

# POTOMAC VALLEY ARCHITECT

OFFICIAL PUBLICATION OF THE POTOMAC VALLEY CHAPTER OF MARYLAND

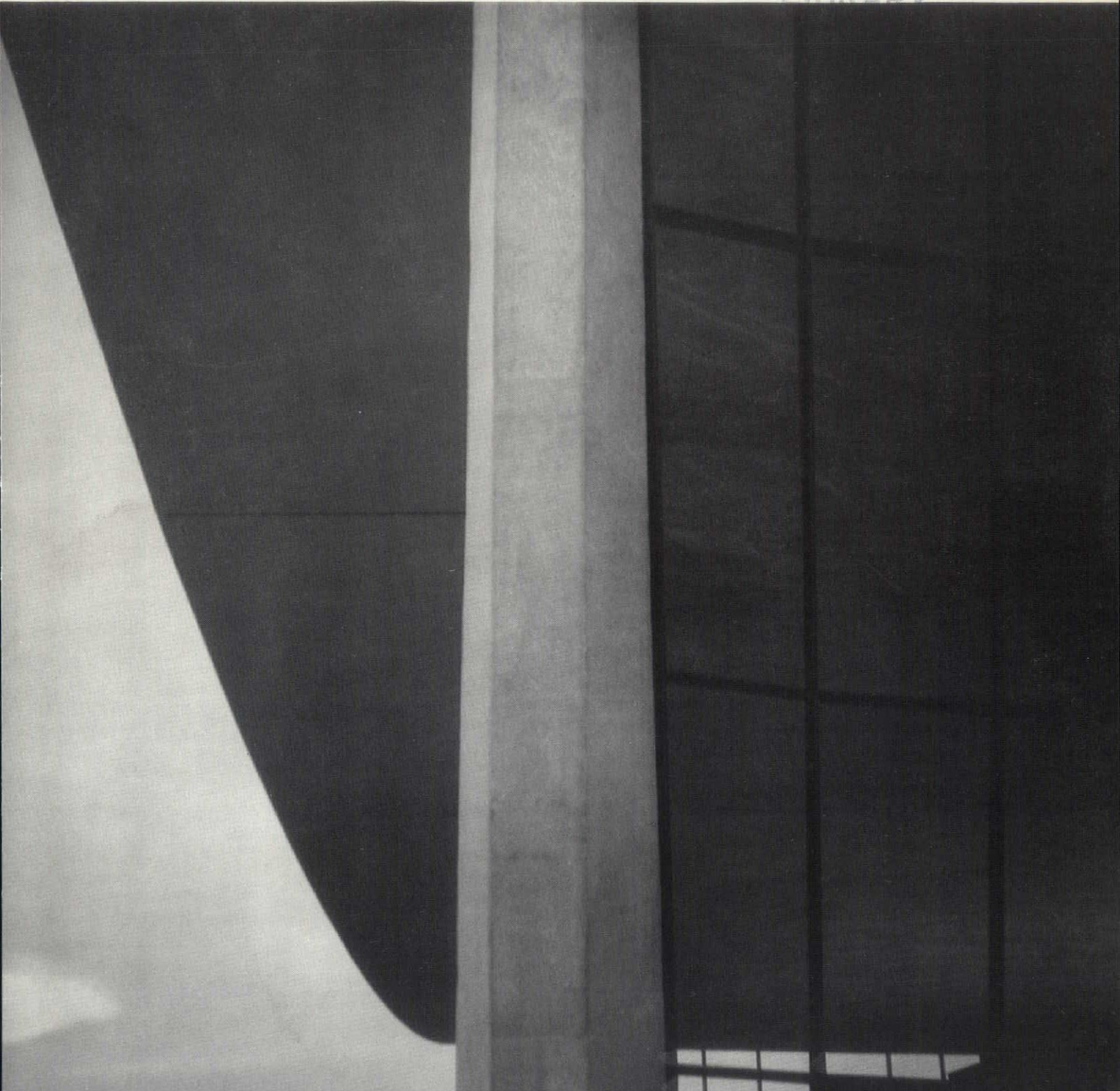
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**POTOMAC VALLEY CHAPTER  
OF MARYLAND**

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**POTOMAC VALLEY ARCHITECT**

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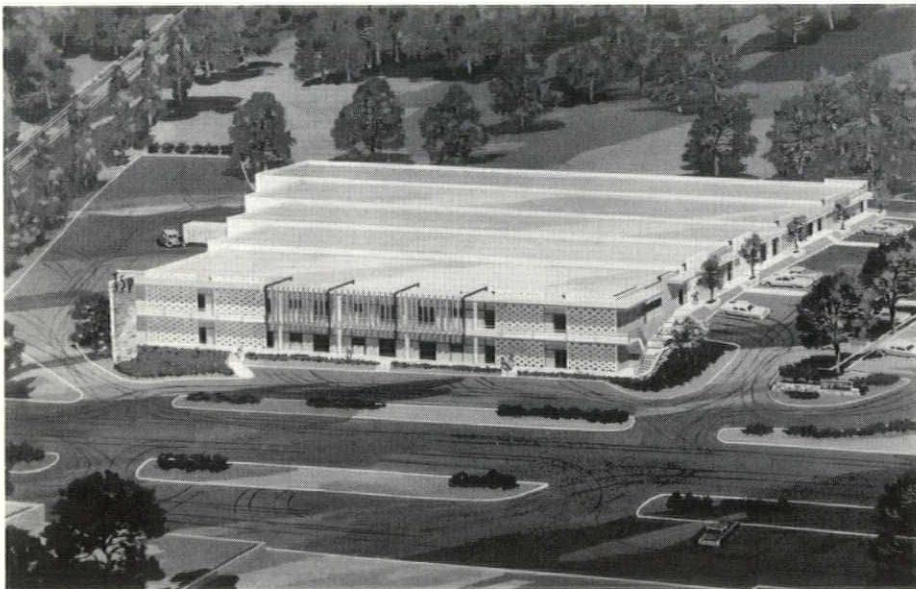
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*Changes in advertising copy should be directed to: Mr. Joseph Dennison, 7705 Georgia Avenue, N.W., Washington 12, D.C.*

**THIS MONTH'S COVER**

*Terminal Building — Dulles International Airport. More pictures on page 4.*



TECHNICAL SERVICE PARK SILVER SPRING

**MISCELLANY**

Chapter member James E. Miller is recuperating at Suburban Hospital, following a coronary suffered on November 11.

Bagley, Soule and Associates have a 42 inch "Rotolite" White printer available for sale. If you are interested call OL 2-5700.

Deigert and Yerkes and Associates, Architects, have moved their offices to their own building at 8001 MacArthur Blvd. and have approximately 2,000 sq. ft. of second floor office space available for rent to a firm of architects or engineers. Further details are available from Mrs. Dobres at the chapter office, or from Mr. David Yerkes at 365-7200.

