Thematic Survey of Modern Movement
Non-Residential Architecture, 1945 - 1975, in St. Louis City

City of Saint Louis Cultural Resources Office
City of Saint Louis, Missouri

July 31st, 2013

This project is partially funded by a grant from the Missouri Department of Natural Resources, State Historic Preservation Office and the National Park Service, U.S. Department of the Interior. Grant awards do not imply an endorsement of contents by the grantor. Federal laws prohibit discrimination on the basis of race, religion, sex, age, handicap or ethnicity. For more information, write to the Office of Equal Opportunity, U.S. Department of the Interior, Washington D.C. 20240.

Peter Meijer Architect, PC
710 NE 21st Ave., Suite 200
Portland, OR 97232

The St. Louis Modern Movement survey project was completed by the following individuals: Betsy Bradley, CRO; Jan Cameron, CRO; Andrea Gagen, CRO; Bob Bettis, CRO; Peter Meijer, PMA; Kristen Minor, PMA; Kate Kearney, PMA; and Christine Madrid French. We wish to acknowledge the support of Don Roe, City of St. Louis Planning and Urban Design Agency, and the members of the Historic Preservation Board and Missouri State Historic Preservation Office staff, and various individuals interested in this era of architecture.

TABLE OF CONTENTS

Appendix

Tables and Figures

This page left intentionally blank.
Printed on 100% post-consumer paper.

Introduction

The St. Louis Modern Movement Survey project is a multi-tiered thematic survey of Modern Movement non-residential architecture built between circa 1945 and 1975 in the City of St. Louis city limits. The project represents a collaborative effort between the City of St Louis Cultural Resource Office (CRO), the Missouri State Historic Preservation Office (SHPO), and Peter Meijer Architect, PC (PMA) with Christine Madrid French, modern architectural historian. The term Modern Movement is used to encompass various styles of the mid-century Modern era but does not include the Art Deco, Modernistic, Streamline and Moderne styles that were widely used before 1940. The entire City of St. Louis is covered in this thematic survey.

Prior to initiating the survey, the City of St. Louis conducted a "windshield" survey of approximately 2280 non-residential resources based on the survey period. Several well-known and highly visible resources from the modern period have already been identified and designated as local historic landmarks and/or listed in the National Register, either individually or as part of historic districts, and were thus not included in the survey. The Survey intentionally did not include listed properties in order to identify additional resources in the city, as well as highlight architectural patterns, and locate less prominent "background buildings" that may be considered historically significant in the future.

The project consists of a tiered catalog of information gathering and evaluation.

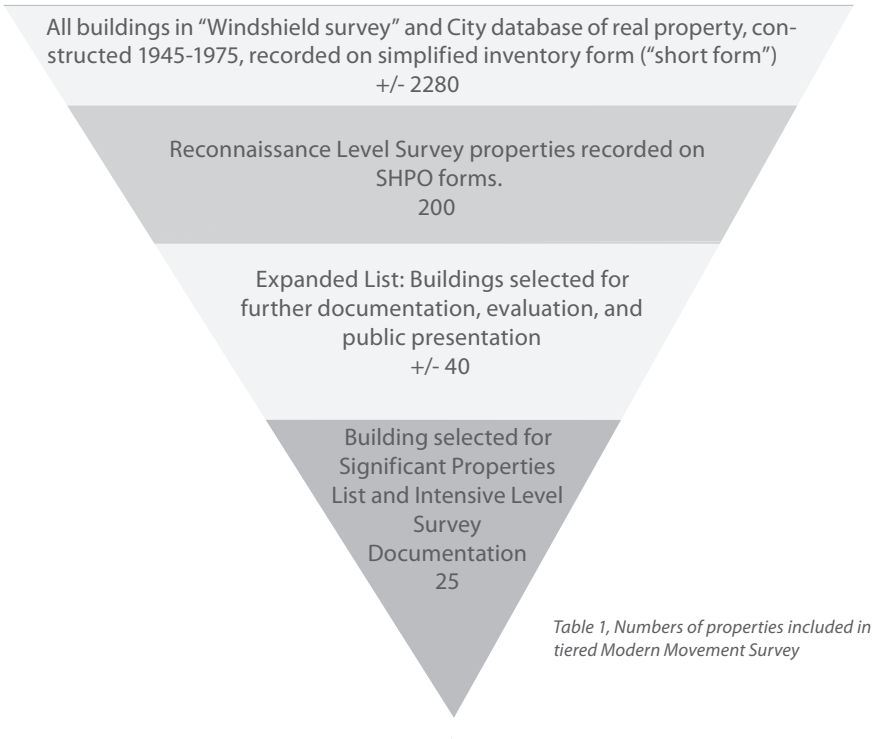


Table 1, Numbers of properties included in multi-tiered Modern Movement Survey

The St. Louis Modern survey continues the momentum of better understanding the city's more recent past and developing preservation planning strategies for modern era resources.

ABOVE: Former St. Louis Public Library, Jacob Mark Lashly Branch BELOW: Stouffers Inn

Project Objectives

Five project objectives were established: 1) complete a selective Reconnaissance Level historic resources Survey (RLS) for 200 selected non-residential properties constructed between 1945-1975 in the City of St. Louis; 2) develop a broader understanding of the historic themes and resources associated with the Modern Movement in St. Louis by writing three historic context statements in conjunction with the survey work; 3) create an expanded property list of approximately forty (40) properties and present the list of the public; 4) select from the expanded list and complete an Intensive Level Survey (ILS) of twenty-five (25) properties; and 5) prepare a survey report that provides the City of St. Louis with baseline historic resource data for future preservation planning and land use planning. The results of the project will contribute to the body of knowledge regarding modern resources in St. Louis.

Reconnaissance Level Survey (RLS)

The primary purpose of the Reconnaissance Level Survey (RLS) was to provide a "first cut" of buildings within the geographical area of the city limits that could be eligible for listing in the National Register of Historic Places. The survey team used information gathered from the CRO's initial "windshield" survey and preliminary "short forms" to pare down the list of properties selected for the field reconnaissance of two hundred properties. Factors including potential eligibility, geographical distribution of resources, and proximity to other resources were considered when selecting the final survey properties.

The RLS involved only a visual evaluation of properties and did not include deeper research into associations of historical events or individuals. The consultant's field recordation of RLS properties included digital photographs of each property and documentation of character-defining features in accordance with the Missouri SHPO "Standards for Professional Architectural and Historic Surveys" and "Instructions for Completing the Architectural/Historic Inventory Form." The consultant made a preliminary determination of National Register eligibility based on age, integrity, and historic character-defining features. Further research, written property descriptions and evaluation of eligibility occurred following the fieldwork.

Significant Property List

An important part of the survey project was to select a group of buildings to be added to a Significant Properties List. This existing list now includes buildings designated as City Landmarks and those listed on the National Register of Historic Places, but the list is open-ended and will ultimately include all properties determined to be eligible as City Landmarks and/or eligible for listing on the National Register. Properties to be added reflect a consensus of the opinions of the Missouri State Historic Preservation Office, CRO, and the consultant that the properties are individually eligible for listing in the National Register of Historic Places (NRHP) and/or as City Landmarks. The City expects to add more properties to the Significant Property List in the future. With CRO and SHPO concurrence, the consultant team narrowed the list of 200 Mid-Century Modern surveyed properties down to an "Expanded Significant Property List" of approximately 40 resources for further study and documentation. Newspaper articles, city directories, biographies, historic maps, photographs and local knowledge supported this level of research. CRO contacted the Expanded Significant Property List owners requesting historic photographs or information contributing to the research base.

ABOVE: Queeny Tower, Barnes Hospital BELOW: Laclede Gas Building

PROJECT OBJECTIVES

Consideration of the primary designer or design firm, architectural design excellence, innovative use of materials, and cultural significance were evaluated relative to one another in order to create an Expanded Significant Properties List. Further research analyzed and evaluated the history and significance of selected properties by considering local sources, addressing the National Register areas of significance, and further developing the context of each resource. The consultants worked with CRO and the Missouri SHPO to further refine the Expanded Significant Property List to a condensed list of 25 resources to encourage future historic designation and assist the CRO with on-going preservation planning strategies. A public presentation of the 40 expanded properties was conducted to gather input from interested groups and individuals in order to compile the final list of twenty-five properties.

Numerous properties are potentially individually eligible for nomination to the National Register and may have very strong historic and architectural significance, but for various reasons, did not "make the final list." One factor in determining the final group of additions to the Significant Properties List was insuring representation and distribution of various Modern styles, forms, and types. Although the additions to the Significant Properties List represent some of St. Louis' best examples of Mid-Century Modern Architecture, the properties also are a cross-section of properties found throughout the City. The additions to the Significant Properties List, therefore, are not to be interpreted as definitively representing "the best" properties or the properties with highest eligibility for nomination to the National Register of Historic Places.

ABOVE: Detail of Mansion House Development
BELOW: Former Saint Hedwig Church

Geographical Distribution

The survey project area is defined by the city limits of the City of St. Louis and confirmed by the Cultural Resource Office. Within the geographical survey area are seven sub-areas, each defined by concentration of modern resources, historic background, existing conditions, and planning regulations, zones, or considerations. St Louis City Limits are bounded by the Mississippi River along the east and a curving boundary to the west creating an irregular teardrop shape, with a narrow segment of land running north along the riverfront. The City includes general areas consisting of Downtown, a fairly small area on the riverfront, or the Central Business District; Midtown, just west of Downtown; and the West End, a larger area west of Midtown. The remainder of the City, encompassing numerous neighborhoods, is generally referred to as the South Side and the North Side of St. Louis.

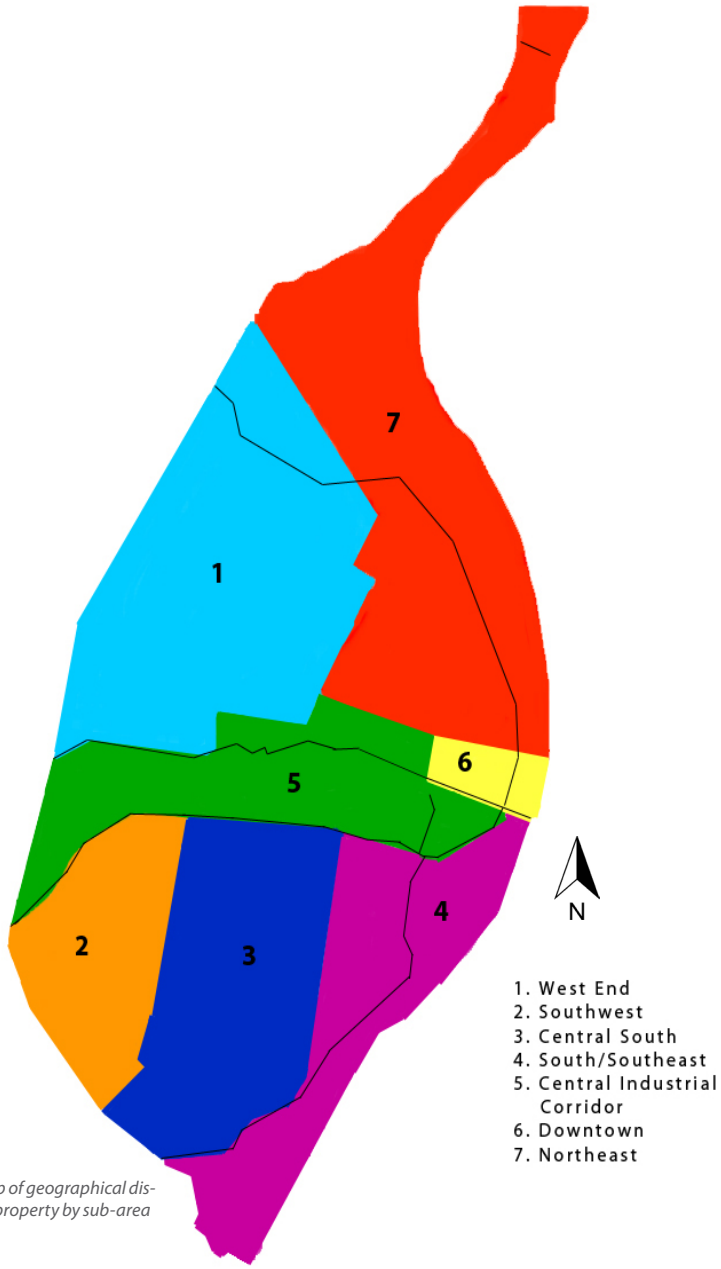


Figure 1, Map of geographical distribution of property by sub-area

GEOGRAPHICAL DISTRIBUTION

For the purpose of the survey, the seven geographic sub-areas were based partly on existing major dividers (highways) and partly on typical historical patterns of development. These subareas may not conform to generally accepted neighborhood boundaries. The rationale for each area is described below.

