AT THE BEGINNING ....

by
Stanley Nance Allan FAIA

Delivered to the Chicago Literary Club
October 22, 2001

At the beginning ...

This year we are celebrating the 25th anniversary of the Washington Metro System. Retrospective remembrances reveal the sequence of decisions which, at the beginning, established its planning, architectural and engineering design destiny.

A PRESIDENT BALANCES PRIVATE AND PUBLIC TRANSPORTATION

President Eisenhower who personally fostered the creation of the interstate highway system after WW II, signed the congressional legislation in 1960 which created the National Capital Transportation Agency the (NCTA). The NCTA's task was to study the feasibility of building a rapid rail transit system in Washington. At the same time to help facilitate this effort, Mayor Walter Washington and Transportation Secretary William Coleman Jr. converted two billion dollars of interstate highway funding destined for unwanted highways in the District into seed money for the new transit system.

In searching for a strategy to achieve the best possible architectural and engineering design solution for this important public works project the NCTA made an unprecedented policy decision. They decided to negotiate separate contracts with the architect and engineer. This cleared the way for each of them to express their individual talents, while acting as co-equals, reporting directly to the NCTA and charged with the mandate to coordinate their work.

This historic decision, unique for a major public works project, emerged as a result of ongoing discussions among a number of intellectuals, prominent architects and leaders of cultural institutions in Washington during the nineteen fifties. These individuals aspired to find ways to achieve a high quality of architectural and urban design for Washington. Joining in this ongoing dialogue were Darwin Stoltzenbach, John Rannells, Paul Thiry, Nat Owings, Henry Dreyfus, Fritz Gutheim, Karol Yasko, Charles Horsky, William Walton --- and later by President Johnson.

The NCYA heeded the wisdom at the heart of their sage reasoning. It realized the importance of giving their architect independent responsibility to design transit stations commensurate with the context of the dignified and historic urban setting of our nation's capital.

Late in 1965 the NCTA completed the formulation of a program to plan, design and build a 25 mile rapid rail system with 25 stations, all located within the District of Columbia, with a construction budget of $435,000,000.

CONSULTANT SELECTION PROCESS

Early in December 1965 the NCTA selected the prominent Chicago engineering firm of DeLeuw Cather & Company as their General Engineering Consultant, the GEC. The NCTA then initiated a selection process for their General Architectural consultant, the GAC. They mailed a seven page RFP to thirty architectural firms, nationwide. Written by the NCTA's chief architect John Rannells and his consultant architect Kent Cooper, it described a well-thought-out and comprehensively detail design program, setting the stage for a project of this magnitude.

The inherent implications of the RFP appealed to Harry Weese's far ranging frame of mind. Working against a December 31st submittal deadline, he began a ten day evolving thought process in close collaboration with his brother Ben and Jack Hartray. Together they formulated several drafts of a response, defining their understanding of the project. Proto-designs for each type of station .... those below grade, at grade and above grade would be the way to proceed, each station site adapted. A carefully scripted five-page letter was fashioned portraying their clear vision of the process. It closed with an indication that the firm would consider it a privilege to dedicate a sizeable amount of its capacity to insure the project's conception, design, detailing and construction over the years it would take to complete.

The NCTA received seventeen responses from among the thirty firms approached. Much later-on we learned from the client that the Weese letter was the only one which laid out a detailed understanding of the tasks at hand. The letter was an adroit use of the English language to effectively convey a clear sense of purpose.

The NCTA decided to interview architects Weese----Whittlesey, Conklin & Rossant----Keyes, Lethbridge & Condon----John Carl Warnecke and Clotheil Smith

THE WEESE INTERVIEW

Harry Weese and Stan Allan went to the NCTA interview on the afternoon of February 6th, 1966. It was conducted by the administrator, Walter McCarter, accompanied by his deputy Warren Quenstedt, architect John Rannells, planner William Herman, chief engineer Howard Lyon, public relations chief Cody Pfanstiehl, and architectural consultant Kent Cooper.

