2 TEXAS ARCHITECT

Official Publication of

#### THE TEXAS SOCIETY OF ARCHITECTS

The Texas Regional Organization of The American Institute of Architects

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327 Perry - Brooks Building, Austin, Texas

Published monthly by the Texas Society of Architects in Austin. Subscription price, 50c per year, in edvance. Copyrighted 1951 by the T.S.A., and title registration applied for with the U.S. Patent Office.

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VOLUME 16 MAY 1966/NUMBER 5

"The architect's greatest contribution in this age
of ours will not lie in the development of new
structures, but in awakening the American public
to the urgent need to correct the social, political
and educational defects that prevent the flowering
of a better urban life."

Morris Ketchum, Jr., FAIA

President

American Institute of Architects

## BLIGHT a foretold affliction

## HOUSTON

In the April issue of the Texas Architect Professor Horsbrugh discussed the characteristics and effects of Blight. He continues now, applying these principles to Texas' great portcity of Houston.

urning now to Houston, heir to all these pressures and more besides, there may be some observations which I can make which will encourage you to explore again your own envirium, take stock and press for remedies, while there is yet time.

I mean to be menacing by the use of that ominous phrase, for time is always beyond the reach of the active even as it seems ever to lie in the lap of the idle, and clearly, you are an active community. I foresee no reason why Houston, the thriving port, (air and marine), of the mid-twentieth century, should escape the cramping fate of the great ports of the nineteenth century like Liverpool, Boston, Bristol or Glasgow.

Even as Pittsburgh repeated the pattern of Sheffield, as Cleveland reproduces the muddle of Middlesborough, the hirthplace of steel and of the Bessemer processes, I doubt if Houston can escape the physical burden which progress accumulates in the weight of huildings, for such a load is the price of pioneering.

With these historic factors in mind I was shown the various features of your city and I attempted to perceive the characteristic conditions which identify Houston as a singular among cities of similar size and intent. I was driven more than a hundred miles in serious search of blight, blighting and hlighted. From what I have learned, I can bring you no comfort. I can only offer you snap assessments, but each observation is measured against similarities seen elsewhere. For the sake of simplicity, I shall number the principal impressions which have occurred to me, and try to convey the urgency of action while your problems are relatively so minor.

In the matter of time, the newness of the city is still an asset, though this major advantage may not remain as such for very long. The monotony of novelty is very tedious and the lack of physical contrast, as in Pittsburgh, or of architectural variety, as in San Francisco, inevitably, will bring horedom. The absence of antiquities denies visual and emotional foil for the routine surroundings, and there are few sentimental attachments with which to promote civic pride, as in Philadelphia, Providence or San Antonio, Do not underestimate the power of time-inspired sentiment in a planning program. This power is under test I understand, right now in the proposals to retain a hotel and other buildings around the Old City Market Square. In respect to topography, the region is so bereft of natural features that you are under the strictest obligation to assess and to emphasize every incident, however small.

The most valuable, and the most abused of all the natural features which I was shown is the quadruple-

looping stretch of Buffalo Bayou which curls about the Clayton Homes and seeps beyond Main Street North. This picturesque, yet forlorn and rubbish-strewn pastoral glade is an example of blight supreme; unwanted, unkept, unlamented and unused, a fundamental feature mislayed.

The logical landscape of this same bayou from River Oaks to Sam Houston Park cannot be allowed to change so suddenly, from positive plan to putrescent plight in a distance of yards.



Pray appreciate this blighted area as an exceptional amenity, able to form a refreshing northern climax to Main Street, in complement to the spectacular events of the Southern extremity, where this principal thorough-fare pierces the bosky demesnes of Hermann Park and Rice University. Moreover, I feel that this much behridged bayou should become an extension of the Civic Center and he developed as a setting for the returning downtown residential demand. Likely arguments in favor of industrial re-development may not convince me due to the smallness of the plots and the irregularity of shapes arising from railroad patterns. Even with the removal of tracking, I doubt if such areas will continue to have much competitive industrial appeal.

In an area so utterly flat, the value of height is immense, both for emotional and for visual reasons. Since I am a long-time advocate of high living and high working, having proposed, designed and pioneered the first high structures in London in 1952 (with Sergei Kadleigh) only to receive wrath, ridicule and rejection, I am much pleased by what I see here in respect of high structures. But again, please insure that the individual structures are effectively spaced. This need not be subject to legal zoning, for it is basically a matter of common sense. Do not make canyons of your streets.

Make certain that the disposition of your city reads with clarity and with character so that on approaching, the visitor can be sure that he is arriving at Houston, not at Dallas or at Fort Worth or at any other file-cabinetry.

urther, may I risk your displeasure by pleading that it is high time that great buildings of such bulk should be endowed with grace. Technically, we are beyond boxes, balks and blocks. We are long through with stilted slabs, and tapering towers are now emerging, but, overriding all other design considerations, there stll remains that nagging and the too-long-ignored illusive liveliness of perfection in proportion.