1. WEST END. This area includes Forest Park, the easternmost edge of Washington University (Wash U), and Lindell Boulevard. The subarea is primarily residential, and extends from the alley between Laclede and Forest Park Avenues on the south, and to Vandeventer on the east. The boundary extends south to Oakland Avenue to include the entirety of Forest Park. The subarea excludes the Mill Creek Valley redevelopment and SLU, since those areas saw substantial clearing and redevelopment. Florissant Avenue was selected as the northern boundary somewhat arbitrarily, though it does have a visible shift in development patterns from one side to another along portions of the Avenue.

2. SOUTHWEST. This sub-area includes Hampton Ave south of the I-44 freeway, with boundaries extending to Edwards and Brannon Avenues on the east and jogging to Macklind between Goethe and Loughborough, then to Gravois. This sub-area does not include any former redevelopment areas, but does possess strong concentrations of infill Modern architecture as a result of the area's distance from the central core of St. Louis. Arterial streets such as Watson, Chippewa, and Hampton were developed with a mix of infill and new development, and the Hampton Village shopping center was located in this subarea. A perusal of the street map reveals more shifts in street grids, curves, and other anomalies from the basic grid in this area than in other subareas. Some of the subdivisions in this subarea were among the last to be developed in the City, and their layout reflects a more "suburban" 1950s planning direction. The eastern boundary generally follows parallel to S. Kingshighway Boulevard, a major arterial included in the Central South subarea.

3. CENTRAL SOUTH. The northern boundary of this primarily residential subarea is I-44, and the southern boundary is I-55. On the east side, the boundary is S. Compton Avenue. The subarea includes the Missouri Botanical Garden, Tower Grove Park, and the major arterials bounding the park on its east and west sides; S. Grand Boulevard and S. Kingshighway Boulevard. Like the Southwest sub-area, the Central South saw little in the way of clearing and redevelopment; its Mid-Century Modern resources were mainly developed as infill along arterial corridors and light industrial facilities along the Missouri Pacific Railroad line.

4. SOUTH/SOUTHEAST. This area includes one former redevelopment area, Koskiusko, located along the riverfront just south of downtown. There are also residential areas, many of which were divided by I-55 such as Soulard. With the exception of some industrial redevelopment, especially in the Koskiusko area and close to the riverfront, most of the uses in this subarea are residential. Mid-Century Modern resources include industrial and infill commercial properties.

5. CENTRAL INDUSTRIAL CORRIDOR. This area encompasses many of the major urban renewal projects of the Mid-Century era, including Mill Creek Valley and LaSalle Park. It also contains St. Louis University (SLU), bounded by Vandeventer on the west and by the alley between Laclede and Forest Park Avenues on the north. While the majority of the area is held between the I-44 and I-64 freeways, it does extend north to include Washington Avenue west of downtown, and Forest Park Boulevard. This extension north of the freeway allows the subarea to include the entire Mill Creek area (where SLU later expanded, as well as Harris Stowe State University) and the Washing-

ABOVE: Steinberg Hall, Washington University
BELOW: David P. Wohl Community Center

ton University Medical Center area, which includes Barnes Jewish Hospital and other medical facilities. Industrial development was also strong in this subarea.

6. DOWNTOWN. This is the smallest of the seven subareas, but contains the largest concentration of potentially significant resources due to the Modern-era focus on Urban Renewal investment and commercial development. It extends to the alley north of Washington Avenue to the north and to the I-64 freeway on the south, and from the riverfront to 20th Street.

7. NORTHEAST. The Northeast subarea is primarily a residential development sector, but also contains some industrial development. There are larger open spaces in this subarea, with O'Fallon Park and Bellefontaine Cemetery along the north side of Florissant Avenue. The boundary jogs to pick up Fairground Park, along Fair Avenue and Natural Bridge Avenue. The Northeast area also includes the Desoto-Carr redevelopment area, just north of the downtown subarea. The construction of levees and floodwalls along the riverfront, completed in 1969, made land more available for construction in this subarea.

ABOVE: Fairground Park Swimming Facility BELOW: New Age Federal Savings and Loan building

Survey Methodology

The Modern Movement survey area contains approximately 2280 resources that have tax assessor or building permit construction records for the selected Modern period date range. This period is defined by the start of post-World War II development in 1945 and ends in 1975 and includes all properties that fall within the date range at the time of the survey. While properties are typically eligible for nomination to the National Register when they reach 50 years of age, the period of significance was expanded to 1975 to include three decades after World War II. In St Louis, there were still significant resources of the Modern architectural movement being constructed in the early 1970s, so this document may be useful in setting the context for these later resources for some time to come. All project research, identification, documentation and methods are consistent with the guidelines established in National Register Bulletin 24: Guidelines for Local Surveys: a Basis for Preservation Planning; National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation; and the Missouri State Historic Preservation Office's "Minimum Guidelines for Professional Surveys of Historic Properties." Other methods and strategies were also applied to meet the specific objectives and planning goals of this project.

A multi-tiered survey approach was used, including a Windshield Survey, Reconnaissance Level Survey, "Expanded Significant Properties List" and an Intensive Level Survey. An overtly "multiple-values" approach was used in the evaluation of properties for inclusion in the Expanded Significant Properties List. Kristin Hagar, in a recent article articulates the multi-faceted values that correlate with significance that experienced architectural historians attempt to document.[1] Hagar's logical conclusion is that a recent past resource is more likely to be valued as having historic significance over time if multiple sources and layers of significance can be identified at the time of identification and evaluation, including the thoughts of interested members of the public. This approach requires purposeful consideration of several categories for in which a building may have significance.

All properties selected for the Expanded Significant Properties List were evaluated for inclusion on the basis of meeting National Register significant criteria. All of the properties on the Expanded Significant Properties List were found to be individually eligible under Criterion C, for the property's architectural, engineering, and/or planning merit. Some properties were also determined to have significance under Criterion A, for contributing to broad patterns of St. Louis' development under categories such as Community Planning and Development, and/or for contributing to African-American heritage. Factors such as a building's association with an architect known for Mid-Century Modern design in St. Louis, a building's enduring and broad public appeal, and any recognition of the building's design merit after its construction were considered.

If a property was determined to be individually eligible for listing on the National Register, it also has a Significant Date. For most of the properties surveyed, that date is the year that initial construction was completed. A date range typically represents the period of time between an initial construction completion and the completion of an addition which is historically contributing to the building. One example might be the Lambert- St. Louis International Airport terminal, completed in 1957 but with a fourth dome added to the original three in 1965. The Significant Date is therefore the range 1957-65. Significant Dates for properties eligible under categories other than Criterion C might also have dates of significant events.

ABOVE: Former Buder Branch, St. Louis Public Library BELOW: Bishop DuBourg High School

1 Kristin Hagar, "Toward a New Approach to Evaluating Significance in Recent-Past Preservation Planning," Recent Past Preservation Network Bulletin 2 (Summer 2011), 36-46

LEFT: Figure 2, Map of Thematic Survey of Modern Movement Non-Residential Architecture in St. Louis, illustrating all 2278 properties. Properties colored were included in the windshield survey

Windshield Survey

The CRO staff initiated the project by using the City's existing database of real property and building construction dates in order to identify all non-residential buildings erected between 1945 and 1975, the period covered for this survey. Approximately 2280 properties were identified.

The City conducted a brief windshield survey, or a "minimal" reconnaissance-level survey, of these properties. The documentation consists of a "short form" that lists the existence of the building, its construction date and building type, as well as a preliminary assessment of integrity, use, architectural value, historical value, additions, infill or clustered modern development, and additional descriptive notes for each property. Short forms from the windshield survey are on file at the CRO office as well as the Missouri SHPO.

Reconnaissance Level Survey

PMA, in conjunction with CRO and SHPO staff, then selected 200 properties from the windshield survey to be recorded in greater depth on the SHPO survey form through a Reconnaissance Level Survey. These properties were determined on the basis of probable architectural and historical significance, and ability to contribute to building and architectural patterns and overall good or excellent integrity. Properties that had lost integrity were not included. A variety of evaluation methods used include:

- Filtering windshield survey data to identify properties with probable significance and integrity
- Visual evaluation of photographs
- Geographical representation using Google Maps to locate buildings in identified clusters.
- Excluding various groupings of resources to maintain a targeted focus on project objectives of identifying the most significant examples of Modern architectural resources, and maximizing the limited resources available for the project.

The following categories of resources were excluded:

- Resources that depict early modern styles commonly used prior to the period of significance, such as Streamline Moderne or Art Deco.
- Strictly utilitarian resources
- Residential properties, aside from residential buildings with mixed use development. An inventory of Post-War and Mid-century Modern residential development may occur at a later time to include both single- and multi-family dwellings.
- Properties already listed in the National Register of Historic Places. Already-identified, documented, and designated resources were excluded to maximize the value of documentation and planning strategies that may be applied to the Significant Properties List, including future National Register designations. A list of Modern era properties listed in the National Register is included as an appendix and is to be highlighted parallel to the Significant Properties List resulting from this survey.[2]

ABOVE: St. Joan of Arc Church BELOW: Detail of Society of American Gardens Building

2 Modern resources already listed in the National Register of Historic Places were excluded from the survey but were considered in the historic contexts developed as part of the overall project.

Figure 3, Map of Reconnaissance-Level Thematic Survey of Modern Movement Non-Residential Architecture in St. Louis. Download a larger version of this map at City website.<http://stlouis-mo.gov/government/departments/planning/cultural-resources/> Properties colored were included in the Reconnaissance-Level survey

Peter Meijer Architect, PC, with CRO staff, performed the fieldwork in September 2012. Fieldwork involved taking photographs of each property, recording the resource type, cladding materials, style, height, plan type, and auxiliary resources. Following fieldwork, a preliminary determination of National Register eligibility based on age, integrity, and historic character-defining features was made. The reconnaissance survey collected data for each property to meet Missouri SHPO survey standards, as outlined in the SHPO Standards for Professional Architectural and Historic Surveys.

Intensive Level Survey / Expanded Significant Properties List

To develop the Intensive Level Survey, PMA, in conjunction with the SHPO and City CRO, analyzed the results of the RLS to develop an expanded list of approximately 40 potentially significant properties requiring more intensive research. This expanded list consists of properties for which there is broad consensus of potential eligibility for designation in the National Register of Historic Places or City Landmark Listing. The City of St. Louis, Missouri SHPO, and local advocates of modern era preservation were invited to vet the expanded list before moving forward with the intensive level research. Additional photographs and research augmented the survey forms with more detailed property descriptions, summaries of significant histories, and further evaluation of National Register eligibility.

Expanded Significant Properties List

PMA, in conjunction with the SHPO and City CRO, analyzed the results of the RLS to develop an expanded list of approximately 40 potentially significant properties requiring more intensive research. The expanded list consists of properties for which there is broad consensus of eligibility for designation in the National Register of Historic Places or City Landmark Listing. The City of St. Louis, Missouri SHPO, and local advocates of modern era preservation were invited to vet the expanded list before moving for¬ward with the intensive level research. Additional photographs and research aug¬mented the survey forms with more detailed property descriptions, summaries of significant histories, and further evaluation of National Register eligibility. As expected, strong representation in these 40 properties comes from southwest St. Louis, primarily along the Hampton Avenue corridor. Several possibilities for a potential historic district or MPS grouping have also been identified in this area of St. Louis. Noticeable concentrations of identified significant properties also occur in the Downtown area, and in the Central Industrial Corridor.

Intensive Level Survey

To develop the Intensive Level Survey, the Expanded Significant Properties List was reviewed once again by the consultant, City CRO and SHPO staff to select approximately 25 resources for the ILS. Careful consideration of local expertise from the City, SHPO and local preservation advocates was critical to the development of the final list.

