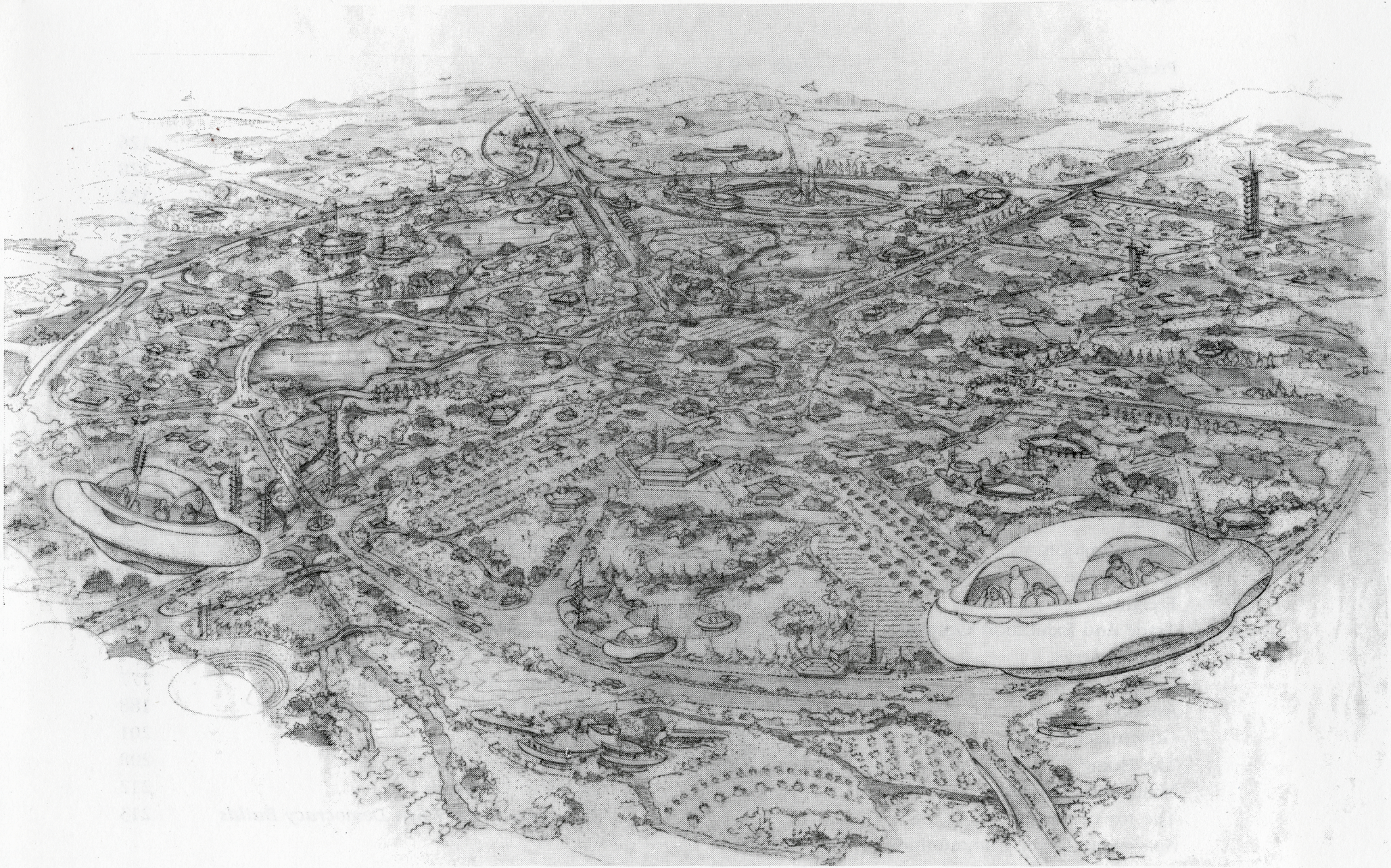
And to the following people for permission to use thier photographs:

Pedro E. Guerrero	House For A Forest Site	*Page*	103
Donald Hunstein	Typical Family Dwelling		83
	Home For Steeply Sploping Land		84
	Low Cost House—Prefabricated		105
	Community Theater—Model		134
Adolph E. Leuthold	Large Residence On Meadowland		159

Thanks also to Bill Thomas and Data Center of Charlottesville, for their useful suggestions and dedicated services.

All other illustrations are taken from Allan Gelbin's collection of photographs, drawings, and sketches of existing buildings he has designed—and others proposed—including all drawings of the city.

Notes to Epigraphs are located at the backof the book.



6 OVERALL VIEW OF CITY FROM THE AIR

CONTENTS

LIST OF ILLUSTRATIONS

Lack of courage to speak out loud so that people who want the truth can hear, is the chief tragedy in our culture. It only adds to the suffering and speeds up the surrender of those who would otherwise stand their ground.

—Frank Lloyd Wright

PREFACE

There have always been people who have had a love affair with the city, while others much prefer life in the country. I suspect that most of us belong somewhere in the middle, understanding both the good and bad features of cities and the countryside.

Certainly, most American cities are dissimilar, yet one of the misfortunes of our times is that most are too much alike, as if they had been molded from similar original patterns, which many of them were. It is, in substantial measure, the cultural differences between people and the indigenous character of particular locations—that diversity—which contributes to forming an environment, and a nation, that is interesting, vital, and wholesome.

How many of us are fully conscious of what we find useful and valuable in cities, or mediocre, useless or destructive? Do most people really care about the quality of life in their cities, and in others, or is it all merely accepted and taken for granted as if viewed, absorbed, through a hypnotic waking-dream? And what thoughts and feelings has the citizen who lives in the suburbs, riding, many days of each year, into and out of the city? Does the commuter genuinely care about the quality of his environment, outside of immediate office or job surroundings? Such things, of course, depend upon the inner state of awareness, the consciousness, of any particular person. Some people are quite sensitive to their surroundings, while others are dead to them, with many variations in-between; yet, we are all affected by the atmosphere of what is around us, visible and invisible, near and distant.

Those who are able ought to be concerned about cities, and the quality of our own everyday surroundings, for the obvious reasons of our own welfare, that of our family, friends, and neighbors, but also because our survival, in a civilized and cultural sense, depends upon it. So also do our

young people, and the unborn, who rely upon what we do, or fail to do.

Most cities today, as in past generations, are in big trouble for reasons that are simple and complex, going far back in time. It's not my intention here to try to analyze what got us into our present dilemma, now making front page headlines and the evening's prime television news. One of my main purposes in assembling this book is to illustrate possibilities for solving some of our most urgent problems, and contribute to a growing awareness of the necessity to change course and move in new directions.

The largest measure of the ideas you'll find here have come from accessible sources which too many people are unfamiliar with, since they are but rarely made important parts of early, or later, education. All of them are applicable to existing cities, to future ones, or those that are now in the early stages of development.

The means by which we rebuild old cities, and begin new ones, shouldn't be a task only for architects, city planners, government officials, bankers, realtors, contractors, and developers. Present conditions need the active, persistent, participation of ordinary citizens in the planning and development process. This new partnership is sorely needed to prevent old habits, aberrations, and errors from the past, from being repeated. We need to become more conscious of the city as an extension and expression of ourselves—of our genuine inner wishes and aspirations, for things finer and higher.

The ever-repeating problems we face shouldn't be allowed to languish and continue, without summoning up short, intermediate, and long-range plans for their resolution. Our society, viewed as a whole, has achieved much genuine success in many areas of development and culture, yet preceding generations, and those now living, ignored the warnings of a few great prophets who foresaw the evils we contend with. Some of those prophets offered workable, even excellent, solutions which have been largely ignored or distorted. We now find ourselves in much the same circumstances,

commonly dismal, as those of the generations preceding us, but the problems have increased in number and complexity; so also have the challenges and opportunities for new directions and growth. The alarm bells continue to be ignored, as mistakes are repeated and new ones added, at a terrifying rate of destructive speed, always in the name of "progress."

If we don't ask the question—Why?—more often, and with greater depth, concerning what is planned and built, instead, surrendering it to those who lack any sense of the city as an integrated whole, or haven't the interest or ability to build humanized, quality projects, we are courting even greater disaster. We will find ourselves in circumstances far more intolerable than the present where common sense, satisfaction, and enrichment, are moving beyond reach.

We shouldn't always have to rely upon disaster and catastrophe to prompt us into action. Throughout much of this century we have been witnesses to, and sometimes participants in, disastrous scenarios where government and communal leaders have taken action when it has been too late. Many leaders of our institutions have for too long allowed important priorities to sit on back-burners, problems having a significant affect on our common lives. Yet it has been millions of voters, and millions failing to exercise that hard-won privilege, who put weak leaders in positions of power, with the assistance of selfish interests, providing large sums of money, legally, or illegally.

Comprehensive plans for the creation and development of new cities are greatly needed, to state the case mildly, and should be given wide attention when they possess useful, valuable, ideas. Beyond the planning stage, it will take active deeds and dedication, persisted in over long periods of time, to implement beneficial ideas.

The city plan presented here is not intended to be rigidly adhered to as a completely fixed, and drawn, final plan. I hope that the real value will be more in the general concepts set forth than in the specific layout

proposed. The plan drawing, in the front of this book, is best regarded as schematic, conveniently containing some of the ideas I wish to convey. For example, there are sound reasons for making the circular and straight line system of roadways and canals work in harmony with the topography of a specific location. That would cause a final roadway layout, for any new city, to probably be different from perfect circles, or straight lines. In nature there are very few, if any, straight lines. Variations on the circular theme will work well in one part of the world, but not necessarily in another. Also, roadways might be added or deleted, and the distances between primary ones can be altered.

The size of the population will depend upon many factors not easily predetermined. For this city, approximately 20,000 people might work well, but that's only a rough estimate that could change according to many presently unknown variables. Some living in the country will probably work within the city, or visit it for a variety of reasons, but roadway commuting traffic should always be maintained at a reasonable level.

Throughout this city's fabric, the citizen should have opportunities to live in areas where the density of both people and buildings is sensibly proportioned to the advantages offered by such areas, in terms of nature's beauty, easily accessible work, shopping, and social relationships. No one should be forced to live in circumstances of either unwelcome crowding or, at the opposite pole, unnatural isolation. Many possible groupings of mixed-use buildings, other than those shown on the plan, may be welcome. Planners can best determine specific needs only when facing the actual conditions affecting the building of a new city. These needs will at least depend upon factors of economy, politics, the size and character of the population, and upon local topography and climate.

There will be, in any new city, many possibilities for grouping one type of building with another. Some people will prefer to live or work in single tall buildings in the countryside, among fields and woods, whereas others may prefer a cluster of similar, or smaller, buildings closer to a more

developed area. The majority may still prefer to own their own dwellings. Since people vary in the degree to which they want to live near more, or fewer people, the question of density is one of the most important problems needing careful planning. In any humanized city, people must not be forced into isolation by a lack of proximity to other people, activities, and buildings.

There ought to be primary nuclei, or centers, as well as sub-centers, where people can gather for particular purposes. Several centers are proposed, comprising buildings for the performing arts and government; but there are others as well. The concept of decentralizing, and then reintegrating our constructed environment, may be the great missing ingredient causing considerable alienation, since the flight from the city to the suburbs, and beyond, after World War II.

Due to the approaching Greenhouse Effect, more land may be needed within the city for use in growing crops that can be converted into clean energy (e.g. hydrogen for autos) and to provide space for producing electricity through photovoltaic means. That in turn will depend on the existing state of technology, economics, politics, and other factors.

The essential purpose of the city should be to provide many opportunities for people to intermingle, exchanging ideas and goods, sharing work and other activities on a person to person basis, with as little unwanted interference by machines as possible. These seem to me some worthwhile chief aims. But since we do live with machines, like it or not, we need to find a balance between the old crowded city and a new uncrowded one, using machines where advantageous. Solutions will not come easily, but when they do, the rewards will be great.

Although each new circumstance for a city will present a mixed-bag of problems, common sense should prevail and plans should be based upon understanding of the full meaning of the word “organic,” not only as it is applicable to architecture, but to life itself. If organic principles of conception and design are understood, they can form the basis of any new city, thereby

avoiding much of the waste, chaos, and ugliness of our present environment.

Working out specific means of designing and building is the task for others, now and in future. I hope that you, the reader, will allow your creative juices to flow, so that you can add your own ideas to what you find here concerning the kind of city which would work well for you and for all of us.

A.J. Gelbin

Charlottesville, Virginia
January, 1989

INTRODUCTION

By presenting this plan and some of the ideas in connection with it and with cities I've known, I am not introducing it as ideal, since I don't believe that such a circumstance is now a realistic possibility. The city, when pondered in such terms, can only be approached, since there's no such thing as perfection. My guess is that there never will be, except perhaps in hundreds or thousands of years—even that is no certainty. Perhaps there shouldn't be, like some hidden, mystical, "Shangri-La," which arose from the pen of author James Hilton, enchanting me, and many others, in our youths. We all need difficulties to overcome in order to grow, and I'm not certain that a "Shangri-La" would provide them. But speculation about a distant future is of little concern here.

The ideas in this book are not original. They have come from many people and sources I've been in touch with for over forty years as an architect and builder, and over a lifetime of experience. The ways in which I've selected or rejected ideas, interpreted, and drawn them on the plan, are my own.

I was born and raised mainly in a large city. It has turned out that the pattern of my adult life has revolved around the design and construction of buildings. From youthful years until the present, I advanced through the stages of being a student, then apprentice, to becoming a practicing architect and builder. During the course of many years of studying and building, I've been interested in how buildings are designed and built, but my interest was never satisfied with that alone. At least as intriguing, have been the ideas behind how buildings relate to their inhabitants, nature, each other, the spaces between them, and to the ideas and feelings in the minds and hearts of the people using them. Over much of a lifetime I've learned something of the importance of the ways in which buildings, and their groupings,

symbolize and express ideas and concepts. The center stage for the expression of such things is to be found in the life of cities and towns.

As a student and a budding architect I was shown some of the ways of looking into the real nature of buildings and cities—to perceive beyond outward appearances alone, and learn to penetrate the depths of their reasons for being.

Having grown up in one of the world's largest and most interesting places, New York, I learned early in life many useful things about huge cities. I left Manhattan to go to college in 1947, returning there in the mid-1960s to open an office, for a few months, for the purpose of designing a building for the New York World's Fair. In the early 1970s I lived in my native city for two years, while supervising the construction of a one-hundred and twenty bed nursing home being built in Connecticut, flying to and from the job once a week. Other than those periods, I've lived in Paris for about six weeks, and have never returned for long to a large city, except to follow that famous old travelers' injunction, "It's a nice place to visit, but I wouldn't want to live there!"

Blessed with gentle, loving, hardworking, ethical, and often visionary parents, and part of a large, caring, family circle, most within my immediate family emerged not too badly from the "Great Depression," although it was hard on my parents, as on many others. My brother and I were lucky to experience a taste of farm life in our youth, and later we were blessed with camp life in the mountains of New England. We moved from the sidewalks of the Bronx, very happily, to tree-covered Riverdale, alongside the Hudson River, long before it was spoiled by "developers," who bulldozed their way in after World War II. We enjoyed the best of both country and city; the heart of Manhattan was then only a subway or a brief car ride away. We even had the thrill of living in the same apartment house as some of the famous baseball players of the time.

From youthful experiences, I never came to any great love of the city, as a city, and I was always glad to leave it for the countryside. Still, New

York had a lot of shining moments in those relatively safer and, at times, magically tinted days and nights. I had intimately come to know many things about the Big Apple—the best, and some of the worst of it.

Those were days of incredible change for the world. After that terrible Sunday when the Japanese bombed Pearl Harbor, many New Yorkers came to fear being bombed by the Germans, by then our enemies. Sirens, air-raid drills, and blackouts came quickly. We were lucky that the bombings never came, to say the least! It's amazing how much the nature of city dwellers' fears have changed in almost half a century. It wasn't quite the city of bigness, drugs, crime, and AIDS that it's become, although it was a city with serious problems.

In the years since World War II, I have lived in eleven states and ten cities, northern and southern. I have spent time working on farms in Kansas and Wisconsin, building in suburban Connecticut, rural Vermont, New Hampshire, and Maine. My travel to fifteen countries has sometimes involved building projects.

I began to study architecture at the Carnegie Institute of Technology, as it was then called, in Pittsburgh, following graduation from high school. After two years I became restless and dissatisfied, touching off within me a serious search for alternatives. I was determined to leave college, since I believed then, as I believe now, it would have been a waste of time and money had I continued. Although I didn't fully realize it at the time, college was to become an important turning point.

It happened that some senior students, with whom I was friendly, were very enthusiastic about the work of the great American architect from the mid-west, Frank Lloyd Wright. At the time I knew little about him and his work. What I did know came from reading his autobiography, which a favorite aunt gave me for my eighteenth birthday. (She was a very fine artistic woman, a designer of dresses). Frank Lloyd Wright was world famous, and

in the second great flowering of his long career. He was nearing the last decade of his long life and had just received the gold medal from the American Institute of Architects.

In the Spring of 1949, invited by the seniors, Mr. Wright came to Carnegie Tech where he not only lectured, but displayed his magnificent colored pencil and ink drawings for the redevelopment of part of downtown Pittsburgh. Most of the architectural and some of the other art students, as well as the architectural faculty, gathered in the theater of the Fine Arts building. The majority of the students seemed pleased with the prospect of seeing and hearing this great architect speak, while others appeared indifferent, cynical and skeptical. As far as I can recall, the faculty sat in the back of the theater and made no efforts to meet Mr. Wright. He wasn't very popular with most of them, since he advised us to leave the university, go home and, as he put it, make something of ourselves.

I was much impressed by his presence, but also by what he had to say and the way in which he spoke. It was refreshing to discover how much I was in accord with his ideas. I knew then, as I know now, that he had some of the answers to questions I had long been puzzling over. I was no less delighted to see his designs, drawings, and the handsome photographs of his work. That evening, an important answer revealed itself, leaving no doubts, that I should leave college and try to join his unique group of apprentices, then living and working in Wisconsin. That decision turned out to be one of the most important, and best, I ever made. Little did I know, that beautiful Spring evening, which opened up a new world for me, the enduring future relationship I was to have with Mr. Wright and his ideas, or how it would affect the remainder of my life.

At the end of my second year of college, my academic bridges had been burned. I was in good standing and could have continued, but had absolutely no wish to do so. There was to be no turning back. I decided that

if Mr. Wright wouldn't accept me into his Taliesin Fellowship,* that I would get a job working with an architect. At the time, I had few ideas of who, or where, that might be. Besides the unknown I was facing, there remained the painful prospect of telling my parents of my intentions. As expected, they were very unhappy concerning my plans, and thought I should instead transfer to another college where I might be happier. Such an idea seemed like going from the kettle into the fire, so I persisted with plans to work with Mr. Wright. Eventually I persuaded my parents of the plan's good sense, and they agreed to support me financially. I journeyed from New York to Mr. Wright's home, farm, and workshops near Spring Green, Wisconsin, hitchhiking the last forty miles, due to a bus strike. That was in late June of the year, after school had ended. As with all important events in my life, there was a strange quality of unreality about taking this new way off the proverbial "beaten path." I wasn't fearful, but there were "butterflies" in my solar plexus.

By what appeared to be a hair's breadth, he accepted me into the Fellowship on a trial basis. It was so crowded at the time, mostly with World War II veterans, that I lived (with delight) in a white sheep-herder tent, erected upon the first and only concrete slab I had ever poured—my first genuine lesson in building. The tent, along with two others, which sheltered friends, also defectors from Carnegie Tech, rested just below the crest of the modest hillside. Above us stood the famous windmill named *Romeo and Juliet.* This sturdy handsome wooden tower, commanding a view of the gentle green valley, was designed by Mr. Wright in 1896. I could not have been happier anywhere or felt more at home, yet challenged by the many demands made, and the new opportunities afforded.

* A new kind of school which Mr. and Mrs. Wright established in 1932 as a self-sustaining community, living in Wisconsin part of the year, and in Arizona the remainder. *Taliesin* means Shining Brow in Welsh.

After four days of hard work, on a trial basis, Mr. Wright told me I could stay. That was a joyous moment! Happily, I lived, worked, and learned as part of a new, close-knit group of about sixty-five other apprentices for the next four years. My parents came to the mid-west for a visit, and realized that I was happy in such surroundings. They continued their financial support for another three years.

This unique community was begun during the depression of the 1930s. I was an active member of it from 1949 until 1956. It has been successful for over half a century. The "centerline" of their work, as Mr. Wright was fond of calling it, that is architecture, is in no way separated from a well-rounded education. It's now headed by William Wesley Peters—a fine gentleman, friend, and a first rate architect who has dedicated his life and fortune to the welfare of the Fellowship. Also directing it is a group of dedicated senior architects, and others, some of whom worked closely with Mr. and Mrs. Wright. In the Spring of 1953, when it seemed time to take another path, I headed west to California and then east to Ohio, and eventually to Connecticut. The next three and one-half years were spent representing Mr. Wright, as the builder of four of his homes. Had I remained in college for three more years, I'm certain that I would have been ill-prepared to build four Wright houses from scratch, or for that matter, to build anything. I had almost no contact at college with anything real in the world of building. It was somewhat like learning to play the piano by studying books, theory, and using a paper keyboard, but never touching a piano.

By 1957 I obtained my architect's license in Connecticut, by written examination. That officially launched my career of designing and building. In one way or another, I've been working in architecture ever since, but not much along conventional pathways. I've worked on a variety of projects, mostly on my own, sometimes with drafting and secretarial help, but occasionally with other architects and engineers. Some of those projects have

been Trade Fair buildings in Casablanca, a resort complex in the Caribbean, designs for the Franklin D. Roosevelt Memorial Competition for Washington, D.C., a university mathematics building, pavilion for the New York World's Fair, an art gallery, industrial building, department store, and a variety of custom homes in several New England states; some interior design in New York City. I can't recall having ever been bored in my life as an architect, unless perhaps it was while waiting in a doctor's office, or to get my hair cut.

WHY A NEW CITY?

It may seem presumptuous for me to write about cities and attempt to design one, when I've never finished college or enrolled in a planning course. Yet I believe I have an advantage by not being a professional planner. I don't have to waste time unlearning conventional lessons which often turn out to be of little use, or of questionable value.

There's no doubt that much can be learned from taking courses in city planning, by studying towns and cities with active planners, spending time in libraries, and working with city governments. Irrespective of the fact that many of our cities are now vast aberrations, in part as the results of what passes for education, there are still some knowledgeable, dedicated people working against substantial odds, to improve urban conditions. Yet there are many paths open for becoming qualified, concerning the life and the design of cities. The degree to which most cities have degenerated, in an age of material wealth and prosperity for many, makes one suspect that what is called "education," has failed to provide enough qualified people in the right places to make a difference. The role education has played in bringing about the present state of affairs, is a large, complex subject, which can only be touched upon occasionally in this book.

It seems worth pondering where the "professional" planners have succeeded and failed. Trained planners have been at work within town and city governments for a very long time.

Our cities and towns are not only reflections of the inner character of ourselves as individuals, but of our institutions. If more school officials can be persuaded to allow students to work on real projects underway, redressing the balance between realistic field work and classroom teaching, the more sane will our towns and cities become. Much of academia is far too large, rigid, institutionalized and crystallized to allow for needed change. What could hasten change may be a series of external shocks, coming from world events or perhaps, more directly, from nature, as we continue to interfere with global ecological processes.

Do our cities work well, serving people and contemporary life as they should? Where have they succeeded and failed? Are their successes and failures due to the work of planners, highway engineers and architects, or not? In my opinion many other people should become involved in the making of cities and towns, as well as so-called professionals. This viewpoint is becoming more widely held, and the best planners and architects welcome the sensible involvement of others. Many of us can make important contributions towards a far better man-made environment than we now have. It's too vital a matter to leave up to the "professionals" alone, no matter who they may be. Yet the key to a more humanized—a truly qualified environment—will depend on dialogue and cooperation. Ways need to be found to get more enlightened people interested enough in our environment to take an active role in helping shape it. One of the purposes of this book is to attempt to awaken and interest more people in these affairs.

GERMINATION OF THE PLAN

When an architect designs a building, ideas evolve in his mind which he eventually puts on paper as a plan, long before a building gets built. So by first presenting you the reader with this plan, I'm using the language any worthy architect would use to express some of the things I've learned about people and cities. This text supplements that plan and I hope it will help you better understand it. Some of the ideas I'm going to try to pass on might stimulate your interest in what might be a workable, beautiful, and humane city, a city that would solve many of the problems that existing cities have failed to address.

UTOPIA

I haven't planned a Utopian city as I understand that concept put forth by Sir Thomas More in 1516. He described Utopia as an imaginary island, an ideal commonwealth, enjoying various kinds of ideal perfection. Nor is my plan an impractical idea for social regeneration, a concept often linked with the idea of Utopia. Yet it's conceivable to build new cities that will relate well to others within a region, and a state. And the cities of any state should relate well to those of other states, all within what we call the "United States." Since human life is so imperfect we can forget about Utopias and concentrate our energies and time on the attainable—on what would serve people well. I've no doubt that it's possible to build in ways that would give new life and hope to millions now doomed to unrelenting poverty, constriction, unproductiveness, and boredom. Any city must protect the environment and people from past and current abuses that appear to be leading us to possibly cataclysmic change, if not destruction, on a vast scale.

Most cities are comprised of a heritage from the past that consists of the valuable and the useless, sometimes far worse. Much has come to us

from past eras that had no autos, trucks, and aircraft. The largest portion of our inheritance came about more by accident and expedience than by intelligent planning and construction. The essential problems of cities are complex, but a few things are easily identified: overcrowding, unemployment, poor housing, education, transportation, excessive noise, pollution, and the absence of lawns, parks, ponds, and lakes. The auto, truck, train, and aircraft have never been sensibly integrated with city life. In most American cities, nature's green areas and animal life have been neglected, poorly dispersed, and not reintegrated. The main factors that have dictated the layout and character of our cities have been motives of quick dollar profits for a minority, and not what is sensible, intelligent and humane for the city as a whole. The majority controlling interests, as well as those of the minority, share in the slavery of the modern city. The substantial benefits available to the wealthy, and for others in the economic middle, as well as the disadvantages to most others, are well known. There is every reason to believe that if intelligence, conscience, and good heart were harnessed to develop new cities, and rebuild the existing, all citizens everywhere, regardless of economic status, would benefit greatly. A new society would emerge that would be compatible with the best ideals Americans profess, but don't deliver.

The discussions here will be multi-faceted. I'll touch upon some impediments blocking the way to positive achievements, citing examples of past words and deeds worthy of emulation, not mere imitation. If you, expectant reader, will refer often to the plan, relating it to the text, you'll be better able to gather what is intended, and what accomplishments may be possible; also, what you believe might work better, were you the architect. I'll sometimes refer to history, sociology, technology, and certainly to architecture, esthetics, and culture.

The western mind is conditioned to analyze, breaking things down into fixed, static, categories. Yet the word Unity provides the key to a larger

understanding, since all life on earth, and beyond, is interconnected and seemingly part of a universal order. It isn't always possible to focus on one aspect of life without encompassing many others. In order to better understand how a city should be designed to function as a living, evolving, community, we need to touch upon a wide range of subjects which can't always be separated one from another. It won't be possible to investigate in one book, in great depth, many of the subjects touched upon. They are left for you the reader to pursue.

My approach to city planning may be more oriental than western. It is, in some ways, centripetal and intuitive rather than direct, logical, and always capable of proof. But it may be possible to condense it to a few subjects,

- What in my own understanding of past history is useful in the shaping of any new city, whether interpreted in a positive or negative sense, or in some new sense?

- What are the obstacles that have retarded the normal growth of cities?

- What in the old is worthy of preservation, and what should be discarded?

- What should be the purposes of a new city, viewed in both near and long range terms?

- What are the possibilities for building it?

- If it were possible, how should we go about it?

- To whom, or where, should we turn for advice and wisdom?

The remainder of this book focuses on the specific needs of any city, discussing generally pertinent aspects of various subjects, such as how people and machines will move about, what kinds of communities they might inhabit, and other concerns.

Near the conclusion, I've devoted a chapter to the architect, because it is architects who should be the primary creators and shapers of new cities, as servants and interpreters for an enlightened citizenry, within a democratic society. Planners would also be primary shapers, and those most needed should have solid architectural backgrounds in order to carry out their work successfully. If one doesn't comprehend, in one's entire being, how and why buildings are designed and built, one shouldn't be in the highly responsible position of shaping human lives. Inspired architects, as planners and dedicated servants of the people, should be the cornerstone and foundation of the best cities that may yet come in future. Without them, the confusion and chaos of the present will proliferate, especially if predictions of population increases come true.

THE ORGANIC

From early years in architectural school, my training was not along organic lines, in a comprehensive, wholesome sense. When I realized that college was incapable of implementing such training, I left to go where I felt sure I'd get the best of such an education. That early intuition has been verified over the years by my study and work with Mr. Wright, and in my own practice. Although as a young architect I didn't understand the meaning of the word organic, as I now understand it, it is one of the key words to what my work and this book are about. Four decades have confirmed that Mr. Wright was my greatest exemplar and teacher of its deeper meanings.

The almost mystical word organic has a wide range of meanings and interpretations. Various explanations by architects Louis H. Sullivan and Mr.

Wright, are the best I've found, but not easily transmitted by words alone. One needs to have some first-hand experience with their buildings, drawings, speeches, and writings to gain a fuller understanding. I'll try to convey some sense of what I know: It's largely, but not always, natural growth coming from the earth, according to governing laws and principles that are invisible. It is a budding, slow-growing entity, coming from within, and proceeding outward. Whether it's nature-given, or man-made, it is so designed or structured as to result in natural growth and outward simplicity of form. At its best, it arrives at great beauty of form, and a possible period of flowering, of use both to itself and to other life, yet ever-changing, displaying a life of outward repose. This concept is applicable to much in nature, from the minutest particle of matter to all that is vast and universal, from microcosm to macrocosm.

Any building would have quality if it were designed and built with a comprehensive understanding of the organic. The same criteria would apply to any city, only organized on a much larger scale and with a multiplicity of uses. Contained within any organic entity, be it flower, tree, building, or city, all parts relate to the whole as the whole to each part. What is organic is applicable to almost any material entity. No entity, if truly organic, could deny or defy nature.

Western thought is anti-organic. It may have always been so. At its foundations it is analytical and static. Men attempt to dominate and control nature, and obviously don't always do so with an understanding of the repercussions, the fall-out, the after-effects of dominance. Of course control and discipline are essential for achieving many things in this world, but limits to expansion are also important, which the western-conditioned mentality too often ignores. The organic is as much spiritual, or metaphysical if you prefer, as material; a unity is formed. In the world of building, whatever arises from within according to the concept of organic, will be in harmony not only with itself, but with all people who understand organic ideas.

Ordinary working people who labor on the land, are often far more capable of understanding organic concepts than so-called educated people. Many peasants have little or nothing to unlearn and are receptive towards what is natural and valuable, sometimes with direct simplicity, despite their limitations. Their lives are spent close to the ways of nature.

Most of the architecture we've grown up with, especially in cities, is not organic in the sense of the meanings I've described. Much of it arose from rigid, fixed ideas that are devoid of concern or sympathy for the life to be lived within any particular building or neighborhood. What is anti-organic uses the lives to be lived within a building, and the building itself, to serve other purposes, often the selfish purposes that frequently come with building ownership, minus the idea of serving people well. Such attitudes are anti-life! While serving in some ways the purposes of shelters, most of the buildings we know have been innately destructive of the best qualities in human life. The truly organic, in any time or place, serves people in wholesome ways. The anti-organic is innately destructive, although it may take long periods of time to assess the damage—sometimes, more than one lifetime.

I've always attempted to create new buildings along the lines of organic principles. If the renovation of an older building has been the concern, the same concepts apply, although they have too often been defeated by the ignorant.

These thoughts and ways of doing things came naturally my way at a young age. In my work I've learned many things from many people besides architects, especially from craftsmen and builders. My expressions of organic ideas have come from several sources, not all easily discovered and articulated. Mr. Wright often spoke and wrote about such meanings, of which he was the greatest advocate of our era. His thoughts on this subject are well worth the effort to seek out, ponder, and use.

Buildings are accurate representations of those responsible for erecting them, as are cities and towns. It's worthwhile to learn their non-verbal language so that you can read, take in, and interpret what is there. One of the most gifted and wisest of American architects, Louis H. Sullivan, who was the major influence in the early training of Frank Lloyd Wright, cogently expressed thoughts worth recalling,

> For the true cause of a building is not external, but internal. It lies, proximately, in the mind of one man, and that man the architect. If that mind is normal, the building will be normal; if the mind is awry, the building will be awry. Indeed, whatever the mind is, the building will be its image, regardless of materials, regardless of labor, regardless of cost.
>
> —*Kindergarten Chats and other writings**

NATURE

Another key word I'll be using to try to get across is "nature." Is there a more universal expression than all that this word implies? Aside from what most of us learn about nature from an early age, how does it relate to architecture, to any city, and to this city? It's a concept which is as material as it is metaphysical. The dictionary tells us it is "Essential character or constitution; distinguishing quality or qualities; essence.... The system of all phenomena in space and time; the physical universe; as the study of nature."**

* Louis H. Sullivan
(New York: Wittenhorn, Schultz, Inc., 1972), p.32.

** *Webster's New Collegiate Dictionary*
(Springfield, Mass. G&C Merriam Co., 1958)

Mr. Wright used to remind us often of the importance of nature study and he emphasized nature with a capital N. To understand the work of this great master is to begin to understand nature in entirely new ways, in ways I had never imagined when a young architect. I remember one of his Sunday morning talks, as we customarily gathered together for breakfast, with Mrs. Wright at his side. It was summertime in Wisconsin. Raising a glass, he asked what was its reality? After a silence, he answered, saying it was the space contained within, and not the glass itself. He then went on to point out that it was the same with a building. The reality was the living space within, and not the enclosing walls. While that now sounds simple, logical, and obvious, it was far less understood in the last century when he began as a young architect, in the 1890s. Even today, perhaps, only a few genuinely understand it, or have an interest in such ideas.

By building upon the same thought, the reality of any city would be in the living spaces within the city, the spaces within each building as well as between the buildings. Carrying that idea further, it would be the spaces between cities out in the countryside, and the space above the city comprised of the atmosphere, the weather, aircraft, and man-made chemicals.

The walls, floors, and ceilings of all buildings enclose or open up space, in a variety of ways. The photographer in the darkroom cannot think about positive images without also thinking about space around the images. It's much the same with the architect, except that in the world outside of the darkroom, space is not flat, or two dimensional—it is three dimensional, at least. So as architects and planners of cities, common sense tells us we can't consider buildings without taking into account what nature has provided: the vast bounty of natural growing things of all sizes and varieties, grass, trees, mountains, streams, pools, a lake, or an ocean. Yet how rarely is common sense applied? How often people have been spoiled and self-indulgent, as children sometimes are, constantly imposing upon nature without fully comprehending the consequences. We build within and upon the earth's crust, carving it all up, digging out chemicals and minerals, cutting down the

forest, saturating the earth, air, and water with chemicals. Much of that is obviously necessary in our world, but how often do we ponder where it all comes from and how our actions affect nature—and our own natures? Do we have reverence and a great love of it, as did many of our predecessors? (Some of the American Indians expressed their reverence in unique and genuinely conservative ways). Do we honor it and try to pay back in various ways for all we've taken? Or try, and succeed, in giving all our people a fair chance of enjoying its bounty and of sharing in its beauty? We're very far from that ideal, although some progress has been made. Fortunately, environmental issues are beginning to be focused upon in important ways, although it may be already quite late.

Too many of our cities are testimonials to our own aberrations and abnormalities, yet there are a few rare and glorious buildings and spaces that are the exception rather than the rule. At the same time, we're beginning to learn the rudiments of how to be less destructive. If we don't comprehend more in greater depth soon, moving unwaveringly in the direction of radical change, the future may be a continuation of muddling to get by, or worse, instead of one concerned with planning, good sense, and fairness.

QUALIFIED ARCHITECTURE

In the pages ahead I'll sometimes refer to what I call *qualified* architecture. With architectural training, it's possible to determine whether buildings and spaces qualify. But this word has many shadings and meanings, and it's a risky, if not a dangerous label to use. Its use is bound to get one into discussions and arguments. Ask anyone what it means, and you'll get at least as many answers as the messages in Chinese fortune cookies between Washington and Shanghai. But there are some guiding ideas and principles at work which are useful to the serious searcher. Although none are original, here are some qualifying criteria I've found useful,

ORGANIC What is genuinely so must usually qualify as useful, beautiful, and valuable. It will function as intended.

HISTORICAL The most organic would be the most valuable. The best would be indigenous to location and appropriate to the time and the uses of the building. It would be enjoyable and satisfying to the normal people of the surrounding community.

NATURE This may require more skill and experience to discern. Ask the questions, "What were in the hearts and minds of the people that built it? Did they love and revere nature? Fear it? Ignore it? What were their attitudes towards their own natures? How did they deal with their environment?"

SIMPLICITY Did the builders care about it and build it into their buildings and their environment? How was it manifested? Was it true simplicity or was it plainness? Those words have quite different meanings. Was it with or without ornamentation, and if with ornamentation, did that become an integral part of the building, or was it applied to the surface?

PLASTICITY A quality related to simplicity, continuity, and flow; all elements held together by the unity of the whole, relating to all the parts. A principle worth pondering, whether applied to a building or city, whether ancient or new.

MATERIALS How are materials used? Are they honestly presented as themselves and used to their best advantage, or disguised to be something they are not? How do they relate to other materials within a building and to surrounding buildings? Are they indigenous to the region where the building is

located, or imported? If imported, are they appropriate? How do they work with the various uses of the building? Where costs are an important factor, will they be affordable. How long will they last, and perform, relative to the hoped for life of the building?

MECHANICAL SYSTEMS

Are the various methods used appropriate to the geographic region, to the comfort and health of the inhabitants, and to the preservation of the environment? Are they economical to operate over the presumed life of the building? Is the system complex, simple, or somewhere in-between, and is the initial cost acceptable? If experimental, is it based upon past experience and common sense?