No remarks upon height are sufficient without the consequence of vision from height being included. Henceforward, city ordinances should determine that roofs are designed with as much care as facades. Some new buildings display examples of 'instant blight' by alltoo obvious carelessness in the design of their upper surfaces, while others have resolved the disposition of mechanical equipment with simple good order that is both unobtrusive and inexpensive. Naval architects seem to have no such difficulty in so designing their structures that the essential unity is achieved between bulk and of excresence, where magnitude and detail are logically wed and well proportioned.

Since I am also concerned with all forms of transportation and the likely planning consequences of new advances, I can assure you that as a result of the developments originally pioneered in Great Britain, commercial vertical flight vehicles will be in use, quantity, before the turn of this decade.

The recognition of places will then have to be achieved not only by facades but by roofs, and you may imagine the confusion that will prevail if the present standards of roof design are not improved. Remember, also, the nocturnal appearance of cities with roof illumination and advertisement, for never before have the billboard agencies been confronted with the dilemma of their signs being seen upside down. I don't propose to help them out of this conundrum.

The rewarding views that are gained from a city developing in the third dimension expose both the need and the benefit of vegetation.

The Ecology of a city is a vital and specialized subject that is yet to be fully explored and assessed. It is essential that this be done on a proper scale, and in a thriving city such as Houston which arises from a substantial forest, which was planted along with and as urban growth took place. The value of this Houston forest cannot be overstressed. The healthy growth of greenery is the indispensable balm for the relief of any

envirial exema, and here at last we have an ally in trees whose cooperation may be depended upon, provided there is a proper understanding of the species involved, so that an effective ecological balance, from insects to humans, can be maintained.

Our envirial circumstances are now so complicated that we are no longer able to plan in the selfishness of human benefit alone. A planner must include every ecological consideration in his proposals from atmospheric controls to wild-life protection.

Houston owes more to the abundance of foliage than to any of its architectural embellishments for its reputation as a pleasant place of habitation. I predict that this condition will continue, and I welcome the information that Main Street is to be replanted as a consistent avenue. A comely vista of green will act as a strong and unifying foil for the variety of structures that exist and for those that are yet to arise. At the same time trees will provide a majestic and worthy route through the center of the city between the terminal features of Park and Bayou. The value of water in the urban scene is even more vital in a flat environment than in a varying topography for water introduces the much needed vertical dimenson by its natural ability to declare a horizontal datum and also to reflect.

The common concept that flat country is spacious and wide open is utterly false since the horizon is set by the nearest object and the sense of enclosure is inescapable. But water brings the sky to the feet, it embellishes a scene in a way that no other material can rival. Whoever saw water yield up an ugly reflection? And I have always found even the better architecture to be vastly improved by being seen upside down and slightly rippled, as any skillful photographer can demonstrate.



#### Blight: A Foretold Affliction



## HOUSTON

Further, with the ever intensifying pressures of urban existence, the therapeutic values of water are of increasing importance, whether the element is tranquil or a fountain flourished. Water is the dependable panaces for jaded places, its fascination is all-appealing.

Houston is being splendidly decorated with joyful waters and fountans. These simple and relatively inexpensive delights should be deliberately devised to form a consistent feature by which the city becomes known. There is no modern equivalent of Rome, Paris or Zurich where the signature of civic consciousness is written with water. But it is not hard to imagine this broad plain decorated with waters and Houston declared as "The Fountain City".

Passing from the matter of civic character arising from the disposition of high buildings and the displays of water, clear definition of areas is a further feature which I believe to be essential in the search for those stabilizing factors which may thwart the spreading of blight.

Here again, I welcome the encirclement by the elevated highway, and it is not without significance that I hear this feature referred to as 'The Chinese Wall' although I think I could suggest a more appropriate nick-name. For the first time, with the piercing of cities by highways the seeming endlessness of urban America is receiving demarkation and definition. This is essential, it seems to me, for the economic stability of any central business district. The visual and psychological benefits of containment and consequent dimension, should both intensify and stabilize land values. The situation may be comparable to the social security produced by the walls of fortified medieval cities.

The simple definiton of 'within' and 'without' emerge, points of entry are emphasized, 'place' is established, while the elevated position of the traffic enables constant supervision of the urban forms, features and changes, all now seen with a degree of inter-relationship hitherto impossible for lack of the combination of height with movement.

These advantages have been bought, however, at a heavy price in domestic amenity. As a result of reviewing similar circumstances at Boston, Bridgeport and Pittsburgh, I can warn you that the open cavernous spaces beneath the highways are psychologically intolerable. These vacancies immediately become blight-producing problems, since their scale, their sheer un-neighborliness, and their inevitable drafty dankness, or dustiness, their un-nerving acoustical responses, quite apart from the incessant roar from overhead, is as detrimental to housing and to other domestic land uses as the elevated railroads of previous generations. It is extraordinary to consider that after elevated transport construction has brought so much blight to so many areas throughout the nation that these facilities would be repeated again without

the necessary aesthetic 'safety' margins being recognized and provided.