ABOVE: Carpenter's Union Hall BELOW: AAA Building

Survey Results: Reconnaissance Level Survey

The CRO windshield survey identified 2278 properties that fit the survey criteria (constructed 1945-1975, within City limits, and non-residential), and 200 (8.8%) were physically surveyed. Although this is only a selective reconnaissance level survey of a very small sample, the data can be analyzed to make some generalizations about Modern historic resources in the City of St. Louis and unique findings in each survey sub-area.

Construction Dates

Of the 200 surveyed properties:

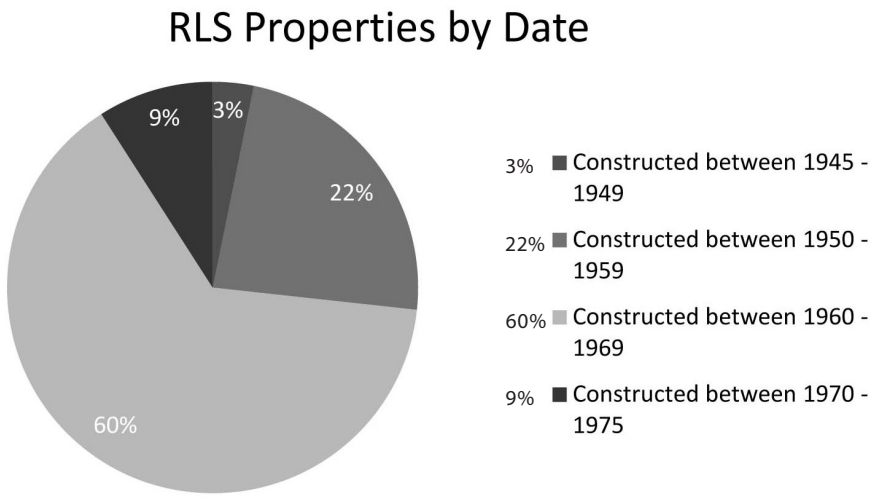
- 118 (59%) are at least 50 years in age as of 2013, meeting the first requirement to be considered "historic," and contain the architectural characteristics associated with the Modern period.
- 79 (40%) are less than 50 years in age, but contain architectural characteristics or potential historic significance to be considered Modern period "historic" resources in the future.

Construction dates of surveyed resources span the period of significance:

- 6 (3%) were constructed between 1945 and 1949
- 44 (22%) were constructed between 1950 and 1959
- 120 (60%) were constructed between 1960 and 1969
- 17 (8.5%) were constructed between 1970 and 1975

The remainder of the properties surveyed had construction dates outside of the established date range, mostly because they were built prior to 1945, but had significant Modern period alterations.

ABOVE: Former Jefferson Bank and Trust BELOW: Lambert International St. Louis Airport

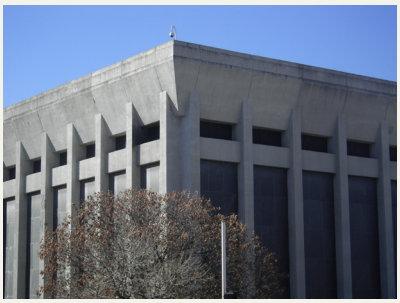


Use

Looking at historic uses rather than the current uses for the 200 surveyed properties, the most prevalent use category by far is Commerce/ Trade. This is a large category including such building types as offices, warehouses, restaurants, and banks. The surveyed uses are (not including "Other" or "unknown"):

- Commerce/ Trade, 95,
- Government, 20,
- Religion, 18,
- Education, 17,
- Health Care, 12,
- Social, 12,
- Transportation, 7,
- Recreation/ Culture, 5,
- Industry/ Processing/ Extraction, 4,
- Defense, 1.

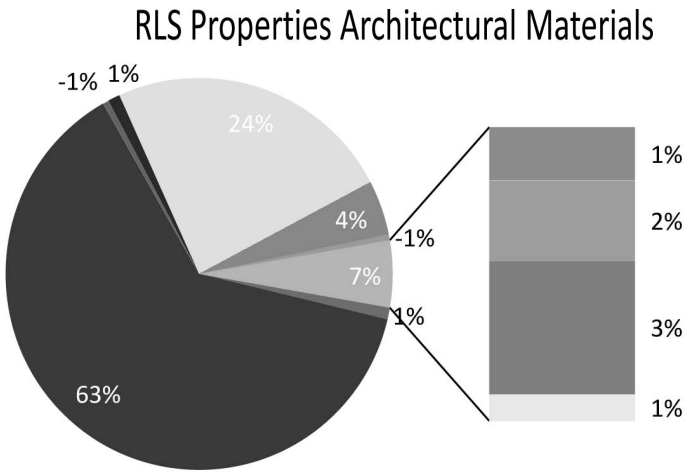
The Government category includes not only post offices, courthouses, and municipal buildings, but also water processing plants and sewer systems such as the Bissell Point buildings. Religion includes churches, temples, and other such facilities as well as K-12 religious academies or schools. The Education category includes schools from Kindergarten through higher education, including associated structures such as college libraries. The Health Care category includes doctor's offices, hospitals, nursing homes, pharmacies, and spas and resorts, while the Social category includes clubs and fraternal organization buildings, union halls, and other social meeting places. Transportation includes rail-related, air-related, and water-related buildings and structures, as well as parking garages, bridges, and other land-related travel structures and facilities. The Industry/Processing/Extraction category includes manufacturing facilities, waterworks, and industrial storage.



ABOVE: Detail of Postal Annex BELOW: Pius Memorial Library, St. Louis University

Materials

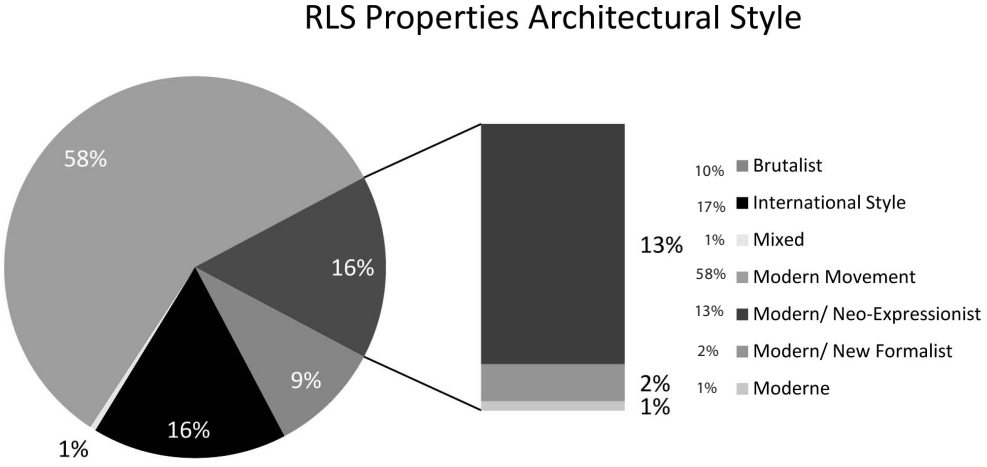
The data shows that a full 63%, or 126 of the 200 surveyed properties used brick as the predominant exterior material. In a survey of Mid-century resources, that number is surprisingly high and points to a true regional predilection for the material. Concrete was the next most represented exterior material, with 48 of the 200 properties (24%). Glass and stone were the next two most-utilized materials, with 9 (4.5%) and 5 (2.5%) of properties surveyed, respectively.



Architectural Style

Architectural Styles of the Mid-Century Modern movement were defined generally in the "Architectural Trends" Context statement and further defined below with survey results for these styles as found in St Louis. Of the 200 surveyed properties:

- 116 (58%) are defined as the Modern Movement in architecture. These properties all have characteristics associated with the Modern period, but are not necessarily strongly defined by any one sub-style.
- 33 (16.5%) are International Style
- 26 (13%) are Modern/Neo-Expressionist
- 19 (9.5%) are Brutalist
- 4 (2%) are Modern/ New Formalist
- 1 (.5%) is Mixed
- 1 (.5%) is Moderne



Modern or Mid-Century Modern Architecture is the umbrella style for resources sharing some common characteristics. These include the rejection of applied ornamentation and specific references to the past, the use of technological advances in materials and building methods, and design based on expressing structure and use. There are a number of sub-styles within the Modern Movement, listed below. However, many buildings are simply Modern in style, without necessarily being "International Style," "Neo-Formalist," or any other specific stylistic sub-style. More commonly, a building will show influences of one or more of the predominant sub-styles described below. In St. Louis, Mid-Century Modern resources generally are constructed of light-colored brick, though especially in some of the identified industrial-use clusters or potential districts, blue brick is also used.

ABOVE: Industrial/warehouse building, C. Rallo (Karl Nicoloff), 1962 BELOW: Industrial/warehouse building, Edward F. Gordon,1965 LEFT: Washington Montessori School, F. Ray Leimkuehler, 1955

International Style hallmarks include rectilinear forms; the celebration of "industrial" materials such as concrete, glass, and steel; rational grids or modularity; and smooth, "machined" finishes. Structural components of the building are typically evident on the exterior, and curtain wall construction, in which the exterior wall is supported from the structural steel frame, is also common. St. Louis International Style resources are predominantly brick.

Neo Formalist architecture exhibits strict symmetry in design, flat projecting rooflines, high-quality materials, columnar supports, and smooth, white or light wall surfaces. The style includes abstract, simplified elements of classical architecture. Minoru Yamasaki is one of a handful of architects across the United States to be associated with this style, although no Neo-Formalist structures in the survey are directly attributable to Yamasaki.

This sub-style has a fairly small representation in St. Louis, but one example is the Missouri Division of Employment Security Building (HOK, 1959). This building has the typically high-quality exterior material (limestone), projecting roof- and floor-lines, and echoes of temple-like elements, which, in this case, are beveled window shapes recalling gothic arches. The Juvenile Division Circuit Court building (William B. Ittner Inc, 1965) has the curved, symmetrical form with repeating arches that are typical of the Neo-Formalist style.

ABOVE: Mansion House Center, Schwartz & Van Hoefen, 1967. UPPER LEFT: Cass Avenue Fire Station, Marcel Boulicault, 1958. MIDDLE: Missouri Division of Employment Security Building, HOK, 1959 LOWER LEFT: Juvenile Division Circuit Court building, William B. Ittner Inc, 1965

Neo-Expressionism is used to describe both the large-scale, thin-shell concrete structures that typically have curving, somewhat organic shapes, as well as the smaller-scale structures showing exaggerated structural elements and "futuristic" shapes and forms. In St. Louis, Neo-Expressionist architecture was not only represented, but was much admired and quickly exported to other cities through the work of the Bank Building and Equipment Corporation (BBEC). One of the early works of the most famous of the BBEC's designers, W. A. Sarmiento, is the Chancery of the Archdiocese of St. Louis (1957).

The St Louis Science Center McDonnell Planetarium (HOK, 1963) illustrates the organic, expressive, mathematically-derived forms that were made possible by engineering and technology.

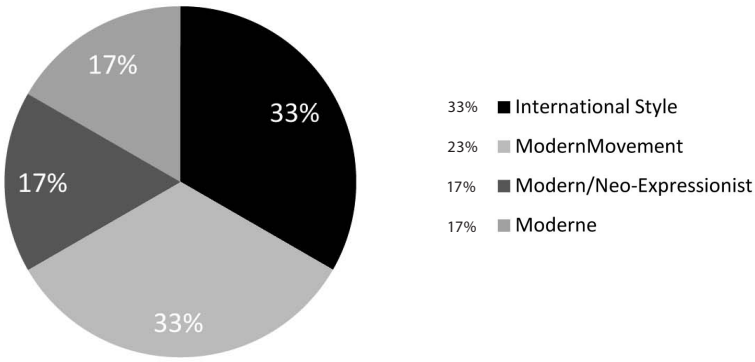
Brutalist Style resources typically have a massive appearance; rough, exposed concrete materials; broad, expansive walls; and deeply recessed windows. In St. Louis, the vast majority of Brutalist resources are executed in brick rather than in concrete.