**NO  
MEETING  
IN  
JANUARY**

**EVENTS and  
EXHIBITIONS**

AIA OCTAGON

*Through December 27*  
Student Theses

NATIONAL HOUSING CENTER

*Through December 23*  
Young Americans — 1962  
Crafts Exhibit

NATIONAL GALLERY OF ART

*Opening December 12*  
John Gadsby Chapman (1808-1889)  
American Painter and Illustrator

CORCORAN GALLERY OF ART

*Through December 30*  
Sixteen German Artists  
Contemporary Paintings

PHILLIPS COLLECTION

*Through December*  
Works by Jean Paul Riopelle

WASHINGTON GALLERY OF  
MODERN ART

*Through December 27*  
Franz Kline

PAN AMERICAN UNION

Kaiser Exhibition — Paintings

SMITHSONIAN INSTITUTION

*Through December 9*  
The Daniells In India  
*Through December 9*  
The Art of Thailand  
*Through December 9*  
Contemporary Japanese Sumi-E  
Painting  
*Through December 17*  
Photographs by Richard Avedon  
*Through December 31*  
35 Years of Electron Photographs  
*Through January 8*  
Etchings and Drypoints by George  
O'Connell

*Opening December 16*  
American Art League Exhibit

*Opening December 19*  
Photographs by Harry Garfield

CONSTRUCTION SPECIFICATIONS  
INSTITUTE

*December 11, 5:30 p.m., Charcoal  
Hearth Restaurant*

Annual Christmas Party

TEXTILE MUSEUM

*Through January*



c o m m e n t

Dulles Terminal is a triumph. Unlike the M.I.T. auditorium (and unlike TWA, apparently) the walls are completely transparent. The roof really does seem to float and hover as intended. Contrary to the impression given by the newspaper photographs it is not a static structure, but dynamic and soaring. It is a building of power, done in a somber palette of black, dull gray & natural concrete.

The most impressive aspect of the building is its splendid loneliness. Americans design buildings as isolated objects, and our project renderings turn the grimiest surrounding streets into pastoral scenes. Here, though, is a free standing monument which is just that. The first view is awesome. You round a hill and there in the distance is the building — just the building. Surrounded by space it dominates the vision with an almost dreamlike intensity. This aloofness is a great part of building's monumental power, and it is essential that it be protected.

The size of the airport will keep it safe from hot dog stands and filling stations. The FAA is justly proud of its accomplishment here and will, I trust, keep all future structures visually subordinate and completely tucked away out of that all important first glimpse from the approach highway. Presumably the projected hotel has been designed within this framework. But there is a third less obvious threat to the building — the small scale “functional” clutter that any complex project brings with it. Wire mesh fences, temporary barriers that somehow become permanent, guard rails needlessly heavy or just needless, ten sign posts where one will do; all these can and will sprout up to spoil Dulles, unless the people responsible maintain a continuing attitude of aggressive concern for the appearance of the building. It is easy to say no to a hot dog stand, but not so easy to veto the clusters of KEEP RIGHT and NO STANDING signs that allegedly solve some minor traffic problem.

Dulles is now as pure and bold as any building in the country, and deserves to stay that way.

●

It was not more than seven years that writers first began to attack the American worship of the automobile. Now the disenchantment is complete (in theory,

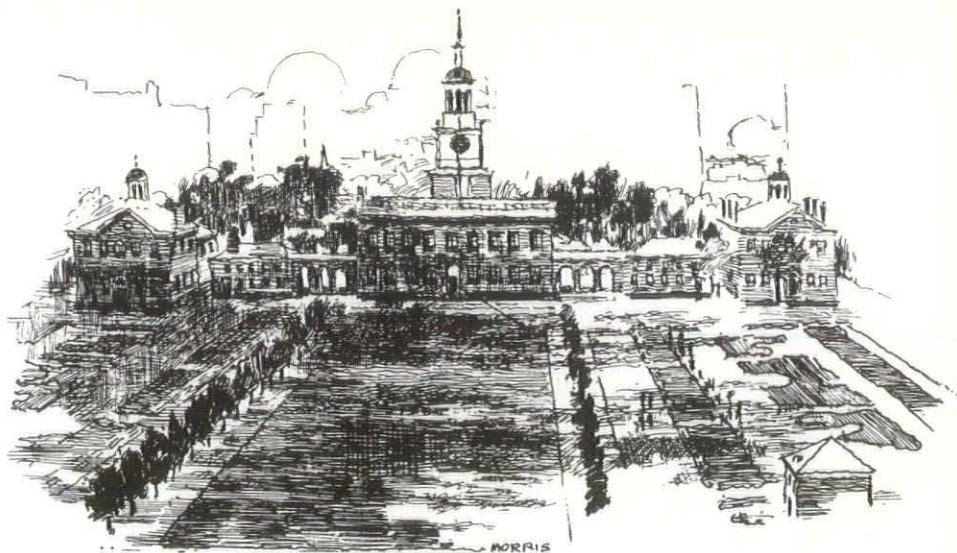
anyway) and each new planning scheme points out that it restores pedestrian scale and deemphasizes the auto in favor of mass transit. Elaborate high speed rail transportation holds for us all the utopian promise that the renderings of futuristic fly-overs and clover-leaves held for an earlier generation.

Now the harm the automobile does us is unarguable. It lines our streets with parking lots and our highways with used car lots; it tears apart neighborhoods and paves over stream valleys; it covers our landscape with billboards and our townscape with neon; and it congests not only our streets but our lungs. But it is one thing to deplore this social and visual disruption, and another thing altogether to reject the automobile as a means of transportation.

The selection of a regional transport system must stem from careful analysis of the needs (and the desires) of the projected population. Does the subordination of the highway to rail systems in current planning really result from empirical analysis, or from resentment of what the automobile has done to us? Is it possible that under some conditions an imaginatively designed highway system can be the most efficient and economical answer for urban needs?

Most transportation studies seem to be aimed at proving the “obvious” efficiency of one method, rather than at ascertaining under what conditions the various modes will be suitable. An exception is TECHNOLOGY and URBAN TRANSPORTATION, published under the auspices of the Office of Science and Technology of the Executive Office of the President. In view of the publicity this report received in the local press, we are happy to print excerpts from it this month. I hope the selection of material has not altered the intent of the authors. The abridgement here necessarily omits, among other things, the statistical evidence presented in the original.