I urge the Planning Commission to undertake a research program to examine these caverns and make financial reckonings for uses of every square yard of valuable 'roof space', of foundation condition and of volume within and around your 'wall', for this is no wall to me. It is a wasting asset, an encircling refuse-ring, a police problem, a continuous place of pestilence. Objections from the legal department of the Highway Authority represent an obstacle that is to be overcome. Here is an instrument of blight, deliberately induced, imposed by justifiable changes in transportation, but carried out in utter defiance of the lessons of history and this ring of convenience will now have to be paid for, in measures far beyond the original financial estimate. This need not be. This should not be, and you are obviously capable of producing your own remedies preventing the ring becoming a noose, a perpetual penalty.

utdoor advertising is inseparable from the general subject of the highway and its effects upon urban blight, and this feature of the American scene cannot escape castigation and inclusion in the all-embracing topic of blight.



I challenge you to identify any feature of the man-made envirium that has created the condition of blight more effectively than indiscriminate outdoor advertising. Is not the appearance of the billhoard, almost inevitably, the herald of declining social circumstances? A declaration of the nervousness of temporary investment? A

harbinger of change. This is no libel. It is a question. Other societies have survived remarkably well, it seems, without these diverting devices, yet others have outgrown and abandoned this tedious exercise of overinsistance. May I ask you why do you tolerate a degree of visual insult to the eye and to the intellect that you would not suffer to the nostrils, nor to the ears? Obnoxious smells and raucous noises soon bring legal action, yet we are expected to endure, without complaint, this limitless blight-begetting blare.

I can assure you that there is more, much more to come. The fertile imaginations of those engaged in this form of fruitful visual desecration of the urban and rural scene are very far from reaching exhaustion. Their cunning is just getting into its stride, and I think it is a pity that so much talent is spent on such triviality. But I am not depressed. This is only a phase of development, and I am aware of certain remarkable changes which are emerging as a result of the shifting public temper and fatigue with this seemingly inescapable visual affront. It is enough here to say, do not despair. The situation carries within itself the spring of reaction tightly wound by the indiscretion of overemphasis.

In summary, it must be pointed out that Houston possesses, temporarily, a prime advantage in the continuous conflict against blight which is directly the consequence of its comparative youth among cities of similar size.

Those areas of present blight are relatively small, and of such a nature that, I believe, they can be overcome now, redeemed by your own exertions, to your own credit, and without Federal Aid, if you wish to do so. Should you fail to grapple with these dilapidations, while they are yet within your capacity, you will be overtaken by them and the costs of ultimate action will be such that the application of external and conditional stimulants will become unavoidable,

As a port, your changing circumstances are the highly vulnerable, for I have noted that ports are more susceptible to rapid decline than other cities not immediately concerned with maritime commerce, for you are inevitably in the forefront of the national economic fluctuations.

Further, upon the opening of the Houston Intercontinental Airport, the city will become familiar as a nodal position in world consciousness and it is essential that the city, as a whole, should be worthy of that emerging renown, and substantial, from center to suburb, from harbor to hospital.

It seems clear to any visitor that the destiny of this city is largely in its own hands, and the perpetual

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choice between quality and couldn't-care-less-ness (provided the returns continue to roll in) yet remains with you.

You still possess, therefore, an opportunity retained by very few cities, for elsewhere, the thrust and initiative has passed beyond their borders, like Pittsburgh and the weight of inheritance has become too oppressive for self-adjustment. Your freedom of action arising from the absence of these factors deserves spectacular celebration, and your wealth can make of Houston the Florence of the Gulf.

The resolution of the problems of waste and wastage arising from mass-production; the review of the consequences of mass-movement in the design, location and influences, not only of the highways, but of the routes and positions for transport facilities now advancing, such as swathes required for air-cushion vehicles and frequent decks for verticle flight, and those in decline, railroads; the revision of laws affecting property rights having regard to the public privilege of unaffronted vision and the obligations of ownership; and the regulation of the business of hlight which is as destructive of self-esteem of a communty as it is profitable.

I know well that there is revulsion against further and further regulation, but if we are involved in an ever-growing population, order must be maintained and even extended. My liberties in your great metropolis are very different from those enjoyed in my remote village of origin, yet, I submit to your ordinances without undue strain, and so it must be with an urban community growing from a few hundred thousand towards several millions.

ow, each of my four principal blight-bringing factors, all assets in themselves, have one condition in common. They can be subjected to the discpline of taxation. For instance, the New York Supreme Court recently raised taxes upon one of the new and distinguished commercial monuments of Manhattan by levying a toll upon a building for reasons I hear described as 'conspicuous excellence'. If this argument and its implications can be sustained and accepted without cavil, then I presume that taxation for the reverse reason would be acceptable: a tax upon conspicuous ugliness, for it is a simple fact that ugliness, like excellence, is not necessary. Is ngliness an attribute of a democratic society? Is ugliness a fundamental right of individual liberty? Is the blight of ugliness even to be considered a collective disgrace upon one of the world's newest and most robust of cities?

otwithstanding the pall of ugliness and all-pervading blight, I have declared Pittsburgh to be the Cinderella of American cities. I know of no inland city possessing more natural and potentially dramatic beauty than that aging and constricted place. I would suggest that every energy be bent towards the further cultivation of a sense of civic pride in Houston of the Gulf for having the potentiality to be, in its time, and in its own way, so much more than Amsterdam of the North Sea, than Danzig of the Baltic Gulf, Venice of the Mediterranean, Bangkok of the Gulf of Siam, or even of Calcutta of the Bay of Bengal, all cities having somewhat similar topographical characteristics, and comparable trading opportunities.