Mr. McCarter opened the session dispensing with any formal presentation by us, which was all to the good as we did not have one, not even a copy of our convincing letter. Over two hours were spent in a wide ranging discussion which was really a conversation, speaking about the quality of current rail transit in Washington and the need for a modern system .... veering off to reference of the state-of-the-art of the systems in London and Paris .... and elsewhere .... coming back home talking about the systems in Boston, New York, Philadelphia, and of course, Chicago where Mr. McCarter had previously been the General Manager of the CTA.

The interviewers were attracted by Harry Weese's genuine interest in the people who would be riding the system .... designing for their safety, comfort and ease of orientation in the stations .... no dark corners or long passageways .... open attractive spaces .... durable and handsome materials .... dignified formal urban structures suitable for the nation's capital. These and a wide range of other ideas were discussed during this stimulating inter-active brainstorming session. Harry Weese's articulate grasp of the issues, expressed with his personal charismatic enthusiasm impressed the client .... in fact they were captivated!

The NCTA review board submitted their final evaluation of the five candidates to Mr. McCarter, recommending Harry Weese & Associates. He in turn, knowing the ways of inter-agency warfare, contacted Elizabeth Rowe, chair of the National Capital Planning Commission, and William Walton, chairman of the Commission of Fine Arts, asking them if they knew Harry and if so would they look forward to working with him. Both replied with enthusiasm, 'of course.'

McCarter knew this respect for Harry was to be crucial over the long run to support the NCTA in shaping and sustaining a delicate balance of power to insure the success of its program in the crucible of Washington.

On the 15th of February we were invited to Washington to initiate negotiations for a contract. The result was a document that encompassed four basic tasks:

1. Open a Washington office
2. Coordinate our work with the NCTA, Deleuw Cather and others as required
3. Visit a number of foreign systems around the world to become knowledgeable about the state-of-the-art of rail transit and to see what aspects of those systems, if any, would be appropriate to adapt for Washington
4. Obtain approvals from the Commission of Fine Arts for a system-wide architectural design concept for the stations.

On March 16th Harry Weese signed a contract with the NCTA.

Thereafter, based upon a review of our performance, our GAC contract was reviewed each year for the next 33 years, as was DeLeuw Cather's GEC contract.

THE WHITE HOUSE

An important influence came at this time from a previously unexpected source. President Johnson and the First Lady were interested in continuing the support of the arts so ably championed by the Kennedys. Here was an opportunity to bring an expression of their interest in the arts as another achievement of the Johnson Administration. He wrote the following letter which conveyed a rare and welcome statement of presidential enthusiasm to strive for excellence in urban design.

WORLD TRANSIT RECONNAISANCE

Within a week of signing our contract we opened a skeleton office in Washington on K street, close by our client and the GEC. We quickly prepared a detailed itinerary and made reservations for our trip overseas.

Flying out of Chicago on March 31st, Harry Weese, Bob Reynolds and Stan Allan spent the ensuring forty-two days sequentially investigating rail systems at Lisbon, Madrid, Barcelona, Rome, Milan, Vienna, Frankfurt, Berlin, Hamburg, London, Paris, Oslo, Stockholm, Leningrad, Moscow and Tokyo.

We spent from one to four days at each city, depending on their size and complexity. At each city we learned a great deal at meetings with the general manager of each system.

London, Paris, Berlin, Stockholm, Leningrad, Moscow and Tokyo being among the oldest and largest were all spectacular, each in a different way. Lisbon and Barcelona were excellent small systems, Madrid's system, surprisingly large, and packed on a Sunday afternoon at a transfer station named Sol which had five layered levels of intersecting underground lines. Milan's new system exuded an Italian flair for design, all stations sharing design continuity and great graphics. Hamburg, one of the best systems, showed us the precision of how effectively really well coordinated bus/rail interchanges worked during the evening rush hours.

Stockholm had been hailed as 'the' really upscale new European system, a city planning marvel laid out with stations downtown built in rock-hewn tunnels, ... leading to scattered outlying open air stations serving small towns. There was much to learn and remember. Previously, visiting architects had become almost poetic in describing the system's virtues. We were not disappointed. Oslo's short system had just opened, neat spartan, attractive ....