*Robert B. Riley, A.I.A.*



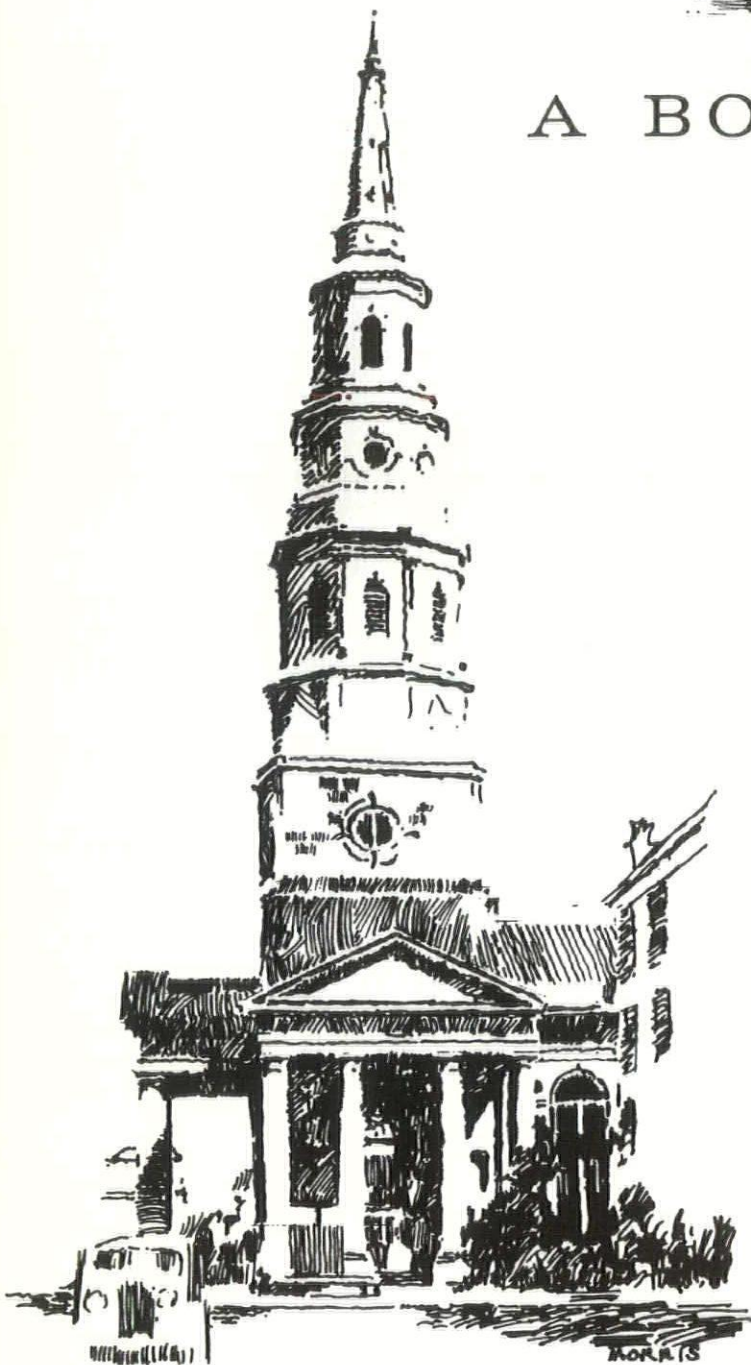
A BOOK BY

E. B. MORRIS

Edwin Bateman Morris, Sr., F.A.I.A. is assembling into one volume the booklets about cities he has distributed to architects from time to time, the volume to be called PEN AND INKLINGS.

As architects may remember, this material is concerned with large and small cities, with their tall structures and small structures, with possibly frisky hours and whiskey sours, with marbled fronts and garbled fronts, and other pleasant urban things.

The book will be plastic-bound to lie flat and exhibit the drawings to best advantage. The price of the book is to be \$3.00, and copies will be available about the first of the year.



# My Blight is Your Profit

by JOHN CROSBY

Oscar, you finally managed it and I'm proud of you, and the entire Acme Paper Thin Apartment Construction Company is proud of you, too. You have succeeded in getting part of Greenwich Village named a blighted area. I don't know how you did it, Oscar. One of the lowest crime rates in the city. No juvenile delinquency. Lovely, well-kept houses! One of the decent neighborhoods in New York and yet you managed to get the City Planning Commission to designate it a slum. If they gave medals for lobbying, Oscar, I'd certainly nominate you for one.

Of course, it's not going to be easy bulldozing Greenwich Village into submission. That area is full of 100-year-old houses and they made the walls mighty thick then. If there's one way you can tell a sub-standard house it's by the thickness of its walls, the heights of its ceilings, the spaciousness of its rooms and the reasonableness of its rents.

Wait till they see the modern housing we put in there to replace those old sub-standard houses! We'll build 'em some real lovely modern eighteen-story apartment houses with ceilings six feet high, with eight-by-ten-foot rooms. We have a brand new modern wall material made of tissue paper and reprocessed glue that is guaranteed to last almost six months. Provided it doesn't rain. The rents will be strictly modern—\$400 to \$500 a month. Nothing sub-standard about our rents.

In fact, Oscar, you might say that the surest and quickest way to tell whether a dwelling is sub-standard is whether it brought any profits to Acme Paper Thin Apartment Construction Company.

But we mustn't rest on our laurels, Oscar. We must press forward to greater things. We must create other blighted areas, other slums, and I have a perfectly splendid suggestion. Georgetown, right in the heart of our nation's Capital. Georgetown is just as much a blighted area as Greenwich Village and largely for the same reasons. It's full of 100-year-old houses — just about the oldest houses in Washington are in that area — and you know how easy it is to get the urban renewal people to condemn anything that's old.

Now what else? Well, it has "mixed use," a lovely convenient phrase. Actually that just means there are working places there and stores where people can shop conveniently instead of having to travel fifteen miles to a shopping center, which is the modern way of doing business. Georgetown hasn't as much "mixed use" as Greenwich Village but maybe enough to bring in the bulldozers.

Anything else that we could put on the application to the urban renewal people? Oh, yes, Georgetown also has an "obsolete street pattern." Isn't that a marvelous phrase? Even the alleys have been made into streets with cute little houses in them. Terribly obsolete. You and I know that the new modern thing is the super-block — like Stuyvesant Town and Peter Cooper Village where they just had the rape case because they couldn't police the area. The super-block has lots of grass and trees, as well as lots of rapes and muggings.

"The "obsolete street patterns" like Georgetown or Greenwich Village have a very low crime rate because the streets are so well traveled that the muggers can't operate. We've got to fix that, Oscar.

Of course, we'd have to relocate the people who have houses in Georgetown while we tear the place down. President Kennedy is already relocated up on Pennsylvania Ave. (that's a lovely word for kicking people out of their houses — relocated), but his brother, Robert, lives there and quite a few Congressmen. They might cause trouble because they're Congressmen. So maybe we better go slow in Georgetown.

Otherwise, there's no limit to what we can do, Oscar. We can go into any decent neighborhood in the country and declare it blighted. That way we can get our hands on real estate that nobody would sell us otherwise. With city condemnation powers to kick out the people and Federal money to put up our lousy — I mean modern — apartments, we cover the country with rotten—er, modern — dwellings that I absolutely guarantee will be slums in another twenty years.