My assignment, however, is blight, not commerce, nor culture, and it is upon this problem that I conclude by exhorting you, as architects, to flex your professional muscles, test your political connections, and prove your potential statesmanship by leading the city of Houston now, of its own power, to eradicate that so small percentage of blight from which it presently suffers.

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## HOUSTON



## THE BUILT ENVIRONMENT

#### An Address by

The Right Honorable The Lord William Holford at the Texas Conference on Our Environmental Crisis School of Archtecture, The University of Texas

The Texas Conference on Our Environmental Crisis was held at The University of Texas last fall. Organized by the University's School of Architecture, the Conference was designed as a Texas follow-up of the recent White House Conference on Natural Beauty. The Texas Conference was concerned with the visual appearance of our cities, in both residential and industrial areas, and with what might be done to meet and solve the problems pertaining thereto.

Among the outstanding speakers at the Conference was The Right Honorable The Lord Holford, one of the world's foremost architects and planning authorities. William Graham Holford's professional achievements have covered a wide spectrum, from University teaching to the designing of industrial centers, and from the promotion of fine arts projects to planning the postwar rebuilding of the City of London. His services have been sought and retained by many places in many countries, including the United States.

Among the many honors conferred upon him was the Royal Gold Medal for the Promotion of Architecture, bestowed by Queen Elizabeth. He is a Past President of the Royal Institute of British Architects and an Honorary Fellow of the American Institute of Architects. In his Austin appearance Lord Holford addressed a capacity audience in the Theater of the Student Union Building at the University. One especially interested listener was Mrs. Lyndon B. Johnson, wife of the President of the United States, who had sponsored the White House Conference. The speaker was introduced by Alvin A. Burger, Executive Director of the Texas Research League.

The Built Environment n a conference of this kind it is convenient, if not quite correct, to have a general term to cover the use and appearance of man-made constructions and utilities that form so much of the urban and rural landscapes in which we live and work and learn and take our leisure. Hence, the Built Environment."

Industrially developed countries with a constantly rising standard of living have a problem which J. K. Galbraith described in a famous phrase as "private affluence and public squalor." Mass production has produced mass waste. Increasing world population, coupled with individual mobility and philosophies of equal opportunity, have broken down our pride of place and the integrity of the City. Technology has multiplied our mechanical faculties by such things as cars, computers, radio, and nuclear energy; but the study of social responsibility and social benefit has lagged behind. Meanwhile archaeological, historial and architectural evidence has pointed the contrast between the settled past and the unsettled future. So we have a crisis; and the crisis shows itself externally in the battle for land and property, and in the appearance of the built environment. It is not progress that shocks us, hut its unintended and unanticipated results.

It is not argued that architecture can reverse political and cultural trends of which our environment is only a reflecton; but I thnk it is true that an architectural approach to environmental problems has the best hope of success. 'Archi'-'tecture', by definition, requires a comprehension of the technology available to builders; but also of human behaviour, sensory perception, the relation of a building to its site and surroundings; like social science, it is an art of assembly. So I argue that an architectural approach to the way we live and the environments we create, could improve our situation in certain ways:—

- (i) by introducing better techniques of forecasting and planning;
- (ii) by designing on the basis of sensory evaluations and environments, and extending these from individual behavior to family and crowd behaviour;
- (iii) by extending the brief provided for a single building or group, to its physical and social setting; (which is called, for short, "main structure planning");
- (iv) by organizing better and more continuing briefs and programmes, which will allow more collective choices to be made and carried out, while leaving plenty of

scope for creatve design and invention; the concept of "critical path" analysis, now commonly applied to building programmes could also be a useful tool for the consideration of social programmes and utilities;

(v) by looking a good deal more deeply into environmental design than is implied by the "cosmetic" approach; but at the same time supporting public health measures such as clean air, unpolluted water; the reduction of noise, the planting of trees, the reduction of overcrowding and overbuilding where this has occurred over large areas of land and has thus become inescapable.

Under these five headings the argument in this paper attempts to provoke a more thoughtful and comprehensive attitude to the crisis of environment that is upon us; and to suggest that some answers may be found, not in the pursuit of technology for its own sake, but in finding better ways of arriving at decisions on social policy, at all scales from the room to the region. The whole process graduates therefore from architecture, through city and regional planning, to political science and government.

And some of the lessons we have learnt in shaping the natural world—especially the study of ecology—could usefully be applied to the adaptation of our built environment.

#### PLANNING AHEAD

All architects have had the experience, at one time or another, of having their designs rejected because they were unfamiliar. All city planners have been told that it is useless to plan too far ahead because "you never can tell." And in Mrs. Becton's Household Management, published at the end of the last century this solemn piece of advice is given to young nurses: "Never wash a baby further than you can see."