In London the extensive old system had many deep tube stations, long passageways and escalators, multi-level crossing stations, sophisticated graphics/maps/poetry, advertising galore, close headways during peak hours with packed trains and a high sense of civility amongst the passengers.

The system in Paris was flamboyant, showing elegant art nouveau station entrances, an art gallery in the Louvre station, column-free vaulted tube stations, plenty of advertising, Michelin rubber tired trains on one line (forecasting Montreal). Throughout Paris, and in London, there seemed to be a station located within 500 meters or almost every dwelling and place of business in the city.

Berlin showed us handsome state-of-the-art rolling stock, as did Hamburg, with self-operated train doors! --- coordinated rail and bus transfers really worked at peak hours --- efficiency in a quiet manner .... a utilitarian system heavily used .... one line, passed from Checkpoint Charlie for a mile or so under East Berlin. Our train moved slowly without stopping past dimly lit stations where heavily armed Soviet guards patrolled the platforms with large dogs on leash.

At Leningrad and Moscow, all stations had large impressive beaux-art style entrance buildings, lighted by gorgeous crystal chandeliers. Each of the 200' deep (bomb shelter) stations had extremely wide platforms accessed by a single bank of four escalators operating at 180 feet a minute, carrying huge crowds at all hours of the day and night. The Yellow line at Leningrad surprised us having the first example anywhere of safety trainscreens on the edge of the platforms to keep people from

falling onto the tracks (a state-of-the-art idea now in many old/new foreign systems, especially on all new lines). Trains ran precisely on 90 second headways in both systems. There was no advertising. At principle stations, communist inspired literature of all kinds was displayed for sale. In Moscow, (like the inner-city transit stations at Lyon) shallow new stations on the outskirts of the city were being built just below the surface of future streets, alongside public utilities. The stations at both systems contained major works of art, bas reliefs, large murals, impressive sculptures plus ornate architectural materials.

Tokyo's amazingly extensive System intertwined with the National Railway system serving the dense urban and far-flung suburban population. The stations and trains were generally plain and utilitarian in nature, accommodating tremendous peak hour crush crowds. Millions of paper receipts were handled daily by the staff. White gloved uniformed platform attendants crisply saluted the incoming and outgoing trains importing a very real sense of a system that 'works' well in its own native manner.

We returned to Washington with our minds filled with vivid impressions. We brought back copious notes, system literature and maps, photographs, many color slides and over fifty beautiful ink sketches drawn in-situ by Bob Reynolds, each highlighting an array of memorable station design features. He had a quick eye and a vivid memory for detail.

The effects of this comparative survey-journey transformed us from rail transit neophytes into architects with comprehensive awareness of the state-of-the-art of world-wide transit station and system design characteristics. Which is exactly what our client intended. In the following months we, together with our client, inspected the systems at Montreal, Toronto, Mexico City and San Francisco to further add to our knowledge. Later on, we traveled to study the systems at Budapest and Munich and even later at Osaka, Singapore and Hong Kong.

ARCHITECTURAL CONCEPT DESIGN

Upon our return, with Reynolds and Munson as designers, Allan as project manager and Harry Weese in the lead, we all quickly became enmeshed in catching up with the rapidly evolving progress of work done during our six week absence by our client, the GEC, the Planning Commission and others. Now, during May and June, we turned to the task of acquainting ourselves with the specifics of location, circulation and structures for a variety of station sites --- below grade, at grade, and above grade situations, working closely in concert with the GEC and others.

By the end of June we had developed a firm understanding of the best functional

characteristics of direct circulation for patrons between the surface and the platforms, at both side and center platform stations. We acquired a grasp of the scale of station spaces required to properly accommodate large numbers of patrons at peak hours entering and leaving eight car trains on 600 foot long platforms.