AESTHETIC

Is it based upon mathematical foundations or is it the result of accident or feelings? If only the latter, it must be suspect. As in the art of ancient times, does it preserve and transmit knowledge? Is there a quality of soul present? Can you sense unity, order, repose, beauty? Does it convey a sense of the eternal, or of expediency?

DENSITY

I'm referring here to the number and size of buildings within a prescribed area, relative to the number of people who will use the buildings and the spaces. Are the numbers and sizes appropriate and well-proportioned to achieve the aim for the overall area? Can the desired results be had by doing it with different sizes and numbers? Has traffic flow, for people and machines, been successfully taken into account? Can the machines, whether autos, aircraft, or something else, be successfully stored? How does the whole project affect the environment?

Some of these ideas come from my own experiences, culled from many activities over the years. I've worked not only as an artist-architect, but with many tools in hand as a laborer, craftsman, builder, supervisor, amateur musician and photographer, as well as itinerant aircraft pilot.

While books have added greatly to my pleasure and knowledge, the subject of this one has been distilled not so much from books, but from decades of living under a wide range of conditions. Sometimes circumstances were favorable, at other times hardly so. It could not have been written without having known, as a favorite math teacher once said, many sides of the coin.

There is much I learned from a city that Mr. Wright designed in the 1930s called Broadacre City.* I came upon it, fortunately, and the principles he taught in relation to it, at an early age. Throughout much of my life, I've applied my understanding as an architect and builder, not as his imitator, but as one who tried to grasp the essence of what he tirelessly taught. I was lucky as well, early on, to be allowed the privilege of partaking in a world of qualified people at work, many of whom still are.

Two years before I met Mr. Wright, a new world began to open up through a special teacher I had in my first year of college. He was a painter, not an architect-a tall, thin, gray-haired, good-humored Texan by the name of Kindred McLeary. He had inner and outer vision, was patient, soft-spoken, tough, but a kindly man with a fine sense of humor. He was unique in that school of architecture, and much his own man. He would have been so anywhere else. Had there been more like him, and if he had been given far more influence within the department, I might have remained in college. Luckily I found no other McLeary's, otherwise I might never have personally known and worked with Frank Lloyd Wright.

* The name given by Mr. Wright to a decentralized city he designed in the 1930s. His ideas for a new city were published in 1932 in *THE DISAPPEARING CITY*. In 1945 a book entitled *WHEN DEMOCRACY BUILDS* (University of Chicago Press) was published. Mr. Wright's last book on his city was revised and published in 1958 as *THE LIVING CITY* (New York: Bramhall House by arrangement with the original publisher, Horizon Press, Inc.)

A democracy should not let its dreamers perish.
They are its life, its guarantee against decay.

—Louis H. Sullivan, *Kindergarten Chats*

BIRTH OF THE CITY

Beneficial ideas for a humanized city will come into being, if and when the influences of conscious people are sufficient to receive, understand, and implement the best of inherited ideas. Performers in most fields of endeavor rarely jump from mediocre performance to the nearly perfect act, and so it is with cities, and with architecture. It all seems to be a slow, gradual, perfecting process, with outmoded skins constantly being shed as new growth takes over. Accommodation is generally arrived at for many; near-perfection probably never.

The cities we now know emerged mostly by way of an adjustment between animals, pedestrians, horses, carriages, and human necessities—a process that unfolded much by accident and not enough by design. In most cities there are the ever present tensions created by the push and pull between exploiters and the exploited; inevitable compromise destroying genuine performance, crystallizing in unmovable, rigid, grid patterns. When human despair overloads the circuits, there are riots such as those that occurred in the cities of Newark and Los Angeles in the 1960s. American cities have become the largest recipients of drugs in the world. Brutal crimes, drugs, and the disease called AIDS, are now of epidemic proportions.

There are many factors that influence whether cities grow, remain fairly constant, or degenerate. Some of these include weather patterns, migrations of people, population changes, economic cycles, scientific-technological change, war, and political change. As a result of frustration, anger, violence, and crime act as failure's escape valves. They almost never succeed.

Here and there, beauty emerges in features such as a park, made possible by a wealthy benefactor or courageous, successful fighter. A fine example is the gift and the blessings of Central Park, in New York City, or the joy of many a park in London, Paris, and other major cities. They afford great pleasure and relief to almost everyone.

IDEAS FOR CITIES

There are many accessible sources of information, from antiquity to the present, for the interested seeker. They are found in archaeological digs, libraries, and travel. There are people who have long studied and worked with cities, such as planners, architects, engineers, developers, financiers—a host of others. Since change throughout the world is constant, towns and cities are forever in the process of evolving, or running down the scale. Yet one of the best sources of ideas would be to pose questions to city dwellers, in a variety of locations. Much could be learned by asking people about their wishes, hopes, and problems concerning their own circumstances. If a sufficient cross-section of people were questioned, much wisdom and common sense would be brought into daylight. How often do the so-called "professionals" take into account the wishes of average citizens, fulfilling their needs, both material and spiritual?

Much good seed has already been sown where the aim is the growth of ideas that might result in fruitful actions. Those seeds are not always in the forms of buildings or new towns. For example, there's a wealth of knowledge and wisdom in the writings of Lewis Mumford, a scholar and observer of cities—historical and contemporary—over his long, productive lifetime. Through reading his books I came across Ebenezer Howard's remarkable concept which was published in 1898. Howard was an inventor of machines, not an architect or planner. His *Garden Cities of Tomorrow* is based upon the circular plan, and it's still fresh in its approach and prophetic of much that's happened in almost a century. At the center of Howard's plan is a five acre garden surrounded by a town hall, library, museum, theater, concert hail and hospital. From this center, boulevards radiate outward, as roadways in any radial plan, much like the spokes of a wheel. Surrounding his central city is the countryside. At the outer edges of the countryside is a large circular "Inter-Municipal Railway." This railway connects a ring of garden cities, which are separated from each other by countryside. What he calls a "High Road" connects these garden cities. Railways also connect the

garden cities to the central city. I didn't discover Howard's concepts until many years after I'd worked out the plan for my city. I was surprised and delighted at some of the similarities. His ideas are worthy of serious study. They are as alive and fresh as when he conceived them. Other beginnings have been made by qualified people in both cities and the countryside. In Mr. Mumford's writings there is much to learn about new beginnings in Europe, and in this country.

One of the most important sources of ideas is to be found in the legacy of Mr. Wright's work at the Taliesins in Wisconsin and Arizona, in constructed buildings, and in his writings. One of the main aims of Mr. and Mrs. Wright was to create conditions conducive to the development of young people, for creative work in architecture, and in other forms of art. In a talk to the Fellowship members in 1952 he expressed some of his ideas about cities,

> Maybe the modern city is one of the symptoms of what's the matter with us. It is really just the antique city, isn't it, with just gadgetry inside and out. What else is it?
>
> What one single modern thing have we, the American people, free, with a new great gift of ground, unspoiled—the Indians did not spoil it. We were fortunate; they were nomads. We didn't have any wreckage to clear away. We got the whole country. We brought over the Medieval city and planted it as the English had conceived it in the dormitory towns. What we got to start with was the English dormitory town. Now what have we done with it?
>
> We have crammed it with automobiles, poles and wires, gadgetry of all sorts, and the old city is still right there. There has been no change in it.
>
> *Frank Lloyd Wright: His Living Voice**

* Selected And With Commentary By Bruce Brooks Pfeiffer
(Fresno: The Press at California State University, I987),p.133.

The aims of the Taliesin Fellowship have been important and have met with considerable success. Life there was a unique pioneering effort that continues to this day, but along the lines of inevitable change. Coming from the school, over many years, has been a mixture of people from many countries, making important contributions to their respective nations and cultures, not only in architecture, but in many other forms of art, education, and administration. Many of the finest architects working today received their education there, although few have attained broad recognition and fame. But fame has little, if anything, to do with qualified work. There is much architecture in the world that is excellent, but not famous, except perhaps to a few people or a local community. There have been many famous architects throughout history, and in our own time, whose work is mediocre, or far worse.

A remarkable extension of the Taliesin community was begun by the Fellowship in 1937, in the Arizona desert, about twelve miles from the town of Scottsdale. In the late 1940s Scottsdale was a very small village; today it is a vast city spreading across the desert. Taliesin West, as it's called, became a national historic site in 1956. Thousands of visitors from all over the world have seen both Taliesins, experiencing an environment that can be found nowhere else. It's possible that eventually both locations could turn out to be nuclei for new cities.

The model of Broadacre City, which is kept in Wisconsin, has been on traveling exhibitions in many cities of the world. In this model one discovers the outward expression of the principles and ideas of the master architect. In Wisconsin, at Mr. Wright's home and ancestral land, rests the original home base of the school and workshops, the farm, drafting rooms, theater and other amenities.

Much approbation, as well as criticism, has been directed over many years at this unique group. Despite the many mocking, derisive, and

sometimes vehement reports about it, the foolish labels that have been pinned on it by the self-serving, the envious and ignorant, the aims of both office and school were not only to assist Mr. Wright in his work, but to cultivate creative individuals. Much of the destructive commentary has come from misinformed scholars, critics, and self-serving authors who have never had the experience of living there. Some of it may have been transmitted through them, from a small number of disgruntled former members. The detractors and critics may have done more damage than many realize, since wealthy publishers of books and newspapers afford them a wide audience. Only rarely does this audience have an opportunity to read things from firsthand sources, from those who've lived in this community, and from some who've dedicated their lives to it. I'm reminded here of something the great poet-philosopher Goethe said in 1831, which is as timely now as it was then,

> We have seen whole generations ruined or injured by false maxims, and have also suffered ourselves, Then there is the facility nowadays of universally diffusing every error by means of printing. Though a Critic may think better after some years, and diffuse among the public his better convictions, his false doctrine has operated meanwhile, and will in future like a spreading weed continue to work along with what is good. My only consolation is, that a really great talent is not to be led astray or spoiled.
>
> —*Conversations With Goethe**

The approbation, criticism, and sometimes slander and libel directed at the Wrights, the Fellowship, and former apprentices, covers a wide range. It's not my aim here to treat the subject in any great length or depth, so let's return to the more interesting and hopeful subject of cities.

* Eckermann; Translated by John Oxenford, ed. J.K. Moorhead (London: J.M. Dent & Sons Ltd. 1951), p.381.

The architecture of Henry H. Richardson, John W. Root, the Chicago firm of Adler and Sullivan, and later, that of Frank Lloyd Wright, are three of the greatest sources of qualified architecture that the world witnessed in the latter part of the nineteenth, continuing into the twentieth century. They profoundly influenced much that has been built in our era, although Richardson, and Adler and Sullivan, were not city planners, per se. Although their work was born in the nineteenth century, few qualified twentieth century architects have escaped their influence.

Better than reading books to discover sources of ideas, is to visit the buildings designed by these and other architects, especially those of a relatively small number of people who worked with, or were influenced by them. Their work reflects an understanding of organic principles; in many cases, emulation rather than imitation is fundamental to their creations. Occasionally one will discover qualified organic work by someone who had no first-hand contact with these masters, but somehow gained some essential understanding.

There are some excellent books which explain the meanings relating to the ideas of these masters—I recommended them to the reader. Some can be found in bookstores, but the older editions are usually only available in some libraries and private collections. The best sources are the specialized bookstores in cities like Chicago, New York, and San Francisco.

Much of the architecture built in our era, especially in the latter half of this century, has descended to the level of package design and trivia—scenic stage painting; some of it borders on the freakish, and much work is devoid of soul. There are too many performances in mechanical repetition that are faddish, idiosyncratic, gimmicky, empty of substance and feeling. Sterility of design is widespread, as is the lack of expression of the finer attributes of the human spirit. Inner character and integrity—the poetic

spirit—separated the great creators from the popular fashion-mongers of their own times. Men like Richardson, Sullivan, Wright, and others, tower above the general run of plan-factory architects and builders, both in their time and in our own. Since we've become a vast consumer-oriented society, it is perhaps fitting that the packaged box has become our most commonly built structure.

The finest ideas in architecture have come from those dedicated to ideals. Their identities are mostly obscure to the general public, and will be for some time to come. It takes time for such influences to disseminate and become more widely useful. Many such people are now scattered around the world, already having had a serious influence on the life around them, including the work of their fellow architects. Scholars, historians, the media, and most editors and publishers pay them little or no attention, knowing almost nothing about most of them. Nor are they always part of the "Old Boy" networks; they rarely compete for the big jobs. You won't often find them cranking out the ubiquitous glass or masonry boxes that the more conventionally-conditioned architects are building, en masse (though occasionally, one might do so in an act of desperation).

The best ideas in architecture are rarely sought by a materialistic, aggressive, and competitive society such as our own. The power brokers usually throw out the best and worst performers, settling somewhere in the middle. Mr. Wright used to say that about juries and competitions, and I have found it to be generally true about architect selection.

Acceptance of good ideas comes about very gradually, after long passages of time. It's difficult to resist the power of a good idea, given sufficient time and change. Those people who are awake, or are in the process of awakening, follow closely behind, or alongside, the great idea givers. Important ideas often get watered down, assuming common forms after a lapse of many years or decades, even generations. Conformity then

seems to take over. What was once radical, or of the root, becomes the accepted norm.

The best ideas for cities come from one's own experiences of living. Become familiar with your city's buildings and open spaces. Try to discover what works well and what doesn't, analyzing why. Use your imagination and common sense as to why and how things might be better accomplished, for the good of the whole. Don't allow the quicksand of compromise that sells out the beautiful for the easy dollars of the pragmatic, alone, to pull you down—nor allow sentimentality and idiosyncrasy to act as a disguise for essential inner character. Become actively involved in town or city planning, if you can. Study other cities when you travel. Always keep essential principles in mind, once you've absorbed them.

LOCATING THE NEW CITY

What locations would be appropriate for new beginnings? Do we now see the seeds of a worthwhile city sprouting? As good seed must find nourishing soil, so must any new village, town, or city—and not only in the literal sense. Some geographic areas are very promising for ease of construction, while others have inherent difficulties that can be turned into advantages. Geographically, some of the most advantageous land areas in North America are the flat plains, especially the open farm country of the mid-west, where American architecture had its most important beginnings. There, one finds drama in the vast flat stretches, the beauty of the farms, the wide open skies. The earth is free of excessive sub-surface rock and abrupt changes of elevation, swamps, or other special features. This is the best kind of land for urban growth. Were new cities to arise in the mid-west, the nation might redeem something valuable, by putting back on the land the many farm families already dispersed, only this time in various new ways. The big

question here might be what effect the so-called Greenhouse Effect might have?

Each new city should grow naturally, out of the special indigenous physical conditions that would be the key to its development, along with the character of its people. For example, with regard to the land, a city built in the mountains should become an integral part of the character of that region; in the desert it should become a part of the desert. Any city should be designed to be thoughtfully integrated with, and provide for, the genuine needs of the inhabitants.

At the present time, the coastal areas may offer the least attractive possibilities for new urban growth. They have been exploited, often badly, and sometimes over-protected for the wrong reasons. Many such desirable areas have been overwhelmed by commercialization, or limited to retreats for a small minority of the wealthy. Parts of the New England and North Carolina coasts are but two examples, where cottages are often built side by side, in long and tedious rows. In North Carolina, many are raised up on stilts at the ocean's edge, and built along the primary sand dunes where no building should he. They manifest little imagination in design or in site placement. While being built, they're strung together by electric wires and poles lining the roadways, unless and until bowled over by a hurricane—and then re-uglified by the restringing. Without unusual sensitivity to the ecology and the beauty of such areas, it would be a mistake to impose any city, of any size, on an attractive coastal area. Given the present lack of sensitivity in most of the country and the world, it would he a blessing to restrict most current building along the oceans' coastlines until better planning comes along. However, it's unlikely that restrictions will be imposed or enforced, in too many circumstances. That same missing common sense is likely to add to the proliferation of "developments," unless future ecological disasters are severe enough.

But the new cities will not be limited to the easiest building circumstances of places like the mid-west. Where nature has provided special and unusual conditions, which may prove difficult to develop, some of the most interesting cities may arise. Such topographical conditions, made up of many steep hills and valleys, now exist in large cities like Pittsburgh, San Francisco, and in many smaller cities.

If good sense is used, no new city will be located where the menace of earthquakes exists. But with constant change below the earth's crust, that may prove difficult, if not unpredictable. In some cases, where only marginal risk is involved, there may be compensating advantages in a particular circumstance. Considering the hundreds of thousands of tragically doomed people buried in crumbling buildings in this century, in Tokyo, Mexico City, Nicaragua, Armenia, and elsewhere, this is not a subject to be trifled with. But we have new chances to avoid past horrors if enough people act in time. In this new city, thanks to decentralizing and then reintegrating, few buildings will be bunched together, and most won't exceed more than a few floors in height. The taller buildings are located with sufficient space between them, as you can see on the plan. If a potentially remote threat of quakes exists, foundations will be designed to accommodate the shocks, as was rarely the case in the disasters mentioned. Because of the ease of mobility, and the spaces surrounding buildings, evacuation will prove simple; relief can be easily dispatched. Few cities, now existing, will have such comparable advantages.

Technology provides a continually changing toolbox, which will make possible new means and methods of construction. There will continue to be developments in lighter-weight materials, that can perform better than those commonly in use, and new fasteners, insulations, mechanical systems, electronic gadgetry and much more. Wouldn't our country be far more interesting if there were greater differences in the character of our cities and towns? I believe it would. There could be richness, variety, and beauty that

would be the result of differences in people and the qualities of their habitations. The attempt to impose one type of town plan upon any other would be foolish.

At his Wisconsin home, Frank Lloyd Wright created unique building forms, yet in ways related to what he accomplished in the Arizona desert. In Wisconsin he used stone from the outcroppings of sandstone and limestone in the nearby hills, large amounts of wood, and an ochre-colored plaster, made partly from the sand of the nearby Wisconsin river. All of the buildings blend harmoniously with the dense, gentle green hills, the winding sandy-banked Wisconsin river, and the rock outcroppings. These differences in geographic location, and the resulting different expressions in architecture, are part of the lifeblood of an organic architecture. At its best it relates to regional surroundings, as just described, but transcends region atone. expressing universal qualities. But that is a theme that could fill many more books.

When the master poet created Taliesin West, near the McDowell Mountain range, he did so in ways most respectful of the desert. He used the rugged mountains as a backdrop for the setting of the main buildings, leaving the mountains untouched. They became a feature to live with, look at and enjoy, as their countenance changes with the light and the weather. He arrived at a conception for the overall building design that would integrate a large supply of multi-colored desert rocks, of differing sizes and shapes, found around the building site. These rocks and rough-textured concrete comprise the major portions of the walls which enclose the inner living spaces. Except for the privacy needed for sleeping and living quarters, he opened the inner spaces to magnificent views of vast stretches of desert, far away mountains, and a wide overhead of sky and abundant sunlight, interspersed occasionally with rain, and more rarely. hail or snow. For overhead protection he had broad sheets of white canvas stretched between large, rough, redwood beams, allowing for a magical diffusion of light within.

He either left the native trees and cacti of the desert where they were, or he brought more in, increasing the natural beauty. These buildings belong to the Sonoran desert in the same way that all that is native there belongs to the buildings—the ironwood and palo-verde trees, the giant sahuaro cactus, prickly pears, chollas, staghorns, barrel, ocatillo, and other desert plants and trees. All is in perfect harmony with the hard desert floor, the mountains, washes, and the vast stretches of land broken by the staccato of rocks, boulders, living creatures, and the spirit of wandering Indian tribes, whose artists carved abstractions and symbols into large boulders.

Part of Frank Lloyd Wright's greatness was his ability to unify his buildings with the essence of each special circumstance, whatever it happened to be. They possess a sense of human scale and proportion, and a natural use of materials that created atmospheres of inspired grace and comforting repose. Only a few architects, in our age, have had such a highly developed ability. One can sense how nature and the spirit of his buildings have been united for the happiness of the inhabitants.

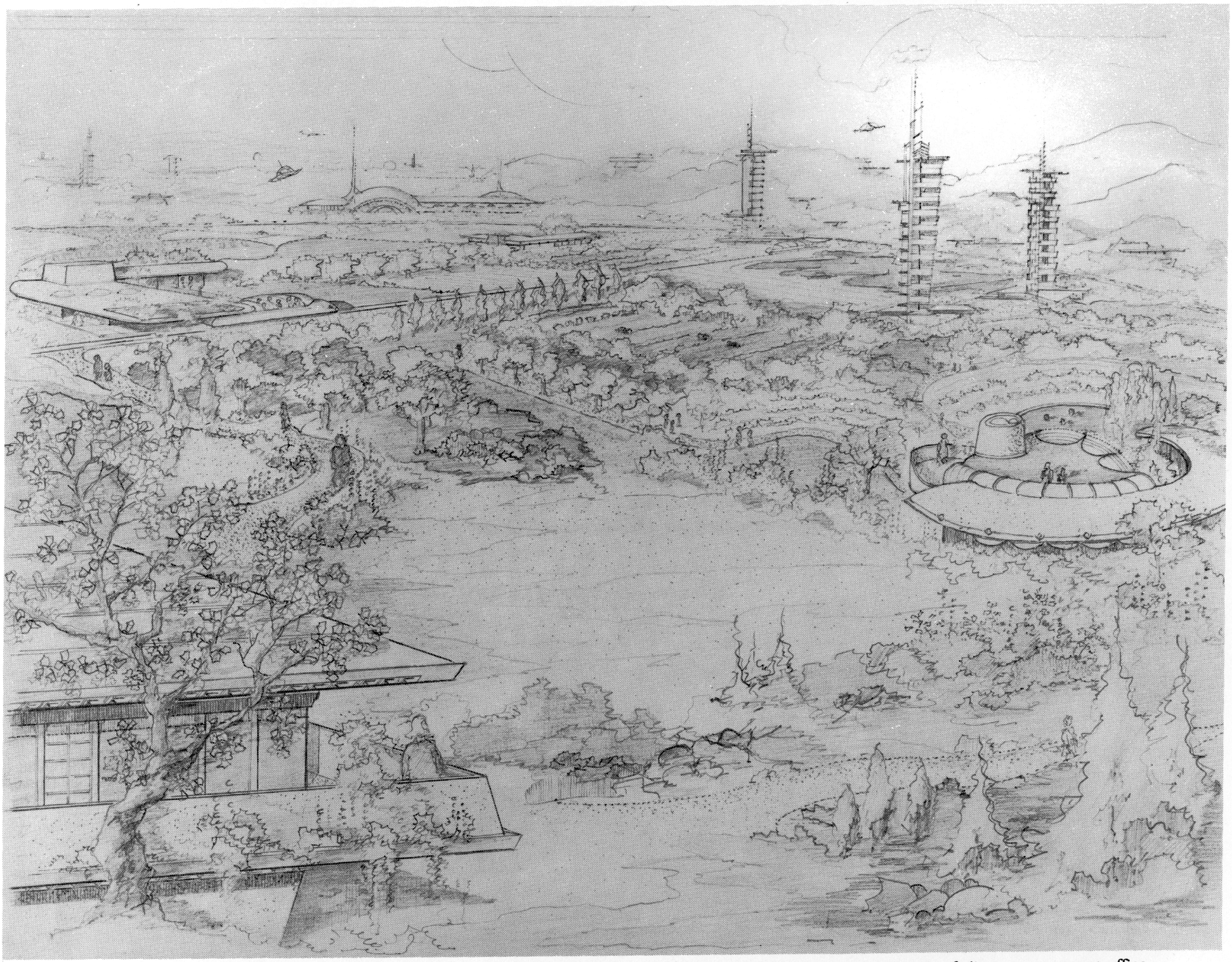
I keep bringing Mr. Wright into the limelight here, not only on account of my great esteem for him, which my readers have undoubtedly gathered, but as an exemplar from whom much can be learned if we ever want to build an environment of quality, beauty, and inspiration. I haven't yet come across anyone else, anywhere, who has done more of it better than he, or who thoroughly understood the importance of properly locating buildings and respecting the environment.

Architecture in the world is very slowly progressing, as more developed architects continue to emerge, trained in the principles employed by Sullivan, Wright, and other so-called "Prairie School" architects. Occasionally, when least expected, I've had the surprise and pleasure of coming across unusual examples of work that possess beauty and individuality.

In this century, the overall tide of change has brought benefits to many, as well as leaving too many behind. Much of the pretension of the past has given way to simplicity, although too often simplicity degenerates to plainness. There is greater recognition of the value of integrating the interior of a building with the outdoors. An awareness is growing, although very slowly, of the importance of the organic, in contrast to the imposition of a style. At the same time there is widespread ugliness and sterilization of the environment, caused partly by ignorance of what is organic, partly by sentimentality, by selling-out, and false compromise—hut also by indifference, greed, and misplaced moral and ethical sensibilities.

The demographic flood is potentially so damaging precisely because it is a flood; in other words, and un-managed, un-intended, disorganized rush, pell-mell, into the new urban order. But what this suggests is not a further confusion but the opposite intention—a fully humane one—to grasp the meaning of the phenomenon and produce urban settlements not by chance but by some measure of design. The first point is thus away from building the city by chance and towards to city built for human purposes.

—Barbara Ward, prologue to *The Home of Man*



50 CITYSCAPE VIEWED FROM LOW-RISING HILL • Rail-station at upper left. Views of distant apartment-office towers around a lake. Small office to the right. Gardens, orchards and green areas, pedestrian roadways.

THE PLAN

It is the circular or orbicular character of creation that baffles us. We cannot fit the sphere into the triangles and parallelograms of the terms of our experience. We cannot square the circle of infinity.

—*Accepting The Universe* *

John Burroughs, born in 1873 in New York State, lived on a farm near the Hudson River. Some of his ideas, thoughts and feelings have reminded me of those expressed by Emerson, Thoreau, and Whitman. During his eighty-four years of life, he contributed much to the ideas of caring for and preserving nature for future generations.

Humankind has been involved with the circle since our early beginnings, in ways both material and spiritual. The circular form seems to relate in essential ways to the basis of life itself, from the atom, to the universe, to time and space. Important ideas about the circular nature of space and time have existed since ancient days. They seem to have some basis that would benefit the basic layout of a town or city, if used intelligently. Both Paris and Washington D.C. were partly based on the circle, but they were conceived before modern machines existed. One reason why Washington is now in deep trouble, is the combination of the old roadway radial plan intermixed with a rectangular grid-system, plus fast-moving machines; the resulting traffic confusion is often appalling, as is the problem of the visitor in search of a particular location, and a parking place. Part of the cause for the essential confusion, which I've only touched upon, can be traced to differing ideas between two of its early planners, Thomas Jefferson and Pierre L'Enfant. The idea of radial avenues, so dear to planner L'Enfant,

* John Burroughs
(New York: Wm. H. Wise & Co., 1924), p.49

were imposed upon the highly rational checkerboard pattern which had enchanted Jefferson, and which he admired in ancient cities.

My reasons for choosing the circle as the basis for major roadways and canals, are based partly upon my own experiences, partly on intuition, historical precedent, and also on logic and common sense. Human movement is rarely in straight lines for very long; it's more akin to the patterns of angles and curves. Other cities are now, and perhaps new ones, will be based upon the square, rectangle, triangle, and combinations of all forms. Within a city, combinations of several forms are not only possible, but may prove desirable, whether for buildings or open spaces. The circle instills the discipline of conservation and economy. It keeps things from scattering randomly into space, possessing an extraordinarily beautiful form of movement and flow.

Architecture begins at ground level, so I began my plan there. Stretching far into the horizon of space, the ground is the baseline upon which all building and land-based life takes place. Space travel may alter that, but not for most of us at this point in time. Although zero gravity and the loss of the directions of up and down may be the habitat of future generations, living and working far beyond earth, we're not concerned with them here. Our wondrous earthline should inspire affection, for it's ours to work within. Unless we eventually learn to live and work well on earth, how are we to do so in space, within a reasonable period of time? Here the old axiom holds, that we carry ourselves with us wherever we go!

Living architecture begins with the plan, and with the arrangement at ground level of point, line, and plane. If you establish a center, then add points around the center, you arrive at the circle, or arc. All circular shapes can take upon themselves a form appropriate to the life to be lived within the enclosing walls, whether a building, seashell, or a city. Within the new city, however, there will be no enclosing walls as there would be with any

circular building. The city's countenance, both material and spiritual, takes on new life as it emerges from the plan into three dimensions.

Two of America's finest architects, Thomas Jefferson and Frank Lloyd Wright, had many things in common. They both believed in, and practiced, the idea of using space in the countryside as a means of securing freedom and happiness for the individual. Both men, quite naturally, were true to many things, but both loved the land and growing things. They were appalled at the herding of people into cities; Jefferson in his own colonial times, Mr. Wright in early and mid-twentieth century.

In the new city, by way of the plan, dignity in terms of land and space belongs to each individual as a birthright. There is space for walking and running. for study, work, recreation, pondering, and for the simple enjoyment of space itself. Some open spaces within the city will be more confining than others, particularly to satisfy the need for various kinds of intermingling for economic, social, and cultural purposes. All space, which is itself the great reality of architecture, should be appropriate to individual and communal needs.

The circular plan for main arteries insures simplicity, and getting around will he relatively easy, yet interesting. Moving from one place to any other will be far simpler than in almost any city of comparable size now in existence. It will be hard to get lost, since the distances of major roadways can be spaced at regular intervals from the center, less or more if appropriate. Within this overall plan, four ninety-degree quadrants are laid out. Road signs will be color-coded for quick and easy recognition, adding greatly to safety. Certain basic signs within a ninety-degree quadrant might have one color, say orange, with an orange notation on part of the sign. For people's uses, and especially for visitors, color-coding would be referenced to map. By noticing a particular color, you would quickly recall your general location. Where possible, major axials will run north-south and east-west, as well as at forty-five degree angles. Of course the major axial directions will vary with the city's location. In all moving vehicles, a simple electronic

direction-finder will become standard equipment, as in today's aircraft. Getting lost, wasting fuel and time will be difficult, unless one chooses a more leisurely journey. For that purpose there are numerous subsidiary, winding branches.

Many cities now have highway loops around them. Since most of them were built long after those cities were established, there hasn't always been a freedom of choice in locating them. Beginning anew, they can be optimally located in terms of usage, economics, beauty, and their relationship to the topography. They would act in much the same way that a modular or unit system acts, for any building designed with it in mind. That is, the)' would help to define and contain specific areas of the city. Such a circular roadway layout, performing in similar ways to a rectangular grid-system, would keep buildings and open spaces from being haphazardly scattered. It would mean the difference between planning for things, or just letting them happen, accidentally or otherwise, which is one of the curses of our cities, and only occasionally a blessing.

It's not surprising that many, if not most American cities, have already built modified circular roadways surrounding them, which has been a victory for common sense. In Dallas, Texas, both inner and outer roadways are easily seen on a map, although only one circle is complete. In almost none of these cities is there a comprehensive, close organic relationship between the roadways layouts, the planning of communities, and the design of buildings. These three important features of any city are treated as being generally unrelated to each other, and even more rarely, to the general welfare of most citizens.

When viewing the plan, it may seem that circular roadways will confine, as do barriers, anyone living within the rings of the road system. In reality, such circular pathways may only he noticeable as parts of a great circle. Trees and landscaping will do) much to soften their presence. One will be conscious of the horizon, of buildings, objects, people, and animals, but not of the arterial system as a layout of rings.

PRESERVING THE PAST

Why not save old buildings if they are of genuine benefit? But why save them if it saps the possibility of creating something of great value that is new, fresh, alive? Who is to say? If you go to Europe, Asia, or elsewhere, you can learn something about what is worth saving and what's not. The experience of visiting buildings from former eras can add new dimensions to a knowledge of architecture.

People maintain, at great cost of time, energy, and money, many mediocre building activities which are often of questionable value. Some of the most unfortunate happenings in smaller towns and cities are performances by young "developers," suddenly become "experts." These home-grown, or imported, instant planners and "architects" are quite often well-endowed with dollars, but of dubious inner stature in architecture where dollars leave off. A typical performance in one of our country's older regions concerns the renovation of either a genuine old "Colonial" building, or a pseudo—"Johnny-Come-Lately"—"Colonial." Most often the "interior decorator" is the wife, or a friend, making the rounds of the local wallpaper shops and antique stores.

Occasionally, a qualified performance comes through and something valuable is brought back to life. Too often, the results are a distortion of the genuine Colonial genre, or otherwise, inorganic contemporary sentimentality —unrelated either to the past, or the unborn twenty-first century. Such adventures often turn out to be misguided tributes to ancestors who in many cases never existed, clear manifestations of inability to live strongly in the present. As the old saying goes, "Jam yesterday, jam tomorrow, but never jam today."

Thomas Jefferson was one of our first and finest architects. His many accomplishments in architecture lived for too long in the shadow of his other famous deeds. There are many lessons to learn concerning his buildings, his

ideas, that can be a guide for preservation in our country. If any early American work in the South is worthy of preservation it is his. It still speaks to us in important ways if we understand how to interpret it. Too much of his legacy was turned into misfortune, which is still the case, by way of regurgitated, false, and dead expressions.

He admired and copied ancient Graeco-Roman architectural elements, adapting them where he believed it appropriate. His design for the State Capital in Richmond came about due to his visit to southern France where, in Nîmes, he discovered and was inspired by an ancient Greek Temple known as the Maison Carrée. It didn't get built in Richmond, the capitol, as accurately as he had hoped, and Jefferson may not have seriously considered the appropriateness of adapting a building designed for ancient purposes and lifestyles, to an emerging frontier nation.

In his home, called Monticello, near Charlottesville, Virginia, which was then located in a vast wilderness, and in his design for the University of Virginia and in other buildings, he continued adapting from the ancients. He was also influenced by the Italian architect Palladio. It's tempting here to slide into a discussion of the merits or demerits of his practice of using foreign elements in his designs, but that would get us off the main track, yet a few things are worth mentioning. If what he did has been foolishly imitated in the nineteenth and twentieth centuries, as commonly done, the efforts have always attempted to turn back the clock. This has elicited even greater confusion than the vast amount now reflected in the work of a host of conventional architects, and a plethora of "builders," made known to a wide audience through many magazines and other forms of the media.

What Jefferson took from the ancients was not substantially his own and was equally as alien, at that time, as now, to the world of Monticello, Richmond, and the American colonies. What was genuinely his own, in his admirable work, is less easy to discern but is indicative of his ingenuity, inventiveness, good sense, and essential humanity. It's that part of his work which is an expression of what was native and indigenous to the actual

circumstance of each building he built. Foremost was his love of the land and reverence for living, growing things. He understood that any society divorcing itself from nature, as has much of our own, must suffer serious consequences.

In reaching back to the ancients he revealed a striving for universal forms beyond the essentially hand-crafted, earth-bound accomplishments of his countrymen. While this added a certain grandeur of dimension to his work, it caused him to place too little emphasis on the value of things local and regional. Where he did make use of things regional, such as native brick, his buildings were rewarded. Jefferson's unique inventions, such as the wine-dumbwaiter, famous clock, and double-opening glass doors, reveal not only his ingenuity but his practical playfulness.

Part of his greatness lay in the ways he wedded his buildings to their sites, and his manner of developing those sites; his concern for every detail related to the needs of the occupants. At Monticello, and elsewhere, he created a delightful flow of interior space. He understood, very well, the form of the octagon, which he generously used. His home's feeling of freedom came about by the ways he oriented rooms to the sun, views, and opening interior spaces to the outdoors—his ingenious use of fourteen skylights. Jefferson achieved further freedom by extending long wooden walkways from the house, called dependencies, both north and south, facing a vast panorama of mountains and hills. At Monticello one senses a great unifying principle at work in terms of the land, buildings, and growing things; perhaps it's a reflection of his essential Unitarian faith. All elements are in appropriate places and laid out in interesting ways: walkways, gardens, lawns, orchards, vineyards, the circulating roadways called *roundabouts*. The service areas are ingeniously tucked one level below the dependencies, where they can't be seen from the house, yet serve as intended. An underground passageway cleverly connects them with the main house, especially useful in winter and in inclement weather. The cooking, storage, stable, and servants' areas, comprising the lower dependencies, have the advantage of facing the

distant panoramas without obstruction. But these features also say something about the nature of a slave-based society, with labor of many kinds available. Jefferson understood the pernicious evils of slavery, which in fact he began to abolish in Virginia, through legislation.

In his later years he gave birth to the University of Virginia, with the assistance of his friend James Madison and others. He was its chief founder, its first and best architect, and intimately involved with every detail of its construction. He created one of the most unique, practical, and humane college campuses in our nation. It is organic in the sense that all parts relate to the whole as the whole to the parts. The overall plan is masterful and relates harmoniously to nature. In his ingenious design for a garden wall, one-brick wide and serpentine in form, we again see the marriage of the practical and the beautiful. Many such walls surround some of the most beautiful courtyards and gardens found anywhere. They are a tribute to the best he had in him as both a building and landscape architect.

I agree with Lewis Mumford that the most serious mistake he made was the building of the large Rotunda, which originally served as a library. He reproduced the Pantheon in Rome, but on a lesser scale. It is a discordant note in the overall scheme of Jefferson's original masterpiece. Characteristically, he ventured deep into territory that was foreign, not his own. This detracts, somewhat, from the simplicity and modesty of the original concept.

As Mumford notes in an insightful essay, the long neglect and indifference to Jefferson's accomplishments was a great loss for our country. In assessing the value of Jefferson's ideas for the University he says,

> It puts the work of his contemporaries and successors for the next fifty years distinctly into third rank. If Jefferson's achievement here had been studied by his successors with some of the reverence and love and understanding that it has belatedly received, the course of American

architecture might have been appreciably changed; and changed, of course, for the better.

The South In Architecture *

The University of Virginia campus built after Jefferson's passing is a paltry shadow of his great spirit. The outwardly imitative forms are there, but the essence and living vitality are gone, with a few exceptions. Some buildings display pretentious mannerisms and idiosyncrasies. Jefferson's great rectangular plan called for one end of the rectangle to be free of buildings, with views of distant mountains. This was intended to symbolize the opening of the new nation to the west, which Jefferson had accomplished through his astonishing purchase of the Louisiana Territories from France. The University officials, in the closing years of the nineteenth century, spoiled his plan by erecting a building off the site which Jefferson wanted left open. Shortly before his death, he wished to locate a botanical garden there, giving specific instructions concerning it. This was done and lasted until they unfortunately built, where his garden was, a derivative structure designed by the Beaux Arts firm of McKim, Mead and White. It was named Cabell Hall and it's now flanked by Coche and Rouss Halls, also designed by the same firm and built around the same time. All three buildings are out of harmony with Jefferson's ideas for an "academical village."