The predominance of certain styles changes over time, in that International Style skews earlier in the date ranges and the New Formalist styles are later. (Note: the total number of resources in the date range do not add up to the 200 in the RLS survey because a few properties do not have firm dates or were older buildings reconfigured during the Mid-century period.)

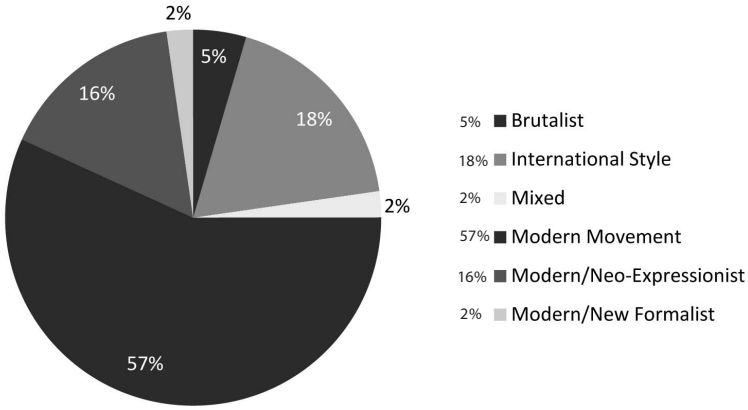
- The International Style has two representatives in the earliest date range, from 1945-49, eight in the 1950-59 decade, and twenty in the 1960-69 date range. There are only two in the 1970s decade.
- Brutalism first appears with three resources in 1950-59, eight in 1960-69, and nine in the 1970s decade.
- In the 1944-49 period, there is one Neo-Expressionist resource. There are six from 1950-59, fifteen in the 1960s decade, and three in the 1970s decade.
- New Formalism first appears in the 1950-59 time period with one resource. In the 1960-69 time period there are two resources, and one dating from the 1970s.

ABOVE: Chancery of the Archdiocese of St. Louis, BBEC (Sarmiento), 1957 BELOW: St. Louis Science Center McDonnell Planetarium, HOK, 1963. LEFT: St. Louis Community College, Forest Park, Harry Weese & Associates, 1965 LOWER LEFT: St. Louis University's Fitzgerald Hall, Smith & Entzeroth, 1964

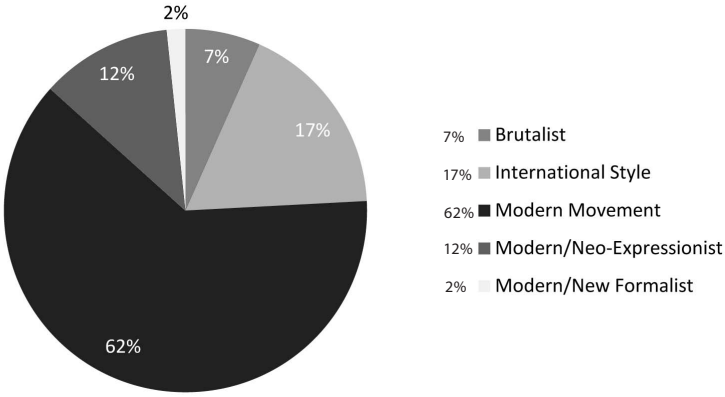
RLS Architectural Style by Date
1945 - 1949



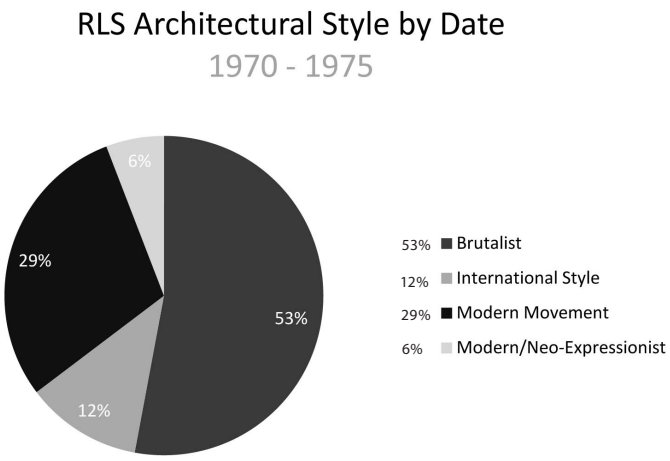
RLS Architectural Style by Date
1950 - 1959



RLS Architectural Style by Date
1960 - 1969



ABOVE: Wendell Oliver Pruitt Public School BELOW: Gateway Tower



ABOVE: South Side Bible Chapel, now Oak Hill Chapel BELOW: Optimist Club building detail

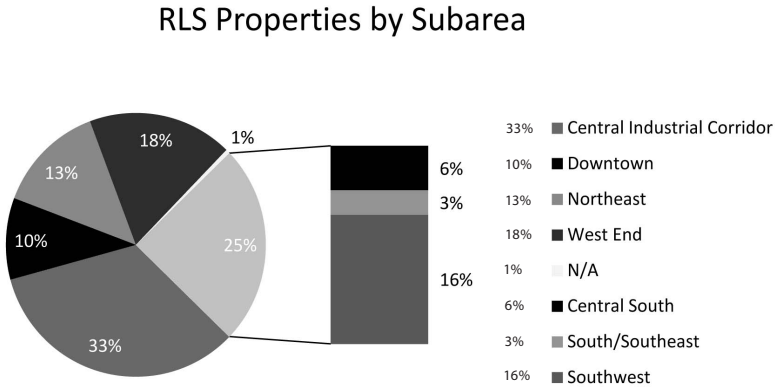
Architects

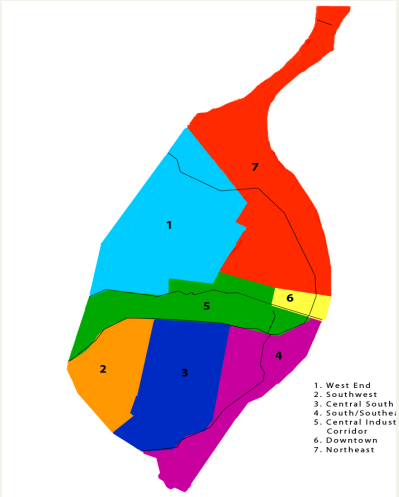
For a detailed discussion of various architects who were well-represented in the St. Louis Modern Movement survey project, refer to the Context starting on page 111 of this report, "Modernist Architects in Practice in St. Louis, c. 1945-1975" and the list of architects starting on page 123. However, it is also evident in looking at the data results that many of the designers of buildings of this era were not architects. The most obvious example is the Bank Building and Equipment Corporation, a design-build firm with an uneasy relationship with the AIA. Though the BBEC was the nation's largest architectural company specializing in bank design by the mid 1960s, some chapters of the AIA in various states took them to court to prevent them from working. In St. Louis, some buildings of this era especially in Industrial areas, were designed by construction companies such as the very successful C. Rallo Construction Company (designer: Karl Nicoloff) or Sverdrup & Parcel.

Sub-Areas

Of the 200 surveyed properties, Lambert Field (Lambert International Terminal) lies outside of the geographical sub-areas defined by the survey. As a property owned by the City of St. Louis, it was included in the survey. The rest of the properties are distributed as follows:

- 36 (18%) are in the West End Sub-Area
- 32 (16%) are in the Southwest Sub-Area
- 11 (5.5%) are in the Central South Sub-Area
- 6 (3%) are in the South/ Southeast Sub-Area
- 67 (33.5%) are in the Central Industrial Corridor
- 20 (10%) are in the Downtown Sub-Area
- 27 (13.5%) are in the Northeast Sub-Area





ABOVE: Geographical distribution of Sub-Areas

Within each subarea, there are a number of concentrations of dates and uses evident in the survey data, although the total numbers of properties surveyed within any one subarea is so small that the sampling cannot be said to be representative. Still, the subareas show possible trends that point out differences in the development of Mid-century resources between broad areas of the City, based on dates, types, and materials of the 200 surveyed properties. Styles appear to be fairly evenly distributed by subarea. In the future, more properties might be analyzed to obtain a larger pool and therefore more representative results.

In looking at historic uses in terms of geographical distribution, there are noticeable concentrations of some uses and no representation of other uses within certain sub-areas. For instance, the fact that no religious facilities of the Mid-century era were surveyed in Downtown tells us that there are fewer residential uses there than in the other sub-areas, since churches tend to be constructed near residences. (Although, the Mansion House Center did have its own interdenominational chapel) Also, there are likely some existing older religious facilities downtown which were constructed prior to the mid-century era.

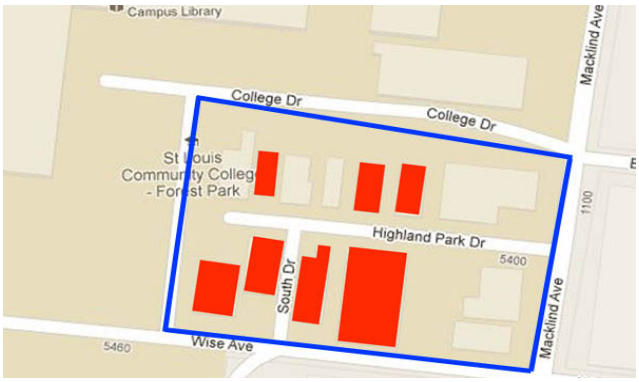
The Northeast subarea has a seemingly anomalous concentration of Government uses, but all of these are part of either the Bissell Point Sewer Plant campus or the Chain of Rocks facility. Government uses are otherwise fairly well distributed around the city, as one would expect for libraries, post offices, etc.

Neither the Northeast nor the Central South subarea has a majority of its resources in the Commerce/ Trade category, so retail, office, and other "white collar" commerce were not as important in these subareas as compared to other areas of the City. On the other hand, the Central Industrial Corridor, with 46 out of the 67 resources in the category of Commerce/ Trade, was clearly a huge center for such uses. Both Downtown, with 13 out of its 20 resources, and Southwest, with 18 of its total of 32 resources in the Commerce/ Trade use category, were not far behind. Because the survey did not include remodeling projects, commercial storefront properties may not be well represented in the survey. There were many altered mid-century storefronts, especially along Baden and Cherokee streets.

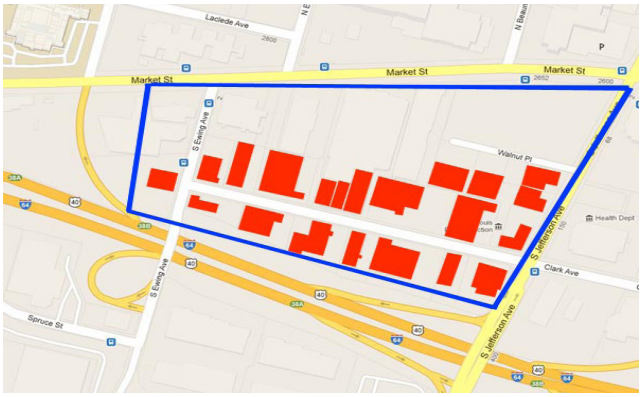
Finally, in looking at construction dates in terms of geographical distribution, the earliest period from 1945 to 1949 shows development in only three subareas: Northeast, Southwest, and the West End. The 1950s decade has most of the new construction occurring within these same three subareas, plus quite a few in the Central Industrial Corridor, and a few new structures built in Downtown and Central South. During the 1960s, the most resources by far were constructed in the Central Industrial Corridor, followed by Northeast, Southwest, the West End, and Downtown. From 1970 to 1975, a total of 17 resources were scattered fairly evenly around the City, the majority in the Central Industrial Corridor.

Clusters and Potential Historic Districts

The survey also identified at least four clusters of Mid-Century resources. Two of these clusters of light industrial uses are located in the Central Industrial Corridor; one just south of Forest Park and called the Highland Park group; the other further east centered around Clark Avenue and called the Mill Valley Park group. These clusters may be eligible as Historic Districts with the boundaries shown here or slightly adjusted as warranted by further research.