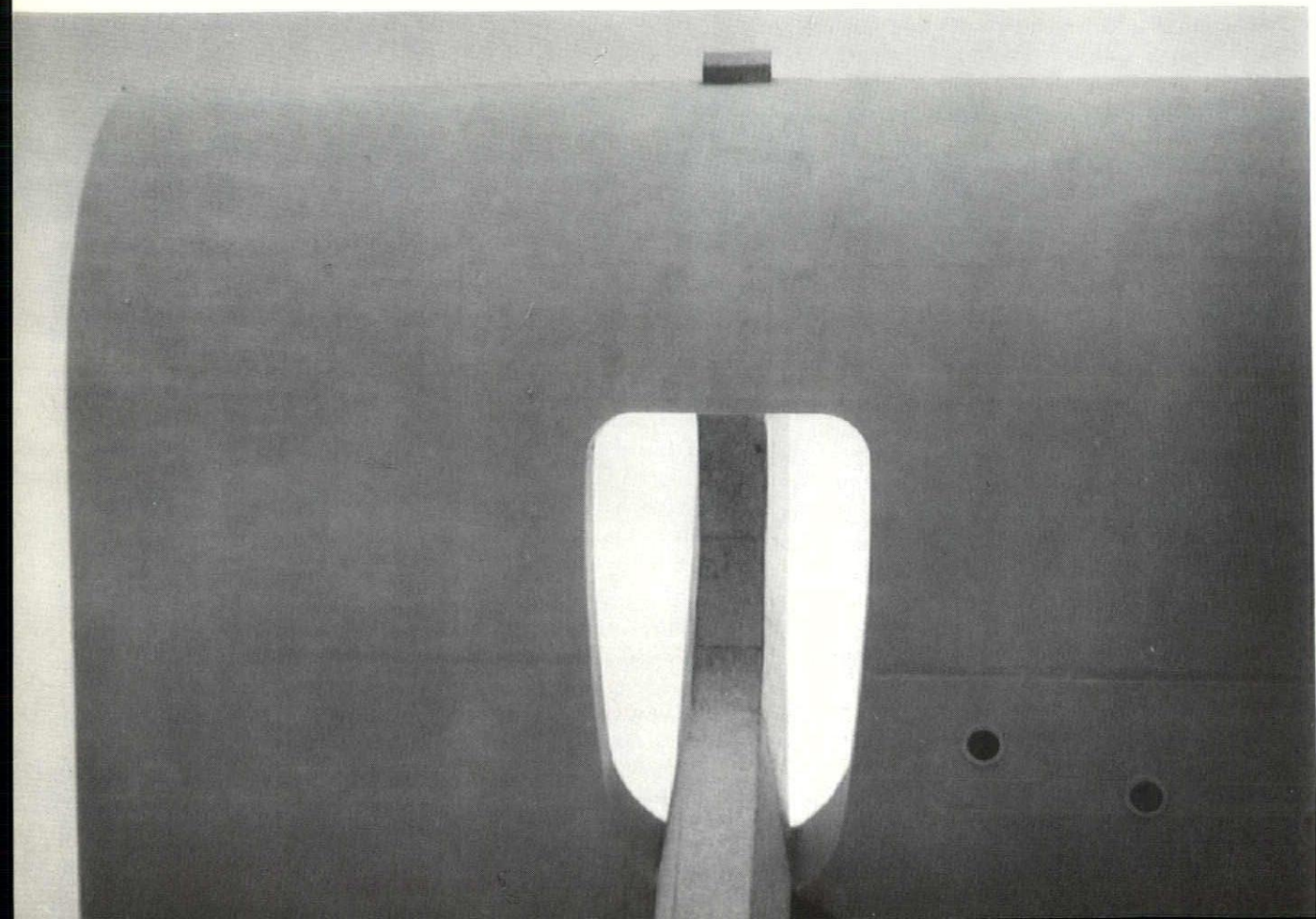
But there's one mistake we must avoid, Oscar. Let's stay out of the real slum areas. Everyone knows that New York City is loaded with real slum areas — Harlem, for instance — crying out for decent housing. But no one wants to live in those areas and it simply isn't good business for Acme Paper Thin Apartment Construction Co. to build apartments in real slum areas. We must head for the best part of town — Brooklyn Heights, Greenwich Village, Gramercy Square, and get those co-operative people down at the City Planning Commission to declare them blighted areas. Ringing phrase, that.

As a matter of fact, the City Planning Commission has declared them all blighted areas already. What's left? Well, there's Park Ave. We might get that declared a blighted area on the noise level, which is appalling. Maybe we could tear down the Waldorf-Astoria and put up a modern dwelling there with no walls at all.



# IMPRESSIONS OF DULLES

*Photographs by Robert B. Riley*



# Technology and Urban Transportation

By

JOHN R. MEYER, Harvard University; JOHN F. KAIN, The Rand Corporation  
and the Air Force Academy; MARTIN WOHL, Massachusetts Institute of Technology

It has been almost endlessly stated of late that "Americans are becoming an urban people" and at least one consequence of this process of urbanization is that transportation of people and goods into and out of cities increasingly has become a matter of great public concern. Urban transportation problems have been and are very much discussed today both in learned and popular journals. Much of this discussion and concern has focused on the possibilities of using new, sometimes dramatically new, technologies to improve the quality and performance of urban transport in American cities. Unfortunately, these discussions have all too often been conducted in isolation from any consideration of the economic and social forces that are today shaping the development of U.S. cities. Clearly, some perspective on the environment within which any new technology must operate is essential to evaluating its feasibility and potential.

In sum, improvements in transportation and communication technology, both recently and historically, have tended to make one piece of land increasingly like another piece of land as a location site. Superimposed on top of this "negative influence," reducing at least the relative attractiveness of the central city, is the further fact that some recent changes, particularly in passenger transportation and the layout of manufacturing production, have tended to make unencumbered open spaces, usually found only at the outskirts of a city or beyond, positively advantageous for certain activities. The ability of Americans to afford decentralized residential locations and private yards as their incomes have risen has further strengthened the trend toward urban dispersal. While these decentralizing influences are counterbalanced to a certain extent by other developments, particularly in the performance of control functions, the net effect would appear to be toward dispersal for most American cities. It should be noted, moreover, that these underlying forces for decentralization would

be operative independent of any public policy influences since they are attributable to fundamental changes in technology, income levels and consumer tastes. That public policies, such as the FHA program and possibly inequitable tax burdens for central cities, may have reinforced or accelerated these developments is mainly relevant in evaluating the rate and not the direction of change. Similarly, the operation of these forces would seem to be quite independent of whether or not public transit exists or did exist in a city; indeed, considerable empirical evidence to this effect will be offered subsequently.