The University has failed to solve a present formidable parking problem, especially for visitors, but they maintain the grounds very well, for which credit is deserved. More recent on-campus buildings are fortunately of brick, and there's been an attempt to achieve simplicity. While many new buildings express a move in new directions, ignoring the idiosyncratic, most don't make up for it in inspired beauty, humanness, or delight, with one or

* Lewis Mumford
(New York: Harcourt Brace and Company. Da Capo Press, 1967, pp 76-77.

two exceptions. Mr. Jefferson' great legacy has yet to be redeemed in ways that I can only guess might please him. That may not happen for a very long time, if ever.

Unlike most politicians throughout our history, he understood the importance of architecture as basic to a civilized and progressive nation, and world. He knew they are inseparable—that the success of any nation will essentially depend, concurrent with democratic principles, upon the quality of planning and building. Few in government have equaled his understanding and ability to act on these ideas—today none have. His university's school of architecture, oddly, but not surprisingly, had as one of its chief role models, the work of a Swiss-French architect named Le Corbusier. Le Corbusier's ideas, extolling bureaucracy and totalitarian regimentation, are in direct opposition to the humane values that Jefferson stood and fought for, during his long life.

Since Jefferson's death, many people deserve much credit for saving and preserving what has come down to us of this great man's legacy. It's a wonderful and priceless heritage which is, happily, now maintained not as a museum exhibition but as vital and alive.

It's a waste to destroy the old that possesses genuine worth, and that qualifies as objective art, or at least as masterful performance. In 1968 a great building in downtown Tokyo, famously known as the Imperial Hotel, designed by Mr. Wright, was destroyed. One of the finest, most interesting, and beautiful buildings ever built, it was based partly upon ingenious engineering principles, which allowed it to withstand the great earthquake in 1923, that killed one-hundred and forty-three thousand people. To stay there for any period of time, even a few days as I did, was an unforgettable experience. Why did the wrecking ball put an end to such rare life? It did so in order to replace a magical world of beauty, interest, wonder, satisfaction, and joy—with an upended, uninspired and easily forgettable commercial box. The new building erased an important part of world history. Those who

built it were insensitive to what they destroyed, or were they backed up into a corner and either unable, or too cowardly, to fight their way out? Their apology was to rebuild parts of it in Meiji Park, in Japan, which is solace of a sort, but far from the real thing.

After returning from a trip to Japan in 1964, I wrote to the American Institute of Architects about the building's impending destruction. I received a nice reply, but as far as I know, the AIA did nothing to save it. A committee to rescue it was formed in Tokyo in 1967, with Taro Amano, a former Wright apprentice, acting as chairman. The committee was backed up by 9,000 Japanese citizens. Mrs. Wright met with Prime Minister Sato, the governor of Tokyo, and several ministers, in a valiant effort to save it. Edgar Tafel, a New York architect and one of the first Wright apprentices, also made serious efforts. He told me that in 1967 he went to see the president of the AIA in Washington, D.C., and to plead with other Foundations to save, at the very least, parts of the building. His hope was that some institution, or private group, would recreate a complete room with all of its original furnishings. He told the AIA president that he was going to Tokyo and could get some of the building saved and brought back to this country. Tafel did obtain a chair for the State College at Geneseo, and a few artifacts for the University of Buffalo.

When a great masterpiece is at stake, few things are more destructive than organized power coupled with money and insensitivity to the qualities of the soul. After Jefferson died in 1826, and his family moved away in 1829, Monticello was purchased by James T. Barclay. In 1836 it was sold to Commodore Uriah P. Levy from New York City. The best description of its fate is written adjacent to the gravestone of Rachel Philips Levy, who is buried in the embankment above the garden. It reads as follows: "At two crucial periods in the history of Monticello, the preservation efforts and stewardship of Uriah P. and Jefferson M. Levy successfully maintained the property for future generations." About half a million people visit there now each year.

Mr. Wright's Taliesin went through a long period of neglect and abuse. In any new city, valuable pre-existing buildings should be preserved and sensibly integrated with the new. In most American cities, preservation has long been underway, sometimes quite successfully.

FOOD PRODUCTION

Agriculture ought to become a great new partner in the life of the city in the coming century. The citizen who enjoys growing things will have close contact with nature. Ample space can surround the home for a garden, fruit trees, and vineyards. Trees, shrubs, plants, and especially flowers, will be found everywhere around community markets and gathering places, much as they are in Europe. Small and medium-size farms should exist, within, and throughout the entire city; larger farms will be situated towards the outer perimeters and beyond. New attitudes are needed to make it impossible to sell out the city farm, or use the land for other purposes. The city's farms, unlike today, should be protected and guaranteed the rights of continuity, from one generation to the next. Farm families will need to convince their fellow townsmen of their abilities to manage their farms well, in order to maintain their rights of ownership and perpetuity.

Produce will not have to be hauled long and expensive distances, with the exception of certain specialty items, thereby improving freshness and eliminating the use of preservatives. Much will be home-grown, canned, and stored—local food cooperatives will abound. High concentrations and monopolies of food sources and supplies, unless they supply some unique benefit, may either no longer exist or be greatly lessened. A welcome resulting benefit should be the reduction and eventual elimination of chemicals in the earth, air, and water. Since food production will be more decentralized, many now unemployed and living on a government dole will be able to find agreeable, productive jobs. Where large scale farming proves desirable, it should be accomplished beyond city limits. Organic gardening

and contour farming practices should replace all present destructive ways and means, although biological advances may make safe the use of some chemicals.

Welcome changes would come in the taste of some foods, if organic growing methods become more widespread. I remember well a garden salad I enjoyed, many years ago, while traveling through the French Alps. The tomatoes were unlike almost anything one finds too often in an American supermarket. Much of our food has become contaminated—like our atmosphere. Many born today have never experienced truly clean air. I discovered it, delightfully, long ago on a trip to Iceland. I suspect that we've forgotten the qualities of many real things, since we've become so used to neatly packaged substitutes.

Aquaculture is growing in importance. The long haul from distant lakes and oceans might diminish by way of superior knowledge, and local and state efforts in aquaculture. Kelp and other foods may become a greater part of diets, much as they are now in many parts of Asia. Underwater farming, now in embryo, may become more valuable and receive greater support. In aquaculture, advanced research may make possible self-sufficiency by way of a marine tank within the home. Yet the present practices of ocean fishing will probably long continue, and obviously should, concurrent with successful practices of cleanup and pollution control. The brutal mass destruction of dolphins by companies, in pursuit of tuna, needs to be ended through education, international law-enforcement, and boycotts.

If intelligence combines with the will to plan and build for man's benefit, the terrible effects of chemical and other pollution could diminish and disappear. That may be a long time in coming unless speeded up by more large-scale ecological disasters, such as the ones at Chernobyl, Bhopal, and the potentially catastrophic warming of the planet. If pollution diminishes, so will some dreadful diseases and deformities. Nature appears to be greatly forgiving, although sometimes slowly, where man cooperates; but only up to the "point of no return," as the old saying goes. There are

people who have much knowledge and experience in the production and distribution of healthy food. The future should belong to them and not those, far removed from the scene, interested mainly in profit above other considerations.

WATER SUPPLY

Before any new city is built, serious consideration needs to be given to the quality and quantity of water available from the potential sources of supply, especially with regard to future requirements. If the scientists' evaluations prove to be correct concerning the warming of the earth's atmosphere, water may become one of the most important concerns everywhere, and for many reasons. This is applicable especially in the raising of farm crops. One of the best solutions may be to build smaller cities closer to adequate water supplies, within a regional plan of smaller cities.

Unless world populations remain stable or diminish, the problems connected with water may proliferate. In 1987 and 1988 many farmers experienced much pain and loss, in the southeast and mid-west, when those areas suffered serious droughts. In the southeast the government made a brief effort to assist with airlifts of hay from the mid-west. As so often happens it was too little and too late for many. Much of the real help came from the considerable goodwill of many northern farmers, who made substantial efforts to truckloads of hay to starving cattle, sometimes at great cost to themselves. During the terrible drought of 1988, help flowed in similar ways from the south to the mid-west. Such scenes as these may become commonplace in the future, unless long-range plans are made to deal with water problems. Since the total population of the earth is expected to double in the twenty-first century, it isn't hard to imagine what humankind will face, not only in terms of water usage, but in terms of a multiplicity of problems, many of which even now aren't given serious attention, or are "swept under the rug."

The quality of water in many places in this country has badly deteriorated over the last several decades. Even expensive bottled water has come into use as in many less developed countries. We need to restore the decent quality of water we once had in abundance—and not all that long ago—in lakes, streams, rivers, and for drinking.

In this city most dwellings will have their own wells, with pumps set deep in the well pipe, as now practiced. Where it's practical, and costs can be reasonable, city water distributed through pipes makes sense. Several main sources will exist in the form of catchbasins and reservoirs located on the periphery of the city, whose contents can be piped underground to where needed. Whenever possible, both small and large dams could be built for generating hydroelectric power. Rather than one very large dam and lake, a series of smaller widely scattered ponds and lakes could be utilized. This would allow for greater independence and less reliance on one source. Most could be usable for recreational purposes and marine-life cultivation and protection. Should any natural or man-made disasters occur, reliance upon several sources may prove safer than on one. Building new dams can create a host of problems related to the destruction of natural, often ancient environments. Perhaps by creating new lakes and dams on a smaller scale, serious problems can be avoided, or minimized. Research and study, before starting any demolition and construction, are obviously necessary, as well as continuing studies and monitoring.

POWER and UTILITIES

The subject of generating and transmitting power is important, and basic, to the quality of life. The primary sources of power for our cities are now fueled by oil, coal, gas, water and nuclear energy. There are many dangers connected with these sources, and the supplies of fossil fuels may be limited. Reliable global knowledge about coal and gas reserves may not be fully known. Solar power is in the early stages of growth, while

photovoltaic and geothermal energy are coming more into use. A new breakthrough in the quest for fusion energy offers enticing possibilities for clean energy, but may need twenty more years, at least, to develop. The use of storage batteries, combined with photovoltaic energy, is still expensive. While the costs of developing new forms of energy are expensive, so are the costs of cleaning up the environment, dealing with the causes of acid rain, and the destruction of forests by chemical contamination. The most serious consequences of using fossil fuels may not yet be fully known, with regard to the Greenhouse Effect. If scientists' predictions come true, all of life will be profoundly affected, as the polar caps melt and the oceans rise from either five to eighty feet, within the next hundred years. Even five feet would be a disaster for many countries. What a great incentive to develop non-lethal forms of energy!

New developments in technology might enable the capturing and storing of heat and cold, finding it in the earth, air, in water and in sunlight. There may be other sources less well known. Revolutionary roadside collection devices might capture the breeze and wind from moving vehicles along highways, airfields, and canals. Cities near the ocean will benefit from the winds and tides. Scientists should be working, around the clock, to investigate all possibilities for the generation of energy. Considering the Greenhouse problem, there may be less time remaining to develop alternatives than is commonly thought, and accepted.

In the proposed city, water power should be used as much as possible, as well as any available geothermal energy, or underground hot springs. Additionally, I've placed windmills and solar collectors beyond the outer perimeter roadways. All buildings should have solar-collectors and wind-generators integrated with their mechanical systems, if appropriate to the climactic conditions. Whatever surpluses they generate could be fed into the communal network.

Most buildings should be designed according to what are called passive solar principles. Passive solar makes use of features that absorb or

reflect heat from the sun by non-mechanical means, for example, roof overhangs, glass walls facing south, earth banked up against masonry walls (berms), and more complex techniques. Passive-solar ideas have been an integral feature of organically designed buildings, going far back in time; existing long before solar ideas became fashionable in the early 1970s after a major oil crisis.

Attitudes towards the cooling of buildings should change. The super-cooled buildings of the present are a menace to well-being. Due to the nature of the new city, pollution could diminish and eventually disappear. Buildings would no longer need to be sealed as so many now are, causing illnesses and other complications. Except for very specialized structures, windows almost everywhere should be operable. There are ways of cooling buildings by natural means that have long been used in tropical climates; more should be done along such lines.

After the generation of power comes the problem of distributing it. This city's orderly arterial system of circular roads and canals provides the natural pathways for its underground distribution, when not generated by buildings themselves. Poles and wires, as in Broadacre City, will be buried in the ground, in contrast to the mammoth and haphazard aerial grid-patterns of the present. Coming generations will still see, unfortunately, poles and wires in older cities. (future popular song-writers will probably include them in nostalgic songs of their past ... our present). In new cities, substantially fewer power lines will have to be supplied to buildings, due to integral generators. Gone will be the ugly, disfiguring pole and wirescapes strung out across a once beautiful continent, desecrating an entire nation. New ways of transmitting energy over both short and long distances may radically change the future.

SIGNS

Signs should be used mainly for giving directions or information about an area or community, and not for the advertisement of products. Commercial road signs, as they now exist, in all their tawdry cheapness—as impositions on the landscape—should no longer exist. The large amounts of human energy, resources, and money that now go into supporting this disfiguring industry should be diverted to other uses. In their places, in more modest ways, might come imaginative and artistically designed sign-sculptures. At night, new ways of illumination can come into general use. The general approval of nearby communities should be secured for their use and placement. They can become as much an integral part of the architecture of the landscape as anything else, providing interesting grace notes. They need to be designed and erected by people with an understanding of architecture, so that our once beautiful countryside, and cities, can become more interesting and pleasurable because of them. A new world of expression will open up to artists, craftsmen, and builders. The indoor art gallery will move outdoors, on a more permanent basis, for all to enjoy. Interesting jobs will become available to thousands, where they now don't exist. The wholesale vulgarization of the landscape and cityscape by an aggressive, blind, industry, that turns its back on the best of new ideas, should go the way of the dinosaurs. People engaged in that kind of work need to discover what new possibilities there are, by getting in touch with creative architects and designers.

There clearly has never been a personal possession which satisfies a greater variety of legitimate needs and more dubious inclinations.

—Barbara Ward, on the automobile—*The Home of Man*

TRANSPORTATION

Any successful plan for moving people, animals, and goods should employ a multiplicity of means, each adapted to its particular task. Traveling distances ought to be minimal, unless the wish to see some attractive scenery or buildings means a longer route. That won't happen unless things are intelligently laid out. The scene in most cities today, all too familiar, is a picture of masses of cars, trucks, buses, motor-cyclists—all herded together moving in great waves and producing noxious fumes and quantities of heat, adding to atmospheric warming. Human frustration and anger continue to grow with what is now well-known as "grid-lock," reaching headline proportions in New York and California. Millions of city dwellers now spend a significant part of their lives in autos, trucks and trains while breathing contaminated air under stressful conditions. The effects on peoples' health can't be dismissed. Each year in Europe about 90,000 people are slaughtered on the highways; over 50,000 die in automobile accidents each year in the United States. Hundreds of thousands of Americans are injured and crippled, as lives and families are damaged and wasted; yet working to bring change seems to have low priority in peoples' lives.

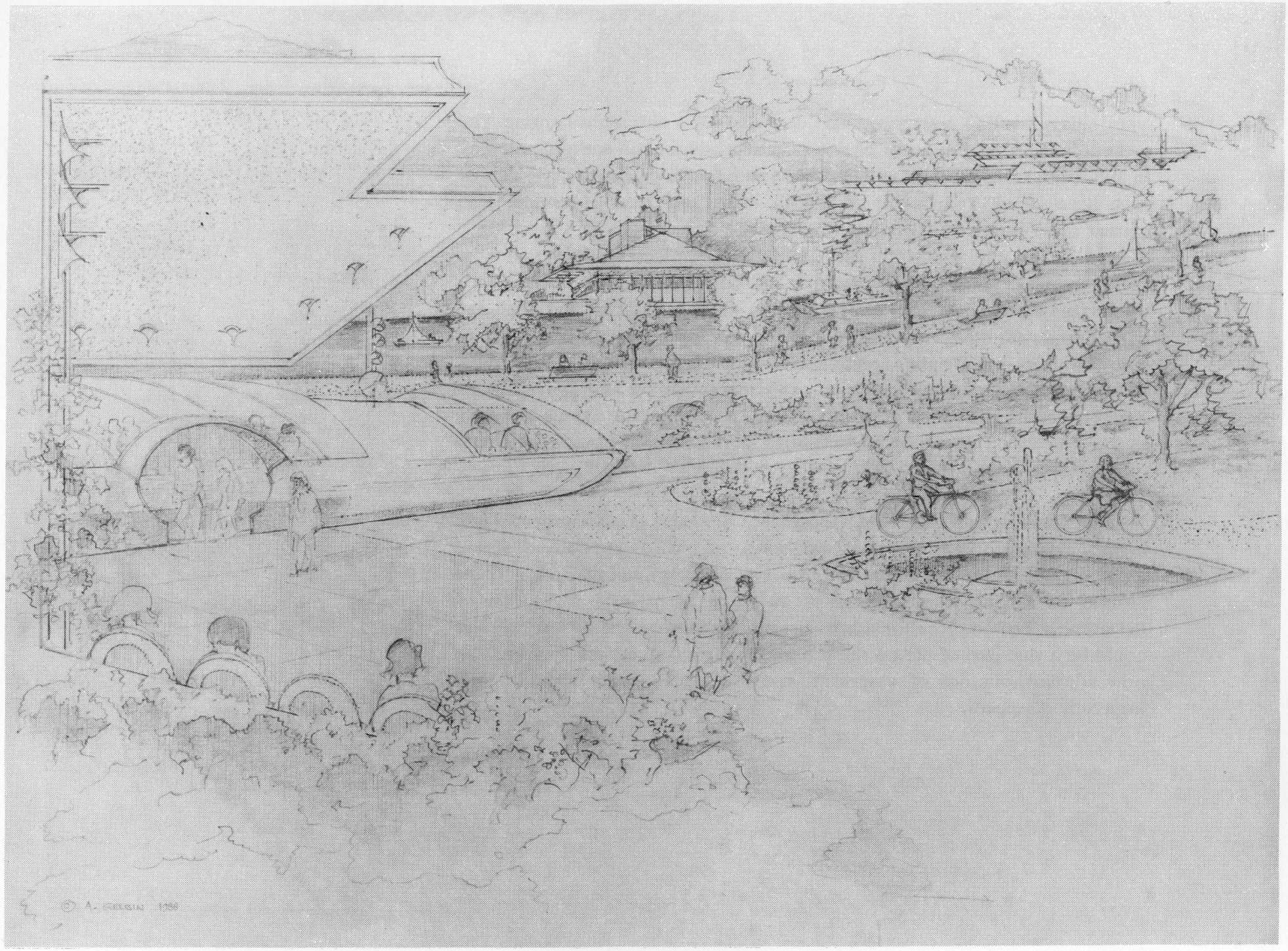
It is vital that trucks, rail-traffic, and heavy freight be separated from autos and pedestrians, wherever possible. The present mix is dangerous, wasteful, and unpleasant. We need vastly improved highway and road engineering for secondary roads—far higher standards for the privilege to drive any kind of vehicle, and more on-the-scene, attentive policework. Also needed is better driver education and greater toughness for willful violations of decent standards, while maintaining mercy for human frailty.

The arterial network of the new city is designed to eliminate many of the most vexing problems of the present tortured system of roadways, both in towns and cities. The decentralization and reintegration of parts of the highway network is one of the keys to a better future. Many driving hazards should be eliminated or minimized, especially ditches alongside roads. There's a scarcity of parking strips for breakdowns, an absence of

guardrails, as well as poor street and direction signs and night lighting. The present menace of thousands of deteriorating bridges is a serious problem. In 1987 about one-hundred and fifty collapsed, nationwide, and many people have been killed. The failure of federal, state, and local governments to correct these problems is reprehensible.

This city, which you can view in the overall aerial drawing, makes use of an ingenious over-underpass that Mr. Wright designed in the 1930s for use in Broadacre City. It requires far less use of valuable land than the typical cloverleaf design now in nationwide use, although that is valuable in many locations. Mr. Wright's creation allows for the continuous flow of traffic in four primary compass directions, as well as providing an upper deck for a ninety-degree change of direction to any compass point. It's as attractive as it is practical. This can be studied in some detail in his book—The Living City.

Canals would allow for handsomely designed boats, moderate size barges, floating homes and pleasure boats, as well as specially designed gathering places for lovers of water travel. Engineers will eventually come around to making all ship engines quiet, or silent, and pollution-free. Restaurants, boatels, occasional homes, small businesses, and art-craft centers could be a vital part of life on the canals. The ugly commercial eyesores that now adjoin thousands of waterways, contributing to water pollution, will hopefully disappear.



72 VIEW FROM A TRAIN-STATION • Passengers board a train, bicyclists ride away. Boats float on a nearby canal as people walk by its banks. A boathouse-restaurant is nearby. Rising beyond is a hill and medium-sized offices.

Our country has long been challenged to develop an extensive passenger railway system to supplement and replace the auto. Efforts in this direction have been minimal, and almost pitiful, since 1945. Several auto companies, and parts suppliers, were instrumental in defeating such plans. Had a comprehensive nationwide system been planned and built at that time, we wouldn't be facing the problems we now face in terms of air-pollution, and the massive costs that need to be spent to begin repairing environmental damage. Our cities would have suffered far less from the work of highway engineers and planners, who have covered too much of the inner city with enormous roadways, overpasses, underpasses, bridges, and parking lots. So little of what they've accomplished takes into account the quality of life for the ordinary city dweller, the forgotten man and woman. Our towns aren't much better off than large cities, except that the amount of damage is proportionately less.

Science and industry have developed new and practical forms of rail transport, such as the monorail and the use of magnetic fields for suspension below railway cars. Efforts are needed to put these advanced ideas to practical use. Of great importance is rail travel to link not only cities, but the various areas within cities and towns. There's no reason, given the advantages of technology, why such travel couldn't be made more safe, efficient and pleasurable. Anyone familiar with some of the ways that American railways of fifty years ago made traveling a pleasure, can imagine how they could again be developed, only much better, with new knowledge. We should pool our knowledge with the Europeans and Japanese, who've long had developed railways. The networks throughout Europe and Japan are extensive, and very much relied upon. Tragically, there have been disasters in recent years, on several continents, which is the alarm bell calling for more serious work on safety; substantial investments are needed to replace old equipment. In many of the Worlds' Fairs, interesting ways of moving people around have been built, providing the groundwork for practical inter-city applications.

One way to think about the transportation-distribution network is to imagine, in the abstract, a large tree. The nutrients collected from the earth that feed the tree, rise into the trunk and spread through all the branches, first to the heavier ones near the trunk, then working their way to the lightest twigs. Life-giving foods pass from the earth through the trunk, to branches, twigs, and to leaves. The entire system is logical, balanced, and free-flowing, properly feeding all parts of the tree. The ideas I've been describing, and have incorporated in the plan, would go far to eliminate traffic jams and the presence of heavy trucks.

We need to reduce the numbers of autos on the roads, and get people out again on foot, on cycles, and into pleasant trains. We'd become not only healthier, have less human obesity, but would begin to solve the most serious problems of damage to the environment. I believe that the ordinary town planner, highway engineer, and politician, will be obstacles to be overcome if we hope to make genuine change. Many, if not most, are wedded to the use of the auto. You only have to take a look at any American city or town to understand the mess they have helped to put us in. But they couldn't have done it without our consent and passivity, or that of the generations that preceded us. We do need the extraordinary architect, planner, engineer, and politician—those with understanding and vision. Without wide support from an enlightened citizenry, they will fail. Everyone will lose.

AUTO SERVICE

The service and gasoline station of the present will change, as autos and other surface vehicles change, along with the technology to maintain and service them. The next twenty to fifty years will probably revolutionize present technology, especially when you consider the pressing problems of the Greenhouse Effect. In any new city, service and gasoline stations should be dispersed to all parts of the city. It would be better if they could be within short distances of homes and workplaces, although that's not always sensible. In some of our more recently developed cities, that dispersal is already underway. Many stations could be carefully integrated into communal shopping centers. Unlike so many of the present sometimes trashy or flashy stations, they can be well designed, handsome and neat. Some can have living quarters built in, or close by. There's no reason to have only a limited few designs—stereotyped and dominated by the big oil companies.

A typical trip to have the family buggy repaired might consist of leaving it at the service-station, doing some shopping nearby, visiting the baths, exercise room, pool, using the library, having lunch with a friend, seeing a film, and then picking up the auto on the way home. This can be accomplished by using good design that combines repair stations and community centers into one complex. That could eliminate extra driving, a long wait for repairs, or possibly the need to find someone to take you to the service station and bring you home. You might even bring your folding bicycle in the car, and use it to pedal home on a nearby path. It will be easier than fitting the family horse into the car, if you prefer horses to bicycles.

FREIGHT

Large size freight can be shipped in containers, whenever practical, moving swiftly and quietly along its own paths free of other traffic. It should move, whenever possible, by energy-efficient rail. Both within and outside of the inner city, there are distribution centers located at all major arteries, in primary compass directions. These should be attractive and allow for the easy reception and transfer of goods moving into, around, and out of the city. They might enclose dining, lodging, and exercise facilities. Major usage would come from trucking and manufacturing companies, and government. City inhabitants will be able to both ship and receive goods at smaller stations, dispersed conveniently. Small freight and packages could be transported from these areas to businesses and homes, by way of smaller sub-depots within the city. It won't be necessary, as it is now, to waste fuel by traveling long distances by auto or truck in order to ship a small package, or to waste time standing in long lines. Underground pneumatic tubes can be built into the parcel distribution system, far more so than in any such system now in use. The constant aim should be to simplify and economize all transfers. Gone should be the unpleasant and wasteful practices of running large trucks through city streets, collecting, delivering, and clogging up dispatching and unloading areas. If you've ever been in the choked-up streets of midtown Manhattan during the work week, you'll probably agree.

The transfer of heavy machinery, crates, and boxes to within the city can begin, for most freight, at the outer perimeter sub-stations. Here, people using machines will break down loads for transfer to smaller electrified vans. Canals can also be an integral part of the distribution network. There could be handsome, efficient, barges floating on them, carrying transfer equipment, operating quietly. These barges could be owned and managed by a family, or families, living on board. A significant amount of freight will be flown by specially designed, relatively silent, heloids—similar in ways to helicopters.

TRADE AND EXHIBITION CENTERS

Exhibition centers will be built for the purposes of housing a series of changing exhibits. These centers could also be combined, if sensible, with sales. Permanent, or long-lasting exhibits, would be more appropriately housed in a museum. Buildings for temporary exhibition purposes should be designed with integrated apartments, studios, dining, and recreational facilities available for those wishing to live where they work. Trade Centers could be built separately, or possibly be combined with exhibition centers, although their purposes would be somewhat different; they might be better located on their own. Trade, or merchandising centers, would be for displaying goods available mainly to retail businesses. These centers would be designed to receive large numbers of people, possibly several times during the year, coming from other towns and cities. They can assume the character of a large complex, a series of smaller ones, or a combination of the two. They should be located so that access to them, from roads and transportation terminal buildings, is uncomplicated; proximity to the freight terminals would be an asset. They can be designed for not only business, but as places for lodging, dining, relaxation, and exercise. Where possible, they should be located near some interesting feature of the landscape. Unlike most of the monolithic merchandising centers now existing, with their endless wearisome corridors and cells for the display of merchandise, those to come could be more open to the outdoors, interesting and attractive. They might combine the pleasures of a park setting, restaurants, cafes, lounges, recreational facilities, all as complements to business activity. They can be a great relief from the plan-factory designed, glass and plastic boxes of the present. If it were more desirable, the complementary features of hotel and recreation areas could be within walking distances, instead of entirely integrated. There's every reason to believe that a workable atmosphere for conducting trade should be combined with economy, simplicity, sociability, and beauty.

Few such complexes in smaller cities now integrate all the needs of the business community. Rooms often have to be found many miles away in other towns, with energy wasted going long distances—usually through heavy traffic. Few trade centers are located in uncrowded, less hectic atmospheres, where many more benefits can be found, and at lower cost.

PARKING AREAS

The city parking lot is symbolic of one of the greatest unsolved problems of our times. It is a voracious waster of valuable inner city space, monotonously boring to view, and often expensive to own and use.

Surface vehicles, including bicycles, electric carts, and even the good old non-vehicular horse, always need places to park. The massive herds of autos we daily live among need to diminish and disappear. This will depend, in part, on the building of smaller cities as cohesive parts of a larger region; reduction of population growth is another factor.

Where open parking is necessary, whenever possible it should become an integral part of the overall design of an adjacent building. Vehicles should be well-spaced, not crowded, where one door smashes into the new paint job of the next car, and the "handicapped" have trouble getting in and out.

Open parking areas should be well shielded by deciduous or evergreen trees, depending on the locale. In hot climates, trees are the greatest of blessings for cooling and shade, especially for older folk, who are now greatly on the increase. In parts of the country where the leaves fall in autumn, the sun penetrates, producing useful warming. Where trees aren't practical, there could be overhead trellises of many varied designs and materials. Internal and underground parking should be more imaginatively designed, although the architect is usually quite restricted here for economic reasons. Building owners need to be shown the benefits that can come from more money spent in this direction.

If more inter-city public transportation could be built, in new and pleasant ways, especially in older cities, many of the parking problems would get solved. In the late 1960s, I had a ride into an interesting rail terminal in Stuttgart, West Germany. The electrified trams from several parts of the city arrived at this underground station, taking on and letting off passengers. The exits from the station allowed passengers to emerge into daylight, within a beautifully landscaped park, with trees, winding paths, and masses of flowers. The park and station were a short distance from the downtown shopping area. The relative quiet and beauty of the streets above were thereby maintained, and the congestion of many trams converging on one location, at a lower street level, were kept out of sight. Here was one good example of a way to eliminate cars and a parking area, in a downtown area where space was scarce. Instead, people benefit from a beautiful inner-city park, and a quiet, electrified, city-wide transport system, causing less pollution.

In our present environment, parking for various kinds of vehicles of all sizes is, unfortunately, too often an after thought. Only rarely is parking integrated with the overall design of any building or complex of buildings. The enormous parking areas found in today's typical American shopping center, should be scaled down, and could be, if buildings were scaled down and better designed. The task for any designer is to humanize parking as far as possible, and to turn the commonplace into something both practical and esthetically pleasing. An imaginative competent architect, in partnership with a visionary client, could achieve desired results, but this may be a long time in coming, in any widespread sense.

A far better quality of life for all people will depend on the larger problem of focusing worldwide attention on controlling the explosive growth of populations, building smaller inter-connected towns and cities with surrounding green areas, and laying out new inter-city and intra-city rail systems.

In this city, the pedestrian, cycle, and horse roadways spreading out like veins in a tree leaf, will be another practical means for reducing major

arterial congestion, and creating a large number of smaller well-dispersed parking areas.

A reduced need for automobiles will reduce production. This will eliminate the consumption of large amounts of earthly resources required to produce, run, and maintain cars. That would significantly diminish atmospheric emissions from industry and autos. All of the foregoing will immeasurably reduce the heat buildup in our atmosphere, helping to clean the air and reduce acid rain. One of the benefits of technology we can look forward to will be when autos run on clean, non-fossil fuels, producing little heat, and when industrial plants operate cleanly, with all materials recycled. Those aims would be some of the proper uses of science and technology. People who lose jobs in those industries can be trained to work at other things, which can be equally or more fulfilling.

Automobiles, as most of them are now designed and built, are not especially desirable to have around in the mix between people, buildings, open spaces and pets. Far too many are inadequately designed, and radical new ideas are needed. The more successful we are in keeping them mainly on roadways and in well-designed parking areas, I suspect the happier most people will be. I'd much prefer to live in an environment where there are far fewer autos and roadways, and much more in the way of people relating to each other, with fewer machines.

CANALS

If you've ever spent any time on the canals in Holland, France, or elsewhere, or have walked alongside them, you may have appreciated the immense pleasure they offer; open views of farmland, meadows, woods, the wide sky, refreshing breezes and passing boats. They also afford one of the most interesting and ancient ways by which to move cargo and enjoy the delights of the countryside, at a gentle pace. Efficiency has its virtues and uses, but so often has brought terrible devastation. The canal may appear less

efficient than other means of transportation but, in the long run, it might prove to be more so for certain products; more important, for the lives of those affected and the atmosphere they provide. What often appears to be efficient on the surface can prove to be the opposite. Society is filled with instances of such paradoxes. Is ugliness, distortion, crowding, pushing, shoving, efficient? Don't we need to recapture something of the romantic, poetic, gentler sides of our natures, which have been shoved into recesses by some of life's exigencies? Many people are convinced we do.

Houseboats can float on canals and lakes, and could be more attractive than what's now available. And why not have floating restaurants, cruise, and other type ships gently gliding up and down or anchored at some picturesque spot? Along the banks of canals there should be sites for houses (not close together), small hotels or hostels, craft-centers, and many other things which you can supply with your imagination, and to your pleasure. As in all facets of city planning and life, discipline and control must he exercised to maintain the quality of life along the waterways. There shouldn't be speed boats with roaring engines, no pollution of water by machines, chemicals, or garbage, no congestion, no loud radios carried in public, or other common nuisances and menaces, so prevalent today.

There are few things people can spoil as quickly as an ocean front, or a lake, a stream, and the surrounding area, unless restrictions are enforced, rather than merely put into the law books. This can be seen everywhere: the closely-packed ugly buildings and fast food places—the signs, wires and poles, down to the water's banks—the domination of the shoreline by commercial interests with little, if anything, left for sane use by people of the community, or visitors.

Fortunately, some communities have taken control, preserved, and attractively developed what they've been blessed with. One example of sensible development, although small, can be seen in the town of Southport, Connecticut. Adjacent to a yacht basin there's a small lawn where the public can sit, lie on the grass, watch the boats coming and going, gaze at the sky

and the Long Island Sound beyond. The individual buildings are not particularly inspiring, but the overall atmosphere is pleasant and quiet.

More intelligent control of nature's beauty spots is slowly growing, with benefits to nature, people, and animals. About fifty miles north of the city of Raleigh, North Carolina, there's a very large lake, where no one is allowed to build along the water's edge. Throughout the park areas, at the lakes edge, are attractive and unobtrusive picnic spots, available to all. These are but two examples of what's happening in many parts of the country. The State of Virginia has developed many beautiful parks, nicely maintaining them. Public awareness is slowly increasing, and that brings hope.

TYPICAL FAMILY DWELLING

HOUSE FOR STEEPLY SLOPING LAND

AVIATION

Since the pioneering days of aviation, in Kitty Hawk and elsewhere, the development of aircraft has come a long way. Our government, and many others, have spent vast sums of money—mostly for military purposes. Such too-often exaggerated expenditures and misplaced priorities, in many countries, will tragically continue, given the present human condition. Fortunately, however, some of the offshoots from the military eventually benefit civilians.

Aircraft will be quieter, have new and improved engines-perhaps revolutionary. New developments in electronics are coming along. Aircraft will become more fuel-efficient and travel longer distances in greater safety and comfort. New designs will continually emerge, as aviation and the efforts to explore space converge and integrate. With luck, there may come about more combined efforts by several countries to pool their knowledge and resources. Such cooperative efforts might help break down unwelcome national barriers. Shared knowledge and experience might have averted the disasters of the space shuttle *Challenger*,* and the nuclear mishap at Chernobyl, in the Soviet Union, which brought loss and suffering to thousands, if not millions and perhaps a long list of other disasters, as well.

Newer versions of machines that can rise vertically and carry substantial loads are already flying. These will make the airport runways of today, which take up so much land and are expensive to build, obsolete, relics of an older past, to be phased out as new generations of machines come from the drawing boards and factories. But aircraft engines might eventually be made silent and able to burn clean.

In this city, major airfields can be quickly and easily reached, either directly by road, monorail, or canal, or indirectly by smaller winding

* The American mission that exploded shortly after launch from the Kennedy Space Center, in Florida, killing all astronauts on board.

roadways. As vertically rising aircraft come into general use, today's airfield may fade into history, except for the private aircraft owner. But for the present, and near-future, airfields can be integrated with attractive hotels, restaurants, lounges, and entertainment. These can be better designed than what already exists. We need more traveler's lodgings similar to European pensions or hostels, which are smaller, more intimate, and more affordable.

The designs for all airport buildings, including hangar and service facilities, should be more attuned to the poetic world of flight, than the painted tin sheds one sees almost everywhere. Happily, there have been advances at some airfields in the design of terminal buildings; a few of them qualifying as poetry. The late Eero Saarinen designed one at Kennedy airport in New York, and another at Dulles airfield near Washington. But his Kennedy terminal has become overwhelmed by great crowds and no longer functions well. Though his design for the terminal building at Dulles is handsome, passengers must go through the inconvenience of riding to other terminals on the field, to hoard their aircraft. (That concept works very well, however, if one is in transit.) The British Overseas Airways building, also at Kennedy (not designed by architect Saarinen), has much beauty of line and proportion, achieved by means of a simple, reinforced-concrete structure. There are a few other terminals around the country where one can see the attempt, in many ways successful, to make a building both beautiful and useful. For whatever the reasons, airfields seem to bring out the better instincts of architects and their clients—far more so, today, than with most other buildings. The greatest weaknesses in the design of airfields, are usually the mundane buildings used as hangars and for maintenance. These suffer from a lack of imagination. Present day entrepreneurship has been unable to rise to the challenge of designing and building a totally unified, integrated airfield. By that I mean a unity of purpose underlying everything built, whether small or large.

Most of the pleasures of flying known several decades ago have disappeared, giving way to flying reduced to a lower common denominator.

Passengers are now herded, like cattle, onto huge, cinematized, "Jumbo-Jets," at ever lower prices, and ever-diminishing quality of maintenance and in-flight service. Flying pleasures are left to the movies and, if you haven't eaten for several days, to food. American *Hucksterism* now accompanies the air traveler, bringing jingoism to the experience of flight. Modern man is the slave to a great many things, but few so all-pervasive as advertising, which has sprouted wings.

Tragically, today's air travelers, whether innocent children or adults, face the uncertainty of hijacking, or of being blown up, to satiate the heinous pathology of terrorists and criminals, or to pay for the decisions, or passivity, of political leaders.