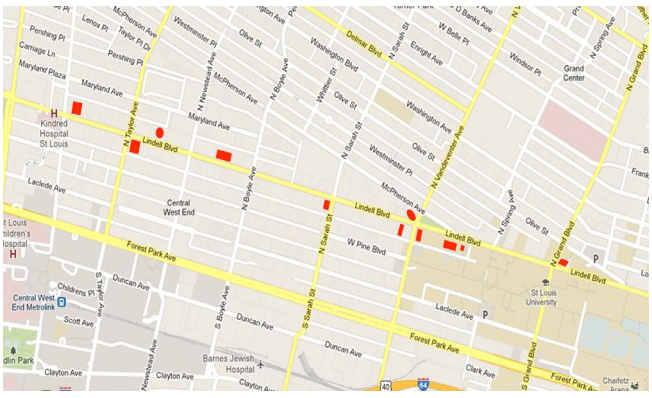


Highland Park group with surveyed buildings indicated



Clark Avenue, Mill Valley Park group with surveyed buildings indicated

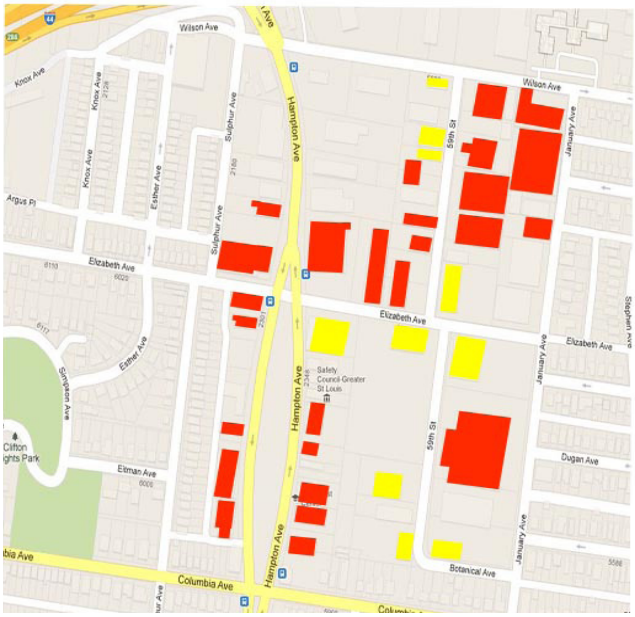
Another cluster of resources, much more varied in use and building type than the first two clusters, occurs along Lindell Boulevard east of Forest Park, between Vandeventer and Kingshighway. While there may be potential for a historic district along Lindell , an existing historic district with an older period of significance overlaps much of the area. Creating a new historic district here may therefore not be the best strategy.



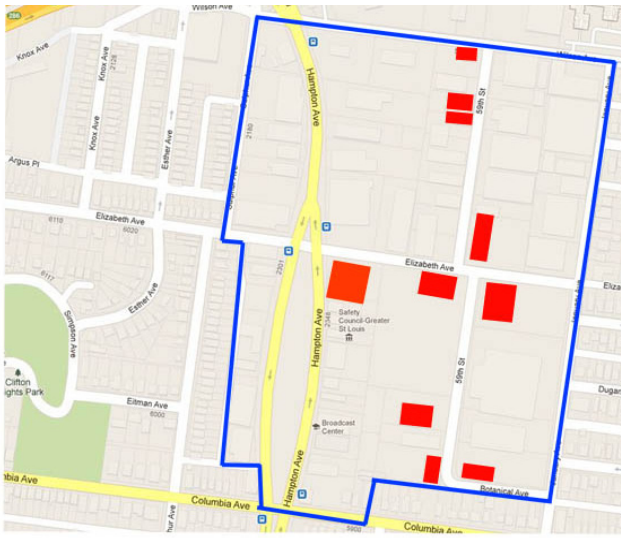
Lindell Boulevard group with surveyed buildings indicated

ABOVE: Clark Avenue, Mill Valley Park group cluster property BELOW: Engineers Club

The largest identified cluster of Mid-Century Modern resources is in the Southwest sub-area. This cluster is certainly eligible as a historic district, and includes an interesting concentration of Union Halls. The cluster is called the Hampton Avenue group. The Union Halls in this area, as well as other Union Halls in other noncontiguous areas of the City, has also been identified and may be eligible as a multiple property listing. Strategies for further research, preservation, and public involvement around these clusters or potential districts is discussed under Recommendations.



Hampton Avenue group with surveyed buildings indicated



Union Halls within the Hampton Avenue group with surveyed buildings indicated

The last clustered area of mid-century resources (as initially identified in the context report, Architectural trends, forms, materials and expression important in the St. Louis school of Modern Movement architecture, c. 1945 - 1975) is the Downtown Area. Although, 10% of the surveyed properties are located in Downtown, they are dispersed through the area. Like many central business districts, St. Louis has a lively mix of buildings from various periods and no obvious historic district of mid-century modern buildings. Some of the larger urban renewal project areas are intact. Other areas have been redeveloped further.

ABOVE: Iron Workers building BELOW: International Brotherhood of Electrical Workers Hall

Expanded Significant Properties List

The "Expanded" Significant Properties List was created by filtering through the RLS properties to find a selection of properties that appeared to meet the necessary level of integrity to be considered eligible for listing on the National Register, that offered some degree of geographic diversity across the city, and that offered a cross-section of building types or uses. The properties represent a good example of a mid-century or post-war architectural style or building type, whether high-style or vernacular in its expression. Also, in choosing these properties for the "Expanded" list, PMA and the CRO attempted to include mostly buildings by local St. Louis architects.

These were the properties presented to the public on the CRO website and in a public meeting, to solicit commentary and opinions about which properties to cull out of the Expanded list to create the Significant Properties List. Survey forms for these 40 properties can be found at the Missouri State Historic Preservation Office or the City of St. Louis Cultural Resources Office.

Figure 4, Map of Expanded Significant Properties, Thematic Survey of Modern Movement Non-Residential Architecture in St. Louis. Property names with address below to the right

505 Washington Ave
Missouri Division of Employment Security Building
200 N 4th St
Mansion House
99 Memorial Drive
Gateway Tower
200 S 4th St
Millennium Hotel
1600 Market St
Post Office Annex
1801-27 Lucas Ave
St. Nicholas Parish Center
2600 Washington Ave
Jefferson Bank Building
1212 N 22nd St
Pruitt School
3715 Natural Bridge Ave
Fairground Park Pool House
2422-4 Annie Malone Dr
St. Philip's Lutheran Church
1401 N Kingshighway Blvd
former New Age Federal Savings & Loan
515 N Kingshighway Blvd
Wohl Community Center
5443-71 Dr. ML King Dr
Comprehensive Neighborhood Health Center
5501 Wabada Ave
Langston Middle School
6201 Forsyth Blvd
Mark C. Steinberg Hall
1401-21 Hampton Ave
Carpenters Hall
5600 Oakland Ave
St. Louis Community College
5200-40 Oakland Ave
Scruggs Vandervoort Barney warehoue
1 Faulkner Dr
McDonnell Planetarium
400 Jefferson Dr
Steinberg Rink
4989 Barnes Hospital Plaza
Queeny Tower
4949-69 Barnes Hospital Plaza
The Pavilion
4550-6 Scott Ave
McDonnell Medical Center
4531-7 West Pine Blvd
Society of the Sacred Heart Library
4490-4 Lindell Blvd
Optimist Club
4445-67 Lindell Blvd
Chancery Building
4359 Lindell Blvd
Engineers Club
3917 Lindell Blvd
AAA Building
910-30 N Vandeventer Ave
Juvenile Division, Circuit Court Building
3655 West Pine Blvd
Pius XII Memorial Library
3150 S Grand Blvd
former Hamiltonian Federal Saving & Loan Assoc.
4300 Shaw Ave
Missouri Botanical Garden Climatron
4401 Magnolia Ave
National Garden Club
5850 Elizabeth Ave
International Brotherhood of Electrical Workers Hall
6426-34 Scanlan Ave
Machacek Branch Library
5800 Oleatha Ave
St. Joan of Arc Church
5320 Hampton Ave
former Buder Branch Library
5850 Eichelberger St
Bishop Dubourg High School
6100 Leona St
South Side Bible Chapel, now Oak Hill Chapel
3201-23 Itaska St
former St. Hedwig, now St. Louis Harvest Church
10701 Lambert International Blvd
Lambert International Airport

Intensive Level Survey / Significant Properties List

The Significant Properties List includes 25 properties recommended for historic designation due to the resources' significance associated with the St. Louis Modern Era. The map showing the distribution of these 25 properties within St Louis has a heavy concentration of properties in Downtown and another concentration in the West End, many of which are on Lindell. There are a scattering of properties in North St Louis, mostly towards the west, and a number in Southwest St. Louis. These patterns reflect the infill nature of the Modern-era properties in the areas of the City that were last to fully develop, furthest from downtown; and the new Mid-century era construction in heavily redeveloped areas of the central swath of St. Louis.

The properties are a mix of uses: (5) union halls or social club buildings; (3) healthcare buildings, (2) churches, (3) library or other governmental uses, (3) banks (including the Catholic chancery), (3) public recreational facilities, (3) school buildings, (1) mixed-use development, (1) office tower, and (1) transportation facility. Many, but not all, of the buildings represented on the Significant Properties List are well-known: the Mansion House Center, Steinberg Hall on the Washington University campus, the AAA Building on Lindell, the Lambert International Air Terminal, the McDonnell Planetarium, the Catholic Chancery, and the Laclede Gas Tower. Some are relatively unknown: the Oak Hill Chapel, the New Age Savings & Loan, the David P. Wohl Community Center, the IBEW Local 1 Hall on Elizabeth Avenue, and the Jefferson Bank. Together, the buildings represent St. Louis' most talented mid-century architects, such as Schwarz & Van Hoefen, Fumihiko Maki, HOK, Frederick Dunn, W. A. Sarmiento, and Murphy & Mackey.

PMA finds these properties to be eligible for listing on the National Register under Criterion C, for "Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction." (National Register Bulletin 15, How to Apply the National Register criteria for Evaluation, 1995). Several of the properties appear to have additional significance under other National Register Criteria as well of the 25 properties, three are recommended eligible for their association with African-American Heritage in St. Louis, and two are recommended eligible for playing a significant role in the Community Planning and Development of St. Louis.

ABOVE: National Council of State Garden Clubs
BELOW: The Pavilion, Barnes Hospital Plaza.