Only gradually, over the last fifty years, have the limitations and possibilities of forecasting been more seriously analyzed. We have begun to ask the question "What is it important to forecast?" rather than madly extrapolate every known statistic; and plan on the result. We have also begun to separate out the strategic issues in planning from the purely tactical; as for instance in the creation last April of the Greater London Council, who deal with major questions of population, employment, the location of industry, and metropolitan roads; while the expanded London Boroughs are responsible for local planning, housing and welfare services.

nd on the need for forecasting such things as population and traffic units and power units and housing requirements, there is really no doubt at all. We have been grossly inaccurate in the estimates that really matter, and too precise about those that do not. In the United Kingdom we had a population "bulge" just after the War, but nobody made realistic preparations for the school bulge that followed it in the '50's, still less for the bulge in higher education that has just occurred. Each time we were taken by surprise. Desperate measures were taken to double the number of unversity places. In July of this year the Chancellor of the Exchequer applied severe economic restrictions; so the Government had one hand turning the tap on and the other turning it off. For forty years we have been ignoring the inevitable consequences of the growth in car ownership. The statistical forecasts, if you think them out, reveal the need for change. And people do not on the whole, like change; not even children. So the statistics are written off as alarmist or exaggerated.

At the other end of the scale there is now a great deal of irrelevant precision, often connected with the use of computers. I was interested to see an architect at Harvard (Christopher Alexander) making this point in an article in "Landscape."

"The effort" he wrote, "to state a problem in such a way that a computer can be used to solve it, will distort your view of the problem . . . Experimental psychology, obsessed by the idea of rigorous mathematization and hypothesis testing, has for the last 40 years by-passed the significant problems of human behavior and dealt only with those trivial aspects that happen to be the easiest to make precise."

I cannot help being reminded of the story of the man found groping in the gutter below a street lamp. A passer-by asked him what he had lost. He said a dime. "Did you drop it in the gutter?" "No: in the gutter on the other side of the road." "Well, why are you grubbing about in this gutter?" "Oh! the light's better here."

Do not think that I am dismissing the tools of the planner's trade as of little account: the drawing machine, the slide-rule, the "Sketch Pad" computer—(essentially a cathode ray tube on which sketches can be drawn with an electronic, light-sensitive pen, and what is more can be erased, projected or turned through 360° by the computer to which it is connected.) It is quite something to produce a perspective of an aeroplane or a building from a set of punched cards; and the accuracy and saving of time and drudgery is a wonderful corrective to the slow, unthinking and pleasure-loving routine of the old-fashioned drawing office.

The essence of planning, however, is that the leap in the dark must come first and then the securing of the foothold. To leap in the dark needs immense experience or expert prediction, or both. So to this extent analysis is necessary, both before the leap and after it is made. It is possible to imagine that one day the techniques of analysis and prediction and decision-making will be perfected; and the creative act of designing something that is different from and greater than the sum of its parts, will be replaced by mechanical process. This aim, by itself, is a justification for the continued development of computer techniques. But we are still as far away from creating a humane environment from a computer, as we are from creating human life in a biology lab.

Meanwhile we have several brakes on progress:

- extreme imprecision in the forecasting of major social trends;
- (2) extreme precision in minor analytical operations, which are often overridden by much broader developments which no one tries to forecast at all; and—
- (3) reluctance to accept accurate forecasts, or to endorse plans, which involve a radical change of mind and attitude.

Sir Geoffrey Vickers, talking last month on the political challenge of an overpopulated world, used the story of the man who fell from the top of the Empire State Building and was heard to say to himself, as he whistled past the second floor, "Well, I'm alright so far." He said the story caricatured two absurdities into which we often fall.

"One is the absurd speed with which we come to accept as normal almost any outrageous condition, once we have actually lived with it... the other is the absurd slowness with which we come to accept as real any impending change which has not yet happened, however near and certain it may be."

Forecasting, and the exercise of planning intelligence are thus not only desirable but inevitable. And when you have a critical situation they are more essential still.

#### A SENSE OF ENVIRONMENT

The human body can be the most sensitive of measuring instruments, or it can become inured to noise and glare and pressure and disorder, and gradually feel at home with them.

The human eye, with its retina which edits the information passed through to the central nervous system where it is collated with information from other sense organs to arrive at a general line of policy for the individual—this human eye becomes adapted sooner or later to distractions and disturbances, and ceases to react to them as it did initially. Nevertheless, continuous dullness, boredom, congestion, pressure and strain—all the neuroses of modern urban living in short—can cause the human organism to deteriorate and thus hasten its destruction.

The nervous child in a classroom, the sick patient in a hospital bed, the mentally ill in normal society, are all especially vulnerable to a harsh environment. And the fact that the trained soldier can concentrate in the middle of a bombardment, or the extrovert revel in a cocktail party, is no answer to the problem whatsoever. This is one of the reasons why environmental standards have to be created, explained and observed. The administrator may say, "put two more beds into those 4-bed wards: none of the patients would die as a result, few of them would mind anyway, and the hospital would gain 50% more beds." But a ward designed for 4 beds, with proper standards of daylight, sunlight, ventilation, privacy and movement, cannot be suitable for 6 beds. Better to alter the standard and replan with 6-bed wards.