Quite naturally, changes in the economic structure and locational patterns of cities exercise a profound influence on the market for urban transportation services. As employment opportunities and residences move toward greater dispersion and lower densities, the trip pattern, particularly of journeys to work, has significantly changed. The pattern has become increasingly criss-cross in character and balanced in flow and decreasingly dominated by high volume movements into and out of central employment locations. Today many people travel out from the city to work in the morning as well as in and, of course, reverse the procedure at night. The economic pertinence of these changing patterns, lies in the fact that mass transit, particularly rail mass transit, to be efficient needs a mass market and is at its best when meeting demands concentrated in a few channels. These conditions are most easily met in high-rise, population-dense or congested cities and when population opportunities are concentrated at some one or few central points.

While it often is asserted that highway oriented urban transportation systems are the undoing of cities and, conversely, that mass, or better, rapid transit their salvation, there is little historical evidence to support a conclusion one way or the other on this issue. Closely related to the argument that transit is the salvation of the city is the notion that the availability

of public transit creates high urban densities. This argument also finds only limited support in the historical evidence.

In sum, the availability and use of transit does not seem to be a sufficient or a necessary condition for creating density or downtown growth and, conversely, provides no major retardant or preventive to the development of new employment opportunities in the urban ring. Other factors seem much more important in determining urban growth patterns. Also, however interpreted, the available data strongly confirm the impression that employment opportunities in the city are becoming increasingly dispersed, both relatively and absolutely, modifying the demand pattern, in turn, for urban transportation.

Excessive despair about urban transportation may be more a reflection of a failure to realize anticipations or aspirations than of reality and also of a lag between effectuation of an improvement and its public realization. In several important respects, in fact, performance of urban transportation systems recently has held constant or improved, particularly in the last seven years when highway construction began to accelerate and the rate of growth in the automobile stock declined. For example, comparative travel time studies made in Washington, D. C. in 1947 and 1954 show virtually no change in peak hour commuting time from the CBD<sup>o</sup> despite a large increase in automobile travel and no large scale highway construction. As a much greater proportion of Washington commuters are using private autos, and as travel times by auto have been better than those by public transit in Washington during any time period — prewar, wartime, or postwar — this means that the average level of performance as measured by commutation time in the Washington urban transportation system has probably improved.

The observation that as soon as the freeway is open it invites more traffic is often correct. The conclusion that it results in the same pattern of congestion and delay on a larger scale is just as certainly incorrect. Those who observe the freeways fail because they become congested and operate below designed speeds during peak hours are taking an extremely narrow view. One of the characteristics of the highway system and of commuters is that they are highly adaptive. No part of the system, so long as capacity is constraining, will operate at a higher level than any other part of the system. Motorists will use a new freeway to the point that its speed and delay are equal to those on paralleling routes. Those who accept immediate peak hour congestion of freeways as evidence of their failure are overlooking highly important system effects.

In essence, while prior to the second World War the limited access highway was practically unknown, today it is possible for the urban motorist, using such facilities, to pass through or cross large sections of high density urban areas at speeds of 40-50 miles per hour during midday or late evening, and to do

<sup>o</sup>i.e. central business district.

so at average speeds of from 25-40 miles per hour during peak hours. This is a level of speed and convenience hardly conceived of by prewar urban motorists. Why, then, is there so much concern and dissatisfaction with urban transportation in today's urban areas?

There would appear to be at least two sources of dissatisfaction. First, there exists a ratchet or demonstration effect. Having experienced travel on limited access facilities during the off-peak, the urban motorist establishes this as his aspiration level and compares peak-hour delay and congestion with this norm rather than with prewar or immediate postwar peak hour driving conditions. Secondly, there exists a sizeable number of persons who rely on public transportation either because they do not wish to pay for the amenities which make the private automobile attractive to the majority of urban consumers, or because they cannot or do not wish to drive. The wholesale abandonment of public transportation by his fellow consumers has resulted in a deterioration of service, especially frequency of service, which the transit rider finds annoying and which in many cases works a personal hardship upon him.

Furthermore, the problems of the transit rider also have been complicated by other economic, social and technological developments in our society, implicit in the preceding analyses but worthy of explicit treatment. For example, a major implication of what precedes is that in the future, there will be increasingly fewer manufacturing and other blue collar employment opportunities located near the center of cities, while an increase will occur in the same area in both the aggregate and relative share of higher grade white collar employments (especially in regional or national headquarters cities), and in the employment of people attached to hotels, restaurants and similar service industries.

These shifts in relative employment opportunities for different income groups at different points in the city also should have important implications for residential location choices. For example, the area just around the core of the central city, in spite of decay and slums in many cases today, normally would be expected to become more attractive as residential sites for higher income groups if these groups are increasingly employed in larger relative and absolute numbers in the central city. The degree of this attraction would be expected to rise, moreover, as the city itself grows in size, since the disadvantages of country residences, for persons employed in the central city should increase as open country lies further and further away from the CBD. However, all this assumes the existence of no constraints, social or otherwise, on choice of residential location and, in particular, no important residential choice problems created by the existence of large minority groups being resident in a city. Viewed realistically, however, the forced entrapment of new immigrant minority groups into areas of high residential density just beyond the city core, and areas that would other-



wise be expected to appeal as residential sites to the higher income groups employed in the central business district is likely to retard the development of higher income residences in these areas. There is considerable evidence that higher income groups, particularly those with large families, feel "compelled" to make the long trip from the very periphery of metropolitan areas into the center of the city as a means of achieving social and racial segregation, better schools and other "amenities" that they feel they only can find in areas well removed from the city center. Similarly, the enforced clustering of minority groups is also likely to influence the residential location decisions of secretarial, and other skilled but lower paid, workers finding employment in the core area, generally forcing these people out further than they might otherwise choose to live.

Given these trends, the demand for transportation into the downtown area increasingly should originate with two or three rather heterogeneous groups: included would be high income managerial personnel, medium income secretarial and similar white collar workers, and lower income employees working in the service and retail industries remaining in the central core. If previous traditions are any indication, the major source of this latter group, the low paid unskilled labor used in the downtown service industries, is likely to be from minority groups. Accordingly, a mass transportation system of the future, if it is to be efficient, should cater to two very opposite poles in the spectrum of social and economic classes. On the one hand, there would be the high income executive, technical types and their secretaries; on the other, there would be the unskilled labor used in service industries and mainly recruited from minority groups. Past experience suggests that it may be very difficult to get these rather diverse groups to travel in the same vehicles.<sup>o</sup> Indeed, one might suspect that many of the higher income groups would "option out" by insisting, even if it is costly, on commuting to work by private automobile.

Some cynics, in fact, have described the so-called "crisis" in public urban transportation as that of finding means for these high income groups to economize on the amount of time and money they now spend making their long treks to suburbia in order to escape the necessity of mingling residentially with their "inferiors." The same critics would argue that dissatisfaction with presently available urban transportation is almost exclusively traceable to the special needs and interests of these high income groups. While there is almost certainly considerable truth in these allegations, at least a few oversimplifications are involved. Specifically, there are others, besides high income commuters, still riding public transit, often because they have no other realistic choice.

<sup>o</sup>An implication of all this is that it might be better to attack the housing segregation problem itself rather than attempting to perpetuate it by subsidizing additional transportation facilities for those whose travel demands are created by a search for segregation.