Next PAGE: Table 2, Intensive Level Survey, 25 Properties list

Historic Name	Current Name	Date of Construction	Historic Use	Design Firm/Architect	Architectural Style	Address	Significance
The Pavilion	Barnes Jewish Hospital South	1972-78	Hospital	Kenneth E. Wischmeyer & Partners	Brutalist	4949-69 BARNES HOSPITAL PLAZA	Architectural
South Side Bible Chapel	Oak Hill Chapel	1953	Church	Schmidt & Krueger	Neo-Expressionist	6100 LEONA ST	Architectural
Wendell Oliver Pruitt Public School	Pruitt Academy	1954	School	F. Ray Leimkuehler	Modernist	1212 N 22ND ST	Architectural; Planning & Development
Jefferson Bank Building	2600 Washington Building	1956	Bank	Bank Building & Equipment Corporation/W.A. Sarmiento	Neo-Expressionist	2600 WASHINGTON AV	Architectural; African-Am. Heritage
Bishop DuBourg High School	Same	1954; addition 1955	School	Murphy & Mackey	International Style	5850 EICHELBERGER ST	Architectural
Lambert International St. Louis Airport	Same	1957; 1965	Airport	Hellmuth, Yamasaki & Leinweber/ Minoru Yamasaki	Neo-Expressionist	10701 LAMBERT INTERNATIONAL BLVD	Architectural
National Council of State Garden Clubs	Same	1957	Club Building	Frederick Dunn & Nolas Stinson, Jr.	International Style	4401 MAGNOLIA AV	Architectural
New Age Savings & Loan	For His Glory Church Apostolic Faith	1958	Bank	W.E. Duncan	International Style	1401 N KINGSHIGHWAY BLVD	Architectural; African-Am. Heritage
St. Joan of Arc Catholic Church	Same	1960	Church	A.F. & Arthur Stauder Architects	Modernist/ Brutalist	5800 OLEATHA AV	Architectural
Fairground Park Swimming Facility	Same	1960	Park Structure	Kramer & Harms Architects	Neo-Expressionist	3715 NATURAL BRIDGE AV	Architectural
International Brotherhood of Electrical Workers Hall	Same	1959	Union Hall	Bank Building & Equipment Corporation	Neo-Expressionist	5850 ELIZABETH AV	Architectural
Wohl Recreation Center	Same	1959	Recreation Center	Russell, Mullgardt, Schwarz & Van Hoefen	International Style	1515 N KINGSHIGHWAY BLVD	Architectural
Buder Branch St. Louis Public Library	Record Exchange	1961	Library	Joseph H. Senne	Neo-Expressionist	5320 HAMPTON AV	Architectural
Optimist Building	Same	1962; addition 1978	Club Building	Schwarz & Van Hoefen	Neo-Expressionist	4490-94 LINDELL BLVD	Architectural
Archdiocese of St. Louis Chancery	Same	1957	Chancery	Bank Building & Equipment Corporation/ W.A. Sarmiento	Modernist/ Neo-Expressionist	4445-67 LINDELL BLVD	Architectural
James S. McDonnell Planetarium	St. Louis Science Center McDonnell Planetarium	1963	Planetarium	Hellmuth, Obata & Kassabaum/Gyo Obata	Neo-Expressionist	1 FAULKNER DR	Architectural
Steinberg Art Gallery	Same	1960	Art Gallery & Classrooms	Russell, Mullgardt, Schwarz & Van Hoefen/ Fumihiko Maki	Neo-Expressionist	6201-53 FORYSTH BLVD	Architectural
Engineers Club of St. Louis	Same	1959	Club Building	Russell, Mullgardt, Schwarz & Van Hoefen	Neo-Expressionist	4359 LINDELL BLVD	Architectural;
Juvenile Division Circuit Court	Same	1965	Court	William B. Ittner Inc.	New Formalism	910-30 N VANDEVENTER AV	Architectural
Mansion House Center	Mansion House, Gentry's Landing, Radisson Hotel	1967-1974	Mixed Use	Schwarz & Van Hoefen	International Style	200 N 4TH ST	Architectural; Planning & Development
Jacob Mark Lashley Branch St. Louis Public Library	Society of the Sacred Heart U.S. Province Archives	1967	Library	William B. Ittner Inc.	New Formalism	4531-37 WEST PINE BLVD	
Laclede Gas Building	Same	1968	Office	Emery Roth & Sons Architects	Modernist	200-12 N 8TH ST	Architectural
McDonnell Medical Science Center	Same	1970	Medical Research	Murphy, Downey, Wofford, & Richman	Brutalist	4550-06 SCOTT AV	Architectural
St. Louis Neighborhood Health Center	MHDCHC, Inc	1974	Health Center	Jenkins-Fleming	Brutalist	5443-71 DR MARTIN LUTHER KING DR	Architectural; African-Am. Heritage
Auto Club of Missouri	AAA Building	1976	Commercial	W.A. Sarmiento Architects	New Formalism	3917 LINDELL BLVD	Architectural

Recommendations

Near-term

1. Submit a Multiple Property Documentation Form (MPDF) to the National Register of Historic Places highlighting a collection of Modern period City of St. Louis buildings designed by W.A. Sarmiento and the Bank Building & Equipment Co. Create a national context of Sarmiento's work and a focus on his St. Louis designs. Include commentary from other living St. Louis mid-century modern architects.

2. Submit individual Multiple Property Documentation Forms (MPDF) to the National Register of Historic Places highlighting the individual work by HOK, Yamasaki, Schwarz & Van Hoefen/ Schwarz & Hemni, F. Ray Leimkuehler, or other prominent local architects that made significant contributions to Modern period architecture in St. Louis.

3. Consider designating Modern era resources as significant infill within older districts. Designation strategies may include:
- Addendum to current historic district with an additional period of significance
- Multiple Property Listing (MPL) of thematic groupings of resources
- Discontiguous districts (if geographic continuity generally exists for one or more areas)

4. Work with the Missouri State Historic Preservation Office (SHPO) to re-define Modern Period styles in the Historic Sites database, such as Neo-Formalism. As Modern period architecture is considered more "historic," a stronger delineation of modern period styles is necessary. For example, a 15-story curtain-wall office tower and a 2-story building on stilts with parking below, and a single-story Miesian clinic with a modular façade and projecting vertical member are each considered to be "International" style resources, although the character-defining features of each resource are quite different. As Modern period resources continue to be added to the Missouri Historic Inventory at increasing rates, survey data will hold a stronger analytical value if category codes are better defined.

5. Lead the awareness by nominating publicly owned Modern period historic resources to the National Register of Historic Places for their significant associations with themes of history, significant persons, or notable architectural contributions. Such work could be phased to begin with at-risk resources. However, a stronger, long lasting, proactive approach is to begin with resources that are celebrated and recognized by the public.

6. Expand the historic contexts, particularly the Architects context, to better explain how factors occurring outside the St. Louis city limit impacted architecture within the city. For example, local architects designed properties throughout the greater St. Louis area, including various cities within St. Louis County. The overall careers of local architects were shaped by work that occurred beyond just the St. Louis city limits.

In addition, partner with the local unions' interest in highlight the history of the union halls. The union hall representative present at the public open house expressed support for a program that brought attention to the role unions made to the history of St. Louis.

ABOVE: St. Philip's Lutheran Church, Frank McGuire & Associates, 1966 BELOW: former Hamiltonian Federal Savings and Loan Association, G. Winkler and F. Thompson, 1961.

Long-term

7. Conduct a modern era survey of residential resources of Post-World War II era housing, including both single-family and multi-family dwellings.

8. Highlight the City of St. Louis, Planning & Urban Design Agency leadership in public awareness of modern resources through social media platforms and local blog sites.

9. Form partnerships. Washington University, St. Louis University, and other higher education facilities, as well as the local chapter of the AIA and historic research centers, are likely to be both supportive and participate in collaborative efforts to celebrate the distinctive qualities, restoration, and re-use potential of modern resources. Many of the local architects began their careers at local universities.

10. Apply to foundations, institutes, and organizations (e.g. the Getty Institute) for funding programs related to modern resources. These institutions are particularly interested in creative ways to record the history of the modern movement including video, oral interviews with living architects, social media sites, and links to other professional organizations.

11. Create educational programs, websites, or PR strategies highlighting significant contributions to Modern period architecture in St. Louis. Such programs may include working with building owners, developers, and / or real estate professionals to develop collective strategies.

12. With new styles, categories, and architectural descriptions defined, develop a style guide of Modern period architecture using CRO resources as examples. This could be further developed to create walking tours for interested local public, educational classes, or visitors.

13. Become creative when nominating historic districts. There were a number of mid-century clusters identified in the very broad windshield survey. There may be opportunities to define places and historic themes leading to new districts beyond those identified in the current database.

14. Partner with the local unions' interest in highlighting the history of the union halls. The union hall representative present at the public open house expressed support for a program that would bring attention to the role unions made to the history of St. Louis.

15. Partner with local and state Office of Tourism to highlight the mid-century modern resources of the City of St. Louis. As tourists are drawn to the Arch, offer opportunities to further discover other modern masterworks.

ABOVE: Scruggs-Vandervoort-Barney Service building BELOW: Langston Elementary (now Middle) Public School

Challenges

1. "Background buildings," those that reflect the trends, resource types, materials, and expression of the modern movement, greatly contribute to the Modern era in St. Louis, but many lack high style Modernism or an architect's design.

2. The implications of Urban Renewal, blight, racial relations, loss of jobs, and loss of population share an uncomfortable past in St. Louis's Modern movement. Understanding these implications and identifying the social impacts of architecture during this era may contribute to broader planning goals focused on resolving similar issues and revitalizing neighborhoods with modern era resources.

3. In an era of walkable cities and transit-oriented planning goals, how do we overlay preservation strategies associated with the auto-oriented culture of the Modern era? St. Louis's freeway development, drive-through banks, gas stations and fast food restaurants centered architectural design on a deep-rooted interaction with the automobile, a movement that drastically changed our urban environments. Further, the Modern Movement as a whole has been criticized for its planning and design strategies which tended to focus energy away from public streets. Encourage conversations and planning strategies that recognize the rich and impactful history of our car-obsessed past while achieving parallel goals for public transit, vibrant streetscapes, and traffic reduction.

ABOVE: former St. Hedwig Church BELOW: St. Nicholas Parish Center

Historic Contexts

Three historic contexts were developed in conjunction with the St. Louis Modern Survey:

1) "The Gateway Years," Community planning and Development impacting the built environment, 1940-1975
2) Architectural trends, forms, materials and expression important in the St. Louis school of Modern Movement architecture, c. 1945-1975
3) Modernist architects in practice in St. Louis, c. 1945-1975.

The National Park Service defines historic context as "a broad pattern of historical development in a community or its region that may be represented by historic resources."[1] Each context was written for specific reasons, assisting readers and researchers in analyzing and evaluating historic resources in light of broader occurrences and trends. None of the three context statements should be taken as a comprehensive history of St. Louis, but the proper evaluation of the Mid-Century resources covered in this survey can only be assessed with an understanding of the broad patterns that shaped their development.

ABOVE: Mark C. Steinberg Memorial Skating Ring and Recreation Building BELOW: Missouri Botanical Garden, Climatron

1 National Park Service, National Register Bulletin: Guidelines for Local Surveys, (1977/1985), accessed online February 20, 2013 at http://www.nps.gov/nr/publications/bulletins/nrb24/

Thematic Survey of Modern Movement Non-Residential Architecture, 1945 – 1975, in St. Louis City

Historic Context Statement
St. Louis: The Gateway Years, 1940 -1975

Betsy H. Bradley

City of Saint Louis Cultural Resources Office
City of Saint Louis, Missouri

Table of Contents

Introduction

The period covered by this historic context, 1940-1975, includes a time of extensive building in the non-residential sector of the built environment of St. Louis. The Gateway Years, 1955 to 1970, are the time during which Downtown St. Louis, The Arch project, the Mill Creek Valley urban renewal project, and other significant buildings transformed the built environment of St. Louis. This period was also a time when significant social and cultural changes were underway. The cultural changes that took place during the 1960s are evident to some extent in buildings constructed during the time, although with the loss of Gaslight Square entertainment district, the physical embodiment of the entertainment scene of the period is gone. The strong role of St. Louis in the Space Age and the influence of the city's musicians and other artists on the culture of the time warrant further investigation to understand how they are represented in the built environment.

This review of physical changes in St. Louis traces a dramatic transformation in outlook and image in St. Louis through architecture. At the end of World War II, the city had the form and mind-set of a conservative nineteenth-century urban area for which Downtown was the Central Business District of a small metropolitan region. By 1970, nearly everything had changed – socially, and culturally, and in many ways physically. As architectural survey contexts highlight the relationship between people and places, this context centers on physical changes. It is meant to provide an overview of what took place and begin to establish how we can understand the changes the city experienced during the Gateway Years.

St. Louis at Mid Century

Descriptions of the City of St. Louis during the mid-twentieth century included some constant factors and many changes. The geographic extent of the city – a 66.2 square-mile irregularly shaped area on the west bank of the Mississippi River – did not change during this period. Yet by the 1970s, the structure of the city was emphatically different from its earlier incarnation as a riverfront-oriented city center surrounded by residential neighborhoods. A description of the city from the 1970s emphasized the "strong structure" provided by the T-shaped area of the central riverfront – by then a National Park Service site – and a prominent east-west transportation corridor, the Central Corridor (Figure 1).

The original transportation structure of the Central Corridor, a trans-regional railroad line with its associated yards and local transfer railroad, was reinforced and framed by the construction of roughly parallel interstate highways (I-64 and I-44). The areas closest to these transportation arteries were developed or redeveloped for industrial and commercial uses. During the Gateway years, three concentrations of non-residential development within the T-shape prospered. The Central Business District (CBD), at the juncture of the T, remained important even as the dominant uses in Downtown changed. An area distinctly west of downtown consisted of the Grand Center commercial and entertainment district and St. Louis University, which experienced a transformation during the post war years. Lindell Avenue, first developed as a residential street, became increasingly dominated by other uses and connected this area to the next important node, the eastern edge of Forest Park where the Central West End neighborhood met the cluster of the Jewish, Barnes and Christian Hospitals and the Washington University Medical School. These areas grew towards each other as a concentration of mid-twentieth-century development with varying degrees of intensity and reinforced the centrality of the transportation corridor. Two of the four major universities and other institutions were located in this corridor, as were 26 of the 46 major hospitals and two major medical schools.[1] The most prominent recreational and cultural facilities in the metropolitan area and most of city's luxury apartments were in the Central Corridor as well.