Smaller satellite airfields are scattered in several locations and can be easily reached for the use of smaller aircraft, or what is referred to as *General Aviation*. The number of annual aircraft flights in this category, exceeds the volume of commercial flights. Here, they are well separated from commercial airlines, allowing for greater safety than what now exists, which will relieve some of the tension and apprehension for many on the ground, especially the air-controllers and pilots. The current so-called *Russian Roulette* scenario could give way to greater sanity. Many would live, who otherwise wouldn't survive.

Travel between airfields is easy and direct, with sufficiently low-cost parking lots available, and sensibly operated ground transport. At New York's Kennedy airport, a ride from the long-term parking lot to the terminal might convince you of the need for reform. In winter there are often long waits at night in sub-zero temperatures at "collection" stations, where the protective glass has been shattered by vandals. The familiar airfield pileup of buses, cars, taxis, people, and luggage, could become ancient history, if sensible planning takes charge.

A wide separation between various airfields' airborne operational patterns could probably eliminate most of the near misses and horrible collisions. The principle of "see and be seen" should operate everywhere, as

well as the uses of advanced safety backup controls. Reliance on technology alone for safety is never enough, although amazing new inventions have already been developed; however, some are not in general use, due—according to some—to governmental bureaucracy.

Expenditures for aviation in this, and any new city, need to be carefully considered in relation to all other transportation needs, including the military. This calls for a sensible balance between all forms of transportation, long-range planning, and coordination of research, design, and construction.

SEAPLANES

At least one lake and pond has been reserved for the specific use of seaplanes, which excludes boating activities, other than ferrying people back and forth to aircraft. In some cases, seaplanes can taxi into small hangars, near the water's edge, where there may be a home above, a public building, or mixed-uses. Architects could have new chances to design buildings near the water, and develop interesting ways to park and service aircraft; provide housing, food, and entertainment for visiting or home-based flyers. Restaurants open to the public should be integrated with these developments. Such lakes should be well separated from residences and businesses, as well as from other airfields. On all major descent-glide or takeoff paths, no construction should be allowed. These areas should be thickly planted with dense evergreens, in order to cushion the impact of aircraft that might fail on takeoffs or landings, possibly saving lives.

The fact that we are so really great a potential democracy, is one which, stupendous though it be, seems to impress us chiefly in its aspects of geographical spread, physical force, and material national power, rather than in its spiritual potency and glory as the liberating and vitalizing impulse of the soul of the people and of the individual man.

—Louis H. Sullivan, *Kindergarten Chats*

GOVERNMENT

What architectural forms would be appropriate for a nation that professes freedom and democracy? My answer to that question can be partially discovered in earlier discussions of the words organic, and nature. All of the positive qualities that are normally ascribed to the real meanings of freedom and democracy should be present in what we build. It's up to the creative architect to interpret those qualities, making them a part of the buildings needed to house, and nourish, a government...no easy task.

Heading the list should be a regard for the dignity and the sanctity of the individual. A good basis for this can be found in our valuable historical documents, now known around the world. Here I emphasize the protection of the rights of the individual, as conferred by these documents, versus the power of governmental institutions both state and federal, organized professions, unions, industry, political-action groups, the news media, and publishers. In the United States many of the goliaths of power have contributed to the serious erosion of the rights of the individual, as envisioned by the Founding Fathers. This erosion is expressed in many ways and is not the subject of this book, although the distortions that have affected the architecture built by, and for, government are pertinent; it's important that they be recognized.

Architecture is basic to a culture, and if people believe that government is not influenced by the kinds of buildings which house it, they are seriously mistaken. One of our greatest Founders, Thomas Jefferson, understood this very well indeed. The fact that Mr. Jefferson was a practicing architect, as well as highly accomplished in many other ways was, and is, a great blessing for this nation. Unlike most other presidents in our history. he understood the importance of good architecture and city planning. Jefferson was one of our first, and best, city planners and landscape architects. He was instrumental in locating Washington on the Potomac River, and was actively

and intimately involved in its early development; not only in conceptual terms, but even concerning details. I suspect we've come very far from what he wished for his country. Since it's true that an architecture for a democratic nation must rest upon a sound economic base, Mr. Jefferson's thoughts on economy are meaningful. In writing to Governor Plumer about debt, in 1816, he said "I place economy among the first and most important of republican virtues, and public debt as the greatest of the dangers to be feared." In the same year he wrote to Samuel Kerchival "We must make our election between economy and liberty, or profusion and servitude."*

How does our nation fare in terms of such ideas? Take a look at the national debt, or the budget and trade deficits for the last decade. The ever-increasing numbers are staggering, and under the Reagan presidency, America has changed from being a great creditor nation, a few short years ago, to the largest debtor nation on earth. Governmental waste and abuse are now so prolific that the subject requires no discussion here. One of the greatest dangers that Jefferson feared has become daily reality. If we don't soon get our economic house in order, I doubt our ability to get much of anything else in order.

Washington was deliberately planned to be the capitol for the newborn American democracy. Although the city's layout has many visionary and practical aspects which are orderly and beautiful, many of the existing institutional buildings, whether old or contemporary, are pseudo-imitations of ancient Greek and Roman buildings; buildings designed for a very different society, with important differences in values. Many such buildings have an overbearing pretense that expresses little of a people who profess democracy. Their architects and clients looked backwards, over their shoulders—with sentimentality—towards ancient Greece, a slave state, although famously enlightened in various ways, and to the Roman Empire.

* *The Jeffersonian Cyclopedia*
Edited by John B. Foley, Introduction by Julian P. Boyd
(New York: Russell & Russell, 1967), p.271.

While that's understandable, I believe it was most unfortunate, and still is. But that's another long story. It would have been far luckier for our nation had the architects and builders of the mammoth governmental buildings of downtown Washington been gifted with their own native creativity. If they had been, they wouldn't have needed to imitate Greece, Rome, and France.

Much of the beauty of "original" Washington exists in the spaces surrounding older buildings which, by some miracle, have been preserved and maintained. We have Jefferson to thank for many of the finest landscaped qualities of the city, and its location on the Potomac River.

It's understandable, but perhaps unfortunate, that those responsible for buildings in the early days of the nation would look backwards for ideas and inspiration. Almost all good buildings are partly based on the best examples of what has been built before. This is true when the *principles* governing the original buildings are understood. Jefferson understood them better than most. As he looked backwards towards the ancients of the western world, he was wise and gifted enough to adapt what he copied, with modifications to the American scene. How many politicians or presidents, since his time, have shown any interest in, or knowledge about architecture? How many could walk in his shoes? Probably none! Is it any wonder that today so much of Washington has become a confused and chaotic city of widespread crime, drugs, poverty and unemployment? A city where great power and wealth exist next to squalor and misery, where planning and building have not kept pace with solving problems in all vital areas of living. Its saving grace is found in the lack of tall buildings bunched together, in the mall, the green open spaces, the tidal basin, and the river. It's a city, like most others, of mixed blessings and curses.

In architecture, little of genuine vitality, or originality, has been commissioned by our federal government in this century. Its record is one of imitation, pomposity, stuffiness, pretense, and sterile negation. As in the corporate world, the people handing out the architectural commissions have

been responsible for allowing many jobs to be finalized as buildings that deny the important humane values established by the Founding Fathers. It is to government's notable loss that it gave few, or no, commissions to architects Sullivan, Wright, Griffin,* and other qualified people, while copiously awarding work to a host of the mediocre. Looking over the record I can recall only one government job awarded Frank Lloyd Wright, during almost seventy years of practice and worldwide recognition. It was for defense plant workers in Pittsfield, Massachusetts, in 1942; a housing project called "Cloverleaf." Local architects from Massachusetts took the matter up with their Congressmen, and were successful in ousting Mr. Wright, since the statutes called for local architects to handle it, even though people in Washington were pleased with his design.

Government's saving grace is in the smaller number of buildings given, more lately, to qualified architects. Influenced mainly by forces outside of government, some things are beginning to change for the better. A few amends have been made, posthumously, and recognition granted to these men.

There's an old Buddhist saying: "Nature spits out the lukewarm." Government has sponsored many projects that have ended up in the spittoon, or worse. It has blown away billions in taxpayers' hard-earned money—literally—by way of cordite and smoke. In St. Louis, for instance, the Pruitt-Igo housing complex was built, failed miserably, and was blown apart with high explosives. But gradually there has been a shift in attitudes. Today. our government can point with some satisfaction to a few successful projects.

State governments have offered more hope than the federal goliath. The State of California has built the Marin County Center, north of San Francisco, designed by Mr. Wright and completed after his death. There's no

* A Prairie School architect who worked with Mr. Wright in the early Oak Park days of his career. In partnership with his wife Marion Mahony, he won the competition for the design of the government center in Canberra, Australia.

governmental complex in the nation quite like it. The original buildings, which I visited around 1959, were a noble, optimistic expression appropriate to a free people.

In the southeast, I've been surprised by some competently designed, well situated state buildings that are used as visitors centers. In Raleigh, North Carolina, a handsome legislature building was designed by the late, well-known architect, Edward D. Stone. Architect Stone, towards the end of his career, came to a meaningful change in his work, expressing an understanding of the organic. These were signs of welcome change.

My design for a city happens to be a capitol, with a government center. I chose the circle, again, as the basis for laying out the governmental buildings, locating them in a park setting near four major highways and the grand canal. The various transportation arteries make for easy access to any part of the complex. Adjacent to the government center is a highway and canal that run in a straight line to the main airfield, well away from the city. (In order to show it on the plan, I've placed the airfield closer to the city than it should be. It would be best about twenty miles out). A swift monorail connects the center to the airfield, making it a pleasant, relatively easy trip. For travelers arriving by either airfields, boats, autos, or on foot, there's a main reception and visitors' area, and a canal boat Station. The governor's home is nearby, set in a park on a lake. These curved and circular buildings enclose a large green area of lawn, shrubs, trees, fountains, and small ponds. A substantial outdoor mall connects the buildings. One of the ideas giving rise to this layout is to foster a small, self-contained, government community which is easily accessible to all other amenities of the inner city, by many forms of transportation. That also makes it possible for people in government to live nearby, if they wish. Not far away is a medical facility, with the countryside nearby, beyond the city's main outer-perimeter highway.

Much has come from government on both sides of the coin, for better and worse; but I suspect that most of my readers understand that this

subject is large and controversial. Although important, it's of no major concern here. I mention some realities and raise some questions, chiefly because the quality of government profoundly affects the quality of its architecture, and vice versa. Where the health of an organic architecture for a democratic people are concerned, there are two main streams that have long acted like a poison. The first concerns the fantasy world of those who are asleep, spiritually dead, and rely on imitation of the past. If they have their way, and they too often do, they'll continue to regurgitate the past into the present, and well into the next century. That tragic influence is the largest of the two streams. The second concerns a menace that arrived on the scene, chiefly, with the coming of the Second World War. I refer to the ever-growing influence of science and technology, and the multifarious ways in which it has displaced much that was, and is, humane about people's lives. Much of this domination by machines, computers, and the various implements of science, has ominous implications for our own, and the future of human life everywhere. A new strain of bureau-technocrat, inherently dehumanized, is being spawned in our colleges and universities, although not limited to them. We'll be lucky if these institutions are, in at least equal measure, cultivating enough students who will act as an antidote. Manifestations of this menace are as prevalent in the halls of the Pentagon, and bureaucratic Washington, as they are in the Kremlin and elsewhere in the world, where the way of death, and not the way of life, has been the creed for almost half a century.

In early America our nation was fortunate to have leaders with the character, the integrity, of Franklin, Washington, Jefferson, Madison, Paine, and others. Because they had genuine individuality, their most outstanding features, alongside their competence and common sense, were their basic decency, humanity, and sense of responsibility. Certainly there are some excellent people around today, but how many and how influential? More than two-hundred years ago, and perhaps due to the spirit of the era, there was a special uniqueness about the Founding Fathers and the new country.

At the risk of my being tedious, recall something of the character of Jefferson: he was a statesman, scholar, linguist, lawyer, architect, musician, planter, botanist, inventor, ambassador, expert horseman, and above all, humanist. Others of the time had their own uniqueness and great qualities, and certainly none were without inevitable human faults.

Americans have yet to face the challenge of building government centers that ennoble and express the ideals of a democratic people. The opportunities and benefits in that direction are immeasurable. New growth could help revitalize the entire country, without losing a drop of blood, or fostering another revolution. I agree with Mr. Wright that a new government center should be planted in the mid-west—somewhere in the heartland of the nation, while Washington could be retained as a historic site. Many will consider such an idea now as heretical, but that will change. It may be significant to realize that the original location of Washington was chosen partly due to its centralized location within the original colonies.

THE HOME

In our society, much attention has been focused on the houses and apartments we live in. They are the subject of a never-ending stream of articles and photographs that regularly appear in magazines, newspapers and books. What is there that's new and interesting that anyone can say or reveal about the house? This interest, over long periods of time, surely says something of its importance in civilization, especially our own. In one sense, the home may be a barometer of society. My concern with it here is mainly as the planner and architect relate to it. The subject is too large to approach it otherwise.

The house, of course, comes in all sizes, according to wishes, locations, needs, whims, inheritances, resources—the overall circumstance of any particular individual or family. No house should be larger than

needed—should perhaps be smaller than what most think they need. They should be designed, as most aren't, according to a variety of shapes and forms: the square, rectangle, triangle, circle, and various combinations; but always appropriate to circumstances.

If you aren't convinced of the mundane mechanicalness that characterizes most of the designs for homes, consider the millions of Americans who live in houses that are minor variations of only perhaps half a dozen basic designs. If you travel three-thousand miles across the country, you'll experience the incredibly prosaic ways in which people house themselves—yet nature loves variety, beauty, and individuality. When man builds his environment he sinks to the level of astonishing uniformity—sameness——not for thousands, but for hundreds of millions!

Future variety in house design will occur for most by way of changes in technology; but change should best come not through science, but through attitudes. That won't happen quickly. The exceptions will be those homes designed by qualified architects, who should be on the increase, although there isn't much evidence to support the hope. Ever-changing technology offers the minority of genuinely creative architects new opportunities, much as the earlier arrival of reinforced concrete, steel, plate-glass, electricity, and other developments allowed for new ideas. Solar heating is having an increasing influence on designs, and that should continue to grow. During the last great oil crisis, in the early 1970s, the government did some good things to encourage the use of alternative fuels. Under President Reagan, due in part to lower oil prices, and a government dedicated to weapons building and secrecy, much of that was neglected or eliminated.

One of the most unfortunate things to come out of the positive interest in solar energy, is the large number of unattractive buildings constructed. Although many work well from an engineering point of view, they betray a lack of ability and sensitivity in integrating solar components with qualified design. Few architects are trained to integrate technology with

organic architecture, according to innate principles. Equally important, there are too few clients with sufficient understanding to make the extra efforts required to pay for the beautiful, as well as the useful. The failure to do so is the common thread running through the fabric of society. The coming together of a creative architect and a client of sympathetic outlook is a rare occurrence.

Too many publishers and editors, illustrating examples of solar and other homes in national magazines, are often equally unaware and asleep. They dampen genuine progress by transmitting their articles to a wide, usually youthful audience, furnishing them with incomplete and wrong ideas, turning their backs on superior examples, available to them. They rarely point out the importance of organic concepts, because most don't possess even a foggy understanding of organic architecture. Instead, they endlessly regurgitate and sensationalize technical wizardry or nostalgic sentimentality.

Coming changes in technology will continue to provide architects with materials and techniques, transforming the ways and means used to build. There will be such things as high-strength, lightweight beams, advances in concrete technology, new framing systems, fasteners, paneling, glass with heat-retention-expelling properties, more updated methods of pre-assembly, electronic inventions of all kinds—all of these are part of things to come, and much more.

Architects could learn more from aircraft designers and builders. Ponder the great economy of materials achieved in aircraft design, the variety and often extraordinary beauty of forms appropriate to flight. Consider the amazing wing cantilever,* the shaping and uses of old and new materials under extremes of stress and temperature. Here are forms wonderfully suited to purpose, unencumbered by the idiosyncrasy of the client, which is too often the ruination of good buildings. With prefabrication developed to a

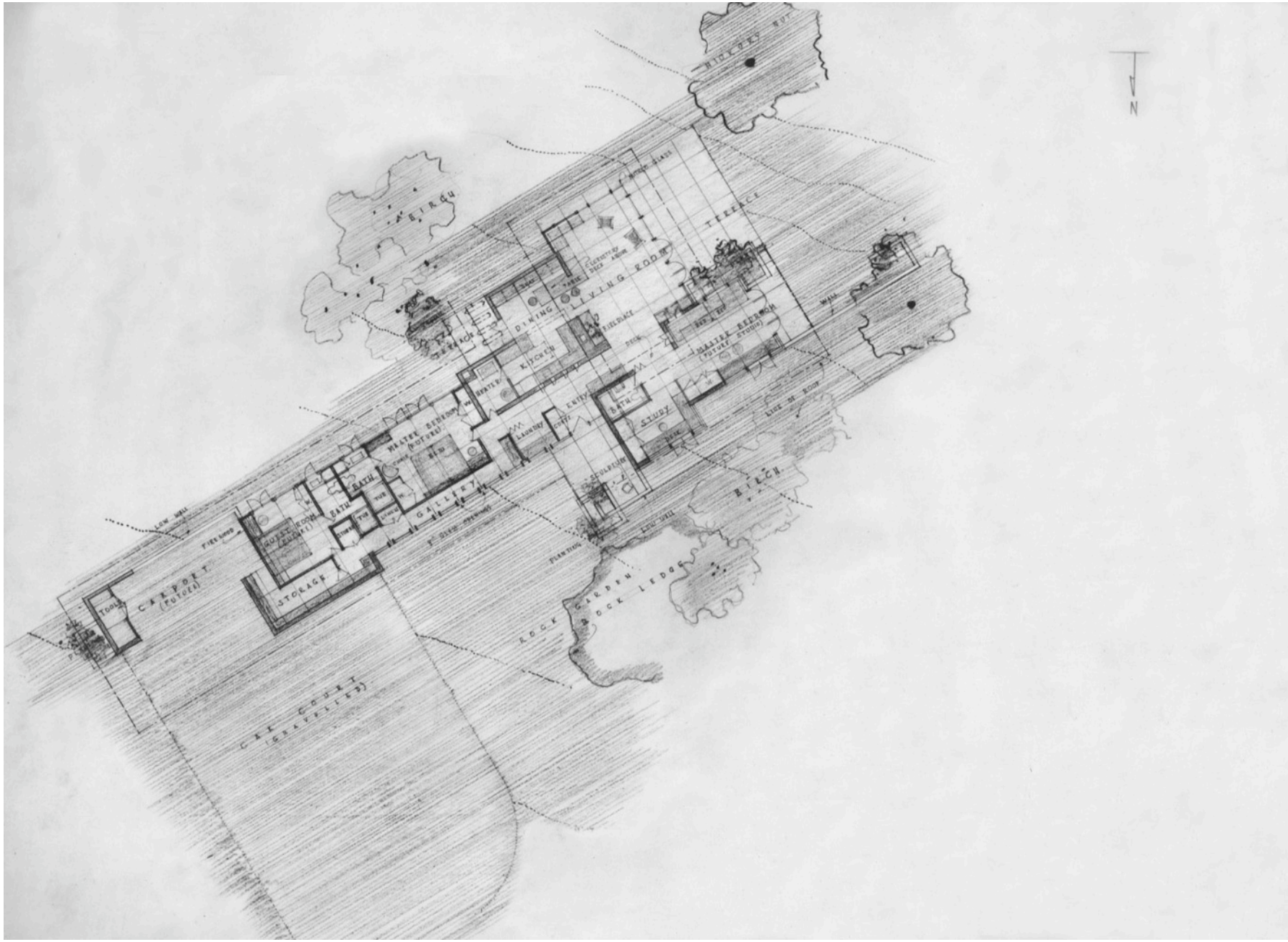
* Similar, in principle, to the tree branch which is supported at the trunk, and extends outward from its place of support. In the aircraft the wing is supported at the plane's fuselage, or main body.

high degree of excellence, beauty and usefulness are almost a certainty. Due mostly to the enormous amounts of money and resources put at their disposal, largely for military purposes, aircraft designers have made strides at lightning speed, while architectural progress has limped along. Given the present state of affairs, it's far easier to put trillions of dollars to work for war, for human annihilation, than It Is for creative environmental purposes. What better testimony is there to human perversity! Yet we should reap advantages from such things for humane purposes, since we can't soon eliminate them, although we have to keep on trying.

For myself and many I've designed houses for, there's no material for building the home that is superior to the old natural materials: stone, brick, wood, plaster, stucco, wood shingles, shakes, tiles. I generally prefer wood in its natural form to plywood, yet there are many man-made materials, like plywood, that are a real blessing where used appropriately—not made to look like something else. A combination of the old and the factory-made is still in common use and will continue. When competently and lovingly handled, the older materials have a great life-span, and almost everyone is familiar with them.

When the artist is in control, there's no limit to the beauty or uses of the manufactured materials. That's the key to success in using factory-made materials and assembly techniques. It's also what's missing in most of what is built. In the not-so-distant future, a house built in the factory will be workable, beautiful, long-lasting, and affordable ... by many who now can't afford a house. They can be quite different from most of the "prefabs" of today. Much work will still need to be done on the site, but most of the components will arrive in very sophisticated forms. Even the septic system for waste disposal will be easily installed. The beginnings of such tanks have been available for years, and they'll improve, rendering the typically ponderous concrete tank obsolete, along with the costly tile fields and leeching beds.

WOODLAND BUILDING ON THREE LEVELS • HOME OR OFFICE



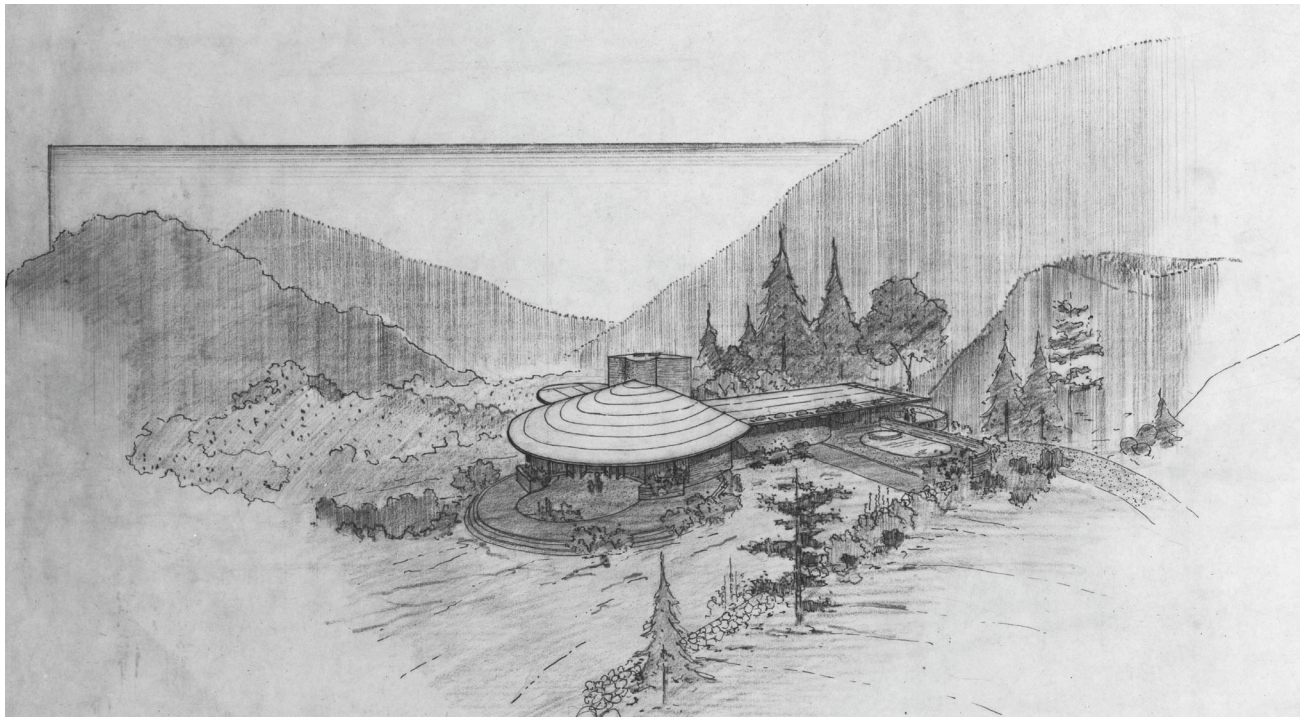
PLAN FOR A MODEST HOME ON SLOPING SITE

HOUSE FOR A FOREST SITE • MODERATE COST

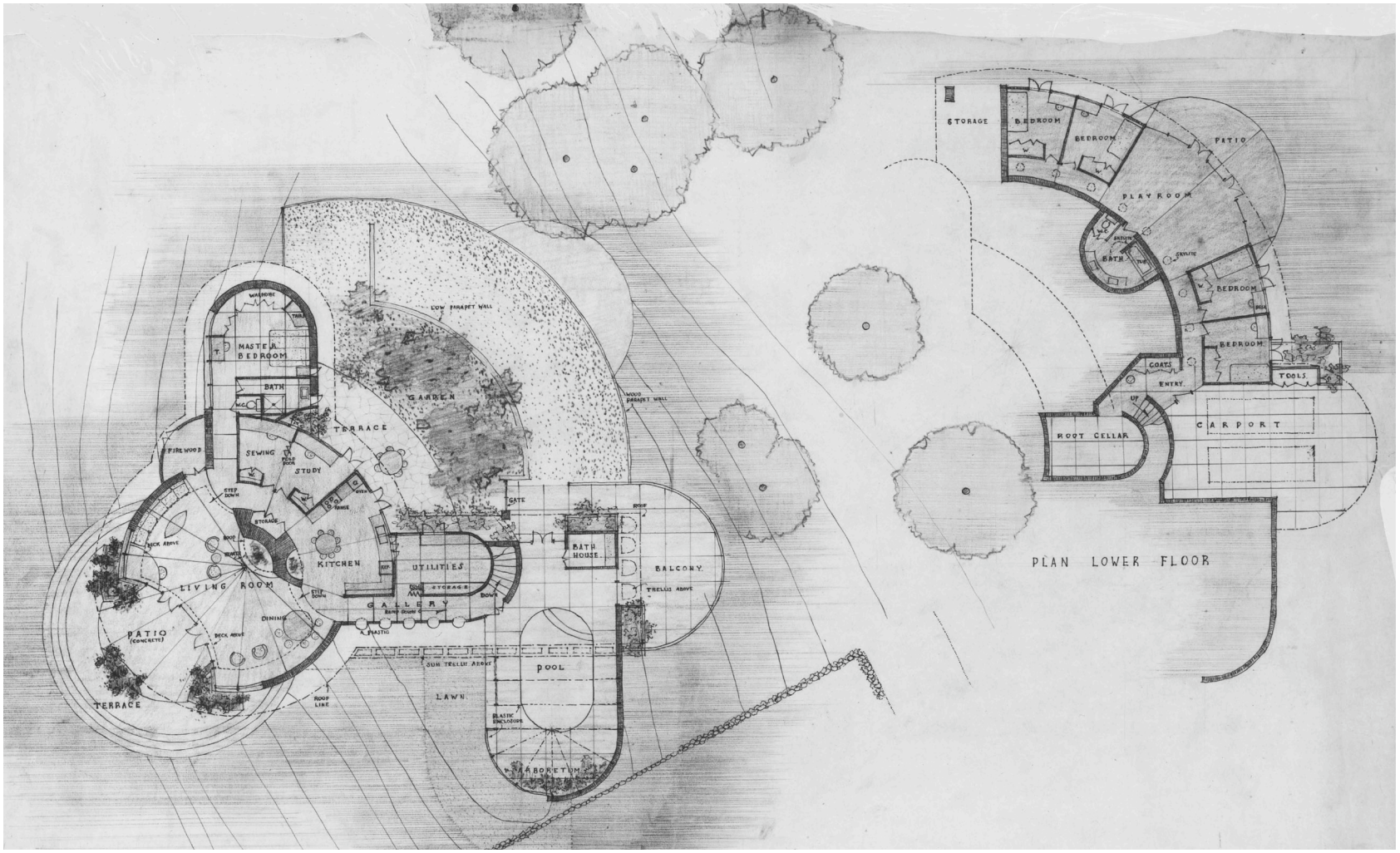
HOUSE FOR A FOREST SITE • VIEW OF ENTRY, LIVING ROOM

HOUSE • LOW COST • STUDY DRAWING

HOUSE • LOW COST • PARTIALLY PREFABRICATED CONSTRUCTION



FAMILY HOUSE ON TWO LEVELS • PERSPECTIVE



FAMILY HOUSE ON TWO LEVELS • PLAN

Mobile homes approach the idea of the factory-built house, but most of them are outwardly unappealing, to put it charitably. What is missing is the artist-architect-director—not only of the design, but of their application to overall planning. I don't doubt that the large group of Americans who buy mobile homes would appreciate good design, were it available. No less important would be the availability of attractively designed parks to house them. But there are very few that would qualify as anything but a blot on the landscape. Unless the idea is technical, or a quick money producer, most of those who build homes and parks are unreceptive to new ideas; they are more so where the interior layout is concerned. Manufacturers' views are shortsighted. They even miss out on so simple a thing-as a beautiful paint job, which one rarely sees.

Those with the knowledge and resources to build the factory-built are insufficiently interested in, or educated, concerning the value of what the creative artist can do for them. Some attempts have been made by large manufacturers, but little of significant value has come to the marketplace. The smaller producers have done better, perhaps because there have been less problems with unions who, right or wrong, sometimes confront the large manufacturers.

One of the tragedies of our times is that few people seem to be able to receive ideas that are more than technical in nature. Coupled with that is the perversion of the nation's priorities, by many in positions of high leadership, down the scale to lower levels. If we're lucky, it may someday begin to all come together, and things will progress in more sensible ways, based upon an understanding of principle, reason, good feeling, and common sense. We're very far from that ideal.

Part of what is commonly referred to as "The American Dream," is ownership of a home. That dream is now beyond the reach of many—available to only about one in ten. Millions of people are now having to get used to the idea of sharing a house. When you consider the millions of homeless, who greatly increased during the Reagan-Bush years in the

White House, (the largest number since the Depression of the early 1930s), one may be lucky to have even a shared home. Whether the "average" citizen will be able to afford a home in future will depend on many things, both of the individual's own making, and in the ways the world goes. A strong wish and much hard work could make it a reality, for some. More people could learn how to build from a teacher, applying what they learn, by building parts of their own home, if not most of it, with architectural supervision. For others, not so inclined, the answer may lie in living in a multifamily dwelling, or in a tall apartment building. Should good design work its way into such building types, they could be as appealing as having one's own home.

The new city should afford many alternatives, allowing for privacy, usefulness, and beauty. People should have a choice concerning the population density of the area where they choose to live. Such choice should run the spectrum from low to high. Some may wish to have neighbors nearby, while others may prefer several acres around the house. Density should vary with human types, as well as other factors. The wish for proximity to stores, schools, and community activities also varies with people, from being close by, to isolation, and everything in-between. That often changes within a lifetime.

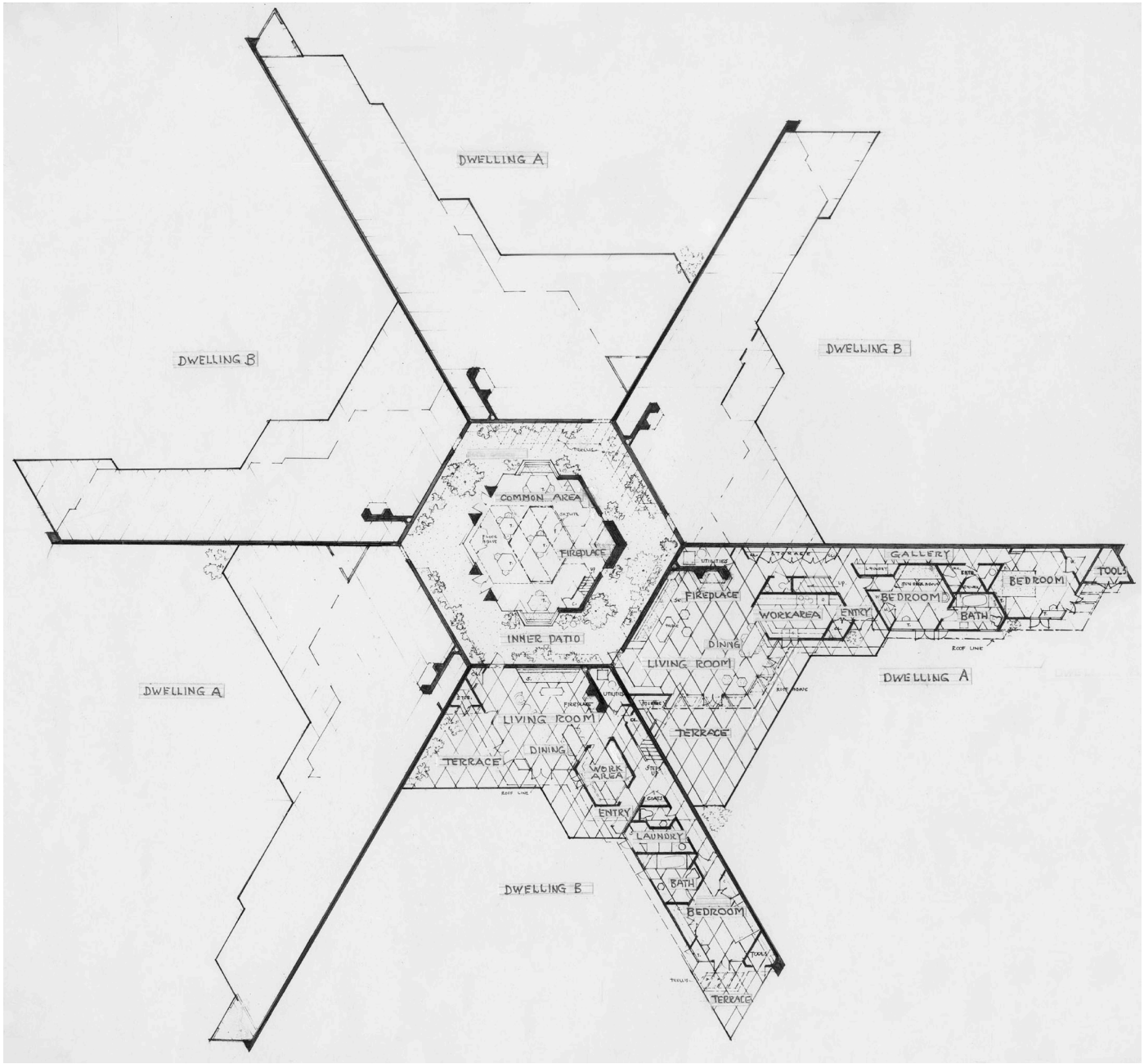
In visiting Europe, one of the most impressive things to experience is the rootedness of many small towns and villages, which seem to emanate a sense of timelessness. Also impressive is the regional character of many buildings; they convey a feeling of belonging, each to their own particular circumstance. Since, by comparison, ours is a young country with many of us often pulling up our roots, it wouldn't make sense to look for something similar here. Yet if the concepts of an organic architecture are understood and applied, a genuine culture of our own could grow and flourish.

MULTIFAMILY DWELLINGS

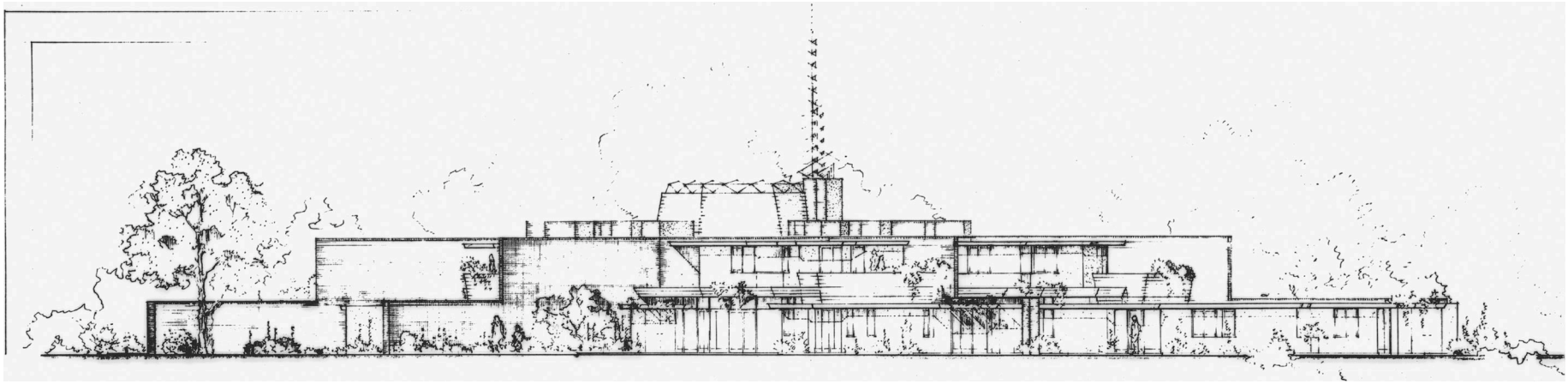
There will of course always be people who don't own, or live in, private houses. For whatever their reasons, they prefer to live among other families and individuals, or they may have little or no choice. In America, at the present time, there are substantial numbers of homeless people who can't afford to live anywhere, except in a public shelter, and many prefer the street to the available public housing. This circumstance, within a wealthy nation, is a shameful disgrace and a tragedy.

There are perfectly valid reasons for the choice of group living, and any new city should make provisions for such. Within a relatively free society there ought to be alternatives as to how one chooses to live—whether one is rich, poor, or in the middle. We need to build more dwellings that will provide housing for two, four, six, eight, and more families. The problem is not the number of people a single building will house, but the means by which it's architecturally accomplished.