In light of all the trends just discussed — social, political, economic and technological — it would seem that considerable imagination will be required to provide an adequate and attractive public transportation system at a reasonable cost for the heterogeneous collection of people who probably will still require or desire public transportation services into downtown areas. In particular, the best future public system may not be *mass* transportation as conventionally conducted in the past. Indeed, there would seem to be a considerable probability that the successful public transit system of the future will be highly diversified, with special services specially tailored to meet special needs and tastes. Furthermore, both the tendency toward considerable heterogeneity in the groups to be served and toward lower employment and residential densities suggest that an economically viable public transportation system will have to be capable of operating efficiently at relatively low density and with considerable ubiquity and flexibility. Finally, and perhaps most importantly, it would seem best to *define* the public transit problem in urban areas as that of finding ways to meet these transit riders' different needs and requirements with reasonable economy and to reject those approaches to the public transit problem that place the emphasis upon reshaping the city and its growth pattern to suit certain aesthetic tastes of particular groups. The latter approach not only raises issues of political philosophy and morality in a democratic society but also is likely to be self-defeating, for the technological forces at work reshaping our cities are numerous and not observably very sensitive to manipulation or modification by the presence, or lack of presence, of public transit.

The first point to be stressed about the urban passenger transportation market is that the choice between different modes of travel depends at least as much on the quality of service as on simple cost comparisons. The popular literature on urban transportation abounds with irrelevant statements to the effect that public transportation is considerably cheaper than private automobile transportation because ten times as many people per hour can be transported over the same amount of land in rapid transit vehicles as in private automobiles. Those stating these views consider it self-evident that public transportation is therefore to be preferred to private transportation in American cities. Clearly overlooked, for example, is the role of free consumer choice in our society. The "freight" being transported in intra-city passenger transportation happens to be the human consumer himself and he might very well find that the improved quality associated with the more expensive form of transportation is well worth an extra price.

Having asserted that demand characteristics play an extremely important role in the proper determination of an intra-city passenger transportation system it must be immediately admitted that remarkably little is known about these characteristics. However,

at least four seem to be of special importance to consumers. These are: (1) speed; (2) convenience, particularly the frequency of the schedule; (3) privacy; and (4) comfort. The relative importance of these different characteristics will vary sharply depending upon the purpose of a trip. In this connection, at least three major purposes are usefully and readily identified: (1) home to work or school commuting; (2) shopping; and (3) recreation. For commuting the major service emphasis seems to be on time in transit and only to a lesser degree, depending mainly upon income, on convenience, privacy and comfort. For shoppers, by contrast, convenience seems to be the most important single characteristic, especially if auxiliary freight carrying capacity is included as one of the dimensions of convenience. For recreational travel, speed also seems to be of lesser importance while convenience, privacy and comfort are all highly valued. It therefore seems highly probable that shopping and recreational travel will usually be dominated within all but the very largest cities by private automobile travel. Commuting, on the other hand, is likely to present a much more complex and diverse picture. If the costs of private automobile operation are not too prohibitive, either in terms of money or traffic congestion, it seems that even for commuting a preference will exist for travel by automobile but if the cost of automobile commutation is quite high, as it seems to be in some of the larger cities, public transportation facilities might be expected to exert a relatively greater attraction.

However, even more basic than the time, space and modal choice profiles in defining urban transportation markets is the simple matter of determining just what the overall or maximum volume of transportation requirements is likely to be within an urban area. This factor is important, of course, for the simple reason that the relative efficiency of alternative transportation modes varies widely depending upon the volumes or channel capacities that are required. Of course, making a determination of maximum volume requirements almost immediately involves some specification of the time profile since, as will shortly be revealed, the maximum volume requirements are usually limited in urban transportation to a very small portion of the total work day and an even smaller portion of the total week.

A systematic collection and analysis of the data available yields the finding that these maximum hourly volumes for the major U.S. cities are surprisingly low. At any rate, there exist a few absolute capacity shortages in American cities if highways entering the CBD were to be employed at levels even remotely approaching maximum efficiency. In fact, U. S. urban areas seem to possess substantial reserve highway capacity, and, additional capacities in many instances could be obtained with moderate capital expenditures for signalization, widening of intersections, parking control, etc. The aggregate level of demand for transportation into CBD's would ap-

pear, then, to be within easily manageable proportions except in the very largest U.S. cities.

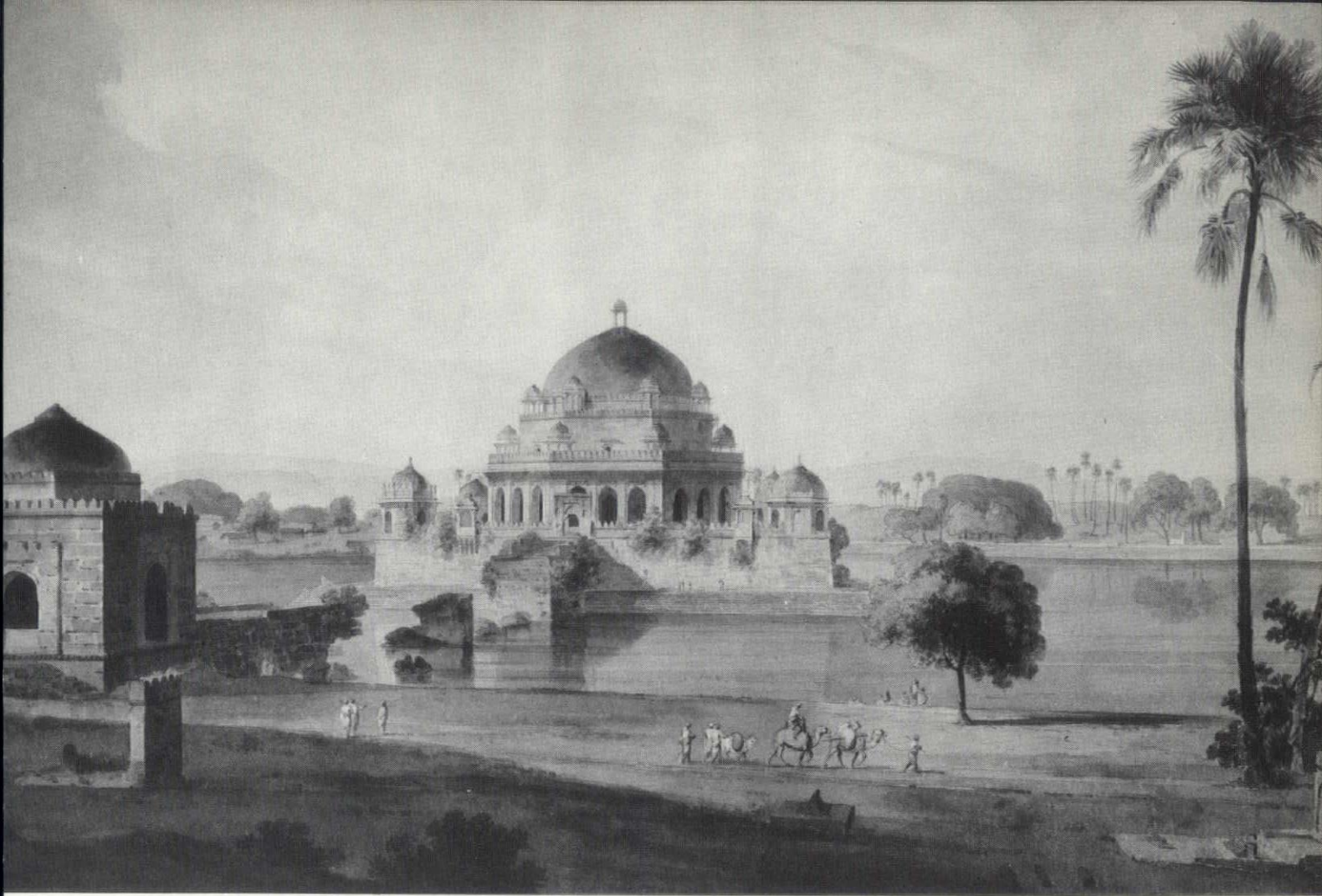
A large and rising proportion of transit trips are to or from work. Only a tiny percentage of social and recreational and only slightly larger proportion of personal business and shopping trips are or probably will be made by transit. Transit trips for purposes other than work will be made mainly by the few who cannot afford, cannot drive or do not wish to drive. As noted previously, provision of public transportation services to this group represents a serious challenge but of a much different nature from those encountered in the past. Answering this challenge adequately will require imagination, wisdom and experimentation with new techniques.