The best way to provide the ultimate sense of safety and ease of passenger orientation called for column-free structures at all below-grade station trainrooms, with fare collection mezzanines within the trainrooms, connected by escalators to and from the platform(s) and to the surface.

ARCHITECTURAL DESIGN CHARRETTE

Over the 4th of July weekend a three-day concept design charrette took place in the studio at Harry's country home in Barrington. He began drawing with a non-stop surge of energy, employing his customary flowing and witty freehand ink-line work, touched with magic marker colors, turning out seventeen design sketches/perspectives clearly portraying his proposal for the architectural concept for the stations. The information on one drawing after another flowed effortlessly apace, none cast aside, each beautifully conveying an unfolding realization of his design rationale accumulated over the range of collaborative experiences, during the past four months.

URBAN DESIGN IMPLICATIONS

In addition to the drawings, Harry composed a thirty-one page document entitled 'Concept Design For The NCTA.' He had always been inspired by Daniel Burnham for the genius of his master planning in Chicago and in Washington. Harry thought about the special urban qualities of this capital city. He knew building a rail transit system from scratch in Washington would introduce large-scale physical elements into the existing fabric. This undertaking must be considered carefully and guidelines stated at the outset. He wrote:

> "The system for Washington should not be like any existing system. It will have qualities in common with many, but it will find it's own character. This is inevitable, but the process must be guided. The concept design is this guide. The point of view behind concept was simply stated.
>
> 1) the capital city is a uniquely beautiful and planned city.
> 2) the system for Washington belongs to all of the people of the nation.
> 3) it should reflect the highest state of the art appropriate to this setting.

4) it should help the city and its metropolitan area to grow in an orderly and planned way and undergird the economy.
5) it should attract and hold an increasingly large section of riders by virtue of the excellence of its service.
6) it should add to the appreciation of environment in the daily lives of its users.
7) it should in every way look like a system because of its unified design."

CONCEPT PRESENTATION

Our July 6th presentation in Washington was received with great interest by John Rannells and other senior NCTA officials. They were please with their architect's point of view and his comprehensive ideas for the entire scope of the work. At this point the NCTA essentially adopted our system/system architectural concept. They instructed the GEC to enfold it within the framework of their multi-disciplinary engineering work for the stations, including the budget.

We started to apply these concept principles to site-specific stations to give each one functional unity, structural configuration, visual form and identity. Most importantly, we were to begin to develop a sense of a unified image for all of the stations. Exposed structural concrete, white granite, bronze, red quarry tile and glass were to be the palette of materials system wide .... principal vertical circulation to be by escalators .... no stairs .... elevators for the handicapped. Indirect lighting would illuminate the column-free coffered vaults of the trainrooms. Side or center platforms were to be 600 feet long to accommodate eight car consists, ultimately running at ninety second intervals.

STATION DESIGN DEVELOPMENT July '66-October '67

We proceeded to apply and adapt the details of the design concept to the five below-grade stations and one above grade station scheduled to be built first. There were a seemingly endless number of internal coordination meetings with the NCTA, the GEC and numerous agencies, plus public hearings to obtain approval of station site planning proposals.

To properly manage the twenty architects in our Washington office .... to be on call and at the right hand of our client .... to attend numerous meetings each week including public hearings in the evening .... to coordinate our work with the GEC and others .... to cope with all of this Allan and Reynolds moved to Washington early in

1967.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

In June of 1967 an historic agreement called the Compact was signed by the eight contiguous political entities of Virginia, Maryland and Washington creating the WMATA. It's Board of Directors was authorized to plan, design, finance, build and operate a 101 mile, eighty-six station regional rail system, with a budget of $2,500,000,000.

The stimulus behind the successful planning, design and construction during these early years was undergirded by .... a unified fundamental clarity of purpose directed by the regional Compact Agreement .... the inspired leadership of general manager Jackson Graham during the first nine years of design and construction, 1967 to 1976 .... tenacious leadership by successive WMATA Board members .... and continuous supporting funding by the Congress and local governments even as the budget estimates for the system continued to rise from 2.5 billion to 3.8 billion during that timeframe.