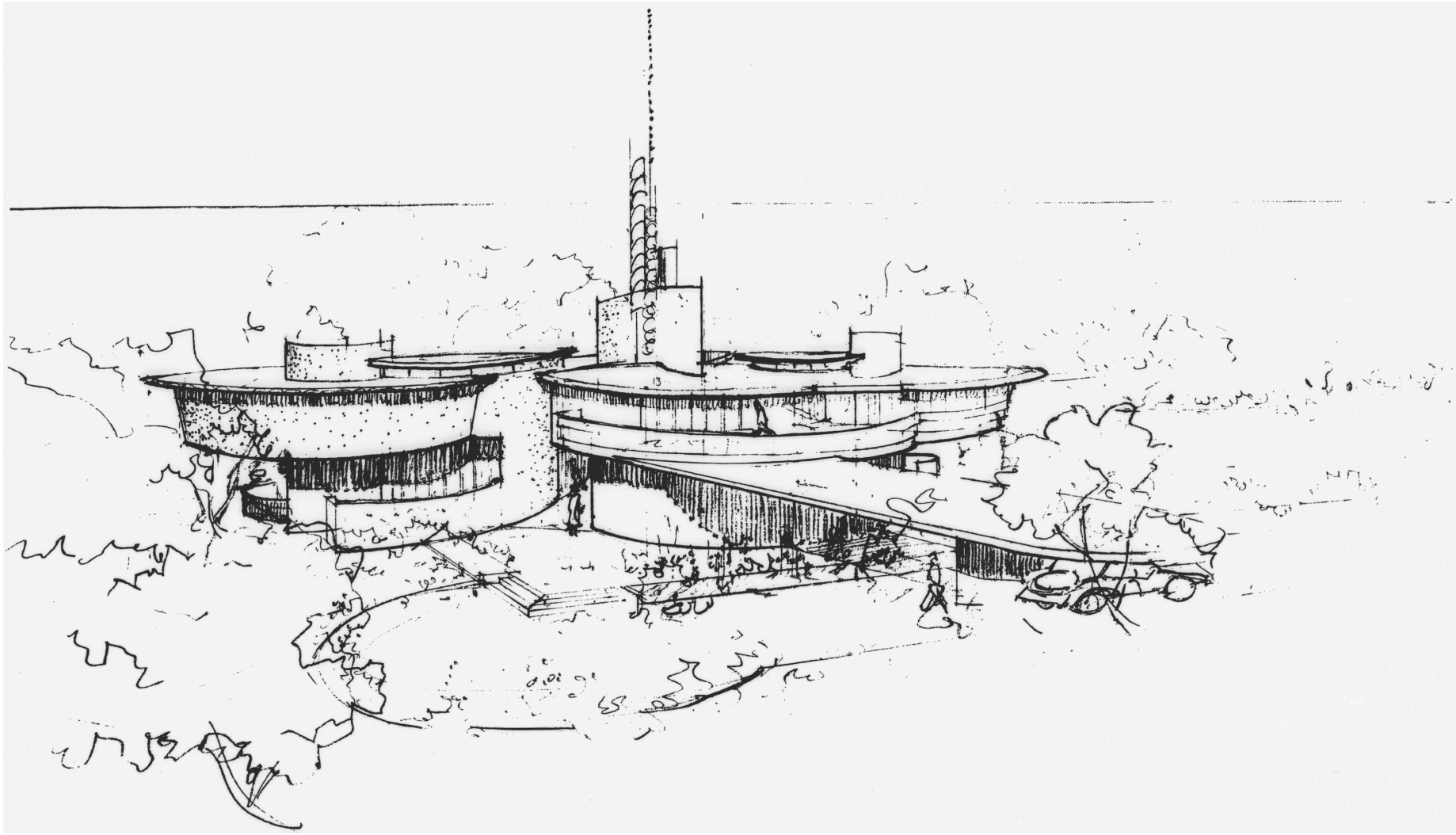
The starting point is in determining how much land should be allotted to each dwelling, for use by the building's inhabitants. In our country, in and around cities, far too little land is apportioned to each such building. Crowding people on small tracts, as generally practiced, is sometimes another form of exploitation. It's one result coming mainly from the greed of speculators. The causes may have started in past generations, but they continue in the present and are now tolerated. It's not always possible to expeditiously undo past wrongs, but the aim should be to improve hurtful conditions.



APARTMENT BUILDING (Six Apartments) ON TWO LEVELS, PLAN AT GROUND LEVEL



APARTMENT BUILDING (Six Apartments) ON TWO LEVELS, ELEVATION



APARTMENT BUILDING (Four Apartments), STUDY

The creative architect, when given the chance, is faced with great opportunities to design new and imaginative buildings. It's important to demonstrate the benefits of planning, and not allow the building of housing to happen! Or leave it up to the speculators and lenders, whose chief concern is their own bank accounts. If this isn't done, many opportunities for a genuinely good life pass us by. It's unfortunate to have to resign oneself to bad conditions, if one has a chance to go in a more active, positive direction.

If what the "developer," architect, planner, realtor, lawyer, business-person, and banker builds is anathema, then it's useful to realize that it couldn't have come about without our consent. It's we who shape these things, with some exceptions, either by our active deeds or passivity. Sometimes there are forces beyond our control and to those we sometimes have to submit, if not agree inwardly, but there are circumstances where each of us can make a difference by our acts, or our surrender.

Many homeowners refuse to allow small shops or other useful activities to carry on near their homes, while others don't want to live near animals. That's understandable and there ought to be alternatives. But for those who enjoy variety in their daily lives, it should be possible to have such things nearby. Why shouldn't a small farm, store, gas-station, or a workshop be well planned and beautifully built? Of course very few are today, but It doesn't always have to be that way. Many refuse to live near them because so many are trashy, attracting unpleasantness. We shouldn't always have to get in the car and travel miles for a bottle of milk. It's wasteful, expensive, and foolish. Why not have stores nearby within walking distance? One of the pleasures of many European towns and cities are the mixed-use neighborhoods of apartments, stores, and schools.

In the post World War II dispersion from the cities to the suburbs, one of the important missing Ingredients in the amorphous suburban scene, has been the concept of mixed-use neighborhoods. This has fostered serious

isolation and alienation, and a constant need to rely upon the automobile for the smallest errand. In this city I've planned for people to be able to have their apartments integrated with, or near, a developed communal area—if desired. That might be composed of stores, galleries, a library, offices, museums, cafes, restaurants, craft-centers, or any combination of activities. This could eliminate much superfluous travel by auto, bus, or rail. It would also serve to genuinely integrate many of the activities of the city with people's lives, one of the essentials of a real culture. The only ways in which this concept can be successfully accomplished will be by way of very skilled and highly qualified architectural planning. Without that, such a concept will largely fail, as we now see almost everywhere around us.

A village, town, or city is a living, breathing, organic entity where all parts should relate to the whole as the whole to the parts. In any living entity attentiveness to the parts, while ignoring the whole, leads to constriction and that often times leads to disease and death. Are these ideas made a part of our early schooling? Certainly they should be.

The building of multifamily dwellings could lead to establishing handsome small villages within a city. Today, we suffer from an army-barracks mentality which underlies many of the "developments" built, and quite commonly badly built.

Americans have long built libraries to contain voluminous writings and speeches about freedom and democracy, yet if these ideas aren't built into a living fabric, it leaves us not much better off, if at all, than people in many other countries who don't constantly make such claims.

THE JOY OF HEIGHT

For those who enjoy heights, living in a tall building can be a great delight. As a boy and youth I grew up living in several tall buildings which were not the best, nor were they the meanest. Having grown up in New

York City, I can empathize with lovers of tall buildings. They offer delights of many kinds which can include privacy, compactness, views, the lack of upkeep ... and if you're lucky ... sympathetic neighbors.

The poetry of the tall building has had the life crushed out of it by the same forces that have affected much else having to do with our environment. Louis H. Sullivan and Frank Lloyd Wright stand out in the evolution of this native American form, highly developed in the latter part of the nineteenth, and the first half of the twentieth century. Another accomplished architect of tall buildings, John Wellborn Root, born in Georgia in 1850, had built at least one excellent tall building in Chicago in the late nineteenth century. I refer to his famous Monadnock building, which fortunately can still be enjoyed. It's a grand, noble, masonry structure that stands out from most other work of the time. That was a fascinating period in which the Chicago firm of Adler and Sullivan produced some of that city's most qualified architecture. It's also the time when a young Frank Lloyd Wright was developing as a member of that firm, as an apprentice to Sullivan.

Sullivan, along with his talented engineer partner Dankmar Adler, designed one of the most beautiful tall buildings to be found anywhere. A building which, in its essence, possesses genuine integrity and quality of soul. I refer to the Wainwright Building in St. Louis. The first time I saw it, as a young apprentice, I was delighted to see that such a building existed, and could be so stirring. Before seeing it, I had never sensed in any tall building the magic which it possessed. It was a mysterious kind of revelation to a young architect, not unlike someone turning on a light in a very dimly lit, but beautiful, room. It was the only tall building I had known, until then, that was genuinely simple, poetic, yet exceptionally satisfying. I never found that to be the case with New York's skyscrapers, which I partly grew up among.

Decades later I had a similar experience, although less moving, upon seeing Sullivan's only tall building in New York City near lower Broadway, a much smaller building than the famous Wainwright, yet emanating the

Sullivan magic. Unlike most architects' work of their, or our, era, Adler and Sullivan had the great gift, the knowledge and power, of being able to translate the poetic and inspiring into solid, useful, long-lasting structure.

It seems to have been Mr. Wright's destiny to carry the poetry of the tall building up the next step in the scale of ascent. He moved it out into the countryside, when possible, unfettered by other buildings piling up beside it, to stand as noble sculpture. That was the ideal he envisioned in Broadacre City. In 1929 he designed three apartment towers for a site in New York City, at St. Marks in the Bouwerie. Many decades later he built a revised version of this project in Bartlesville, Oklahoma. Neither site had as much space around it as he believed they ought to have had, but the results have proved to be a great pioneering success.

He envisioned and brought to life the concept of the tap-root foundation, which is a characteristic of some plants and trees. From this followed the cantilevered, steel-reinforced, concrete floor-slab extending out from the vertical building core, or shaft. Here again he demonstrated his genius in observing nature, and interpreting what he learned in terms of organic architecture, revealed by way of a new building in an unusual prairie setting. What he learned he embodied into the structural concept forming the building's design. His understanding of the proper uses of the machine expressed itself in the ways he covered the outside walls of this, and other tall structures. In the Bartlesville Tower he used a lightweight manufactured material—sheet-copper. He was also able to integrate the desired ornamentation, by stamping into the body of the copper sheets his abstract designs, related to the spirit of the structure, thus incorporating integral ornament as part of the building's outer sheathing.

The tall-rising building, offices, apartments, or the combination, needn't be the same old shoebox upended. Too many today have holes cut into their sides, or are made two, or four-faced, by having mirrors draped to their structural frames. Mirrors only rarely express anything of the true

nature of the building and its occupants. Many of the "skyscrapers" being designed and built today, should be greeted with tolerant sympathy, if not humor, except that the consequences of such acts are not usually funny. Many architects designing major projects have no understanding of organic principles. They fall back on gimmickry, idiosyncrasy, and pasted-on ornamentation, inconsequential to the basic integrity of the building, with a large hole punched in here, a small one there, a carpenters mitre-cut through dozens of floors, superfluous overhangs and cantilevers. In this free-for-all of confusion and enormous expense, updated Towers of Babel, there is little significance in the affectations applied, since a fundamental integrity is missing in these highly competitive, overgrown city forests.

Occasionally, some well-designed and handsome tall buildings have been built, yet very few approach the quality of a masterpiece. One can hope for and find joy in the masterpiece, but certainly can't expect that in most performances. You have to be on the lookout for qualified tall buildings; I've seen a few in American cities and abroad. It would be worthwhile to photograph and publish the best of them.

Although you my reader might, by now, be tired of hearing about my "top drawer" heroes in architecture, there's much to be learned from the buildings and designs of Adler and Sullivan, Frank Lloyd Wright and others, especially from the later Wright-designed skyscrapers: the Rogers Lacey Hotel in Dallas, and the Golden Beacon in Chicago. To the great loss of both cities, neither was built. They offer a demonstration of organic principles at work that could be employed to design other buildings, whether in our own time, or in future. The Price Tower in Bartlesville, Oklahoma, stands tall—as so much good seed—for what may eventually come again into being, by way of a great architect and a great client.

Chicago is a city that celebrates some of its architects—more so than many cities. They do so largely by way of handsome exhibitions in such places as the Art Institute, and elsewhere. But Chicago is also a city that in

the late nineteenth and early twentieth-centuries, tragically turned its back on at least two of its greatest architects—again, Sullivan and Wright. In doing so it spurned the best of the nation's creators, favoring imports from Europe. The city moved backwards, during that period, by embracing the Beaux Arts tradition. Several decades later, it compounded its confusion and vertigo by embracing the work of an architect from Germany, Mies Van der Rohe. His work has been, in my view, accurately characterized by the scholar Lewis Mumford,

> Mies Van der Rohe used the facilities offered by steel and glass to create elegant monuments to nothingness. They had the dry style of machine forms without the contents. His own chaste taste gave these hollow glass shells a crystalline purity of form: but they existed alone in the Platonic world of his imagination and had no relation to site, climate, insulation, function or internal activity; indeed, they completely turned their backs upon these realities just as the rigidly arranged chairs of his living room openly disregarded the necessary intimacies and informalities of conversation. This was the apotheosis of the compulsive bureaucratic spirit. Its emptiness and hollowness were more expressive than Van der Rohe's admirer's realized.
>
> — *Architecture As A Home For Man* *

Through his penetrating insight and sensitive understanding, Mr. Mumford presented and diagnosed, in various essays in this book and others, a wide-ranging survey of a major source of the ills afflicting not only the architecture of our time, but many of our institutions—the so-called "pillars" of society—the powerful goliaths influencing not only our own nation, but

* Lewis Mumford
Ed. Jeanne M. Davern
(New York: Architectural Record Books, 1975), p.183.

much of the world: government, the military, corporations, law, medicine, architecture, and the universities.

In the latter half of the twentieth-century, Chicago, like New York, Los Angeles, and almost any American city, has become the showplace of the ideas and attitudes of the German architect Van der Rohe, as expressed in high-rise buildings, the massive office towers built by corporate America. Almost equally influential have been the ideas of another European, a Swiss-French architect by the name of Le Corbusier. He was the other ingredient in the European mix that has been widely and enthusiastically embraced by many Americans and their institutions. There were also others trained in Germany in what was called the Bauhaus, founded in 1919 by the architect Walter Gropius. Many American architects, some of whom have received large amounts of publicity, and many commissions to design large buildings, have been among their greatest advocates, especially as supporters of Mies Van der Rohe. In Architecture As A Home For Man, scholar Mumford gives us further insight into the work of Le Corbusier in relation to the city and to our era,

> The monotony of Le Corbusier's favored forms has expressed the dominant forces of our ages, the facts of bureaucratic control and mechanical organization, equally visible in business, in industry, in government, in education (p.119).

Mr. Mumford comments on the substantial influence of both architects,

> Hence the brilliantly sterile images that Le Corbusier and Van der Rohe projected, images that magnify power, suppress diversity, nullify choice, have swept across the planet as the new form of the city. (p.144).

Tragically, for America and the world, these have been the gods worshipped by most American colleges and universities, along with other European and German immigrant-architects trained in Germany's Bauhaus.

All of them were initially, and strongly, influenced by Sullivan and Wright, but almost none of them understood the essentials of the organic. If they did, they didn't express it in their work. Many of them have played a large role in the unfolding drama of the failure of American architecture in our time, following closely and often parallel to, the now degenerate classical-revival influence. For much of this century they formed the centerpiece that many, if not most, architects, writers, critics, editors, and publishers have focused upon. That momentum has not yet run its course—their influence, as well as that of their supporters and heirs remains; fortunately, it is waning—but all too slowly.

Eventually, all forms of sterile negation run into dead alleys, leaving a trail of damage which it often takes generations to repair, if healing is ever possible. Happily, there are sometimes alternatives to the defective threads that are in the fabric of most historic periods, as that fabric symbolizes the life of cities and towns. Centers of humanistic thinking and acting run counter to the forces Mr. Mumford has been describing. They afford what amounts to the symbolism of the ancient ark, floating upon a flood tide of negation. They carry us back to the humanistic work of the Prairie School architects, and some of the work of European humanists like Sir Edwin Luytens, in England and India, and France's Auguste Perret; in mid-twentieth century, the engineering talents of Edwardo Torroja in Spain—Pier Luigi Nervi in Italy, and in the American middle and far west, some of Bruce Goff's work. In Florida, a unique legacy has come down through the architecture of Henry J. Klutho, revealed in an excellent, comprehensive book by architect Robert C. Broward.* In California there are legacies left by architects such as the Greene Brothers, Lloyd Wright**, and some of the work of Maybeck.

* The Arcbitecture Of Henry John Kiutho—*The Prairie School in Jacksonville*.
(Jacksonville: University Presses of Florida, University of North Florida Press, 1983 by the Board of Regents of the State of Florida.)

** One of the two architect sons of Mr. Wright, who practiced in California.

More recently, there is the work of Taliesin-trained architects, and a few trained elsewhere, who will become better known. I've certainly not listed here anything like a complete roster of those who have contributed much. There are many architects, who aren't always widely known, who've accomplished qualified, even inspired, work.

Like many American cities, Chicago long ago lost its way by denial and neglect of its most creative American sons, selling out to the influences and forces so well described by Mr. Mumford. Yet the influence of only a few of its finest architects from the past, has enabled it to retain the great advantage of its wide embrace of the splendor of Lake Michigan, and to preserve some of the best of its architectural heritage.

Recently, two or three interesting high-rise buildings have somehow managed to escape the vast forest of mediocre lakefront buildings that push up against each other, composing the central core of the downtown. How well they function as buildings is another story, with which I'm unacquainted. In outward appearance, at least, they stand in contrast to the more recent aberrations found on Chicago's streets, expressive of hangovers from the tragic European imports, and American expedience. It will be a very long time before the widespread damage of the past can be repaired, and more healthy growth take its place.

APARTMENT TOWER COMMUNITIES

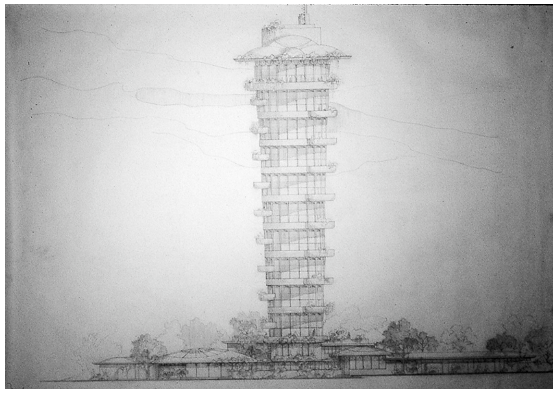
One of the unsolved problems of contemporary city life, particularly where the smaller city is concerned, is the necessity to travel long distances from home to the workplace, to shops, recreation, and entertainment centers. As I've already pointed out, this is not only wasteful, costly, energy consuming and sometimes difficult, but often painful or impossible for the

elderly, the infirm, and at times, the young. Now that violent crime and drugs have such a stranglehold on society, the risks are heightened.

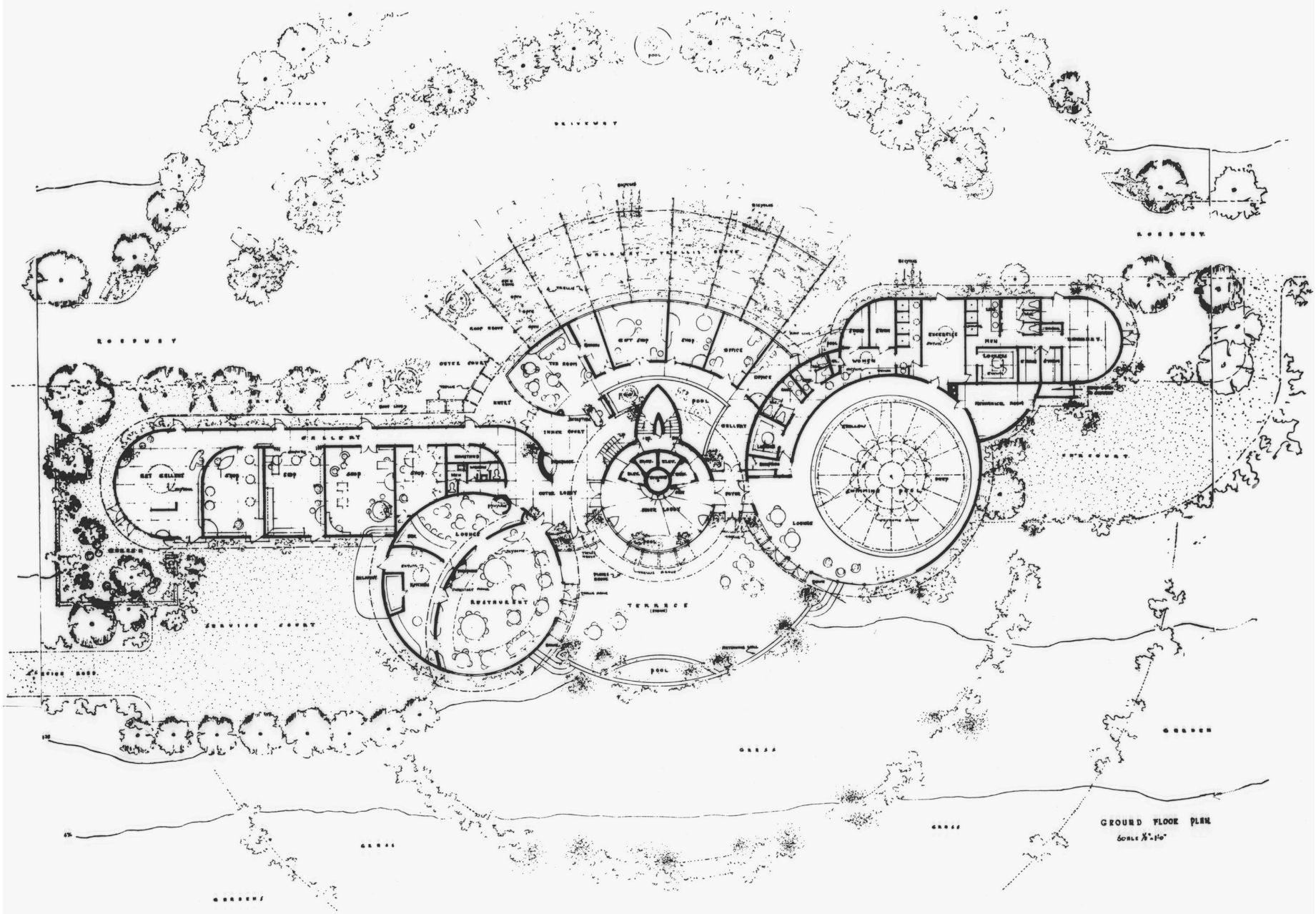
Why not combine all of these activities into a closely integrated group of buildings, in one location, within a substantial park setting? The benefits and happiness that could result would soon become apparent. The design illustrated in this book is one such possibility.

In each situation, there ought to be enough land surrounding the buildings for the use of the inhabitants, their families, guests, and friends. Each development should be set within a minimum of several acres, preferably much more. There should be wooded areas, grass, ponds, and lakes, with land allotted to people who wish to garden. There might also be playing fields, riding trails, picnic groves and skating areas. By placing these buildings on only one part of the land, all of this would be possible. The building could rise vertically to house apartments and offices, with perhaps a restaurant and lounge on top. In the plan shown here, there are, at ground level, parking, shops, a restaurant, galleries, and a health club with a swimming pool. On the second floor there's a cinema, offices, and more shops.

This development could provide a very satisfying environment for those who like to live and work in the same place, and who savor the companionship of others, yet don't want the responsibilities of home ownership. While such developments now exist, they are usually too close to other buildings and have few, if any, outside amenities which would relate them to the land. Unlike the illustration shown here, there is no reason why they couldn't also house far more people, if appropriate. The number of people needs to be carefully apportioned to the area of the land built upon.



COMMUNITY CENTER • ELEVATION • APARTMENTS, OFFICE, RESTAURANT, THEATER, SHOPS



COMMUNITY CENTER • PLAN • APARTMENTS, OFFICES, RESTAURANT, THEATER, SHOPS

SCHOOLS

The best schools should be small and moderate in size in the lower and middle grades, as well as in the university. The focus ought to be on small classes and individual attention to students. Locations should be as close to homes as possible, especially for the young. That should make walking and cycling to them easy and safe, on this city's arterial network. Bus and parental rides should be minimal or non-existent. The buildings need to open out onto green areas where possible: to lawns, gardens, orchards, and farms.

Building designs should allow for the entry of daylight from side and overhead glass, with freedom from glare, yet sufficient wall space for work. They should be inviting, intimate, and warm in atmosphere. The design concepts and the materials used might be greatly varied, imaginative, economical, and sensible—no two schools alike. Older students could profit by being encouraged to participate in the construction of their schools; in maintaining and beautifying them. Such a program, if carefully supervised, would teach many things. It would instill an invaluable sense of pride of accomplishment, and by way of an important contribution, school costs would go down.

A wise, accomplished, and great American, Booker T. Washington, who was head of Tuskegee Normal and Industrial Institute, established in 1881, had some valuable thoughts on student labor,

> From the very beginning, at Tuskegee, I was determined to have the students do not only the agricultural and domestic work, but to have them erect their own buildings. My plan was to have them, while performing this service, taught the latest and best methods of labour, so that the school would not only get the benefit of their efforts, but the students themselves would be taught to see not only utility in labour, but beauty and dignity, would be taught, in fact, how to lift labour up from mere drudgery and toil,

> and would learn to love work for its own sake. My plan was not to teach them to work in the old way but to show them how to make the forces of nature—air, water, steam, electricity, horsepower—assist them in their labour.
>
> —*Up From Slavery* in *Three Negro Classics* *

The typical American school building of today is, and has been for generations, a case of missed opportunities. The majority of schools exist as if stamped out of only two or three similar molds, for three-thousand miles across the land. There are few better examples of the amazing boredom of architecture, by committee, in the name of misdirected priorities.

Now to digress a bit to the subject of teachers. Who cannot remember the enlightening influence of a teacher early or late in our lives, especially those rare souls who took a real interest in our well-being? A few special teachers have remained alive in my memory from my early years and high school. I have little doubt about their importance in forming character, especially in childhood. It seems to me they deserve far more attention about who and what they are, and do, than they've received for far too long. Consider the time, money, and attention lavished upon sport figures, entertainers, "rock-stars," and politicians. Do we have so little interest in, and appreciation for, teachers? if we do, we're in serious trouble, which of course we are. Is it any wonder, as we approach the twenty-first century, that about twenty-five million of our citizens still can't read or write?

Do many in our nation care if our schools are inundated with drugs, guns, young hoodlums? How much more can many city schools degenerate before enough of our leaders, and the voters, begin to put priorities in some sensible order? If millions of parents already use drugs, what hope is there for their children? Unless we seriously face up to these problems, we'll never

* Booker T. Washington
(New York: Discus—Avon, 1965), p108.

be able to build schools worthy of the ideals we profess. On that score we've hardly begun.

Thomas Jefferson was a great believer in the value of a good education, and went so far as to design the famous complex known as the University of Virginia. Now, about one-hundred and fifty years later, almost a million citizens in his home state of Virginia are functionally illiterate. Such a condition, not limited to Virginia, is a national disgrace and says much about the values and priorities set by our leaders, presumably elected by voters, or non-voters.

It's a serious mistake to put the innocent young into the often ugly uninspired atmospheres of too many school buildings, the majority of which resemble factories. This common practice plays a larger part than many people understand in the complications and problems that the young suffer from, as they evolve into adulthood. That's especially true for city schools. There are too few inspired and knowledgeable people involved not only in the design of schools, but in awarding commissions to architects and reviewing plans.

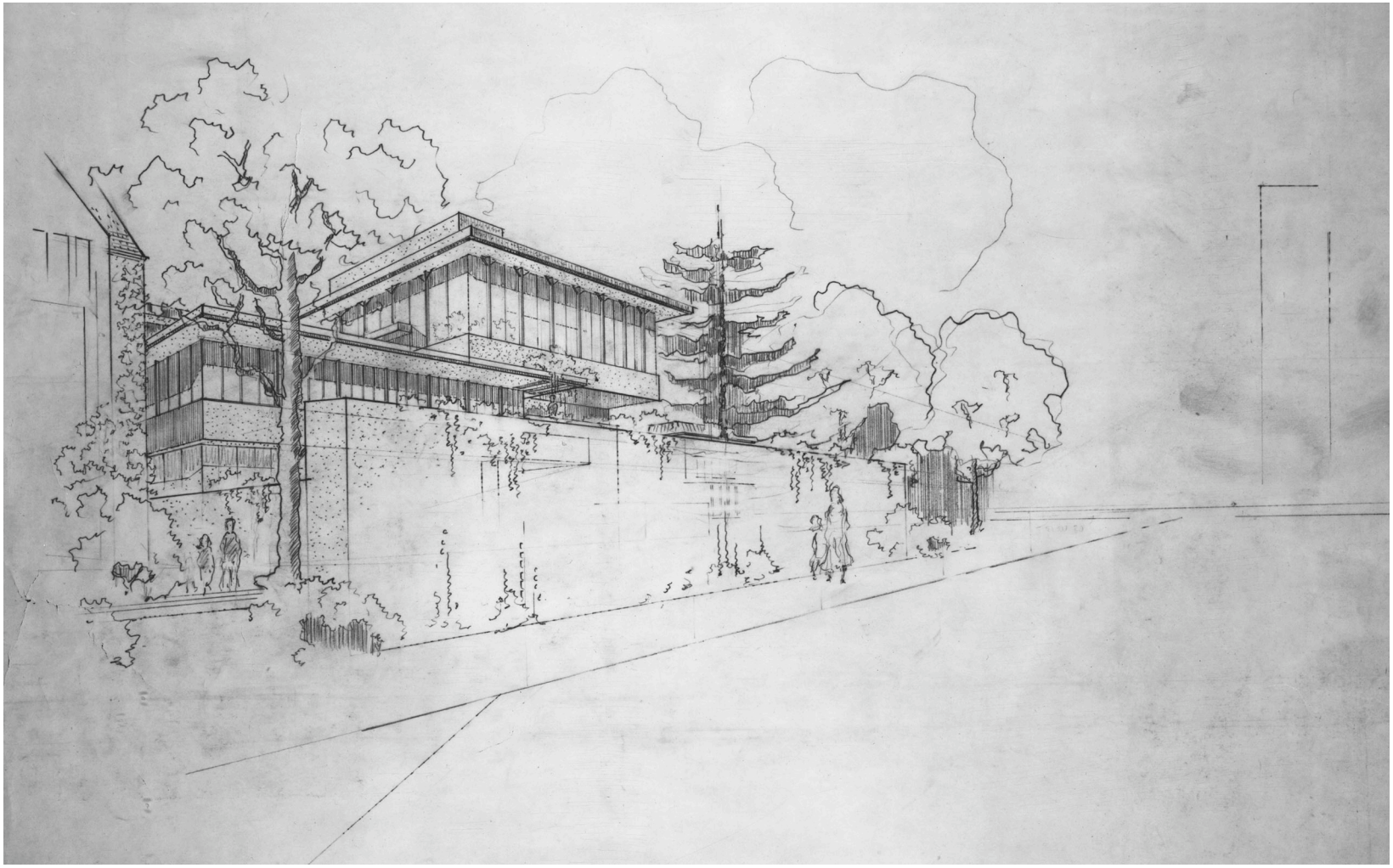
The ubquitous, ugly American school bus, painted orange-yellow for reasons of safety, needs to be newly designed and painted. They can be made more safe than they are now, and still be attractive. Existing buses should be phased out.

DESIGN CENTERS

There ought to be several such centers for teaching architecture, where the atmosphere would be one of school and work combined, not separated, as in most conventional schools. The students could apprentice to real life projects, beginning in their mid to late-teens. They would learn history, design, construction, model-making, and remodeling, all of which

would relate to living concerns. They'd work alongside qualified senior students, and with architects and landscape designers on specific projects. Supervision of all studies and work, as well as fellowship, would come from those who've already proved their worth, by way of similar training and experience. No one would become a specialist at the expense of all else. One of the main aims would be the on-going improvement and perfecting of all-around work, both for the inner man, and to fulfill life's obligations.

Other experiences in the allied arts and crafts, such as music, gardening, botany, farming, sculpture, and painting, would create an atmosphere for the development of normal, well balanced individuals. There would probably be an abundance of work for all who are interested. As the young grow and develop, they'd be immersed in a natural atmosphere of creative work, based upon organic principles to cultivate innate abilities. In this atmosphere, abnormalities of many kinds would have little if any chance to grow and spread. The design centers could become important parts of the foundations of a culture—in the true sense—enlightened beyond most schools that exist, especially in today's cities. Those wishing it will find a lifetime of creative work available to them, in creating new cities and in rebuilding the old ones.



LIBRARY AND SCHOOL

I have found a paper of mine among some others, in which I call Architecture petrified music! Really there is something in this; the ton of mind produced by Architecture approaches the effect of music. Splendid edifices and apartments are for princes and kingdoms. Those who love them feel at ease and contented, and desire nothing further.

—Johann W. Van Goethe

COMMUNITY CENTERS

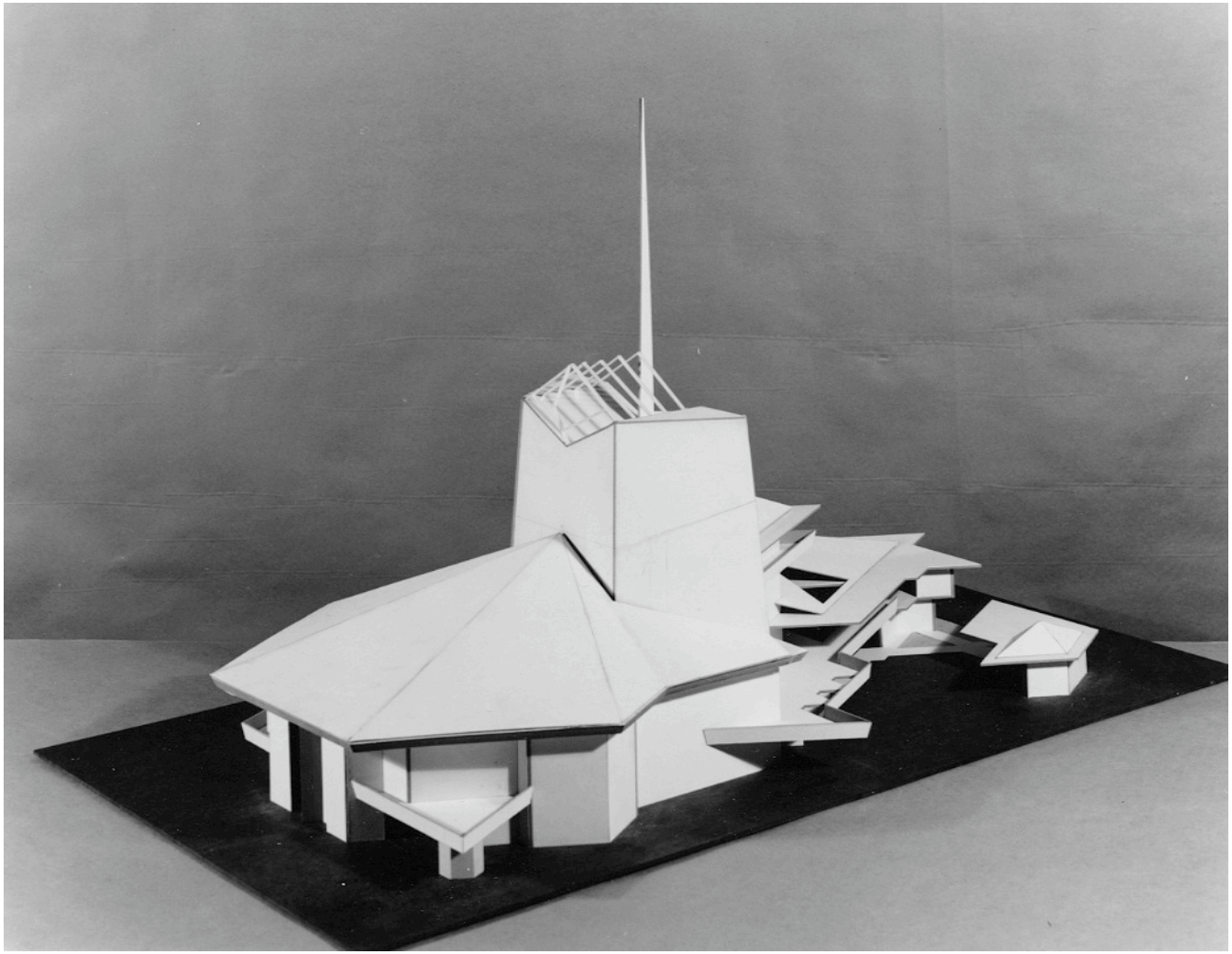
For those who would live in private or in multifamily dwellings, there are neighborhood centers close to home, as already described. They can be arranged for not only shopping, but for libraries, art galleries, child-care and craft-centers, medical clinics, baths, gymnasiums, swimming pools, cinemas, and lounges. You, my reader, can undoubtedly add other things you'd like to have. Surrounding such centers, and dwellings, are orchards, groves, parks, ponds, canals, and small farms. Near many of these centers, there could be railroad stations for inter-city transportation and auto parking. Radiating from them, in addition to roads, are pathways for pedestrians, bicycles, horses, and electric carts. These concentrations of activities would serve as the necessary nuclei around which modest size communities would be formed, within the city.

Of course we've long had such centers, and in a variety of forms, from the old inner city street neighborhoods, to the typical suburban shopping center, and many variations on those themes. The old neighborhoods, which I knew early in life, happened more by accident than design. Much about them is worthy of recall, and relish. They seemed to have encouraged a closeness between neighbors, and a sense of community. Yet they were limited in scope, and not without their disadvantages.