This specialization in work trips, interacting with the hourly distribution of demand for urban transportation services by various purposes and the increasingly dispersed spatial aspect of these demands, is the basis of most of today's public transit problems. Work trips are subject to very substantial peaking, while shopping, personal business, recreational and social trips are made predominantly during off-peak periods when substantial excess capacity usually exists in the urban transportation system.

To the deleterious effects on public transit of the decreased off-peak utilization for weekdays should be added an even more pronounced shift in weekend travel. By contrast, while Saturday and Sunday transit use has virtually disappeared, weekend use of the private auto has increased steadily. This has reached the point where peak utilization of some portions of the highway system occur on Saturday and Sunday, particularly in the larger urban areas.

In short, the transit industry's problems are to a large degree the result of increased parking caused by greater functional specialization. The result has been an increase in the costs of providing transit service per ride as the transit systems have been forced to provide greater quantities of excess capacity or as their existing capacity is less well utilized. This deterioration has been most serious for grade separated rail facilities. By contrast, bus transit systems have been least in need and best able to adapt to the changes. Meanwhile, the automobile's time profile has in most instances become less peaked. The off-peak use of highways by autos, especially of limited access highways and other superior facilities, has steadily increased during the post-war period.

Herein lies a suggestion as to the probable best economic solution of the urban transportation problem — further improvement of the capacity utilization of highway systems. Specially desirable would be better peak-hour utilization of these systems in terms of passengers carried. One obvious procedure for achieving this end would be to redesign the public transit system to make better use of highways and in the process provide a more flexible, ubiquitous transit system capable of providing service to those unable or unwilling to purchase and use private transportation.



*omb of Sher Shah, Sasarom, Bihar"*

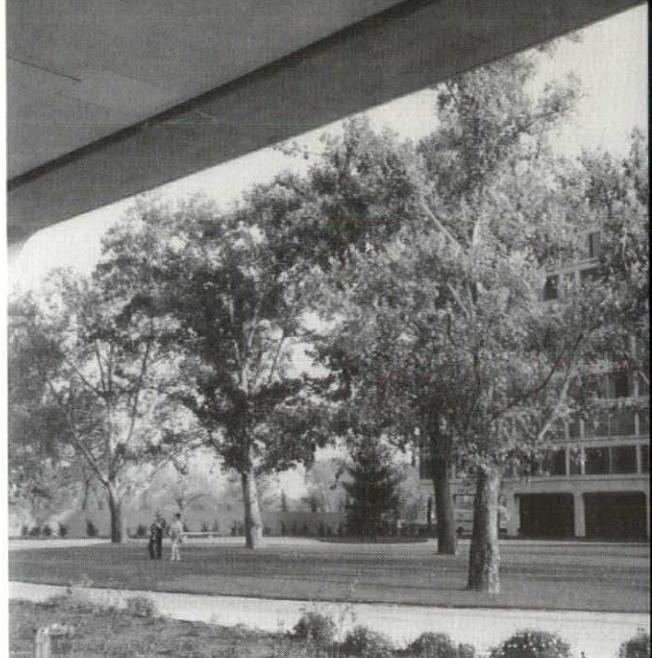
## VISIONS OF INDIA • The DANIELLS

Thomas Daniells and his nephew William were English artists of the late eighteenth century who travelled extensively in India and were among the first European illustrators of its scenes and buildings. Their work constituted the most important single influence on an entire generation's conception of India, a strange and little known land at that time, and their paintings and publications had a major influence in creating that vogue for the exotic which continued throughout the nineteenth century in England and produced such buildings as the Brighton Pavilion. They used the technique of the day: first making a rapid pencil sketch, followed by a monochrome wash on which color was placed. Their watercolors are characterized by all the popular elements of the picturesque: misty backgrounds, crumbling ruins, rugged hills and waterfalls, lush vines and mossy stones . . . the whole enframed by foliage.

An exhibit of fifty of the Daniells' watercolors, assembled by the Smithsonian Institution Travelling Exhibition Service, has been on display at the Natural History Building in Washington, and is available for nationwide circulation. The watercolors are from the collection of the Pacific and Orient Navigation Co., London.