[1] This general description is based on City Plan Commission, *St. Louis Development Program* (1973), 14-20.

Northern and southern transportation routes, both state highways and railroad lines, cut through neighborhoods and connected the city to the surrounding area. But neither I-55, extending south from Downtown roughly parallel to the Mississippi River, nor I-70, connecting Downtown to the north riverfront, north side neighborhoods, the airport and points west, spurred significant new development in their corridors.

The city's residential neighborhoods were north and south of the Central Corridor. Development patterns did not differ notably from the north to south sides as the city was built out prior to the depression of the 1930s. After World War II, residential construction filled in some vacant areas near the periphery of the city. (A separate historic context will address residential development during the period covered by this context.)

Mid-century development in the city was shaped by the fact that its boundary was set and it did not expand with annexations and consolidations as many cities did during this period. The amount of land available for new development after World War II was limited to discreet areas – prior to Urban Renewal projects. The population of the city had a post-war peak in 1950 and declined each decade after that time. Nevertheless, in 1960 the city ranked tenth in population in the United States.

In terms of industrial and commercial construction during the post war period, some areas in the city had been less than fully developed and there were some empty building sites. Extensive rezoning for more industrial use was proposed in the 1947 Comprehensive Plan as planners recognized that too much of the city was zoned for residential use. The need for re-development and new construction for industrial and freight-handling was documented and promoted.

On the home front during World War II, leaders of St. Louis had been both well aware of the challenges they faced and optimistic about the future. Municipal officials offered a sober view in the study released in 1942, "Saint Louis After World War II."[2] Leaders in commerce and business took on the role of community "boosters" ad emphasized advantages and opportunities, rather than on-going problems. Together, these outlooks provided a snapshot of the city during the early 1940s, looking ahead.

The City Official's View. After decades of growth in population, the demographic picture had become more complicated and unsettling during the 1920s and 1930s. For the first time, a loss of population in a large area in the central city was reported in the 1920 census. A decade later an even larger area lost 25 percent of its residents. By 1940, a population loss of 56 percent occurred much beyond that core area and that count was the first census that indicated a city-wide loss of population from the previous one. The city experienced wave-like migrations of population, moving east to west, and the move continued west of the city into St. Louis County by that time. The effects of population loss – vacant properties, higher taxes, tax delinquency, and foreclosures – were sobering.[3]

Residential construction documented where the gain of population was taking place that countered the loss in the city. Eighty percent of all new houses in the St. Louis metropolitan region had been built outside city limits during the five years prior to 1942. The central residential areas had an older building stock, with one-third of the dwellings constructed before 1900. Residents seemed to agree with city leaders that housing over 50 years of age at that time was generally substandard. The most slum-like areas were in the central area adjacent to Downtown, surrounded by blighted areas exhibiting lack of maintenance and disinvestment. Newer housing was located at the city's outskirts and beyond. Yet plans could be imagined that would reverse these trends: large-scale demolition and reconstruction of the obsolete slum areas and rehabilitation of blighted areas.[4]

After all, there were no reasons why St. Louis should become "decadent." It had always been among the ten largest cities in the US and had a strategic location and excellent transportation connections. St. Louis had important and diversified industries and a strong wholesale and retail trade. Moreover, the

[2] City Plan Commission, *Saint Louis After World War II* (December 1942).
[3] Ibid, 7-13.
[4] Ibid, 14-20.

city had reinvested in its infrastructure during the 1920s and 1930s and rebuilt the water supply and sewer system, as well as many streets. Complacency and the poor condition of privately-owned property were considered to be among the main problems. City officials asserted that coordinated, large scale reconstruction was the solution.[5]

The Booster's View. As St. Louis businessmen looked to the future during WWII, they envisioned the city as the hub of a regional, metropolitan center of commerce, which had an aggregate population of just over 2,500,000 residents. St. Louis would be the center of a St. Louis Region, an area with a 100-mile radius that could be traveled in three hours. This characterization of the region measured in time, as well as miles, was based on what was perceived to be the basis of commercial influence in the future.[6]

St. Louis' mid-continent location and transportation networks seemed to be positioned at a critical crossroads nationwide, and this location was central in many of the ways the city was promoted to business and industrial concerns during the post-War decades. The city's port was centrally located in the large inland waterway, the river network that extended from St. Paul to New Orleans, to the Great Lakes, Pittsburgh, Kansas City, and Gulf of Mexico ports. Barge transport was predicted to be the economical means to carry bulk goods and freight. Land-based transportation would also be important as the presence of over 300 truck lines already operating out of St. Louis indicated. The 19 trunk line railroads serving the area were still considered important. Certainly, St. Louis was also well positioned to become a hub for cross-country air travel connections.[7]

The city's commerce in 1940 was grounded in manufacturing and wholesale distribution of goods. Food and related products led the manufacturing sector, followed by chemicals and allied products, iron and steel, and autos and equipment. Apparel and fabric were also noted sectors of manufacturing and together constituted the largest category of the wholesale trade. The city's wholesale distribution sector served the entire nation, but was concentrated in the west, southwest and southeast. In 1942, it was hard to imagine how this role would change.[8]

As the National Resources Planning Board made plans for postwar conditions and full employment in 1942, industrial leaders projected that the St. Louis region would continue as a diversified center of manufacturing and distribution point of consumer and medicinal products and foodstuffs. The diversification of the commercial and industrial sectors that had served the St. Louis Region well through earlier boom and depression times would, no doubt, serve well in post war times.[9]

A More Sobering View from 1950: Decay or Progress?
The prospects for an idealized, modern civilian life after World War II were emphasized as the years of war continued. Then, during the first years of peace, the time required to convert from war-time industry to the production of capital goods and for the building construction sector to restart, no doubt, seemed agonizingly slow. When "progress" seemed elusive, impatience and long-term problems tarnished the sheen of post-war modern life.

Richard G. Baumhoff's multi-part series entitled "Progress or Decay? St. Louis Must Choose" in the *Post Dispatch* published during the spring of 1950 represented the adjustment to reality. Baumhoff described several major aspects of the city's civic realm – education, race relations, the state of downtown, industry, and others – and thereby articulated the concerns that had no doubt been troubling many St. Louis residents for some time.

Baumhoff characterized Downtown as the "City's Ailing Heart" as he argued that, with without a vigorous downtown, St. Louis would lose its chief economic reason for existence and the metropolitan

[5] Ibid, 20-23.
[6] *Development of the St. Louis Region*, Fruin-Colnon Contracting Co., (St. Louis, 1942), 1-8.
[7] Ibid, 10-13.
[8] Ibid, 23-24.
[9] Ibid, 33, 37.

area would suffer economically, culturally and physically. The reporter contrasted traditional downtown shopping with the emerging decentralization of residential and commercial uses, as well as downtown's out-dated storefronts with new suburban stores with off-street parking. Downtown was unappealing, surrounded by a ring of slums and light industry. Baumhoff described industry as being held back by a "strait-jacket" due to the lack of space, danger of flooding, and other complications. The fact that some factories had been idle since the end of the war did not indicate industrial progress either. Baumhoff characterized the city's school system as impoverished with its outmoded facilities and low pay for teachers and described the segregated life of the city's Negro residents.[10]

During these years St. Louis was featured in *The Saturday Evening Post*, the popular feature story magazine of the era, in a not very flattering light. An article noted several indicators of decline: businesses relocating out of the Central Business District, the fact that no new office buildings had been built in 25 years, old and overcrowded schools and hospitals, and hopelessly congested downtown traffic. Over one-third of the blocks in the city had been classified as blighted.[11] *Fortune* magazine declared St. Louis was a city "on the downgrade." Observers found the political and civic leadership to have declined and that conservatism and complacency had overtaken the community. The city government was impoverished and the city faced a $4-million budget deficit in 1953.[12]

No doubt to counter the "City in Decay" lament, and after a term in office, Mayor Joseph Darst issued *An American City, Four Years' Progress* in 1953, at the end of his term in office. He identified broad categories for civic work: community and city planning; city beautification; slum clearance; low cost housing; improvement in traffic and transit; modern facilities for air travel; civil defense; and revamping city finance. Darst prompted the formation of a group of leading businessmen, Civic Progress, Inc., to assist on the private sector side to make needed changes. [13]

Darst's report and others on the status of the city during the 1950s, include a section on one of the overarching concerns of this area, and the decades that followed to some extent: Civil Defense and the Cold War. The city turned to Raymond R. Tucker, long prominent as a professor of Mechanical Engineering at Washington University and a civic leader, to lead its Office of Civil Defense in circa 1950. Tucker's report, "If War Should Come" boldly stated that it was expected that the next war would have a heavy toll on civilians. Tucker alerted residents that, according to national strategists, St. Louis would be in the path of an attack south through the center of the country and the Mississippi Valley. The distribution of information, preparing of city departments to continue their work after an attack, and the initiation of a siren attack-warning system were first steps in the Civil Defense program. In 1953, St. Louis considered itself "50 percent ready for any eventuality."[14] The 1955 bond issue included funds for a Civil Defense headquarters facility, which was built northwest of the city at an undisclosed location.

The early 1950s years had their high points as well. St. Louis was on its way to being an air travel hub. Lambert Field owned and operated by the city was centrally located in the country, handled civilian, military, and commercial flights, and was being developed with improved runways and a modern terminal building. Meanwhile, increased automobile traffic and congestion, as well as parking, were problems being managed. The installation of 7,500 parking meters in the downtown area was a means to free parking spots throughout the day as all-day parking was prohibited. An earnings tax had become effective in September 1952 as a means to stabilize and improve city finances. Educational television was being planned and "Channel Nine" was acquired by the city for that use. Public housing

---

[10] Richard G. Baumhoff, "The City's Ailing Heart" section of "Progress or Decay? St. Louis Must Choose" series, *Post Dispatch*, April 23, 1950.
[11] *The Saturday Evening Post* quoted in Leo Adde, *Nine Cities: The Anatomy of Downtown Renewal* (Urban Land Institute, 1969), 196.
[12] *Fortune* quoted in Adde, 197.
[13] *An American City, Four Years' Progress, St. Louis 1949-1953* (St. Louis, 1953).
[14] Ibid, quote p. 32. Tucker followed Darst as Mayor and served three terms, from 1953 to 1965.

was constructed and the expressway system was in the planning stages. Progress had become the unifying goal in St. Louis.[15]

The turn-around was in full swing by the mid-1950s. Magazine article headlines included "St. Louis Snaps Out of It" *(Fortune* July 1956) and "St. Louis Wakes Itself Up" (*Harpers* March 1956). Complacency was set aside as civic leaders realized that St. Louis City had to become a more convenient place to live and work, or more of the middle class would leave. By this time federal and state urban renewal programs were in place and St. Louis leaders in government and the private sector were poised to make use of them.

St. Louis and American West: The Gateway Years

The Gateway Arch, completed during the mid-1960s, was a symbolic reminder of the important role that St. Louis had as the Gateway to the American West. The project had a more important contemporary effect as a key component of the mid-century turn-around in St. Louis. The effect of the project was so dominant, that the term "Gateway Years" best characterizes the post-war era in St. Louis.