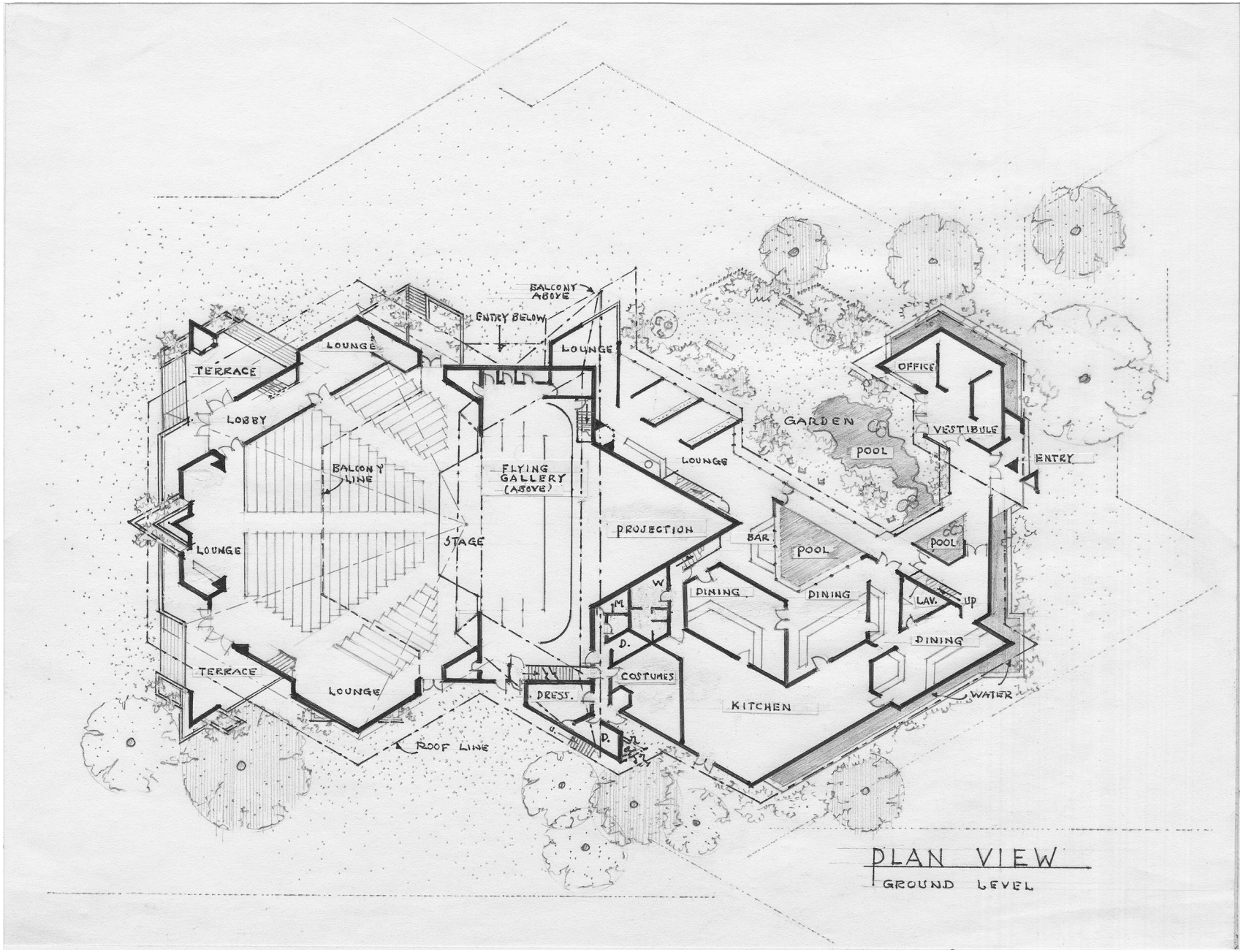
The suburban shopping centers brought with them amazing changes in peoples' lives, not all of which is enviable. As in other areas of our lives, we were given new benefits, but we also lost much that was valuable. Some are reasonably well conceived, but too many are badly designed, unpleasant, or just tolerable. Almost always there's an ocean of cars parked in massive parking areas. Behind the stores there's a roadway for deliveries and garbage collections. If other activities besides shopping are present, the atmosphere is only rarely conducive to their existence. The omnipresent light-poles and wires string the whole complex together, as well as the adjacent approaches. Good landscaping exists in a few places where there has been some

sensitivity for beauty. If a building somehow happens to be competently designed, which is rare, it usually fades away behind the various trappings of ugly commercialism, which now covers most of the country, and too much of the world. Almost never are such centers near easy transportation arteries, for getting there and departing. The car, or perhaps a bus, is the only way in or out. Rarely are such centers located in attractive settings, and if they are, the scenery has usually been blotted out. Most are on an elongated strip, which may run for miles, or into other cities.

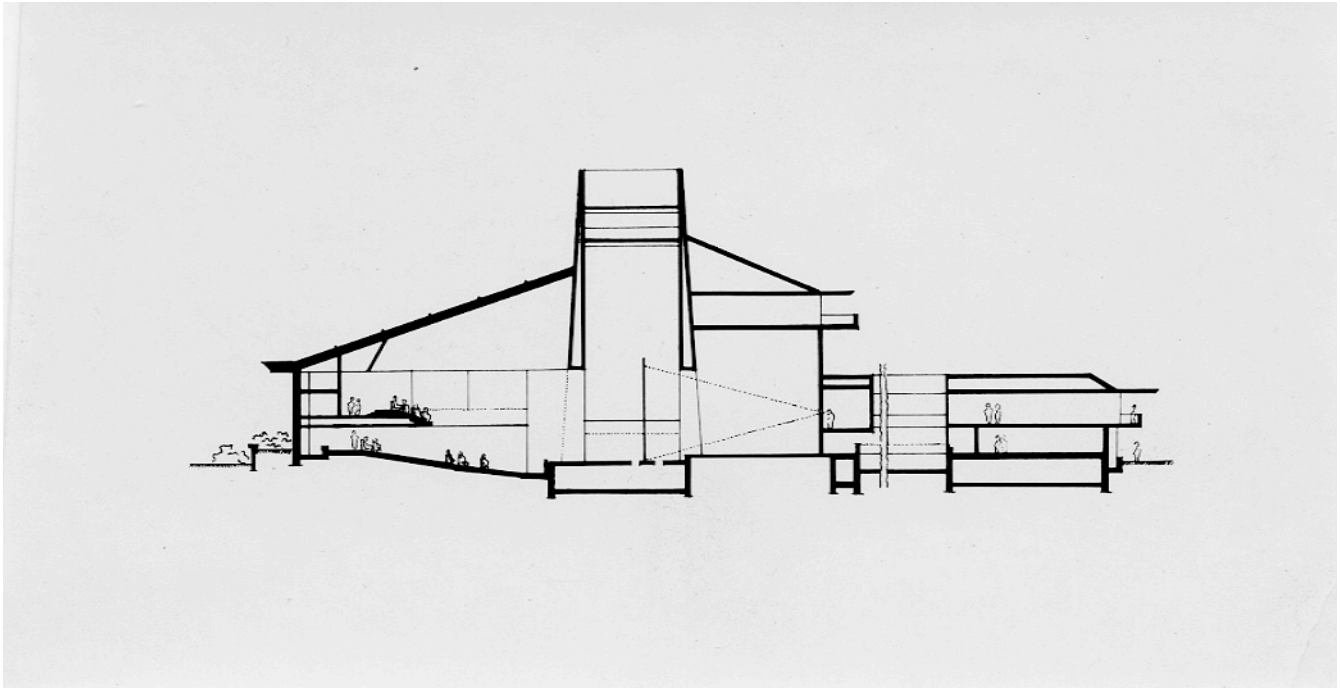
There's a need for more gathering places for large numbers of people. One such area has been included for the performing arts, and another for government. Others might be in community centers. People could travel to these places from the satellite centers all around the city, whether they're interested or involved in the arts, trade, business, medicine, or something else. These would be places where all ages and groups can gather for walks, concerts, people-watching, drinks, meals, dancing, and so on. They could be used throughout the year, either open-air or closed, depending on the local climate. In European cities like Copenhagen and elsewhere, it's possible to get an idea of the importance and pleasure of such places. If they can be integrated with the transportation system and a network of walking and cycling trails, many new pleasures and benefits will evolve.



COMMUNITY THEATRE AND RESTAURANT • MODEL



COMMUNITY THEATRE AND RESTAURANT • PLAN



COMMUNITY THEATER AND RESTAURANT • SECTION

The fairest thing we can experience is the mysterious. It is the true fundamental emotion which stands at the cradle of true art and true science. He who knows it not and can no longer wonder, no longer feel amazement, is as good as dead, a snuffed-out candle.

—Albert Einstein, *My World View*

MEETING HOUSES

If humanity is to evolve, the many chasms that now separate people, as well as the cracks in the foundations of civilized life, must diminish. Buildings for worship could help to symbolize such a welcome change. A unified meeting house could be far more than a social gathering place. The social aspect is important but they should primarily be places to gather for meditation, contemplation, pondering, worship, and prayer. Music and rituals could be integral with many activities, as well as dance. Many sects might hopefully join with others, as genuine unity and brotherhood draw people together who are now barely on speaking terms.

For thousands of years organized religion has often been the source for not only valuable works and deeds, especially in the arts, but for mass sacrifice, persecution, slaughter, and horrors beyond our wildest imaginings. In a developed society, where sufficient numbers of people live who possess true being, religion would no longer be a basis for exclusion, discrimination, prejudice, hatred, violence, and destructive cults.

The new meeting house, as some now exist, could symbolize and express man's true divinity, an interest in and concern for higher intelligence and spiritual forces unseen, but felt. Such buildings might embody diversity within unity, quiet repose, inspiration, mystery, beauty. As in ages past, they could become great expressions of the mother art of architecture, to shelter and display painting, sculpture, music, and dance. True temples for man and God.

There are few limits to the new forms that meeting houses could assume, considering all the wonderful materials we have to build with. This affords a special challenge to the creative architect that many other building types don't offer.

Thomas Jefferson was the author of one of the greatest American documents called *The Statute Of Virginia For Religious Freedom*. In helping give birth to the nation, he, perhaps more than anyone, helped foster religious tolerance and the importance of maintaining a separation between religion and government. In Charlottesville, Virginia, the County Court House, built around 1803, was used for religious services on Sundays for the four leading denominations. Jefferson referred to it as the "Common Temple." Close by, during the week, our early presidents, James Madison and James Monroe, could be seen walking the streets. Today in the same small city, people are split off into many different churches and one synagogue. Mr. Jefferson may have had a good idea. Did he try to unite people, whereas life tends to divide them? He may, however, have done so out of the necessity of only one building being available. There is always a danger in eliminating diversity, but I don't believe that was Jefferson's intention. Perhaps the ideal exists in the balance between diversity and unity.

AUTO AND AIRCRAFT INNS

The motel came into being, obviously, on account of the motor car. When motels are well designed, which are rare events, they become more useful, beautiful, and better magnets to attract motorists. Here's a building type that might have been another form of expression to expand the vision and horizon that came with the automobile. Efforts will be needed, in decades to come, to get far from the mundane car trading-post of today's motor inn. Yet some progress has been made. In many structures we see the integration of indoors with outdoors, by way of glass and opening up within the building of lobbies, dining areas, coffee shops, pools, lounges, conference rooms and other amenities. Many more motels now have attractively designed individual rooms and suites. Much of that is progress.

Too many larger motels have pretentious, tawdry, entrances—poorly scaled to their uses. Lobbies and hallways are often oversized, wasting space that's expensive to build and maintain. The average size motel should have simplicity, naturalness, and charm. Instead, many are large rectangular concrete and glass cell blocks, set in the midst of asphalt parking lots crowded with cars. I've rarely seen creative imagination applied to motel design. The boredom of the ordinary, ubiquitous American motel, engulfed in signs, wires and poles, needs a new breath of life.

As quiet, vertical-rising aircraft come into use, new kinds of inns will be needed for travelers, in addition to roadside motels. There may be less need, in future, to locate them adjacent to highways. As everywhere else, here again is ample, generous opportunity for the visionary inn-keeper, the inspired architect, competent builder, and the intelligent investor. Handsome signs, beautifully lit, could point the way from main roads to the motel or inn. If this were done it would be another factor in eliminating the typical commercial strip that now runs through most American towns and cities, that deserves to be eliminated, dispersed, and reintegrated in new ways, in new cities. And finally, the travel needs of the ordinary citizen need to be met, concerning the cost of lodgings.

MEDICAL CENTERS

Ideally, any architect designing a medical facility ought to consult with the people who will use it, including the administrators, doctors, nurses, technicians, suppliers, and maintenance people. The chances are that much would be learned to improve current hospital design. Why not also consult patients? It helps to have been a patient, if one is the architect.

Medical buildings, like most non-residential buildings, are chiefly the results of the thoughts, feelings, and conditioning of those with power to

direct or finance the facility. Too often some of the real needs of patients, and others, are ignored.

The problems connected with the medical buildings are directly related to the nature of current health care, which has now become a vast industry, serving mostly those who can afford it. Some things are much in need of investigation and airing. Too much of the medical world now functions out of all proportion to what would be normal, if society were more sane. The medical world is in serious trouble with itself, and its clientele. It has strayed too far from being the compassionate servant that it ought to be, may have been, and sometimes is. There is much fascination with and reliance upon gadgetry, which may supplant a physician's knowledge of his patient's body and spirit. Machinery and gadgetry, much of which is amazing, seem to dominate and are not always thoroughly understood as the tools they are. Individual problems are sometimes treated with blatant and criminal disregard of the whole human being. Many doctors have no interest (or make time) to get to know their patients, other than superficially. Even when someone's life may be at stake, doctors often avoid in-depth discussions that might result in saving a valuable life, unless a patient, or their family, insist on it.

Hospital staff, including doctors, are often accused of treating patients as house property, indulging their own weaknesses, to the detriment of patients. Few in the "profession" appear to have a comprehensive understanding of human nature—of nutrition, herbs, homeopathy, acupuncture. Many doctors are contemptuous of anything other than drugs, x-rays, and formal medical procedures. Medical doctors wield a powerful authority, but are sometimes quite ignorant, especially when they treat people as being less than human, which I have witnessed. Foolish people look upon doctors as new kinds of gods. Without the inner control of conscience and ethical values, the medical world presents a vast threat to human life.

Nurses and other personnel are underpaid, overworked, and often maltreated by their "superiors." In the early 1980s and even today, nurses are quitting by the thousands. The fees of many doctors, executives, and, especially hospitals, are vastly exaggerated.

The other barb in this unholy alliance is the insurance industry, which aids, supports, and gives comfort to many, except the millions of Americans who can't pay their high prices, or qualify as "risks." The policies of many companies are, in some measure, based upon blindness and greed. The staggering wealth of some insurance companies has been partly built at the expense of those least able to afford it.

Yet within the medical, and sometimes in the insurance establishments, as in all life, there are heroes and heroines of conscience and modesty; they offer hope. By maintaining high standards of excellence in their work, and with dedication and sacrifice, they care for people who need help, whether they are rich, poor, or somewhere in-between. There are many such, bringing with them joy and caring to an often dismal scene, sometimes at considerable personal sacrifice. There are also the unique non-conformists. One good example was the remarkable Dr. Albert Schweitzer, who gave up a promising career in Europe, decades ago, and went to Africa to work with natives. And there are others who have given up well-paying practices to work in rural areas where there are few, if any, doctors and nurses. It's sad, if it's true, that they usually have little power in dealing with the unconscionable "Heavies" of the industry.

If fear, suspicion, and greed are lessened or eliminated in the patient-doctor relationship, medicine will be able to resume its rightful and compassionate place in the scheme of things. New people and new attitudes could usher in change. Some courageous doctors and others are doing that by expressing themselves in newspaper articles, books, on television, and in conversations with patients and their families.

I recall Mr. Wright once saying that if he ever had a chance to design a hospital, the patients would not want to leave it. If you know his work you would understand that he wasn't idly boasting; it would have been so. It is to society's long standing loss, that he never built anything larger than a few small clinics. Those entrusted with the power and the money to build hospitals seem to be forever mesmerized by the "experts." Mr. Wright knew that the "expert" was half, if not wholly, dead! From the "expert" in architecture, little, if anything, comes by way of genuine new ideas.

Our nation builds hospitals by the hundreds and thousands, which testifies to caring and concern, yet Out of all that it refuses to give even one job to its greatest architect. There's no reason why a hospital can't be as beautiful as it is useful. An important aspect of recovering from illness lies in the environment created. It may be even more vital in medical buildings than elsewhere, as a factor in cheering people up—not only the patients but the visitors, doctors, nurses, and others. Where possible, most rooms and interior spaces should be arranged to have windows and doors that open onto balconies, patios, lawns, gardens, and woodlands. Brightening these spaces from above with daylight, where sensible, can be achieved by means of diffused skylights and clerestories (vertical windows located well above head level). Over many years the cost will be compensated through lower electric bills, better eyesight, and a more cheerful environment. Good landscaping, by way of gardens and flowers, should be an important part of every medical facility. While all these features may appear to be extravagant, in the long run they'll more than pay their way in terms of helping patients recover, and cheering up hospital personnel and visitors. The patients who will not recover, will have the benefit of spending their last days on earth in humane and beautiful surroundings. The value of providing such possible environments cannot be underestimated.

In this city there are small, medium, and large medical centers that are well spaced so that long distance travel is minimized. Smaller centers

should be as close as possible to the home, school, and workplace. There ought to be at least one hospital of about one-thousand beds, to act as a center, which could also be used for teaching.

It's important that until medical helicopters are quiet and safer, they shouldn't be allowed to fly over populated centers. The present practice of bringing patients into the inner city at low altitudes is a noisy menace; in some cases it spoils decent, established, neighborhoods. According to television reporting, these overworked ambulances and their crews have a poor safety record, due to fatigue and considerable flying in poor weather. In any new city they should fly over the countryside, at higher altitudes, with quieter engines. Due to the many open green areas in the new city, the need to fly into a crowded inner city will be eliminated.

Many boast that our nation has the best medical care on earth. Such claims have only partial validity, when you consider the approximately thirty-seven million who can't afford the care—or insurance. Of what value is highly organized technical care that has no concern with humanity, compassion? In 1987 about one thousand Americans died because they hadn't the money to pay for treatment. Many of the buildings built are inhumane, ugly, or mediocre, because too many responsible for building them are unacquainted with new possibilities, and have become the slaves of past mechanical patterns.

RESEARCH CENTERS

Whatever is useful in the realm of the humanities, whether social, scientific, technological, medical, agricultural, or something else, it should find a sympathetic home here. The new research centers might be moderate in size, and located as close as possible to the areas they serve. They should be on sufficient land to make work pleasurable, with integrated or nearby dining facilities. Very large building complexes might not exist, except in

unusual circumstances. People who work in such centers ought to have a choice of living in apartments integrated with the centers, in houses, or multifamily dwellings nearby. Agricultural buildings could be placed adjacent to, or on the farm itself.

Very special centers may need more isolation, for specific reasons, connected with their special research. Their designs can be as varied as any other type of buildings, and should express something of the character of the work taking place within.

FACTORIES

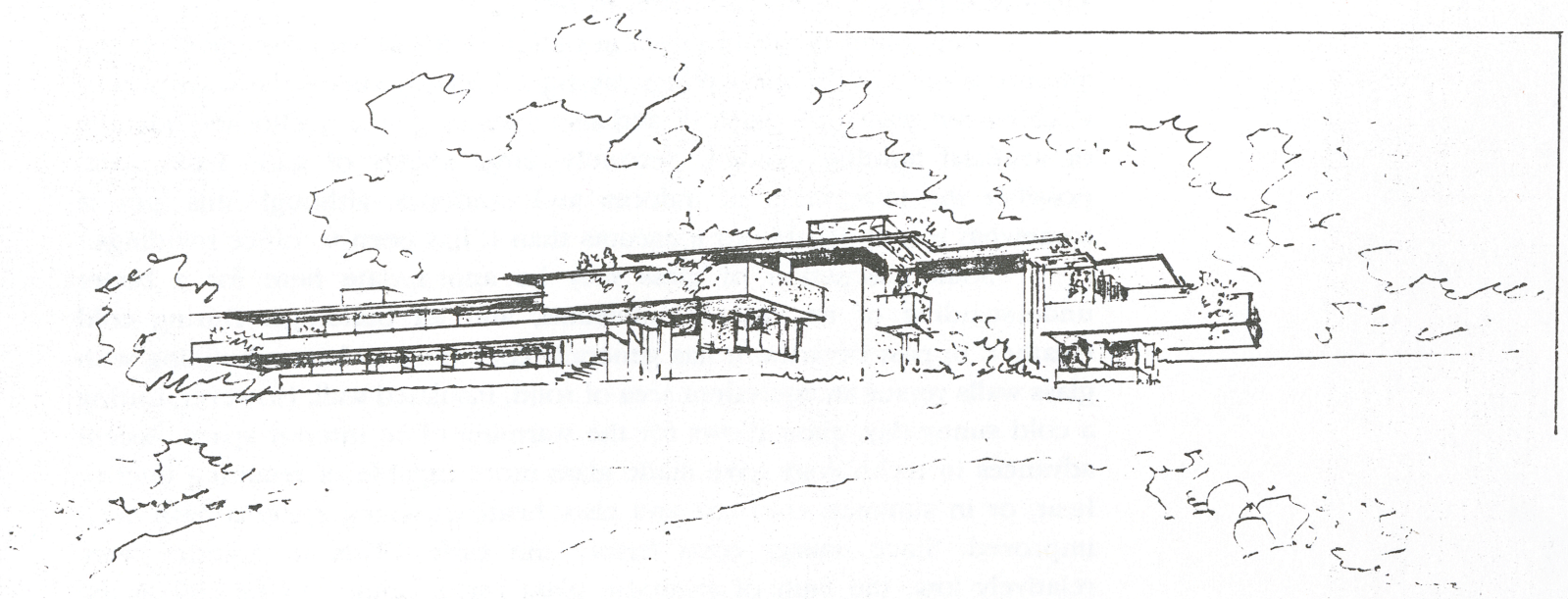
It is generally known that they come in all sizes and shapes, and are built for different uses. In this city most will be small and moderate in size. The large factory, when necessary, might best be located out in the countryside, or adjacent to a waterway; perhaps it could be part of a self-contained community. Where concentration is essential, as in large industrial activities such as steel and shipbuilding, the amenities of life ought to be not too far from the workplace. Nature should be integrated into the life of the community and, when sensible, into the factory. That may seem silly or impractical, but with imagination and advanced technology, it may not necessarily be so. Small manufacturing villages or towns need to be quite differently planned than most of the dismal factory towns now existing.

Travel between home, shopping, restaurants, and the workplace, should be minimal and easy. The factory to come will be very different from the ones characterized by "Smokestack" America, the great auto factories of Detroit and the steel mills around Pittsburgh. Perhaps very few conventional ones will remain, except as relics of the past. Gone should be the pollution, scum, smoke-filled air, and the human illnesses related to so many.

Even now, some auto manufacturers, in order to survive or become more productive, have at long last decided to move factories into the rural

areas of the mid-west. Foreign competition, and the purchase of American companies, buildings, and land, by foreigners have been the main catalysts. Much is being learned from the Japanese, leading to substantial changes in relationships between labor and management. Workers are having more say about their workplace and the methods of production. They are beginning to share more in the profits or losses of the company. All of these are important and welcome changes from an often grim history. The big union bosses of yesterday and today may become the dinosaurs of tomorrow. But they will have served their great purpose of increasing fairness and humanity in the workplace.

The factory is going to the countryside where it belongs, but not until the toxic waste, pollution, and disposal problems have been solved, as well as the humanization of the communities that serve the factory. As long as technology is a way of life, (and there appears to be no end to it, barring nuclear or ecological catastrophe), the factory will forever be with us. We might as well turn it into a great opportunity for welcome change and great, vital, living.



MUSEUMS

Glass has liberated the museum as it long ago liberated architecture. But too many architects have become the slaves of glass and the companies that supply it. The high cost of energy, which accelerated in the early 1970s, began mercifully to muzzle some of that excess, bringing about some significant change in the approach to design.

Glass is important in museum buildings for at least two reasons: the amount used in walls and ceilings (skylights) greatly affects the ways people visualize the museum's displays, and also determines the quality and quantity of artificial lighting needed. Secondly, large sheets of glass have made possible the integration of indoors and outdoors, although this idea is somewhat less applicable to museums than it has been to office buildings.

Some discussion of glass may be appropriate here for a better understanding of its uses in museums, and all buildings. During cold weather, in past decades, it has generally cost more to heat a building with glass walls versus an equivalent area of solid, insulated wall. However, during a cold sunny day, glass allows for the warming of an interior space. Recent advances in technology have made glass more capable of retaining interior heat, or in summer, cool air; and also, heating-cooling systems have been improved. Since energy costs before the early 1970s in America were relatively low, the fault of excessive glass usage cannot all be laid at the drawing board of the architect. The price seemed worth paying in terms of the benefits received. Since most energy costs seem to be on a long term rise, the architect has to decide whether to use more or less glass, so that yearly heating and cooling costs are manageable. While economy is an important factor in most building design and operation, it has to be weighed against other considerations. Glass allows great freedom when used with understanding and restraint, and with a knowledge of its proper relationship to all the other elements in a building. It has too often become a crutch and

last refuge, where the talent over the drafting board is uninformed, or mediocre.

Museums should take on many different forms, using all available geometry, if that geometry is understood. The Guggenheim Museum, in New York City, was a great miracle and pioneering achievement by Mr. Wright. Today, it is conceptually light years ahead of most of the architecture in the contemporary world. It's also one of the most abused of the great buildings—a miracle that has slowly turned into misfortune; its essential integrity has long been threatened and compromised. It's typical, however, of what people in authority can spoil when they lack an understanding of organic ideas. Even before it was built, there were people in high positions who tried to prevent its construction. Many obstacles, over roughly sixteen years had to be overcome for the "Miracle on Fifth Avenue," as Mrs. Wright had properly called it, to become a reality.

Many have criticized it for a host of reasons, most of which lack validity. It was designed to house works of non-objective art in the Guggenheim collection. The original force behind its existence came from an artist who immigrated to this country from Europe, the late Hilla Von Rebay. It was she who recommended Frank Lloyd Wright to her friend Solomon Guggenheim.

If common sense and understanding had won out, any and all changes and additions would have been accomplished by the architects closest to the source of the original design, namely, the architects at Taliesin, the largest group of inheritors of Mr. Wright's practice. If, for reasons known to the Guggenheim's directors, another architect had been insisted upon, then the choice should have been someone who had worked with Mr. Wright. It should have been an architect who understood his principles and had put them into practice. I have little doubt that that would have been Mr. Wright's, Mr. Guggenheim's and Miss Rebay's wish.

In recent years the directors have wanted to build a substantial addition to house their extensive collection, not all of which is non-objective painting. Mr. Wright had originally designed an addition, which wasn't built. Instead, the directors chose architects whose former work appears to be alien to the museum's original concept. The museum, and the large proposed addition, should have been completed as Mr. Wright had designed them. Although he had died before the building's formal opening, no one knew better than he how to build the additional structure wanted. All of his ideas—drawings and sketches—should have been carefully followed. If the addition had only been designed in a preliminary stage at the time of his death, the Taliesin architects, in my opinion, would have been able to complete it far better than any architectural firm that the directors have hired. It should have been established as a national treasure, inviolate, to remain as he had designed it—far into the future—and if necessary, protected by the Federal government. Why change a great masterpiece of one of the greatest architects who ever lived? How few such works are in existence in the world, especially in our country! Why do we have so little reverence for a great work of art? Are we so materialistic that we must remain cultural delinquents where great American architectural masterpieces are concerned?

It's never enough to construct a fine building. The will and ways must always be found to preserve, and further, the intentions of the original architect, for any genuine work of art. Too many great buildings have been spoiled by departure from the architect's conceptions. I have unhappily seen many of my own designs spoiled as well, either by an original owner, or a subsequent one. While preservation may seem naive and unrealistic, it should be kept as an aim, to become better understood by more people. Most of the problems arise from the refusal of an owner to turn subsequent changes and additions over to the original architect, even when the architect is available. Curiously, the Soviets, with their repressive government, go to great lengths

to carefully restore and preserve some of their fine old buildings. In America, we need to do far more with qualified buildings, and waste nothing on the unqualified. Such judgments may not always come easily.

Sterility in museum design is common. Even within many museums, too much of what fills up the interior spaces and walls may be the high water mark of the banal, empty, and insipid. Too much of it has been the expressions of the inner vacuousness occupying the attention, time, and energies of many in the art world.

Yet some fine work has been accomplished by qualified artists, although much of it is ignored in today's splashy, expensive, and glassy museums. How attractive has become the novelty of displaying art portraying violence, idiosyncrasy, and perversity—as if there isn't enough of it in the daily media! If you aren't feeling too well when you go into a museum, or suffer from the blahs, hoping to get a lift, you may feel worse when you come out! Sometimes, when you read about an exhibit in your favorite magazine or newspaper, some "important" critic may tell you how valid, serious, and valuable it all is. The heavier the Sunday edition of the paper is, the more you may be convinced by the critic! The best antidote may be a large dose of humor, or to visit museums less often, and fields and woodlands more.

What is rare and genuine sometimes breaks through the crust of what's current, and gets a chance at exposure. How many are aware of the sacred purposes that were inherent in works of art in ancient times?

The museums built in the United States, generations ago, were tributes to an ancient past. Some are interesting goliaths to behold and walk through—many are bloated, pretentious, and lack originality. All, no doubt, well intentioned by wealthy patrons trying to pay homage to ancient civilizations, but who were impotent in expressing themselves in terms of their own moments in time. Some have the virtue of fortress-like security, which might be comforting to many who daily face escalating city crime. They are undoubtedly a sanctuary against the cheap commercialism and

banality of many city areas. Redemption of some of them along superior lines is difficult, and has rarely occurred. It's a tough job to give any architect, whether competent or not. The Beaux Arts hangovers, often mammoth in size, are constantly being added to, and altered. Yet some of them are far better than the work many architects are doing today, which doesn't speak very well for contemporary museum architecture. But not many architects now have the great patron-clients that provided the great commissions in former times, people like the very wealthy Carnegies, Mellons, Vanderbilts, Morgans, and Fricks.

We need great new buildings that will unite usefulness with beauty, bringing joy and refreshment. They should be indigenous expressions of what is our own, in our place in time. It's not an easy thing to achieve.

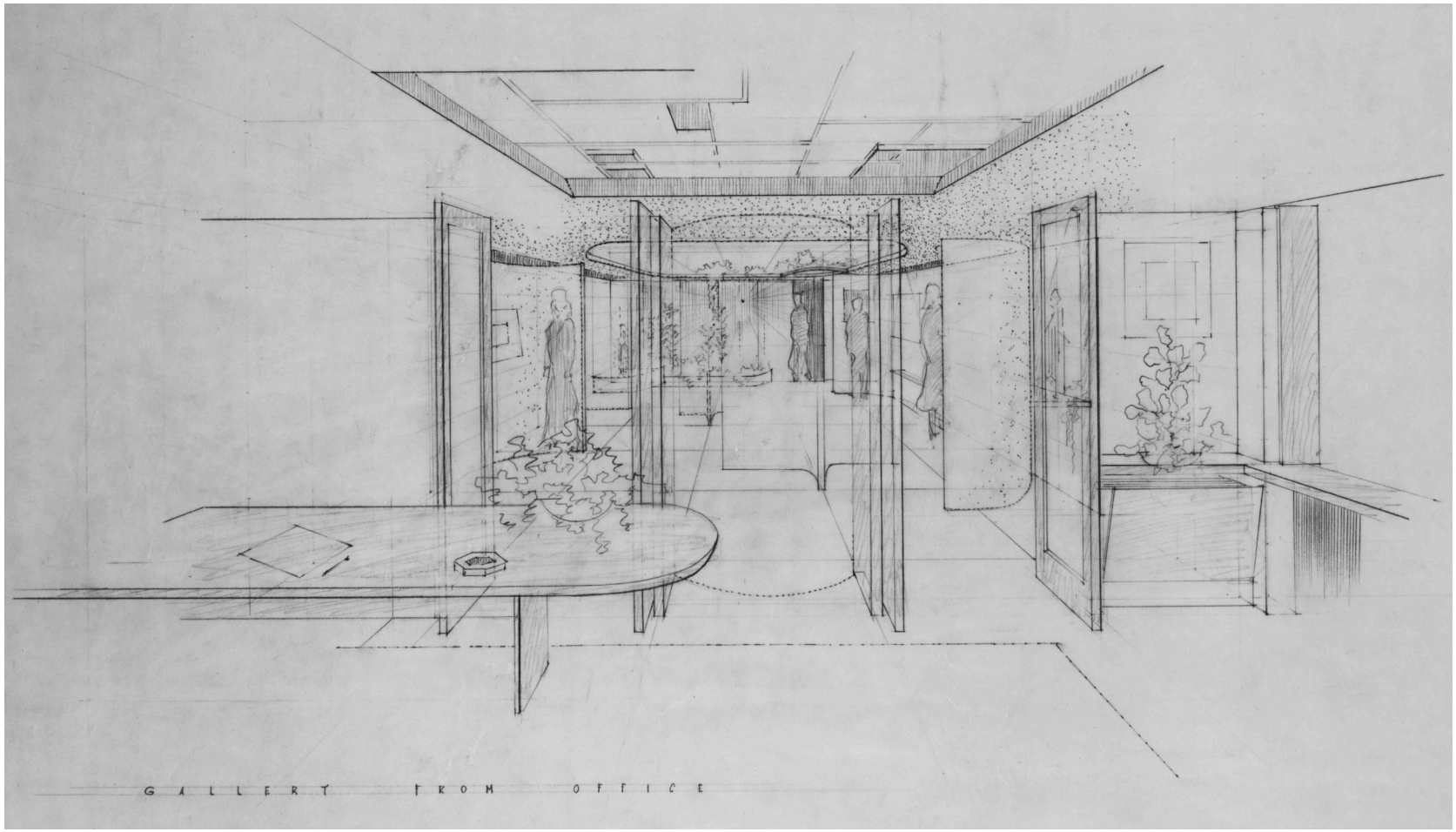
Most museums are best built in parks, where good landscaping can become part of the whole, using reflecting pools and fountains. Access and parking should be easy and natural. Walking and cycling paths should lead into them from other parts of the city. These thoughts are applicable to any museum, regardless of size. A city of this magnitude ought to have at least one major museum, as well as a number of smaller ones ... carefully located. The modest museum can be created to be a gem. Size has nothing to do with quality.

ARCHITECTURAL MUSEUM

There are few, if any, museums in our country that focus specifically on architecture. In general, architecture is shown as a sideshow, a footnote, or a fragment of some other exhibit. Here's a new opportunity to design one, or several buildings, that will house the history of architecture from earliest beginnings until the present. There are many ways of constructing such exhibits by a variety of means, some of which are presently used, and others

which remain undeveloped. There will be new ways discovered that can add delight and instruction.

Such a museum can give the young an exposure to great architecture, which they don't now have, except in scattered and fragmented ways. Ideas can be conveyed through models, photographs, dioramas, movies, slide shows, and reconstructed buildings. There will be new developments with lasers, dimensional cameras and projection equipment, giving viewers a greater sense of space, depth, and involvement than what is presently available. In so far as science and art make it possible, man's long history in architecture could come alive in ways never before known. Such a museum could well serve people of all ages.



NEIGHBORHOOD COMMUNITY ART GALLERY • INTERIOR VIEW

The tremendous increase in urban population clearly justifies the warning that, after the question of keeping world peace, metropolitan planning is probably the most serious single problem faced by man in the second half of the 20th century.

—The World Health Organization

FIRE PROTECTION

There will of course be a need for fire protection for buildings, but not to the present extent. Many of today's fires are caused by poorly designed, over-aged, dilapidated buildings that should never have been built, or should have been demolished. The crowding of buildings within city blocks is another cause of fire spread. In many states the authorities have been responsible for innumerable deaths and injuries, due to inertia in enforcing basic standards of common sense, and in some cases, as part of the corruption involved in payoffs.

In the early 1980s there were over three hundred fires set each day, nationwide, by arsonists. This reveals a national perversity. In a healthy society this would never occur. The causes would be found and remedies applied.

Advanced technology in the development of inflammable materials will assist fire protection methods and better fire warning systems. New extinguishing equipment will serve to lessen the dangers of fire and the need for humans to fight it. Recently, computers have been used, in the West, to help fight forest fires that were scattered over wide areas. It's now possible to send quickly, by electronic means, plans of buildings for scrutiny and strategic planning, should a fire have broken out.

For a long time to come people will still be needed to do the essential work, often putting their lives on the line, and sometimes losing them.

The eventual demise of the crowded contemporary city would allow for prudent separations between buildings. The integration of parks, pools, and good landscaping, will do much to prevent fire spread. Access to burning buildings would be much easier than in today's overcrowded cities. The agony and the anger of the blasting horns, roaring engines, gridlocked traffic, and people dying for lack of help could become rare. The fire engines of the present will have little to do in new cities. Future fire-fighting will have far

more to do with education, prevention, and the uses and understanding of new technology, than in sliding down firepoles and risking lives on high ladders. The large amount of dollars spent to maintain all of this will go mostly into prevention. While perhaps the supposed romanticism, and certainly drama, of fire-fighting will diminish, so will the saving of lives increase dramatically, as well as the amelioration of suffering.

In the old cities, fire fighters will be busier than ever doing their traditional work, when they can get to it. One of the saddest tragedies in this country is the continuing burning of old, dilapidated hotels and shanties that house the young, their parents, and the elderly poor. These disgraceful hovels are forever catching fire, or being set afire, often at night in the midst of winter. The residents usually die terrible deaths. Perhaps none of us can wholly escape responsibility for such events, unless we raise our voices in protest. Heroic fire-fighters will in future, as now, be sacrificed answering alarms to blazes and explosions set by pathological criminals and insurance "collectors."

POLICE

I remember once having spent a few days in the small capital city of Reykjavic, in Iceland, and being told there was only one man in jail in the entire country. Since it was Sunday, he was at the movies! An unheard of condition in almost any country, especially in the United States, or a city like New York, where there are roughly twelve hundred murders a year. As commonly known, crime is now of epidemic proportions in our country, with about one million people in mostly overcrowded prisons, approximately two-thousand awaiting execution, and roughly a quarter of a million fugitives "at large." It undoubtedly is foolish to compare a tiny country like Iceland with our country, yet it brings a sliver of hope that our widespread violence might eventually lessen, if we put in positions of power leaders with

imagination, courage, and will. Based upon many years of experience, I'm convinced that organic planning and architecture can be a potent force in helping change people's lives for the better, including the lessening and elimination of crime.