*"Hindu Temples of Agori, U.P., beside a banyan grove"*

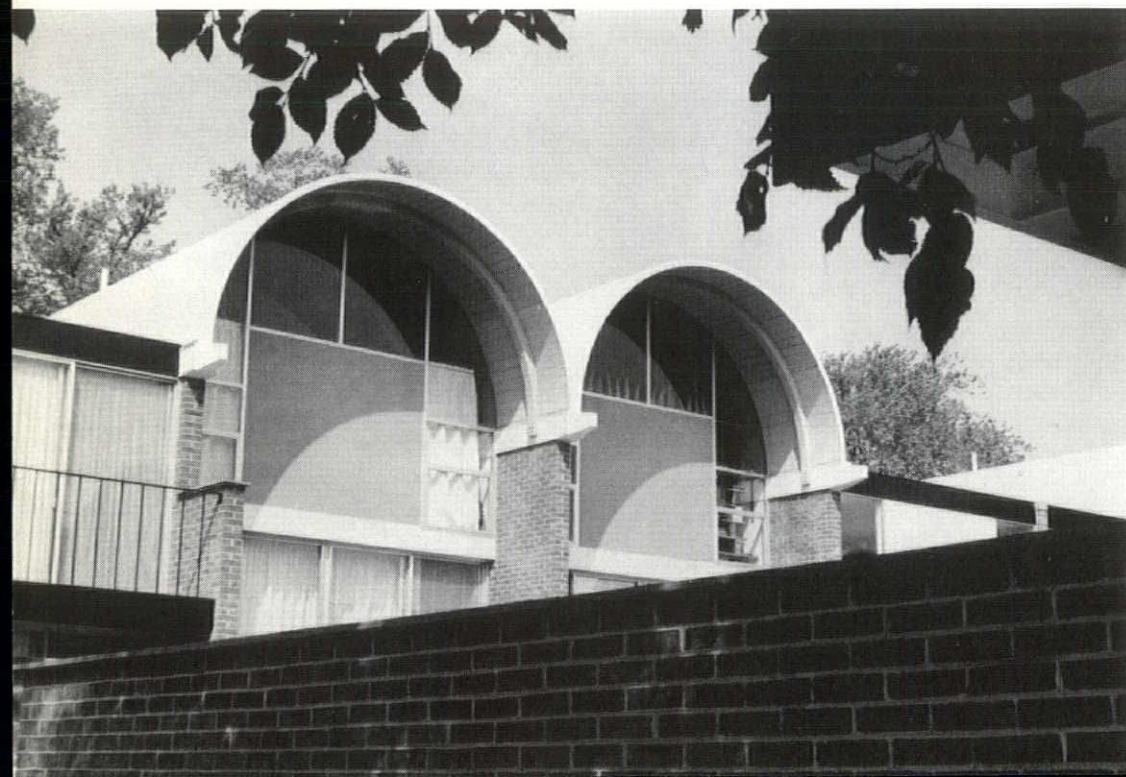


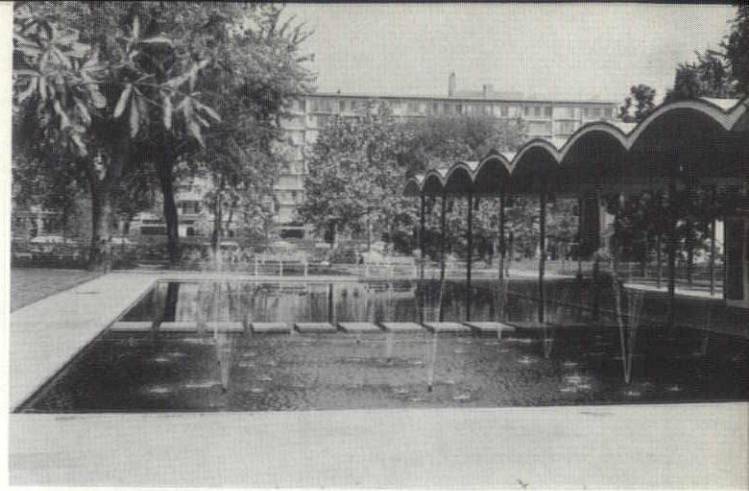


# SOUTHWEST

progress photographs

*A few snapshots taken on a random walk through the Southwest Washington redevelopment area. Photographs by Neil Greene and Robert Riley.*





OPPOSITE PAGE

*Top left, and bottom*

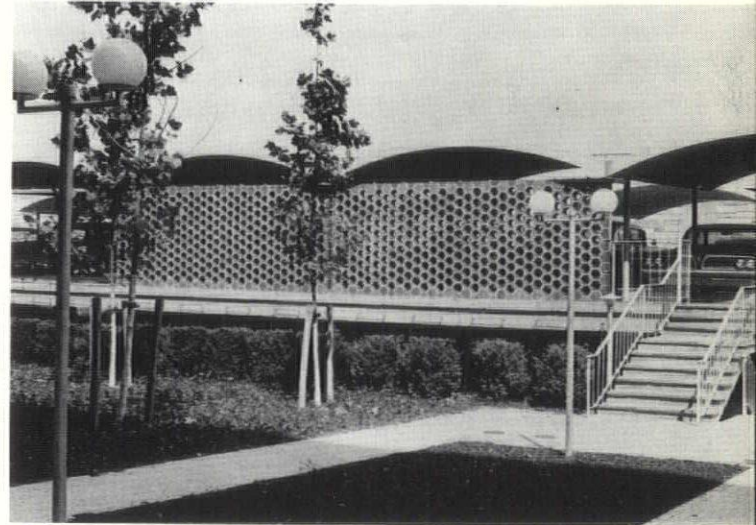
RIVER PARK  
CHARLES GOODMAN, Architect

The town houses as seen from the pedestrian ways

*Top right*

CAPITOL PLAZA  
I. M. PEI, Architect

A view from the arcade of the north building. South building is seen across the court.



THIS PAGE

*Top left, top right, center right*

CAPITOL PARK  
SATTERLEE and SMITH, Architects

New apartment building.

Mall and reflecting pool.

Double deck car park buffering apartments from Expressway.

*Bottom right*

ARENA STAGE  
HARRY WEESE, Architect

Street view



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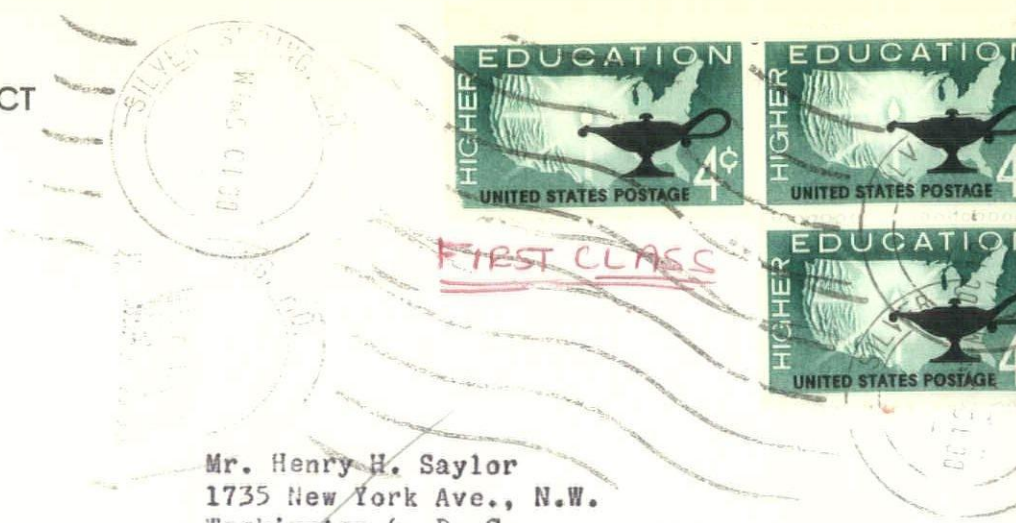
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