The overcrowding of rooms and buildings in a housing project or a city plan can be equally critical, and we need to know a great deal more about the subject. There is now little doubt that adequate space is a natural good, while the lack of it, even when artificially compensated, leads very easily to neuroses, delinquency, and violence. A highly urban society has to adopt elaborate methods of easing social conflict. Julian Huxley described many years ago the "ritualized" behaviour of animals; and recently W. M. S. Russell wrote under the heading of "Violence, monkeys and man":

"The beautiful functioning of a wild primate society," he said, "is based on a number of automatic mechanisms. Group conflict is averted by the principle of territory, held in common by each band, and respected by its neighbour bands. . . . Order is maintained by a hierarchy of ranks evolved peacefully as each generation grows up, and subject to rearrangement in ac-

cordance with the performance of the leaders in guiding and protecting the rest. The monkey president and his establishment settle all quarrels within the band before they become violent . . ." He went on to say that "when a monkey band grows unduly big, it splits without violence into two, and one of the daughter bands seeks its fortune elsewhere, like a band of colonists from a Neolithic village or a classical . . . Greek city.

"But these mechanisms break down outside the conditions in which they evolved. If too many monkeys are confined together, hierarchy cannot be developed on a basis of individual recognition. Fighting is now the only means of establishing rank. But this brutal method does not even work. The wrong monkeys come to the top. They do not have to meet the test of useful performance in solving environmental problems . . . they are insecure and trigger-bappy. Government by consent degenerates into an unstable system of 'absolute despotism tempered by assassination'."

e are only just beginning to evaluate congestion in city streets, in terms not only of cost and delay, but also of atmospheric pollutions, mental and physical neuroses, and its effect on attitudes towards authority and to other people.

But overcrowding and overbuilding are more serious because they are more permanent. British standards of density control are more strict than in most American States; which is understandable in a small country with over 500 people to the square mile. But we have learnt by experience that a simple density formula, of so many dwellings or so many rooms per acre, is not enough. A family in a luxury apartment overlooking the sea may be living at the same technical density as one in the twilight area of a continuous industrial belt; but the effects of their environments will be completely different, Many American planners are skeptical, also, of their powers of zoning and subdivision. And yet, as John Delafons noted when he wrote his reflections on "Land Use Controls in the United States," . . . "the controls that exist had their origin in the 1920's, the golden age of free enterprise and speculation in land. They received their judicial vindication in courts which reflected those attitudes, and . . . the whole conception of land-use control in America is greatly influenced by their parentage."

Nonetheless it is most interesting to see what New York, Chicago and Philadelphia have done to revise the very legalistic controls they inherited, in spite of highly adverse political conditions for reform.

Both in the U K and the USA it is being realized that standards, which are inflexible (although based on methods and social usages which are constantly changing) are less important than objectives, which can be expressed in terms of principles. But, as Delafons acutely observed: "... the distinction between a formal system of regulatory controls, which eschews discretion as far as possible, and the alternative of exercising control as a discretionary power in government, is perhaps more apparent than real. In both systems the power of control must be seen to be used fairly and impartially, to further accepted public policies."

he point I want to emphasize is that the evidence of our ordinary senses is now more scientifically assessed than it was in the early days of city planning and zoning. The behavioral sciences will soon teach us how to extend our evaluation and such things as noise, warmth, interior climate, congestion, and public health, to those visual, aesthetic and psychological factors in the environment which produce a sense of well-heing and individual fulfillment, and those which produce feelings of frustration, anxiety, rootlessness and delinquency.

Technology is going to outmode many of the methods by which at present we seek to regulate these matters, but architecture and city planning must obviously continue to throw up new ways of meeting the basic aims of control, and persuading people to accept them in their new form.

We do not nowadays demand that a brick wall must be 11 inches thick with a cavity of 2 inches between two 4½" skins. The by-laws require instead that it should be stable, waterproof and with a minimum insulating value of so much. Similarly in the larger environments of a street, a town, or a whole river valley, it is unintelligent to apply rigid standards of land-use, density, height zoning and location, and expect these to be both specific and permanent. In practice this puts a stopper on new ideas and increases the cost of living.

But having said that, one must agree that existing controls, such as they are, should hold the ring until certain conditions are established for their improvement.

—The first is a more acute understanding of social behavior, in its relation to such things as traffic control, home maintenance, shopping habits, factory location, mass recreation and many other factors.

The second is that architects and other designers should be able to create environments which ordinary people can immediately recognize and accept as an improvement on what they have, and can then identify themselves with their new surroundings and feel responsible for them. To do this it seems to me that the architect must always relate his single structure or his group of buildings to its setting; (as I discuss in the next section of this paper).