The history of man is the history of crime, as Edward Gibbon reminded people when he wrote *The History of the Decline and Fall of the Roman Empire*. Should the consciousness of society be raised, the need for the police will proportionately decrease. Then the vast outpouring of human energy, money, and time, that now goes into fostering and dealing with crime, could go towards the building of a finer culture. If that change could begin, the world that we are familiar with could become more sane. That is the hope and dream of all thinking, humanized, and compassionate people everywhere.

LARGE RESIDENCE ON MEADOWLAND • POOL, GUEST-HOUSE, GREENHOUSE

Above all, we must exercise the lazy optimism that is satisfied with, an even hails, snail-like gradualism. As a nation we are committed to gradualism. Good. But gradualism has to be punctuated by decisiveness if rampant deterioration is not to make the ultimate decisions pointless or after the fact.

We should make every opportunity to channel population and work opportunity to other areas of the country, where we can more fully apply our twentieth century vision and social and technical advances.

—Albert Mayer, *The Urgent Future*

BOTANICAL GARDENS

We're a nation blessed with magnificent National Parks and people to manage them. We owe much to those, long ago, who fought for their establishment and protection. We need to do whatever is necessary to maintain them as the wilderness areas they are.

There are also many beautiful gardens and parks in our own country, although in relation to our vast geographical size, there are all too few. I remember one in Boston where you could walk through parkland for long distances, enjoying the different species of trees and shrubs. Near Charlottesville, in Virginia, there are former plantations that have beautiful gardens and places for walking, such as Monticello, the home of Thomas Jefferson. Near Monticello is the neighboring plantation of James Monroe called Ash Lawn,* and Castle Hill, the home of Jefferson's guardian Dr. Walker. In Virginia, substantial fees are often charged to enter, and are sometimes used to support things other than the homes and gardens. In Europe such gardens are more frequently found, and are usually accessible without paying a fee. Most are beautifully maintained, to the visitors' great pleasure.

Any new city should be landscaped naturally, using what's locally available, where possible. In the late 1940s, when I was a student, the town of Scottsdale, Arizona, was very small and pretty much ignored, except by a relatively small number of people familiar with the area. Now, almost forty years later, it has grown into a vast community that fills the surrounding desert. Sadly, it has spread too close to the desert "camp" designed by Mr. Wright, built by his apprentices, at the base of the McDowell Mountains. On a recent visit it was distressing to see that much of the landscaping, accompanying Scottsdale's amazing growth, didn't make use of the desert's native growth. This was very different from Mr. Wright's approach which

* Originally named "Highlands," and located very near Monticello.

was to integrate the buildings with what was already there, and then improve upon it. Although I saw some handsome buildings and excellent plantings, much of what I fondly remember as undisturbed and beautiful had been torn out by "developers." But as one approaches the camp itself, Taliesin West, one again becomes surrounded by native Sonoran desert plants and trees, as in the past. The feeling is like coming home again, to a normal and natural way of things, far from imposed artificiality.

There's much to learn about gardens, trees, shrubs, flowers, and landscaping in different parts of the world. The variations to be seen in countries like Japan, England, Austria, Switzerland, France, Hungary, and elsewhere are considerable. The Japanese were great masters in what they accomplished hundreds of years ago, but it wouldn't make much sense for us to imitate them, or to imitate anyone else. Yet, emulation is quite different and the distinction isn't often enough made.

From the Japanese we can learn the art of simplicity, creating beautiful gardens in small areas, and relating room interiors to the outdoors. Many of their traditional buildings are masterpieces, showing how buildings can harmonize with natural settings. Their artistically developed ways have long illustrated magnificent uses of basic materials: rocks, pebbles, moss, bark, bamboo, reeds, unpainted wood. In the old capitol city of Kyoto I visited magnificent temples, shrines, and palaces which conveyed a sense of the unification, in space and time, of the material and spiritual worlds. The atmosphere of these spaces and buildings left me with powerful impressions of a world very different from anything I've experienced elsewhere, relating to people, open spaces, gardens, and buildings.

From the French, a useful thing to learn is how to relate small parks within a city to neighboring streets, residential buildings, cafes, and small shops. And from the English, the art of creating a beautiful large park within a city—parks with magnificent lawns, trees, shrubs and flowers—like St. James in London. Americans have learned much from Europe in terms of the

flowers one sees everywhere, their display and protection. Of course this is but a fractional list, since many other countries have their own unique expressions.

Landscaping in each geographic location should begin with the native flora. Each problem to be solved in any particular region is individual and contains, within itself, the solutions needed. Finding solutions comes by way of experience, knowledge, wisdom, and the artistry of the landscape designer. What is natural is always best and what is contrived should be avoided.

Thomas Jefferson had a great love and interest in growing things. A visit to his home in Virginia, will convince anyone of his dedication. There is almost nothing I've seen, in many walks through Monticello, that doesn't seem to belong to his once beloved home, whether it's native or was imported by him from abroad. There's a naturalness, lacking contrivance, to be found in all of Monticello's growing things. The vegetable garden is a masterpiece, both in terms of location and variety. It was planted near the edge of an embankment and opens up to a vast panorama to the south, to the vineyards below, yet is very near the cabins, workshops, cooking rooms, and not far from the main house.

Mr. Jefferson wrote down some thoughts that have been quoted often. In 1811, in a letter to Charles W. Peale, Jefferson wrote,

> I have often thought that if Heaven had given me choice of my position and calling, it should have been on a rich spot of earth, well watered, and near a good market for the productions of the garden. No occupation is so delightful to me as the culture of the earth, and culture comparable to that of the garden.*

If Jefferson's favorite occupation was gardening and farming why did he spend most of his life in law and government? Why didn't he follow his

* The Thomas Jefferson Memorial Foundation
Monticello, Charlottesville, Virginia

great delight, as he put it? Perhaps it was because he felt compelled, perhaps duty-bound, to help establish guiding principles for the American experiment in Democracy. And because he was in government, being the remarkable man he was, he was able to have a profound affect on the site planning and landscaping of early Washington, putting to use his great talents as a landscape architect. He did the same with the state university he established in Charlottesville, Virginia. It's a mark of his character, that unlike many leaders today, he was not weak-willed when it came to protecting things that needed it, whether people or plants. He made it possible for the university faculty, at their discretion, to levy a stiff fine for anyone found injuring plants and shrubs. Knowing of his love for nature and growing things, we may surmise his thoughts and feelings about twentieth-century America. My guess is that were he alive today, he would be delighted with some amazing changes, achievements—shocked, horrified, and saddened by other realities. Without question, the abolition of slavery would have greatly pleased him, although the great injustices heaped upon minority groups would not. Since he was an inventor, some of his pleasures would be found in the great gifts that science has provided. He was a musician and loved the arts; they would have given him further delights. What perhaps would have disappointed him most is the degradation of the planet by pollution and destruction of resources, the wars and genocides of our century, nuclear war preparations on earth and in space, the decadence of American cities, a monstrous national debt, pernicious problems of drugs and crime, the failures of institutions, and the serious degradation of his beloved country not by external enemies, but from cowardice, selfishness, greed, and corruption within. He would witness a nation now only occasionally governed by statesmen with vision, competence, and courage—more often by a vast bureaucracy. Jefferson, as we know, was one of the great radicals and revolutionaries of his time, to the point where the establishment of his day sought to imprison him. Although many in today's establishment, in and out of government, pay him lip-service, I doubt, were he alive today, that he

would be different from what he was in his time. He would have been on the side of the people, still struggling for their improvement. But Jefferson was also an optimist, despite life's vicissitudes and much personal loss and suffering. He would have been in the forefront of repairing what damage he could. He was a dedicated worker, learner, and scholar—modest, generous, and gentlemanly—not given to showmanship and boasting. During his lifetime struggles his great solace and retreat might be now, as then, to his home, family and friends, gardens, reading, and music.

VINEYARDS and ORCHARDS

Vineyards and orchards ought to be as much a part of inner city life as in the more remote parts of the city, or the countryside. People should be encouraged to develop these throughout the city. They can be so arranged that paths lead into, or run adjacent to them. Plans for vineyards and orchards might include patios, pools, ponds, rocks, arbors, and other special landscaping features. The idea should not be to separate them from the active life of the city, but to integrate them where possible. It would add something very desirable to city life if they could be located near many kinds of buildings, especially homes, cafes, restaurants, motels, and boatels. They can also form the basis of a modest wine industry, as in parts of Virginia, and New York states.

SPORTS and ATHLETICS

The best of sport facilities may well be the small, local, playing fields for all ages close to home, schools, and the workplace. Outdoors they should be simple, attractively laid-out grass areas with markings and hardware for games. Indoors, they could be the variety that is now seen, and preferably with gadgetry everywhere de-emphasized. At these kinds of places anything resembling the "super," or the "professional," should be avoided. These

localized community areas should be essentially for recreation and fun, but also a means to develop coordination of mind, body, and spirit. All of these should belong to the young, both in body and spirit, of all ages.

Any American city should also have a first-rate baseball field, for its best athletes, in a beautiful park setting, and, in cold climates, an ice-hockey rink.

If our society is to become more sane it's important that the exploitation of young athletes, who serve the purposes of the so-called "professionals," some of whom are engaged in crime and drugs, be halted. Some people exploit young athletes, especially from minority groups, to build their personal fortunes or to acquire large sums of money for their favorite school. This process is often destructive of the positive values inherent in sports and competitions, and to the schools.

Some of the ancient peoples seem to have had a more healthy attitude towards sports, using them as sources for teaching the coordination of mind, body, and spirit. More common sense attitudes, such as some of the ancients had, could put the emphasis on the intrinsic values to be found in athletics, and not alone on winning. If healthy change occurs in other areas of society, minority groups will have many avenues of opportunities open to them that are now closed to so many: good housing, neighborhoods, education, fulfilling occupations, and a decent retirement. That would eliminate much of the exploitation and misery, moving in the direction of living the ideals so many are fond of paying lip-service to. Don't watch their lips—observe what they do, and don't do!

If people continue to expend vast amounts of time, energy, and money on "Big Time" sports, as they do, there will be that much less valuable energy and time to spend on solving some of our most challenging and pressing problems. Again, it becomes a question of values and priorities. So much depends upon a quality education early in life and the blessings of good parents.

FAMILY HOUSE IN A WOODLAND SETTING

RECREATION HOMES

Beyond the outer roadway rings, in the surrounding fields, meadows, and forests, especially near streams and lakes, there could be modest homes of many designs and uses. They'd be mainly for weekend and holiday use by individuals and families. Here is presented a different sort of challenge than the average home, and many interesting designs could be created. "Cabins," located around lakes and ponds, should be set back from the water, maintaining the natural shoreline and sense of wilderness. Attractive dock and boat landings could come down to the water's edge. Sufficient untouched forest land should be preserved, without habitable buildings, for use by hikers and skiers. Waste disposal needs to be carefully regulated. Some lakes can be used for floating homes, restaurants, entertainment centers and anything else that the sensible, fertile, imagination can supply. Until engines for boats become quiet and pollution-free, powerboats should be kept out of most lakes, except for emergency purposes. Priority navigation rights should always be enforced for non-power boats, almost everywhere, except obviously during emergencies. Power boats are best used on very large lakes, and in the ocean.

SKI AREAS

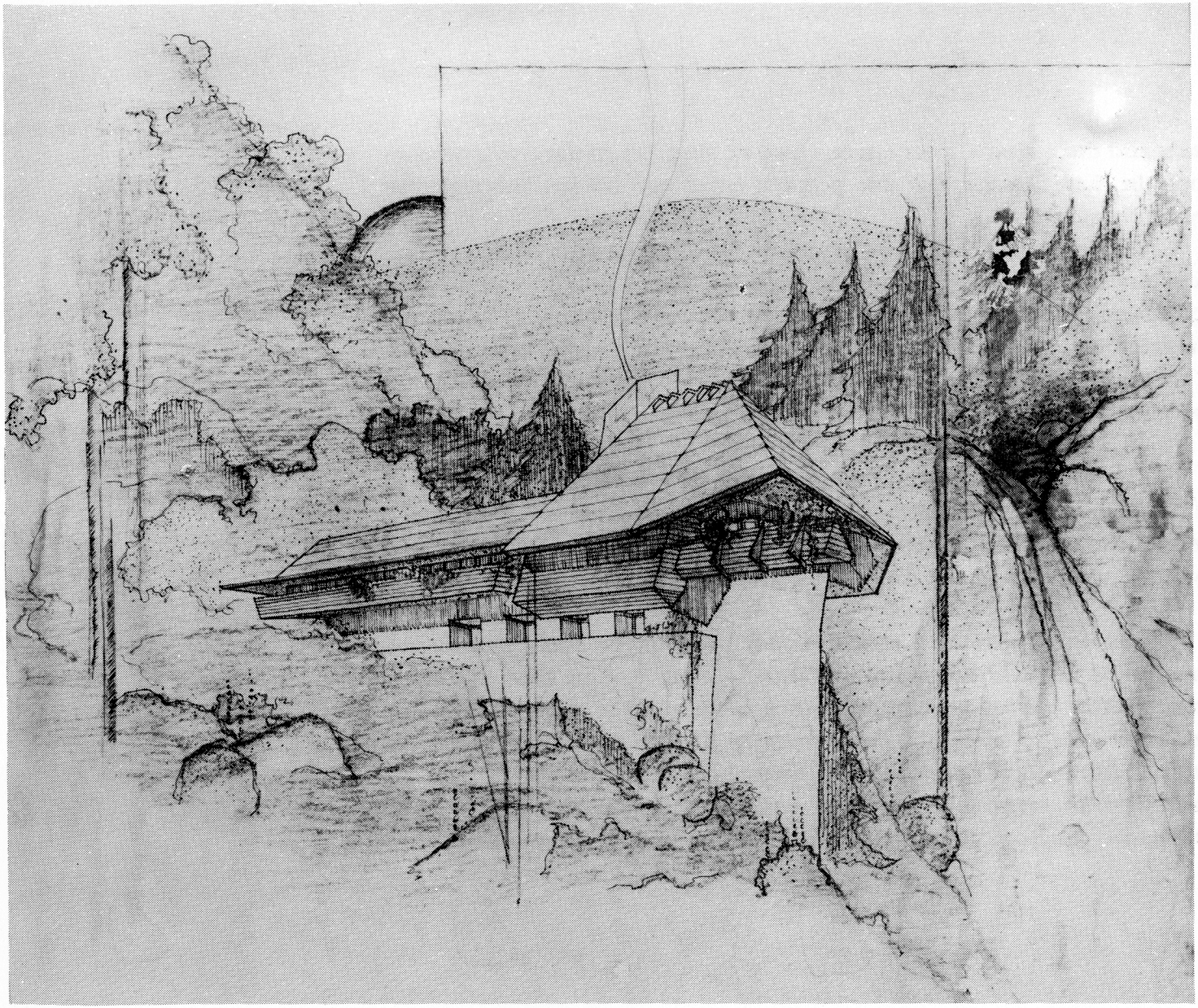
If the city is in a climate suitable for skiing, some slopes and trails should be developed with careful attention paid to ecology and excellence of landscaping. That would preserve the hills, meadows, mountains, woodlands, and plains for future generations. All should be compatible with the sensible uses of trails and open slopes. One of the saddest things to see, in states like Virginia, is the spoiling of mountains and hilltops. This happens by way of the clear-cutting of large areas for farms and homes, both near, and on the tops of mountains. It has even taken place close to some of the

state's, and the nation's, most famous historic sites. It's to the credit of many people in New England that this practice never got too far, although that may be changing.

Warm-up huts, baths, and restaurants should be located at strategic places on the mountains, or at the foothills. These buildings should be unobtrusive, yet ornamental enough to express the spirit of woodlands and mountains. People should be made conscious of the mountains as wilderness, for their own enjoyment, and for downhill and cross-country skiing, for snow-shoeing. Ice skating ponds are always welcome additions.

The idea of building homes alongside major ski slopes and trails, on the mountain itself, is a selfish act that spoils the wilderness for the many, to serve the few. This is practiced in at least one resort in Virginia and should be stopped and the damage repaired.

Areas to accommodate shops, restaurants, lounges, pools, saunas, and rooms, could be built in centralized locations, usually at the base of a slope or nearby. This has long been the practice at some of the better resorts. For those who want to build homes in order to be near the slopes, these are best done in the local valleys and the foothills of the mountains. Winter ski areas ought to express, in practical and poetic terms, the feelings and thoughts we get from the spiritual qualities of mountainous areas.



PADDOCKS and STABLES

There ought to be handsome buildings for stabling horses and for use by horse lovers, dispersed throughout. Trails could wind out from near homes and activity centers, scattering to form a connecting network. Why not bring back the horse for old and new equestrians? This could be not only for recreational uses, but for general travel. I'm not suggesting commercial use in any shape or form. There might be a lot of fun to be had with a horse-drawn family surrey. Stables, storage, and offices, as everywhere else, could take on new life—with artistry and imagination. Attractive riding rings might best be located near, or as part of a family farm. New and unobtrusive ways of building fences should be found, in order to get away from the white painted wooden fences now found in many parts of the country, which spoil the natural landscape and are expensive to maintain. A new age can dawn again for an old friend to man.

ZOOS, AQUARIUMS, and PLANETARIUMS

Here's an area of culture where new ideas can, and do sometimes take root. The only limitations will be architects' imaginations, abilities, and various cost factors. Some zoos that allow animals their natural freedom to roam show that better understanding, and appreciation, are more alive than in the past. The misfortunes of confined captivity such as one used to experience, for some animals and birds, in New York's Central Park Zoo, ought to be changed or abandoned—if they haven't been already. Part of the creative efforts that went into developing that zoo seemed to provide mostly for the convenience of the keepers, and little for the sometimes haunted looking animals, some living out their days of confinement on hard concrete.

The ideas that underlie the capturing and display of animals are now questioned by thinking people, but as long as the practice persists, architecture, if in the hands of caring people, has the power to humanize it. Many animals and birds are now being taken into captivity to save them from extinction, and that seems to be a highly valuable, humane, endeavor. Animals and birds in zoos, or elsewhere, when intelligently housed and cared for, can be a wonderful means for children and adults to become more sensitive and caring about all living creatures.

The old aquarium building has been improved by some of the freedoms that new and better materials and techniques have brought. Through the imaginative use of space, these buildings could become very interesting and charming beauty spots, instead of the old fashioned darkened tank-tour through a bureaucratically arranged Beaux Arts structure.

Those who boast about human "progress," ought to take a closer look at the contents of the earth's oceans, where according to some knowledgeable people, serious threats exist because of our constant interference with natural processes. The other side of the coin is that science is helping us learn more about the true nature of those processes. One of the leaders, who has received much exposure on television, is the intrepid Jacques Cousteau and his associates. They, along with many others, have long been fighting the battle for ecological sanity, in unique ways, expanding the fish tank into the oceans, and putting it all on the screen in the family living room.

Aquariums can acquaint us with a sense of wonder and mystery, while providing nature's creatures with the environment and benefits appropriate to their individual needs; in some cases protecting them from the ravages of the greedy and ignorant. One of the main purposes of zoos and aquariums is to give pleasure and delight, as well as to teach, so why not also consider the well-being of the animals?

Inspired architecture could create environments to help expand people's views of the entire solar system, our own planet, and lives. It's up to the environmentalists, architects, planners, and scientists, to bring such Inspiration and beauty into every building built, or outdoor space planned. The planetarium may become almost a relic of ancient history, so swift has been the amount of knowledge gathered about space. The planetarium should be renamed—called the COSMOSEUM—as the study of space now moves into the cosmos. The new cosmoseums should be located in more remote places, as well as in the city, with facilities available for responsible public use. The spoiling of some mountains, by building structures on their tops, including telecommunications towers, should be limited if not abandoned. In some cases that's not possible, but qualified people would be better able to place the buildings to suit the scientists purposes, spoiling nature less.

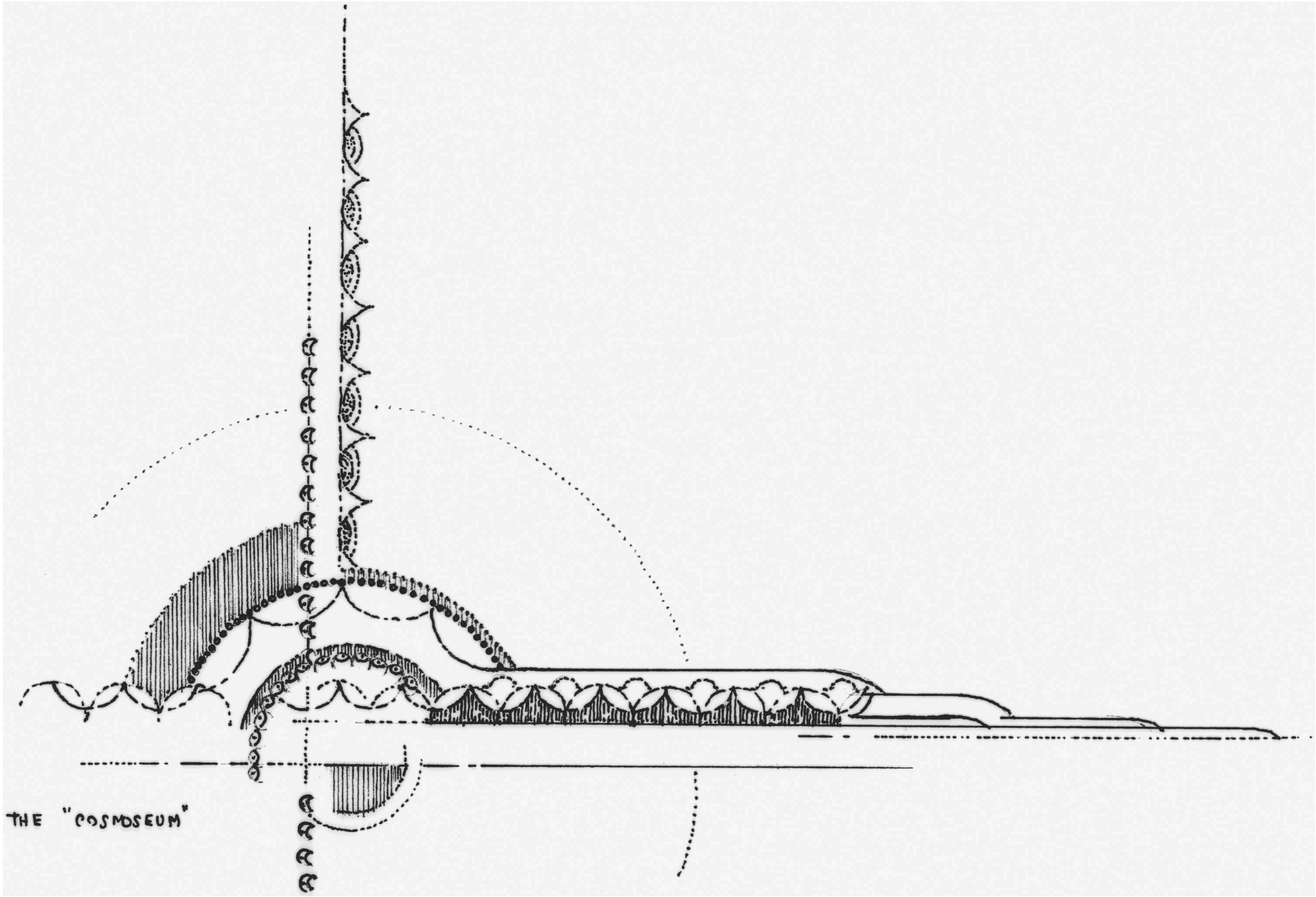
I'm not now in favor of our country spending vast sums of money on space exploration. If that continues as I believe it will, unfortunately, millions of Americans and many others elsewhere, will be deprived of a chance of a decent life. The time, energy, and money needed to put people in space will not be available for the vital task of rebuilding lives on earth. The money will continue to come from taxpayers, by direct or indirect taxation, or called another name. Nor do I subscribe to the argument that the benefits coming from such expenditures will prove so valuable as to be worth the cost. That's an argument used by some armaments builders, politicians, militarists, and romanticists, going far back into history, the results of which have been endless centuries of human tragedy, crime, and disaster. There should be no illusions, despite the rhetoric, that space exploration is merely "peaceful." If a mere fraction of what is spent on world weaponry, including space adventures, went into needed new inventions, we would have them. We have far more urgent priorities, however fascinating the projects.

I do favor a modest budget that might gradually increase over the decades ahead, if it can honestly be confirmed that such activities are improving life on earth for people everywhere, and not only for special interest groups, at others' expense. As projects continue, the cosmoseum will have ever increasing importance for study, inspiration, and solace. Such buildings needn't cost huge sums of money, and can be made to be inspiring, interesting, and beautiful.

The American philosopher-naturalist John Burroughs had some optimistic thoughts about this planet. In his book entitled *Accepting The Universe*, written around 1920, referring to the wonders of our earth, he said "We shall never exhaust the beauties and the wonders and the possibilities of this. To feel at home on this planet, and that it is, with all its drawbacks, the best possible world, I look upon as the supreme felicity of life." (p.51).

WETLANDS and WILDLIFE PRESERVES

All natural areas for water fowl, animals, fish, reptiles, marine life, and special flora should be set aside as many of them now are, for the use of all who are appreciative and responsible, since many have been seriously abused. They should be preserved and protected now, and for the future. These matters should be taken seriously and protection prudently enforced. One of the most serious threat to such areas may be from the Greenhouse Effect, since many preserves are near the shoreline where they can easily become covered if, in Fact, the oceans rise as predicted.



COSMOSEUM (SPACE MUSEUM), ELEVATION STUDY

These retarding influences have indeed been at work, but what has been far more serious has been the lack of architects and community planners capable of thinking about community planning in terms of a still larger picture, and capable, because of that kind of thinking, of transforming every element in the design. Yet that lack only points to a similar deficiency in the population at large.

—Lewis Mumford, *The South In Architecture*

EDUCATION AND THE ARCHITECT

Without a sufficient number of educated and cultured architects and planners, there's little hope for building worthwhile towns and cities, expressive of a humane, democratic civilization, whether in the United States or elsewhere. The qualities which architects derive from education, whether useful or useless, will be transferred to all civilizations in the twenty-first century, and beyond, as in all past history.

The architects of our time, substantial in number, are certainly of all nationalities, ages, sexes, temperaments, abilities, prejudices, sensitivities, and understanding. What is appropriate to the architect's purpose and proper role in society, and in the overall scheme of things, both visible and invisible? That question might best be left up to each architect to answer, for him or herself. Yet could this be an important question, not alone for architects, but for all? The ideas that architects profess, from which arise their designs and buildings, have a vast and powerful influence on all of life everywhere—not alone human life, but all living things. Aren't there, then, some important realities to which all architects might subscribe and agree?

There are probably as many points of view on this subject, as there are types of people. Are all viewpoints equally valid, or are some more so? Can the idea of scale of importance be applied to what is valid for society as a whole? The answers to these questions, whether replied to inwardly and privately by architects, or answered outwardly in visible forms such as in books, the classroom, or buildings built, have greatly influenced what our environment is, and will become. What we now experience all around us in our villages, towns, and cities are, in good measure, the results of how architects, and others, have responded to these and similar questions. All people live of course on different levels and in different places within themselves, in changing periods of time, whether it's within the span of an hour, a day, year, or a lifetime. One may be an excellent cook, or not, and most people surely recognize the difference during the course of a meal. For

someone studying to become a chef, the hope is to become better at cooking. This calls for good training, constantly developing skills, much experience, and a widening consciousness. These simple-minded thoughts are obviously applicable to most of life's activities.

All life, individually and collectively, appears to remain static—to ascend or descend. The acquisition of knowledge by itself is not necessarily a mark of ascent in scale, other than in the area of knowledge. Knowledge without the development of inner being—understanding—is usually hollow, when tested, and quite often dangerous.

Education in architecture, as in any field, ought to have many aims. It should assist in developing genuine individuality, making possible the expression of innate, wholesome, creativity—translating into activities resulting in a more workable, beautiful, and inspiring environment. Education should offer students the opportunities to maintain what already exists as valuable in our environment, as well as to transform what is mediocre, ugly, or sordid, into qualities that were well expressed nearly two thousand years ago by the Roman architect Vitruvius, and worded by Sir Henry Wotton* as commodity, firmness, and delight—accomplishing this by humane means.

Within education's world, too many appear to live as if hypnotized. The overall architectural scene has become a vast panorama of the wearisome and deadening—widespread and ever-growing sameness and boredom; what passes for education should be largely held to account.

Today, it's not only the architect's education, but everyone's, that should teach what things in nature should be left alone; things that should remain either unspoiled, or given sufficient support to encourage improvement in the natural state. I refer to the atmosphere, wilderness, forests, parks, lakes, streams, ponds, swamps, animal and floral life, rivers,

* Talbot Hamlin
Architecture Through The Ages, (New York, G.P.Putnam's Sons, 1940), p.150.

oceans, minerals, and so on. Whatever aids, preserves, and encourages these realities of our world is positive, optimistic, and life-sustaining. Whatever draws away from, steals, or thwarts positive maintenance and growth is negative, therefore, life-menacing. In architecture, the denial of what is qualified, beautiful, and spiritual, is so all-pervasive that this current is for many, if not for all, difficult to swim against. The hero or the heroine, by nature and inclination, does so—whether succeeding, failing, or with some other result.

Further purposes in architectural education, as elsewhere, should consist of not only the gathering together of more facts, but the all-around development of the individual. Humanity is now awash in facts, information, calculations, gadgetry, and especially paperwork, yet perhaps quite low in understanding and digestion. The present glut of information, especially from advertising, has caused a universal dyspepsia as the life of people becomes more bureaucratically controlled, less private, more monotonous, violent, and insecure. Suspicions between nations and groups, as among individuals, rarely seem to lessen, only to shift from one negative pole to another.

The youthful architect should participate, through first-hand experience, in what goes into not only the making of a beautiful building, but of a beautiful circumstance in nature. Architecture encompasses all of life and structure on earth, both in the visible outer world, and in the invisible world within us. When deciding if a new building should blend harmoniously with neighboring buildings, or should ignore them, a wise discernment is needed. Such situations are not always easy to make decisions about, yet important, since many buildings remain for generations. To explain further what I mean: If a new building is to be built among existing excellent, mediocre, or worse structures or neighborhoods, what obligation, if any, does the architect have to attempt to find something of value in what is there, and in some new way interpret and incorporate qualities of the existing into a new design? Should the architect ignore what exists, and proceed to design and build along quite different lines? I suspect that there's

not always an easy solution within reach of those with sensitivity. A useful guide would be that any approach should be based upon organic principles. While such principles are not always easily interpreted and understood, in such situations, they will always be useful. One of many menaces to our present and future arises from today's pseudo-intelligentsia. Such people want their homes, our towns and cities, filled with newly constructed imitative buildings, derived from former eras and distant continents. They foolishly seek and often find, or own, large sums of money to build new stage settings that once, quite naturally, may have belonged in Europe, Asia, and elsewhere. They are the contemporary representatives of what brought about the tragic classical-revival in the latter part of the last century, setting back genuine progress for generations. Their limited views are the results of incomplete and poor education.

Five years spent walking from college building to building, sitting in classrooms and behind a drafting board, working for grades, a diploma, or to please one's parents, taken separately or together, only occasionally produces qualified architects. That can be partly confirmed when one considers the majority of uninspired, imitative buildings that fill up most of our world, and adorn most university campuses. The dismal architecture of our time is, in great measure, the result of prevalent educational conditioning. Not just the education of architects, but everyone's education, beginning in the home and kindergarten. Only a few escape its mind girdling, straight-jacket effects. The buildings that dominate our society, especially those of institutions in cities and suburbs, are a testimony to formal education's failure.

The often rude awakening of entering the college world, which I've experienced, comes from the act of tossing the young spirit, susceptible to high ideals and aspirations, into the maelstrom of so-called "normal," competitive, "educated" society. Here, the youthful spirit is indoctrinated into programs of generally accepted mediocrity and limited ideas, based largely upon imitation, which will prove saleable to future clients. Little food

is offered to feed the inner spirit, yet encouragement is given to conforming middle-of-the-road values, designed to safeguard the bastions of mediocrity. Yet this scenario is slowly changing, as good seed begins to take root. Even the universities cannot escape positive, life-enhancing influences coming from outside the campuses.

The universities ought to be at the head of the parade of leadership in discussions, and taking action, concerning the important problems common to all. That should include the nearby community in the dialogue, but this only rarely happens. Quite commonly, all are silent and passive where the community is concerned. Call it cowardice, evasion of responsibility, fear, ignorance, or inferiority complex—the result is always the same ... everyone is the loser.

In educating the architect the primary condition should be provisions for an atmosphere in which qualified architecture is expressed in living buildings. It's also necessary to be surrounded by fellow students, more senior students, and qualified practicing architects. A third vital condition should be the necessity of participation in a variety of life maintenance activities, directly related to nature. I refer to such things as growing food organically, farming, food preservation, storage, preparation, cooking and serving, cleaning up and waste disposal. Along with these activities, the young architect should participate in the procurement of building materials. This can take many forms including working with trees, lumber, in saw-mills, concrete making, stone quarrying, and shopping for manufactured materials. Concurrent with these should be an involvement in actual construction. This could be in such labors as road grading and ditching, or work in the more sophisticated trades such as carpentry, masonry, electrical and plumbing work. It's not important that each category I've mentioned be personally experienced. The main point is that some involvement, along with other students and teachers, is essential. By virtue of being around other people, and participating, many valuable things can be learned.

The widespread prevailing currents of snobbery in society, that look down upon people who labor and work mainly with their hands, but also their bodies, and minds, is nothing less than a barometer of national perversity. How different from an earlier America, where most people genuinely labored. Our great poet Walt Whitman was one of their best champions! One of the constant refrains I've heard all my life, from contractors, is how little college-trained people know about the real world of building.

While the student, or apprentice, takes part in various ways in the activities I've been describing, he or she ought to also be involved in the drafting room, learning what work in such an atmosphere can teach, whether the office is small or large. As the student progresses in various phases of work under able senior guidance, he or she can focus on actual architectural commissions. It then becomes possible to get involved in field construction and supervision of projects being built, either near or far from the office.

Beyond what I've mentioned, there are many valid reasons why participation in the related arts (music, dance, painting, sculpture), should become a part of the education of the well-rounded architect. Acquaintance with these other art forms can open up new insights and revelations that are useful in architecture, as in life. At some point, specific studies are needed relating to what the embryo architect will encounter in facing the problems of licensing. These are mostly subjects that will be on state board examinations: site planning and building design, architectural history, structural calculations, and what has been called "Professional Practice."

A relatively recent threat to individual freedom and a democratic America has bored its way into power, and will probably increase in future. I refer to the imposition of more regulations and laws that now, and will in future, make it mandatory for the young to complete a university course in order to obtain a license. In most states it's been possible, for generations, to get licensed by passing state exams after one has worked for an architect

for a specified number of years. A wide range of officials and bureaucrats, allied with professional groups, have made considerable progress in terminating this old freedom, under the unfortunate aegis of "protecting the public." What they are really protecting are the fortresses of the privileged. There is, of course, a good and bad side to these impositions. The good is that it will raise certain basic standards, if education continues to improve. It will also make it more difficult for the unqualified to pass themselves off as qualified architects and planners, possibly raising the general level of projects built nationwide. The negative side of the results of this brand of exclusiveness, will be the elimination of many promising young architects who won't want to spend five years in a college, or whose parents can't afford the ever-accelerating high costs. History proves the value of the old methods of licensing very well, although even they have long been studded with flaws. Quite often, the records will show that the best people in any field have dropped out of college. Frank Lloyd Wright himself quit after less than two years at the University of Wisconsin. The list of others who have proved themselves is quite long. What's in the making, with these oppressive rules, are guarantees of exclusiveness ill-fitted to a democratic people. Anyone, anywhere, dedicated to the ideals of this nation, should quite naturally oppose any forms of forced college conscription. Those with official power are bound to punish, if not attempt to destroy, any and all opposing them. Throughout history, people have usually found various ways and means, both legal and illegal, around such obstacles. The biggest losers are now, and will be more so in future, the architects and planners themselves. It seems to be a law of nature that those who exclude others, will themselves eventually be excluded. This has already occurred, as more building and development is taken over by "non-architects." The fairest solution will be to find ways and means to give those young people who wish to design and build those opportunities, in accordance with their innate aspirations and abilities, and not according to their parents' bank accounts, or oppressive rules established by people with official power.

If it ever gets to the stage in our country where bureaucratic controls become more rigidly crystallized than now, which may be happening, the young architect should consider other alternatives. One might be to become a part of the establishment itself, working to change it from within. A second course of action would be to move to another country, where more genuine freedom of expression exists. Many Americans refuse to admit that such countries exist, but that attitude is typically self-righteous and, in many cases, untrue. There are also possibilities to work in other fields, and putting the fruits of those labors to work in architecture, in satisfying ways. A good example here would again be Thomas Jefferson, and his lifelong project of constantly remodelling Monticello, then eventually designing for others. He was essentially self-taught. His home and his travels became his school of architecture, since he had no formal training. A more contemporary example would be the late Robert Moses, of New York City, who wielded vast power and influence nationwide, building a variety of projects from beach resorts to bridges, parkways, and the New York World's Fair, helping plan things for many American cities.

It's far better not to compromise and sell-out, as so many do by building awkward, mediocre, and "dead-on-arrival" buildings. In my opinion it's far better to keep your integrity intact and find other means of expression, until a time arrives when you can design and build well. It's more useful to others, and rewarding to one's self, to have built even one or two houses beautifully, than to have spent a lifetime filling towns and cities with the lifeless and the deadening; or uglifying America's beautiful countryside with mediocre buildings, imitations, and aberrations. If you do that, you'll only be hurting your own country, your client, and yourself.

It's possible to begin to close one of the great gulfs that exists in education. By having students and their seniors work together on the planning or building of actual projects, and by almost everyone getting their hands in the concrete, sand, and grit, it would be possible to break down the stiff barriers between students and faculty. That might also help to begin the

same process between the schools and communities, perhaps alleviating typical university-community estrangement. Some of the academic idiosyncrasies and community afflictions—snobbery, exclusiveness, cynicism, and prejudice might be replaced by the beginnings of mutual regard between the implanted university and the surrounding population. The ivory tower concept needs to be brought down to earth, and the surrounding communities given some of the benefits of the university—and vice versa. (In some places this has been underway for many years).