COMMISSION OF FINE ARTS AND WMATA APPROVALS

On October 17th of 1967 Harry Weese presented to the Commission his architectural concept for a proto-typical below-grade station, of which there were to be 45 out of the total of 86 stations. After the presentation and ensuing internal discussion Chairman William Walton invited the WMATA Board members and General Manager Jackson Graham, to enter the meeting room to hear comments expressing their enthusiastic approval. Walton said "We think this is a magnificent new design and it is what we have been talking about all of the time." Influential Commission member architect Gordon Bunshaft said "Harry, I think the shell is fabulous. The form that has evolved is quite beautiful and is not easy to do, either .... it is one great big piece of sculpture .... I think the system will be dignified and appropriate for the capital of this country."

On October 30th Jackson Graham, responsible to the Board to give his recommendation for such a momentous decision, presented a brilliantly crafted Memorandum recommending approval of the Weese concept design. It stressed two crucial attributes, the Commission of Fine Arts enthusiastic approval, and equally important, for practical reasons, it received endorsement by an independent engineering consultant's construction cost analysis which clearly determined that the vault design was more economical than other competing clear-span structures .... both

of these were fundamental criteria for winning the Board's approval! As usual, his respected judgement carried great weight.

On November 17th 1967 the WMATA Board approved the design concept. Ground breaking for the construction of the first stations occurred two years later in December of 1969. Revenue passenger service commenced between the first few stations seven years later, in March, 1976.

PRESENT AND FUTURE EXPECTATIONS

So far over three billion passengers have enjoyed the use of the Metro. Patronage is increasing, swelling oven more recently due to the opening of the final five stations on the Green Line. An addition station at New York Avenue on the Red Line will soon be under construction. Parking structures are being built at outlying stations in response to the demand of suburban dwellers who prefer to ride rather than drive. New stations are under construction at New York Avenue, Summerhill and Largo will increase access to Metro. New lines are being planned, especially one needed to connect Dulles airport to the city.

A fourteen station circumferential Purple Line is being studied, to be built contiguous with the 65 mile Capital Beltway. It would occupy the two center lines of the new twelve-lane Wilson Bridge, now being built across the Potomac River, downstream from Alexandria. The heavy rail Metro Purple Line will serve the ever growing demand of suburban county to county work trips. Where the eleven existing radial Metro lines intersect the Purple Line the new transfer stations will stimulate the construction of a necklace of garden apartment "edge towns" around the Beltway.

However, unlike the regional master plan "Compact" agreement signed thirty four years ago, today the seeds of well meaning but short-sighted, grass-rooted "fragmentation" planning are being sown far and wide in every county on both sides of the Potomac .... ensuring the further proliferation of low density single family dwellings, shopping centers, schools, commercial, recreational and social structures almost totally dependent on automobiles. The nature of this growth demands construction of many new highways and suburban streets some of which will further clog the already grid-locked eight-lane, 65 mile long Capital Beltway. A triumphant model of highway design is now under construction where the interstate highway from Richmond intersects the Capital Beltway. There, three new interchanges will be capable of handling 600,000 vehicles a day .... one section contains a short stretch of 24 lanes abreast.

Taking the long view, the resident population in the metropolitan region is predicted

to grow to between six and seven million people by 2020. The National Capital Planning commission forecasts the annual number of national and international visitors will increase from today's 20 million to 40 million in the same time frame. One may envision a regional urban-suburban capital city .... some 1000 square miles in size, the "Ile-de-Washington."

The fate of continuing to expand the Metro's regional rail transportation network .... interconnected with Marc and VRE .... depends upon how quickly the inevitable forces of circumstance generate leadership to do so. The White House, Congress, the governors and legislatures of Maryland and Virginia, the mayor and City Council of Washington will be compelled to act. The rail systems serving the Ile-de-Washington belong to all the people of our nation.

Stanley Nance Allan FAIA

Return to PAPERS
Return to Main Menu
Link to Harry Weese Oral History in the Chicago Architects Oral History Project at The Art Institute of Chicago.