The third is that the public will accept policies, instead of prescribed standards, argued in the courts, as a legitimate responsibility of government. This is going to be harder for the USA citizen than the British; harder for the British citizen than the Hollander; for in the Netherlands both national planning policy and local planning control are regarded as essential to survival in that densely populated country which is perpetually in a state of seige . . .

But even in Britain, though to a lessor extent than in Holland, we accept governmental objectives that are not easily contemplated here.

As planning authorities, we reserve land for future public use, and preserve trees, woodlands and historic houses still in private ownership or occupation; we designate urban areas for comprehensive redevelopment and meanwhile present piece-meal rebuilding within them; we protect open land of outstanding natural beauty, or for agriculture or recreation or for its scientific interest; and more recently we have begun, both nationally and regionally, to draw up programmes of building and development by private enterprise.

Whether this less precise but more flexible and farreaching system of control will help to improve the use and appearance of town and countryside, depends also on a number of other factors (which I shall refer to briefly in the latter part of this paper). The American system of controls may in any case prove to be better adapted to your wider open spaces and pioneering spirit, always provided that you can make some provision for compensation to be paid to owners for losses incurred as a result of certain of them. "There comes a point in the exercise of control where the community is reluctant to require that the cost of public benefit should be borne entirely by private loss." (Delafons)

Something like this occurred in the famous case of Piccadilly Circus in the center of the West End of London, after a public enquiry had established that a private development, approved by the planning authority, was unacceptable to public opinion. As the Ministry of Transport required a traffic improvement as well, it turned out that all the owners were likely to incur a loss in order to promote a public benefit. (Up to now no development has been carried out at all, but a new attempt to resolve this typical and much-debated problem is now being made. Nov. 1965).

#### DESIGN AND SETTING

I am not, personally, an advocate of harmony for its own sake. I do not believe in stipulating that a contemporary house in an old village must be thatched, because most of the ancient cottages are thatched; nor on hanging architectural ornament onto lean and effective engineering structures in order to make them harmonize with dignified public buildings in their neighborhood.

All the same it must be admitted that a defect of many urban environments is the unrelated incongruity of the elements that make them up; not the contrasts of design and style, but the conflicts of aim, added to so much that is aimless, anyway.

One need not go back to Daniel Burnham's famous declaration: "Make no small plans, they have no power to stir men's blood . . ." to discover the lack of common purpose—and therefore the lack of individual participation—in the structure of so many towns and cities. Indifference breeds contempt. The man who has a highway thundering past his house and garden—or even over it, if the viaduct is high enough—with electricity cables and transformers humming ceaselessly near by, and all the trees in the neighborhood ringed and killed by small boys with knives, such a man will hardly concern himself about the state of his back yard or where he throws his household refuse! "If they don't bother," he will say, "why should I?"

Good design in small things goes part of the way to improve matters, on the principle that a man will cherish what he is proud of, whether it is a car, or a house or a power-station. But if it is at odds with its setting, or is endlessly repeated, so that it loses its relevance and its individuality, it is well on the way to obsolescence or dereliction.

I am well aware that there is no absolute correlation between a work of architecture and its environment, or a jewel and its setting. A pearl is the result of irritation, and St. Pauls Cathedral stands in the middle of the commercial City of London, and always has. The work of art can stand out from its environment just as well as it can stand in it, as its focus and its most characteristic symbol.

But if the ordinary run of buildings contribute nothing to their surroundings and the bad ones depreciate them, then the city becomes depressing and finally squalid. The phrase "main structure planning," I have borrowed from Doshi and Alexander, who used it at the International Design at Aspen, Colorado, in 1962. They used the words "main structure" to describe "... that aspect of its pattern which is most apparent," and illustrated them by the plan made by Le Corbusier—who died this year—for the city and port of Algiers (1932).

"He had the idea of combining traffic, work and housing in a single linear thread. Within this complex he encouraged every type of activity. The road and the load-bearing elements constitute the main structure. As filler his drawings show Baroque, Moorish and modern houses jumbled together according to the whim of the inhabitants, but always within the discipline of the main structure."

This was the principle that activated so many of the architects and scientists of the Renaissance, who conceived the circular church, the palazzo, the town, and the Celestial City as a related mathematical and religious concept.

The same principle served the great landlords of Georgian and Regency estates, in Bath, Edinburgh, London, Cheltenham and Brighton, for example. And you will see it in the British New Towns, such as Harlow and Cumbermauld; and in Frank Lloyd Wright's "Broadacre City"—although there more as an idea than an actuality. It is the theme of most new universities.

The lesson for environmentalists seems to be that architects should be asked to design in breadth as well as depth; that is to say that they should extend their terms or reference; and having drawn up their brief for the individual building or group, they should take into account in their design all the external factors such as access, landscape, related buildings and the character of the environment in general.

"Character" of course is a social attribute, not a stylistic standard. I suggest it is time that architecture and city planning should again become the instrumentalities for bringing this concept to fruition.

#### INDUSTRIAL SYSTEMS AND REGIONAL LANDSCAPES

Industrialized building clearly demands a large order book. The industry is moving away from wet to dry conditions, from site-work to factory work, from the "one-off" building to the standardized component. Bathrooms and kitchens are being extended in one plastic container. Like the automobile, similar houses will be found in Hawaii and Texas and Massachusetts, with some variation of gadgets to suit different climates.