Education should include trips and visits to buildings, gardens, and nature's beauty spots. Ways need to be found to observe and gain a knowledge of machines and tools involved in the building process, from raw materials to finished products. These are all studies that should begin early and never end. They would increase as the young architect's involvement with buildings grows, and as there is further development with the student's own work, or in the office of a senior architect.

The aspiring young are best served by being in an atmosphere where genuine knowledge exists and spiritual ideas are translated into daily actions, in terms of life as it's lived. To put that in concrete terms, I mean where useful and beautiful buildings are being planned and constructed, whether on home grounds or in distant places for an active clientele.

A most valuable foundation for the young architect's growth comes from daily contact with people of all ages coming from other countries. I mean not just superficial classroom contact, but taking part in many activities of group living with people quite different in experience and conditioning. This can be a factor for awakening, and assisting in the expansion of consciousness. Travel can provide some similar benefits, only at quite a different level of experience.

In most colleges or universities you won't find anything even approaching the outline of what I've been describing as a way to educate architects. You may find some bits and pieces, but rarely an integrated whole. This plan is not of my making, and it's essentially based upon the kind of

training that I've experienced, including what I absorbed in two years of college. Someday, I believe, this kind of education may become more universal. If and when that happens, there will be a noticeable change in almost everyone's lives, and very much for the better. Presently, we are very far from it, yet it's on the horizon.

Strict conformity to society's "approved" sets of rules and values, usually sanctified by officialdom and power, will only lead to more of the same; that is to say, the endless repetition of so much in planning and building, as in life, that is poetry crushing and soul destroying. But there's a very slow increase in the numbers of valuable buildings, and parts of buildings, that are worthy of careful observation and pondering. There are a growing number of architects who've not been formally educated, and they bring hope ... even some who managed to survive the university and still do some good work. One can learn as much from the bad as from the good; they are two ends of the same stick.

Above all, common sense should prevail, when possible, so that one is receptive to valuable influences and ideas in all things. But time, so valuable, must not be wasted on what is of little value and unrelated to our own life journeys.

By the very prevalence of constant super-emotionalized plugging for everything from a war hero to a cold cream by press, radio, and classroom, the visible environment in which we live becomes—what it is: an insignificance at best—a shameful lie at worst. These establishments of our civilization, all too indicative of their significance, grow more dishonest by day and stay that way.

—Frank Lloyd Wright

THE CITY'S HERITAGE AND PROSPECTS

Future cities, whatever form they take, should express, for our incipient democracy, the best ideals that our society has professed. That would begin with the hopes, aspirations, and dreams of the best of the Founding Fathers and the good seed they planted, cultivated, and struggled to save at considerable sacrifice; the very foundations they laid. Such ideas are best expressed in the *Declaration of Independence,* the *Constitution, Bill of Rights,* and the *Statute of Virginia for Religious Freedom.* Architect Jefferson was in the forefront of the early affairs of our young country, for which he is famous.

Such a city should integrate, in various ways, some of the special ideas gathered from many others who contributed to the finer ideas of what is sometimes called *The American Dream,* which is too often mistaken for license to exploit, to compound greed, and make consumption an end in itself—divorced from ecological realities. Although not all of them were architects, it was in the realm of ideas, as well as deeds, that they contributed: George Washington, Benjamin Franklin, James Madison, Ralph W. Emerson, Henry Thoreau, Walt Whitman, Frederic Law Olmsted, Horatio Greenough, Montgomery Schuyler, Henry H. Richardson, John Burroughs, Louis Sullivan, Frank Lloyd Wright, Ebenezer Howard, and Lewis Mumford. There are countless others who made invaluable and sometimes heroic contributions. This in no way pretends to be anything but a fractional list. In our own time, others are at work who will eventually receive wider recognition, joining the heritage of the best in American architecture. Great contributions of ideas for living have come from many women, sometimes unknown to most people, yet unique and remarkable. One such is the late Olgivanna Lloyd Wright, wife of the famous architect. Along with Mr. Wright she helped to establish, and maintain, the Taliesin Fellowship.

The machine has primarily been the basis for the great changes that began with vigor in the nineteenth century. As we face the last decade of the

twentieth, we need to find far better ways to deal with an ever-growing number of machines and the vast changes they've brought. Everyday, we live with television, automobiles, motorcycles, trucks, trains, ships, spacecraft, farm-machinery, robotics, computers, and a mind-boggling assortment of gadgetry and chemicals. We face the growing threat of global ecological and financial disaster, as well as the incredibly monstrous weapons of war and annihilation brought upon us by what scholar Mumford referred to as "adult delinquents." If the Reagan-Bush administrations' ideas prevail, supported by the inventor of the hydrogen bomb, Edward Teller, the massive technology of war will be sent into space, at staggering cost, and with ever more terrifying implications. The development of machines has clearly—and vastly—increased man's capacity for good or evil beyond anything known in history.

No known people, in recorded history, have faced the enormous complexities that machines have brought to all life. Few on this planet, no matter how remote from cities they dwell, can escape such realities. People almost everywhere on earth have not been prepared, or able, to cope with contemporary life without great errors, many horrors, catastrophic dislocations, incredible problems. At the same time there has been some limited progress and success.

Without equivocation, new ways must be found to deal with these powerful forces. Where technological developments are involved, solutions aren't found along paths of total rejection, but rather in clever absorption and use, by consciously understanding what they represent, using them or storing them to best advantage, yet always realizing that they are tools in hand, not ends in themselves.

To continue the present worship of these tools and means as sacred cows, with science, computers, medicine, business, the military, and universities as the new dominating church and priesthood, with all in subordination to it, is to sign our passages to ever greater dehumanization. Already, this worship has gone too far and much damage has been

done—well beyond the recognition of too many. Greater understanding is needed of what such tools represent and their relationship to the genuine needs of our own natures. Equally important is to put into proper perspective the usefulness, as well as the dangers, of the mentioned institutions. Where they fail to serve people in accordance with ethical principles and on democratic terms, they should be changed so they can.

In my opinion, we now live in a society where many of our institutions and corporations have short-changed the ordinary people of our nation, serving mainly their own special interests. President Eisenhower, when leaving the White House, warned the American people about the menace of what is well known as The Military-Industrial Complex. The ordinary American citizen has been, and is now subservient to that Complex, whether recognized, wished for, or not.

For at least the last fifty years, many decent, loyal, Americans have been spied on by their government through the offices of the C.I.A. and the F.B.I., for disagreeing with "Cold War" policies in Vietnam, Central America, and elsewhere. Recent presidents have carried out secret, covert, operations against other nations, in violation of American law and the Constitution. When a government carries on such affairs against its own people, becoming a law unto itself, and a passive Congress standing on the sidelines providing little meaningful restraint, who is to protect the people from lawless elected officials; from the military and other people they recruit in secrecy? What happens when the servants within a household spy upon the family itself, and on each other? There may now be no greater threat to the welfare of our nation than this tragic scenario which has been responsible for destroying American lives, as well as killing, directly or indirectly, thousands of civilians in other countries, such as in Argentina, Iran, Iraq, in Central America and elsewhere.

On a national level, we need to have more open discussions concerning visions and plans for our future, and I don't mean only politically or economically. These discourses should embrace ideas from history, as well

as from contemporary times, on the subject of architecture as it relates to the rebuilding of existing cities, and the creation of new ones.

To sever ourselves from the past is foolishness. To imitate it as is commonly done is equally foolish. To build upon what is valuable in our heritage makes sense. It may be naive to hope that it's possible for people to change and put into action beneficial ideas, but without hope, faith, and hard work, we're in danger of being overcome by despair, fear, and far worse. There's some evidence that slow change and more profitable events are in the wind, in scattered places and interesting ways.

The vital question is whether beneficial change will take place in time to save ourselves and all planetary life. We've learned over aeons of time that man is amazingly adaptable, but what kind of world might people have to adapt to, if it becomes too late to halt destruction? Is being an optimist here a willingness to adapt to sub-human conditions, or is it an admission of burying one's head in the sand, hoping for the best in order to avoid the hard choices and work that could bring change?

The optimists of 1914 proclaimed that the First World War would end all wars. Seventy-five years later, near the end of a trail almost a century long, one scarred with unspeakable horrors and crimes, rivaling and surpassing most historical criminal events, with no end to violence in sight, the record reveals the foolishness of their predictions, and endless similar predictions.

It isn't enough that the monstrous forces of weaponry be held at bay and eventually be neutralized, globally. That will depend, will it not, on whether there's genuine change within enough people? Will it ever be possible to expand existing forms of trust between individuals and nations? How can there be trust unless there is individual and collective responsibility and accountability? These are big questions, and serious ones; answers may be a long time in coming.

Equally tragic, yet challenging, is the accelerating degradation of the planet, if we're to believe what we hear and read. There have been times when changes involving these living processes connected with air, oceans, forests, and the atmosphere were tolerable to nature's purposes, in keeping the planet's environmental systems in balance. If what we're learning about ecology is true, then the essential balance of life cycles and food chains is seriously threatened.

Due to people's continuing destruction of rain forests, precious plants used in herbs and drugs are being destroyed. Some of those now lost may have contained ingredients capable of curing serious illnesses. We learn that it took nature vast periods of time to create and sustain some of them. Parts of Africa, representing a vast land mass, have become tragic scenes of widespread starvation for men and animals, due to ignorant, long-standing abuses and misuses of land, forest, water, animals, and the ever present sub-human abuses and horrors of man's inhumanity to those of his own kind, as well as to animals. For millennia, nature has successfully managed land areas, water, air, the health and balance of most living things, whether animal, human, flora, or other life forms. Within a very brief span of time, man has decimated much, which speaks clearly for people's "management" of things. This brief time span is in terms of the planet's history inconsequential—a mere speck!

Yet there are reasons to be hopeful. We are witnesses to an ever-widening spiritual awakening, coming from conscious sources who understand our predicaments. One of the more positive uses of science is the increased interest in solving these kinds of problems. The best of television, outside the daily runs of its pathologies, ubiquitous advertising, and trivia, is becoming better at educating about some of these concerns. Any thinking person would agree that future cities must clearly be based upon the most valuable environmental knowledge available. In no way should what is built, or changed, interfere with nature's mysterious and fragile ecology. To believe

this is one thing; to carry it out in practice is far more difficult and, in many cases, not yet possible.

Although the increasing interest in environmental problems is a good sign, there's a danger that the pendulum could swing too far in another direction. That menace comes from the extreme environmentalists. Sometimes their battle cry has been to keep out healthy and sane uses of nature's resources, even after they themselves have directly profited from those resources. The best answers lie in the balance between the extreme pendulum swings. It will take knowledge, honesty, and wisdom to find the middle ground.

The lives of so many in the older cities, especially the poor, reflect monstrous scenarios to the vanities, greed, stupidities, and failure of individuals, government, corporations, and institutions to deal with some of the most important problems in our time. In some of the "renewed" cities of the southeast, or more accurately, expanded cities, there are the beginnings of attempts to rectify some of the worst atrocities of the past. It may be too soon to say whether or not they are and will be successful.

A common illusion is that rational human intelligence brought about existing cities, especially those in the northeast. This erroneous viewpoint arrests any hope for genuine change. Most cities evolved gradually, as actions and reactions to the working of external forces; of events, and by way of accident. People's choices have been few and rare. The same is true of smaller towns and villages, although there are always the proverbial exceptions. Most existing cities are the results of confusion concerning the harmonization of human material and spiritual needs, a misguided love affair with science and technology, slavery to expedience, plus the worship of money and the ways to get it. That viewpoint is anything but a new or original one on my part. In mid-nineteenth century America, Henry David Thoreau, and many others, had valuable things to say, prophesying much that has happened.

Many, who are the slaves of machines, may not recognize their condition. It's difficult not to be, since most of us are, in varying degrees. Consider our dependence upon the auto and an astonishing array of gadgetry. Do we really understand the underlying factors that result in the abuses of drugs and alcohol? Why do we have such widespread crime and a national obsession with guns? Or the pathology of many men with a male-macho image problem, having little to do with the cultivation of genuine manhood? There seems to be a direct link between these problems and the dehumanization of our lives by misuses of machines.

It's misleading to expect satisfactions to come chiefly from outer life, from more possessions, money, clothes, vanities of all sorts ... radio, television, advertising, professional sports, magazines, movies, drugs, cars, speed and more speed. Many people are now hungry for things to feed their inner selves, which are invisible to all but ourselves, and perhaps God.

What has all of this to do with architecture? Everything! Architecture arises out of, and is inseparable from, the circumstances of people's lives. Architecture is not something superimposed upon life, which is the way it's most commonly expressed. It arises out of the inner conditions of the soul, as well as out of the external conditions of material existence. When a people and a nation have greatness within themselves, an equivalent greatness will proceed outward, in what they build. Any great individual or group will know WRY they build. When deformity and aberration is within, then the same will emanate in their physical surroundings. All architecture ever built acts as a mirror to the human condition, to inner qualities both good and bad. The reflection is accurate once you learn to read buildings and spaces.

Architecture serves people poorly when the motive behind it is tainted with "grand-standing." When a building or an open space serves primarily to extol the virtuosity of technology, whether launched by a pencil or computer, its life is one of empty exhibitionism. Some of the most publicized architects today are like dogs chasing their tails, in the competition to be different or

"original." Few, if any of them, are! They serve their clients and the public poorly, yet it would be unfortunate to stifle the birth of genuine creativity, and the will to take chances. The important point here is that any attempt at something new and fresh should be based upon solid foundations of principle, knowledge, intuition and experience.

The concept of the new city was born many decades ago in such fertile minds as Ebenezer Howard's, and his *Garden Cities of Tomorrow*, published in 1898. Much later, in the 1930s it attained a different form in Mr. Wright's Broadacre City. Some of Broadacre's many critics claim to understand all about it, even though most have little, if any, first hand experience with organic concepts. Some of them are only familiar with it from books, which is far removed from the reality of experience. Other critics may have said some valid things, and if Mr. Wright were living today, I have no doubt that he would have improved considerably upon his original and remarkable ideas, conceived about sixty years ago. Great creators are not bound by what has already been written in stone—and subject to improvement.

Whenever encountering criticism it's important to consider the source and not become the slave to the critic's opinion, but to form one's own ideas based upon personal experiences, accumulated knowledge and wisdom. There is certainly qualified, important, and useful criticism, but sometimes it becomes merely an outlet for the expression of personal suffering and anger on the part of the critic. Then again, it may be done to sell books, newspapers and magazines, by pleasing the superficial antennae of the public. If so, it detracts from the possibility of the critic's audience learning anything of genuine value. The most widely read newspapers and periodicals occasionally print articles on architects and architecture that are inaccurate, fragmented, misinformed, and sometimes mean-spirited. On this subject you'll rarely find a newspaper critic or a news commentator who will ask the question WHY? The question of HOW is sometimes asked, but only rarely,

WHY? Of course both questions need to be asked. It's always easier to criticize and to ridicule than to attempt to understand. Yet criticism has its useful place, depending on the quality of the source. Occasionally, accurate and genuine articles appear.

One of the causes of widespread confusion has come by way of the use of certain words and phrases, which have been used as smokescreens. I'm referring to the inventing of word-games by some architects, professors, critics, and editors. This relatively recent practice, in architecture, is one of the by-products of government lying, which ballooned during the Vietnam war, and has continued into the present, with devastating consequences. In architecture, the uses of such pet labels as "Neo-Rationalist," "Deconstructivist," etc., are among the smokescreens used to obscure the true nature of designs and buildings. In some cases this practice reveals a need to hide ignorance—and, or, a lack of simplicity. At worst it's an attempt to deceive one's readers, or audience, by a display of ego-puffing, while probably also deceiving oneself.

What greatly impressed me as a young architect were not only the ways in which the finest architects designed and built, but the simplicity, common sense, and spiritual qualities they communicated, not only in their buildings, but in their writings and lectures. I have been no less amazed and moved by the clarity, humanity, and penetrating insight of critics like Lewis Mumford, despite disagreeing with some of his opinions. Therein lies the difference between the genuine great spirits and the pretenders, decked out in brief, but often tragic, power and authority.

The nineteen forties and fifties gave us many fine architectural historians, critics, and writers such as Henry-Russell Hitchcock, Grant C. Manson, and Talbot Hamlin. Again, I don't mean this to be anything approaching a complete list, but rather to mention some of the people whose writings I have some familiarity with, which have stood the test of time. These men were scholars with depth and understanding, who didn't

find it necessary, as several have done in more recent times—and do today—to search for the mud in the personal lives of their subjects, or invent it, and then pompously, self-righteously, rake through it.

Within recent years we've been fortunate to have the considerable outflow of books and recordings, arriving thanks to the great efforts of Bruce B. Pfeiffer. Bruce was a young apprentice in the Taliesin Fellowship almost a year before I arrived in 1947. His long-standing contact with the Wrights, and the Foundation, put him in a unique position amongst Wright scholars of any period.

Broadacre City and other visions both old and new have already come into being, in part through the myriads of beautiful buildings designed by Frank Lloyd Wright, and others, quite often extraordinary buildings. Of course there are people other than architects with serious interests and a great knowledge of cities, some of whom have devoted much of their lives to observation, study, writing, lecturing, designing and building. Mr. Lewis Mumford's critiques of cities represent a great scholar's knowledge and wisdom of the ways in which cities ought to be sprouting and growing. Yet no one genuinely interested in our American way of life can afford to ignore the lessons and examples shown by a great architect in his concepts for that city of the 1930s, which are already expressed in buildings erected over a period of about seventy years. These great men are two of our most valuable sources of knowledge and wisdom, and may be far closer in their essential outlook than sometimes may have appeared on the surface, towards the end of their respective, noble lives.

All of these ideas for change are both radical and revolutionary. Radical refers to the root of things. What could be more organic? Thomas Jefferson may have been our country's greatest early radical and revolutionary. His ideas and those of others moved the colonies towards a bloody revolution, and the severing of ties with England. A new kind of revolution is now needed—one without physical violence. Genuine change must come through new ideas and the wishes of many people for a society

finer than what now exists. We need to contribute something to help make America become more sane, beautiful, livable, humane, and interesting.

Misunderstandings of the ideas of others that I've been discussing in this book, and their neglect, will continue well into the future, yet good seed can bear good fruit. It's characteristic of human nature that few good or great people are ever widely understood in their own time, whether it's the example of a Buddha, Moses, Jesus, Mohammed, or down through the ages on quite another level, the work of artists, scientists, and scholars. I recall that an art critic in the painter Monet's time said that his brush-strokes were like "tongue-licks." Well maybe that's a compliment, depending on your viewpoint. The painter Renoir's flesh tones on canvas were described as "flesh gone rank." Thomas Eakins, the great American painter of the nineteenth century, now world famous, was shamefully neglected by critics, his countrymen, and dismissed as a teacher at the Art Institute in Philadelphia. Not one article of recognition or appreciation appeared about him while he lived, that I know of, nor was he able to sell many paintings. Yet after he died many people profited greatly, and still do, from his legacy. Beethoven's critics were sometimes as far off track. He is reported to have said of them, *"Let them talk, they will never make anybody immortal with their twaddle."* In his case, of course, they really didn't have to! Mr. Wright was mocked, debased, vilified and ridiculed in the 1920s; he still is by some. Many of the architects who worked with him are now in line for similar treatment, as are the school and office that he and Mrs. Wright established. Mr. Jefferson was referred to as the "Infidel from Virginia,"* and accused of almost every reprehensible act that his enemies could invent. The great poet-philosopher Goethe almost became embittered, due to the attacks of critics in his time. He wrote of them *"I know very well that I am an eyesore to many: that they would all willingly get rid of me; and that, since they cannot touch my*

* *Jefferson,* Saul K. Padover
(New York: Harcourt, Brace Jovanovich, Inc, 1970), p.116.

talent, they aim at my character." Most of the virulent attacks upon Frank Lloyd Wright were also upon his character, but not so limited. One of the wisest observations made concerning critics came from the great Goethe, with regard to criticism of literature. His comments are also applicable to critics of architects and architecture today ... including many editors and publishers of widely circulated journals. In 1831 he said,

> Man recognizes and praises only what he himself is capable of doing; and as certain people have their proper existence in the mediocre, they get a trick of thoroughly depreciating in literature anything that, while faulty may have good points; so as to elevate the mediocre, which they praise, to a greater eminence.
>
> —*Conversations Of* Goethe—Eckerman*

The great necessity, as in all time past, is to come to self-knowledge, the often repeated ancient wisdom. Only then can sufficient numbers of people create a living force for change. Some of that has and is now happening. If we're to save ourselves in time we'll need to live simpler lives closer to nature. We'll need to produce more of what is spiritually valuable, moving away from trivia, superficiality, and banality.

Any new city, or the rebuilding of an old one, should be a source of daily satisfaction and pleasure, when going to sleep at night and awakening in the morning, something one can feel good about. Is there any better gift that we can leave to those who are to come?

* (London: J.M. Dent & Sons Ltd.)
(New York: E.P. Dunon & Co.1930), pp 397-98.

As for competent criticism, the honest word of illumination, insight, where is it? Nothing is more precious or essential to progress. Where is the editor or critic not narrow or provincial? Or loose and ignorant? Or cleverly or superficially, or cowardly commercial? Let him raise his standard! Friend or foe, there is still a demand for him even here; but if he did, he would fail—gloriously faily—of "success."

—Frank Lloyd Wright

RETROSPECTIVE

Since I've spent some time on the planning of this city and the writing of this book, it may sound strange to you to learn what I'm about to ask, patient reader—and near the finale too—Is it possible to design a living city? You may want to privately ponder that, if you haven't already done so, drawing your own conclusions. My answer has to be both yes and no. It's because any living city is the expression of myriads of causes and effects, revealed over generations; the tapestry of the expressions of people joined together into families, a community, region, state, nation, and continent. Yet it's useful to recall and make use of ideas, and guideposts, that focus attention on past and present events that have benefited people and their civilizations, and where possible, avoid what we've learned from history, and recent times, that work otherwise.

Having presented in the front of this book a plan drawing, I'm calling attention to what might work well in a design for a city, and what may not. So I'm leaving it up to those who are interested to find something of value, or otherwise, to find what may appear to be superfluous. So here is a basis for pondering, and for action, in any future city design, which can be added to, deleted, modified, or ignored.

The likelihood of the birth of a great new city occurring is not now in the cards in our country. Most people have no direct interest in these concerns, although they should. That, as I've stated many times, is largely the fault of education. It is also due to a majority of people's lack of experience with the astonishing joys that qualified architecture brings. But many people also understand that while much is wrong, some successes have been achieved. The vast majority are caught up in the mechanical repetitions of daily existence, or the "wheel of life," pursuing private and public aims. The ordinary citizen, wanting to believe that all goes well, either puts on blinders, or changes attitudes, to make acceptable much that is anti-human, therefore, against his own self-interest. These may be the necessary requisites for

survival and sanity, but they don't change the truth revealed by facts, and by intuition. The best that can happen now is the sowing of good seed, for the welfare of future generations.

Those who command the power and wealth to hire architects for important works, only rarely employ the best, or want the best—again, due to lack of education and common sense. The architects and builders who organize, in order to aggressively pursue those who do the hiring, are only occasionaly the most qualified. Those with the resources to preserve many worthless old buildings, often have little understanding about new possibilities, showing little or no interest in creative ideas. If they did, we would see the results. The average citizen, of course, becomes familiar with what the power brokers, entrepreneurs, and officialdom, bring to the streets, to the green suburbs, and to former farmland—mostly the middle-of-the-road, and worse, if measured in humane and cultivated terms, as built-in features of daily life. Exceptions have always existed.

If we've learned anything, it ought to be that anyone and everyone "doing their own thing" will make it impossible to build new cities that work well, are beautiful and humane. Discipline, control, and restraints, where intelligently arrived at by developed people, and prudently enforced, are essential. Only then can genuine freedom be had. Not the so-called freedom we're all too familiar with, which frequently is a handout of licenses, official and otherwise, to spoil, degrade, cheapen, aggrandize, encourage greed, and all the rest we've come to know so well. While this may at first appear to be a recipe for tyranny and totalitarianism, it is of quite a different order. We still have our famous historical documents of freedom, abused and neglected as they may be, and we have laws and courts, presumably based upon them for the protection of individual rights. But according to Lewis Mumford, if I understand him correctly, our country became a totalitarian bureaucracy many years ago. My lifetime of experiences brings me around to much the same conclusion.

We also have controls in the form of zoning ordinances and building codes, and in some places there are Architectural Review Boards. These are intended to keep the worst designs from ever seeing daylight, but they also, on occasion, keep out the best—encouraging foolish imitation of long-gone Colonial days, or of earlier European styles. Review boards are a mixed blessing that only work well if the Board members happen to be enlightened.

In some ways the existence of these regulations seems to have prevented much worse scenarios from happening. In many public areas they have failed, resulting in a vast variety of sanitized, or otherwise decadent slums, dotting the landscapes of American cities and towns. It all seems to be much like a circus highwire act of balancing, to allow sufficient freedom to "do our thing," whatever that happens to be, yet to restrain the least enlightened amongst us from spoiling our environment. It's difficult to work things out in our society, made up of people from many different countries and a great mixture of values and priorities.

It seems to me that our freedoms are best and most genuinely arrived at by growth and change within, flowing outward in the organic sense, coupled with reasonable, sensible, controls. We're all too familiar, in this century, with the monstrous results that have come from authority initiated by a dictator, fueled by industrialists and bankers, imposed by the state, the military, police, and quite often, the laws, courts, and elements of the church.

More genuine freedom may be a long time in coming, if it ever comes, perhaps requiring more hundreds or thousands of years of evolution, should nature allow our species the time. One of our lifetime obligations may be to help shorten the time.

In countries like Japan, where there's little living space relative to their large population, emphasis from birth is on the group, and what works best for the group and the nation. In our country emphasis is more on the individual, less on the group. The best thing that can happen for both

countries, and the world, is that we learn from each other and change as necessary; that may already be happening. The peoples of the East and West have much of great value to learn from each other, upon which survival may depend.

We are witnesses to a great turning point in history. The frictions and battles concerning aspects of how cities should be built, and rebuilt, will penetrate far into the future. Perhaps the most significant areas of disagreement will occur in the argument for and against dispersion, that is, a low density of people and buildings as opposed to higher densities. The use of the auto as opposed to public transportation will become more controversial. Even if the planet is eventually pumped dry of oil, my guess is that cars will still exist, en masse, propelled by new and safer means, as yet unharnessed for general use. We face the growing use of an automobile capable of flight, which is already operating. One can guess at the complications and miseries, along with the thrills, that that will bring.

The survival of our own, and future generations, is closely linked to our attitudes and actions relating to towns and cities, and their inherent qualities. The interdependence of all life on earth, and beyond, is only now in the early stages of being fully realized. In our country we've been blessed with a vast panorama of beautiful and fertile land, from one great ocean to another. Since we possess a large population, and considerable material wealth and power, it's our special privilege and opportunity to build not only a genuinely great society, with humane values at its foundation, but to assist other nations to develop theirs, in ways appropriate to them—not us—and to learn from them. Many countries don't have the many opportunities we take for granted.

Our nation, the Soviets, Chinese, and some others, building upon the earlier experiments of the Nazis in mass destruction, (with their V-2-rockets fired at England during World War II, killing tens of thousands of civilians), have put the human race within minutes of annihilation. This demands of these nations, and others, special obligations to eliminate such threats,

learning to live peacefully together, and cooperating to limit the growing menace of the less powerful, who are slowly acquiring similar means, on a lesser scale.

When pondering the future, my guess is that it won't be institutions, scientists, architects, or anyone else, per se, who will save the planet from destruction. It will have to come from many individuals with common sense, wisdom, and experience—no matter what fields they happen to work in. If enough people possess these attributes, they will know how to use the tools of science for benefit. If people become less than that, moving in opposite directions, science's toolbox will continue to grow and expand humanity's capacity for evil.

Although some valuable progress has occurred, we're not a nation with a widespread, genuine culture, and we've lost our sense of community. Nor are we a people given to long-range planning, or even widespread, serious, discussions about fundamental problems that hold us back. We've come to generally ignore, neglect, and discourage bold and courageous new ideas having to do with true culture, unless they're connected with the military, science, or money-making. We're consumed with problems related to nuclear annihilation, terrorism, crime, drugs, AIDS, pollution, abortion, pornography, taxes, deficits, and big-time sports. There's little time, energy, or will left over for creating and building a finer quality of life for the many. We have few heroic leaders now, if any, capable of action—why we don't, may not be easy to figure out. Recently, a successful and famous Japanese businessman stated that, in his opinion, most American corporate leaders were selfish and cowardly. We've thrown away our many opportunities for building great towns and cities, which many of our wisest and best people long ago warned us might occur. Their predictions are now our daily reality. Our consuming interests in the negatives, and a national paralysis with respect to the positives, are serious consequences arising from a complexity of earlier causes.

Gross national product, and the success or failure of the stock market, are a poor measure of greatness. Yet try to imagine, were we a wise people, the great quality of life that we could create, with all the means at our disposal; millions of us have a capacity for discipline and hard work, and many have a true appreciation of the poetic. Although there have been some great accomplishments in many fields, in terms of the overall picture, we've essentially built a vast network of amazing cities based upon expedience.

We don't build very often with common sense, or with a view of the overall picture, or for reasons of delight and our own happiness. When most of our buildings are conceived, and communal spaces planned, they aren't usually considered in the light of an opportunity to create beauty—to give not only service, but delight and joy. Too many are treated as mere commodities, as expedient money-makers for blind and selfish owners, and investors. Most are impositions on civilized sensibilities, whether individual or the community. In the long run they add little—and do much harm.

I have been critical of my own country, partly because I know it best from experience. What is true of our America is true of most other countries. Some have a better grasp of their problems, and perhaps most are in far worse condition, to say the least. Without love of one's own country, there can be no real concern for it, or the wish to see it become the best that may be possible. Our great Founders gave us the right to criticize and change things, and what a blessing that was—and is! To follow the act of some recent politicians, self-righteously and smugly proclaiming our imagined superiority to others, and boasting what a great society we've built, seems to me to be a deception and disservice. I believe that many, if not most people, have some deeper inner sense of where they themselves, and the nation, have gone right and wrong.

I still have great affection for my country, and great hopes for its future, fully cognizant of some of its great people and heroic deeds—of the past and the present.

Even though a multiplicity of viewpoints will always exist concerning details of how things should be planned and built, it's important that some of the larger guidelines be agreed upon by the best and most qualified among us, in consultation with a hoped-for enlightened future citizenry. Leaders in architecture are always needed who have proved their abilities not by books alone, but by measurable deeds, especially in acts of inspired, creative design and construction.

History and experience teach us that as individuals, trying to live in accordance with our own consciences, we shouldn't become the slaves of others' ideas and opinions. We need to experience and test their validity for ourselves, reaching our own conclusions, but also be willing to change and modify our ideas. Life's experiences teach that not only may appreciation not come to the idealist, and those who accomplish real things through a lifetime of efforts, but perhaps far worse, in classic age-old ways—neglect, lack of money, poverty, slander, misunderstanding. After death may come the cashing-in on a lifetime of creative efforts, by others, some who deserve to reap a harvest and others who may not. Those who find joy in their life's work, while bearing external hardships and suffering, yet contributing things of lasting value, know who they are and the value of their contributions. Oftentimes, great contributions are quietly made by very simple heroic people, living in obscurity, doing seemingly mundane work. While that may not be enough, and greater recognition is needed, it's perhaps enough for the giver and the doer. It's possible to discover inner joy, satisfaction, and happiness, in doing real work that is the expression of true being, and as Shakespeare suggested—remaining true to one's self, if it happens to be one's best self.

The heroes and heroines who have breathed new life into humankind, through the centuries, are remembered; they live as immortals. In music there were the great composers—Palestrina, Bach, Haydn, Beethoven, Brahms, Mozart, Vivaldi, and many others. In architecture, which is so closely related to music, there were the great builders of antiquity, many of whom

are nameless, and in the Middle Ages the amazing Gothic builders; in our own era—such titans as Richardson, Sullivan, Wright, and others. Almost always, including our time as well, those inspired individuals are opposed by men of limited understanding. Inevitably, they are thwarted and often defeated by them the so-called "Philistines" ever amongst us. At times the Philistines have been legion and they overwhelm an evolving humanity. At other times it has been but one opposing person, perhaps in a powerful position. "Philistines" have done and stilt do great damage, often causing or allowing the best amongst us to languish in neglect, and far worse. They sometimes intervene, halting great works and deeds, for foolish or selfish motives. But most of them are eventually forgotten, with few traces left. They have, and do hold up true progress, leaving wreckage or a vacuum trailing in their wakes. Yet mighty spirits cannot be destroyed, and we have solid remembrances in deed and word of what greatness has been achieved. The value of the "Philistines" lies in their resistance to great ideas and acts, as obstacles to be overcome by the immortals.

NOTES

This correspondence is reproduced from letters written many years ago by Frank Lloyd Wright to me, and to one of his clients, whose house I built in Ohio. This gracious family gave me room and board, for nine months, as if I had been a family member, in their pre-Wright-designed home, while I built their new house. Many happy reunions have since been held in their beautiful, modest home.

Unbeknownst to me, Mr. Wright sent the following letter to the Rubins while I was still an apprentice in Arizona (age twenty-four), and before I took on the challenge of building their house,

March 31, 1953

NA. Rubin, M.D.
Canton, Ohio

Dear Dr. Rubin:

Sending an earnest young fellow, here four years, eager to help you and give a good account of himself.

Terms: $50.00 per week, his board and traveling expenses while he is necessary and on the job. Name, Allan Gelbin.

During the period of building the second and third Wright-designed buildings in Ohio, I suffered from a continual bout with what was eventually diagnosed as a form of hepatitis. While recovering in my parents' home in New York City, prior to building my fourth building of Mr. Wright's in Connecticut, I received the following letter,

September 10, 1956

Allan Gelbin
New York City, New York

Dear Allan:

Get well. Never mind the unnecessary strain. The thing will come out all right.

Affection,

Frank Lloyd Wright

While supervising the construction of all four buildings, I acted as the general contractor. That meant hiring the workmen, gathering bids, buying all material, keeping accounts, making dozens of on-site drawings, performing various kinds of layout work and daily supervision—regularly

communicating with Mr. Wright, his secretary Eugene Masselink, and William (Wes) W. Peters, Mr. Wright's son-in-law and architect-engineer. I gave all acceptable bills to the owners for direct payment to the sub-contractors. Adjustments to other bills were made as needed.

Much has been said about the great expense of Wright-designed buildings, though such criticism has often been mistaken and sometimes based on inaccurate information. Those of us who have built his designs have first-hand knowledge that didn't come from a library, or the local newspaper file. I built the first house, as a novice first-time contractor, for about $15,000 below the lowest bid the Rubins received, from an established contractor. The three other houses were built for reasonable prices that reputable contractors did not, and would not, have come near. Out of such efforts the owners' dreams for a well-built Wright house materialized; Mr. Wright had the satisfaction of knowing they were well built, and the owners well-pleased. Only in the last house that I built (an unusually large house—over 9,000 square feet), were there some questions about quality, and that happened chiefly because the owner too frequently insisted that I hire the lowest bidder for important phases of construction.

The young apprentice received invaluable experience plus some hard won, but greatly satisfying, earned dollars, and joy in accomplishment. Today, all the homes are worth, in dollar terms (best understood by Americans), five to eight times or more their original cost. Their intrinsic value, however, is immeasurable. It was not easy for a young man to move in with a strange family, in a strange new state, or all that easy for the families. Yet out of that, with all the frictions and conflicts, came some genuine friendships that have lasted through time, even while much else has faded away. Architecture in America was, and is, the great beneficiary.

Although Taliesin today is an accredited school of architecture, in those days no degrees or diplomas were awarded. Instead, I received the

following recommendation from Mr. Wright which, for me, was one of the most valuable recommendations I could ever hope to receive from anyone, anywhere, or anytime—worth far more than any university's diploma, or academic title.

To whom it may concern:

I am pleased to recommend Allan J. Gelbin. He has been associated with me as apprentice in Architecture and member of the Taliesin Fellowship for a period of seven and a half years. He successfully superintended the construction of four houses designed by myself and has proven himself to be competent and reliable.

Sincerely,

Frank Lloyd Wright, Architect

November 10th, 1956

Note: The letters presented here are reproduced with the permission of the Frank Lloyd Wright Memorial Foundation.

From *Letters To Apprentices*
Frank Lloyd Wright
Selected and with commentary by Bruce Brooks Pfeiffer *

* (Fresno: The Press at California State University, 1982) p.174, 121. Copyright 1982 by the Frank Lloyd Wright Memorial Foundation.

NOTES TO EPIGRAPHS

	Page	
Frank Lloyd Wright	8, 187, 200	From his writings and recordings. By permission of the Frank Lloyd Wright Memorial Foundation—Taliesin West, Scottsdale, Arizona, 1989.
Louis H. Sullivan	35, 89	*Kindergarten Chats and other writings* (New York: Wittenborn Schultz, Inc., 1947) pp. 226, 64.
Barbara Ward	49, 69	*The Home of Man* (New York: W.W. Norton & Co., Inc., 1976) pp. 10, 41.
Johann W. Van Goethe	131	*Conversations With Goethe*—Eckermann (New York: E.P. Dutton & Co. Inc. London: J.M. Dent & Sons Ltd., 1930) p. 303.
Albert Einstein	137	*The World As I See It* Translated by Alan Harris from the German—*Mein Weitbild* (New York: Philosophical Library, Inc., 1949) p. 5.
The World Health Organization	155	From Albert Mayer's *The Urgent Future* (New York: McGraw-Hill Book Company, 1967) p. 1.
Albert Mayer	160	*The Urgent Future* (New York: McGraw-Hill Book Company, 1967) pp. 14, 17
Lewis Mumford	176	*The South In Architecture* (New York: Harcourt Brace and Company, Da Capo Press, 1967) p. 141.

From the title page of *When Democracy Builds*, Frank Lloyd Wright's book, published in 1945, concerning Broadacre City. Inscribed by Mr. Wright to the author.