Just as standard bricks do not prevent an infinite variety of brick houses, and Georgian copy-book details did not impede designers from devising permutations and combinations to form streets and squares and individual mansions of great interest and liveability, so can the modern industrialized components be used to establish a rich and multiform pattern. The same words in a different sentence.

More important, perhaps, for the environment is the need for mobility of work in the industry, and resistance to age-old government habits of switching on and off the building programmes to suit short-term economic regulation. (This is more common in England than in America.) The need for a curh on spending is not disputed; but if its effect is to turn craftsmen away from the industry, inflate building prices, that subserves so many others, more logical curbs should be found. The problem is to get into a position from which a really comprehensive view can be taken, preferably a view on a regional scale. Surface-wirings, industry, water, power distribution, housing and recreation have all to be seen together on a map, and in a budget, and as an administrative programme.

When a complex building is being constructed, it is usual to subject the process to "critical path analysis"; i.e., to a process diagram which records the time taken, or estimated to be taken, for all the individual operations in the programme, and the point at which critical decisions have to be taken.

Only a large-scale strategic plan can subject the large social and principal programmes envisaged in the drive for a better environment to the same critical path analysis. I do not believe that this would restrict the element of choice. On the contrary, it is a method of exposing what the choices are.

Finally, let me say that what I have been arguing for in this paper is far removed from the cosmetic approach to environmental improvement. It is not a question of litter-bins or trash-baskets (although these are sometimes needed) but of enriching life and experience by maintaining the quality of it in every kind.

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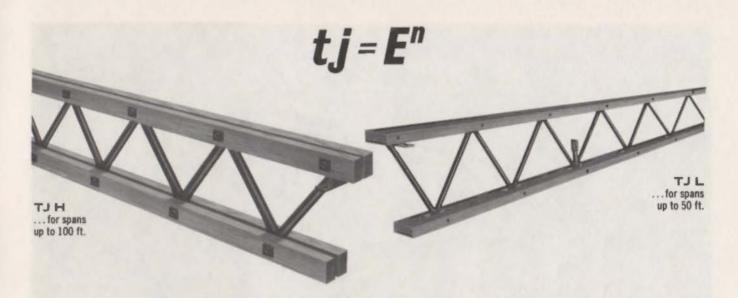
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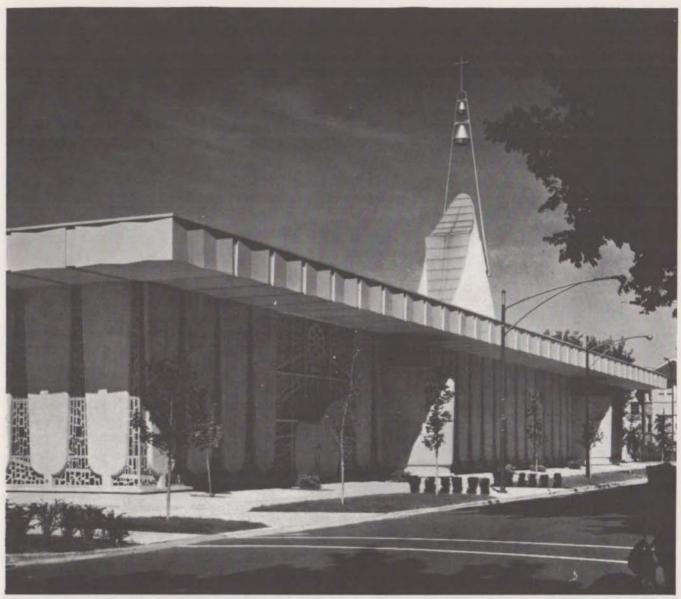
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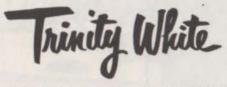
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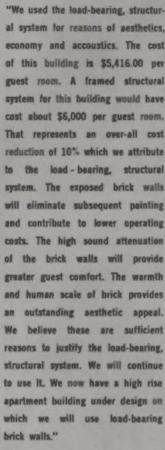


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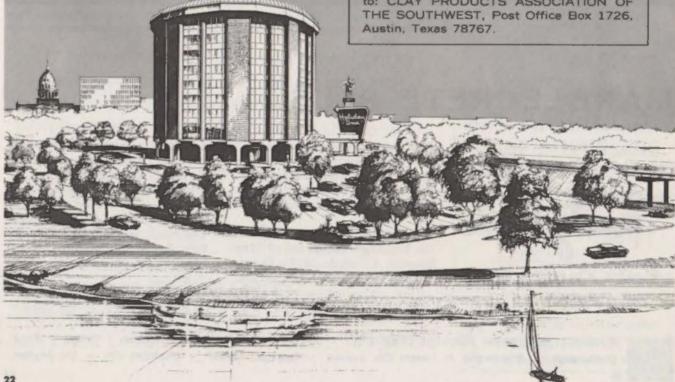




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