The idea for clearing the riverfront and establishing a memorial to the Louisiana Purchase gained traction during the 1930s as Luther Ely Smith, a prominent St. Louis attorney, promoted his idea for the memorial. The residents of St. Louis passed a special bond issue in 1935 to finance the city's share of the project, which included the acquisition of considerable land – 90 acres that comprised 37 entire city blocks – and the demolition of what to many were old riverfront commercial buildings. These buildings represented one of the largest and most intact collections of cast-iron commercial buildings outside of New York City. Despite their value to architectural historians, they were leveled between 1939 and 1942. The national design competition for the new memorial was completed in 1948 and the design proposed by architect Eero Saarinen was selected. The "Saarinen Arch," as it was first known, was well received by the public and architecture critics. Nevertheless descriptions of the Arch included the "stupendous hairpin" and the "stainless steel hitching post," indicating some skepticism and inability to envision the new Memorial. Construction of the Arch was delayed by the need to relocate the railroad that passed through the grounds and to secure construction funding from a Congress distracted by the Korean War. Ground was broken for the Arch in 1959. It was completed in 1965 and during this time St. Louisians watched, step by anxious step (Figure 2). Another delay occurred before the National Park Service completed the landscaping of the Memorial grounds during the 1970s.[16]

The Jefferson Memorial Expansion Memorial and its central feature, the Gateway Arch, had effects on the City of St. Louis that were psychological, economic, symbolic, and physical as it became the centerpiece of the city's new waterfront redevelopment at the western edge of downtown (Figure 3). During the early 1950s, the primary effect of the "Saarinen Arch" was galvanizing. Leo Adde, who studied St. Louis and several other American cities during the 1950s and 1960s, noted that:

> No city requires a large, expensive monument in order to function as a city… But it seems clear that the existence of Gateway Arch will have an influence on St. Louis' attitude toward and attack upon its problem... The Arch seems to fill St. Louis' need for an identity which takes into account the city's past, when it was literally the gateway for western expansion, and its future as a metropolis which is both highly industrialized and desirable as a place to live.[17]

---

[15] Ibid, several pages.

[16] *Jefferson National Expansion Memorial Gateway Arch Historic Structures Report*, Vol. 1 (June 2010), prepared by Bahr Vermeer Haecker Architects, Wiss, Janney, Elstner Associates, Inc. and Alvine and Associates, Inc. for the National Park Service. pp. 15-22; quote p. 22 http://www.nps.gov/jeff/historyculture/upload/VOLUME-1-COMPLETE-HSR.pdf, accessed March 21, 2013; St. Louis City Plan Commission, *St. Louis Development Program* (1973), 24.

[17] Adde, 198-199.

The promise of the Gateway Arch was critical to the proposal and funding of other downtown projects and was hailed as "The Dream That Came True" as soon as construction started. Adde pointed out that a remarkable downtown transformation was climaxed by the completion of the Gateway Arch. It was the anticipation of the Arch, not its physical presence, that restarted development in downtown St. Louis. By the time the Arch was completed, developers, the City Plan Commission, and civic leaders had decided what the immediate urban setting for the Arch would be and much of it was completed. The Arch, rather than standing as the only symbol of a revitalized downtown, stood among other large redevelopment projects.

The question of what should be built near the Arch and what form it should take was on many people's minds during 1960. Several projects were underway south of the Old Courthouse opposite the Arch and two proposals were under consideration for the blocks north of that center point. Local architectural critic George McCue noted the "powerful visual effect of the Arch"[18] and that care must be taken so that the gleaming structure dominated over the entire downtown. Yet McCue also asserted that the "ripples of visual excitement" provided by the Arch should be carried into downtown – particularly with what would be built on 3rd Street.[19]

McCue reminded readers that Eero Saarinen had wanted a "neutral setting" at the city's edge so that the Arch would be the dominant element. A model that the National Park Service (Figure 4) had on display depicted uniform volumes of moderate height evenly spaced along 3rd Street that would be that neutral backdrop for the Arch.[20] Saarinen recommended a height of 200 feet for new buildings; neither taller nor shorter buildings would have a good relationship with the arch, which he thought should be three times higher than nearby buildings.[21]

Two redevelopment proposals – one in 1960 and another in 1967 – clarified the discussion of the physical relationship between the City and the Arch, particularly the effect of the height of new buildings in its vicinity. Redevelopment proposals for the blocks between 3rd and 4th, Pine and Washington sparked McCue's comments about the Arch and the City as he considered the merits of two plans for the same location. The critic concluded his analysis of the plans by demanding visual quality, public space and a promenade from which to view the Arch and its grounds as part of either project.[22] McCue, after carefully considering both plans, supported the one with taller towers, the Mansion House Center. He commented that the plan

> would inject some sorely needed excitement into our drab riverfront skyline, and its buildings would stand up, along with the Saarinen arch, as high elements that would help re-establish the presence of our long-neglected river. Visible from a distance, uptown, they would beckon visitors with their bold forms by day and their lighted windows at night, to an area of revived human activities.[23]

As Schwarz & Van Hoefen refined the design for Mansion House Center, the proposed height of its two residential towers became an issue. The plan was finalized with three towers rising to the height of 28 stories in 1965. The Arch was proposed initially to be a 590-foot-tall structure, but during 1959 its height was raised to 630 feet. By that time the Mansion House Center towers were on the drawing boards and it must have been clear that other tall buildings would follow. Eero Saarinen, the National Park Service, and city leaders realized the importance in controlling the relationship between the height of tall buildings and the Arch. St. Louis Mayor Raymond Tucker concurred with National Park Service Director

[18] George McCue, "High and Low Plans for Riverfront," *Post-Dispatch*, January 31, 1960.
[19] Ibid.
[20] Ibid .
[21] "Saarinen for 1-to-3 Height Ratio of Nearby Buildings to Arch." *Post Dispatch* June 12, 1960.
[22] George McCue, "High-Rise Design for Riverfront," *Post-Dispatch* March 13, 1960.
[23] Ibid.

Conrad Wirth, in a verbal agreement made in October 1959, that no buildings fronting the memorial site would be taller than 275 feet, approximately 27 stories (Figure 5).[24]

The issue arose again in 1967 when the redevelopment of the Laclede's Landing area was under consideration. A tower 550 feet in height and additional, somewhat shorter towers were proposed in this nine-block area north of the Arch grounds, between the Eads Bridge and the Veteran's Bridge (now the Martin Luther King Bridge). Although the tallest tower would be near the northern edge of the area and not particularly close to the Arch, the National Park Service strongly opposed its height. At this time, the verbal nature of the agreement and the poorly defined area that would be affected by it indicated a need for a firmer basis of regulation. Mayor Cervantes was not in opposition to a 250-foot height limitation, but questioned the extent of the area to be regulated.[25] The *Post-Dispatch* editorialized that it was important to establish the height limit by law as the likelihood for more new construction was strong. Moreover, "anything that detracts from the grandeur of the Arch will detract from the downtown area."[26]

The renewed discussion of the height limit was the opportunity for some posturing over the funding needed to complete the Arch grounds, which had yet to be landscaped. Mayor Cervantes bristled at the thought that the Federal Government could expect to have veto power in the vicinity of the Arch unless the grounds were completed, as he thought the Federal Government had reneged on its promise to finish the construction of the grounds. When it came time for budget hearings in Washington D.C., National Park Service officials countered that Congress might withhold funds from the memorial if high-rise buildings were allowed to compete with the Gateway Arch.[27]

The Laclede's Landing towers proposal did not go forward**.** The City Plan Commission staff undertook a special study of the height and form of buildings as they related to the Old Courthouse and Arch, based on the goal "to develop a skyline with form, emphasis and identity embracing the Arch as an integral part."[28] The Commission suggested that the height of buildings in the immediate vicinity be limited to that of the Mansion House Center towers and that in a surrounding area, an additional 100 feet be allowed. The study also made recommendations for the height and form of buildings adjacent to the Gateway Mall, the block-wide mall that had been proposed for the area between the Old Courthouse to the Municipal Courts Building in 1960. The Commission's recommendations were not adopted. Nevertheless, a new zoning district, the "L" Jefferson Memorial District, was established by ordinance #54846 adopted in December 1967. The district included the area east of Broadway, to Chouteau on the south and Carr Avenue (formerly Franklin) on the north. It had provisions identical to Zone "I", the Central Business District, except that building height could not exceed the mean sea level elevation of 751 feet.[29]

The new projects that formed the "St. Louis New Riverfront Row" during the 1960s could hardly be categorized as neutral additions to the downtown (Figure 6). The Stouffers Riverfront Inn, the important modern motel/hotel near the new Busch Stadium and the Memorial Arch, was built with one tall cylindrical tower capped with a revolving restaurant and curving low-rise wings, and was joined by a

---

[24] *Jefferson National Expansion Memorial Gateway Arch Historic Structures Report*, 23 and 26; "High Buildings Near the Arch Called Threat to Park Funds," *Post-Dispatch* January 30, 1967.
[25] *Post-Dispatch* November 12, 1967, Riverfront Memorial Scrapbook, Mo His
[26] Editorial, *Post Dispatch*, July 19, 1967, Riverfront Memorial Scrapbook, Mo His
[27] *Globe Democrat*, July 11, 1967, Riverfront Memorial Scrapbook, Mo His; add NPS source
[28] *53rd Annual Report of the City Plan Commission, 1967-68*, 50 quote; 50-54.
[29] Ibid, 50-54; Benjamin M. Gerber, "Urban Height Restrictions Without Law: A Philadelphia Story," http://www.planning.org/divisions/planningandlaw/writingcompetition/pdf/gerber.pdf, Accessed March 21, 2013; Colin Gordon, *Mapping Decline: St. Louis and the Fate of the American City* (University of Pennsylvania Press, 2008), note 45, 252.

second, lower tower that featured a dramatic atrium.[30] This new lodging in downtown, designed by William B. Tabler in 1966, was the height of modernity at the time. Hellmuth, Obata & Kassabaum's 1966 Gateway Tower rose to 20 stories, adjacent to a lower wing. Saarinen's vision for a uniform eastern edge to the Central Business District along the Memorial grounds had been replaced with a series of 1960s projects that provided architectural individuality. Alfred L. Aydelott was determined that the Pet Headquarters Building would represent "a dot at the end of a sentence, an important endpoint in a line of significant buildings centered on the Gateway Arch."[31] The distinctive 13-story Pet executive office tower designed by Aydelott in 1969 in the Brutalist style, did just that.

After living with the completed Arch for a few years, the press noted its positive contributions to the city. George McCue declared it a "Life-Giving Contribution to Revitalization of St. Louis' Identity."[32] The City Directory for 1969 indicates that over 40 businesses in St. Louis had added "Gateway" to the beginning of their names. Sue Ann Wood, writing for the *Globe-Democrat* in 1974, asserted that the "Arch Has Made Sky the Limit for City."[33] Wood boasted that in the ten years that the Arch had been completed, it had become one of the most popular man-made attractions. In this tourist attraction role, the Arch has had an economic impact greater than most residents of St. Louis had imagined (Figure 7). The overall cost for the Arch, landscaped grounds, and underground museum was projected to be $45 million. Yet more than twice that amount had been spent on new construction in downtown St. Louis. Businessman Donald Lasater commented that few realized the impact that the Arch would have on the city. "It has brought greater confidence in St. Louis and it has increased the pride of the people in St. Louis," he stated, and was known all over the world. He asked,

> Would there have been a downtown stadium, a Mansion House Center, a Mercantile Center and all the other new structures without the Arch? Nobody, of course, can say for sure, but most observers think the Arch provided the necessary spark."[34]

Relationship between People and Government

Using Government Programs to Re-shape the Built Environment

While federal money is well known as the central component of the funding for the interstate highway construction program, federal programs and funding also shaped additional components of the city during the Gateway Years. St. Louis used the programs to construct an extensive amount of public housing. The city also initiated a St. Louis Neighborhood Rehabilitation Program in 1954 and focused on the West End neighborhood through conservation and rehabilitation during the 1950s and 1960s. These housing-focused programs, not addressed in this context, were nonetheless important components of the city's urban renewal program that shaped the built environment during the 1950s and 1960s.[35]

Director of the City's Land Clearance and Redevelopment Authority (LCRA) Charles Farris and other St. Louis municipal leaders were adept at using urban renewal programs for public projects and to support the work of redevelopment corporations to realize new construction. The city government had an

---

[30] Originally proposed as the Mayfair Riverfront Inn, refinancing brought Stouffers into the project before it was completed. The second tower was completed in 1975.
[31] Aydelott quote, Pet Plaza National Register of Historic Places Nomination Form, Stacy Stone and Carolyn Toft, 2004, 8.10.
[32] George McCue, "Arch a Life-Giving Contribution to Revitalization of St. Louis' Identity," *Post-Dispatch*, June 19, 1968.
[33] Sue Ann Wood, "Arch has made sky the limit for city," *Globe-Democrat*, August 31 and September 1, 1974.
[34] Ibid.
[35] *St. Louis Development Program,* St. Louis City Plan Commission, June 1973, 22-25.

activist role in promoting development and the City Plan Commission reviewed and approved redevelopment projects. This new mode of development both heightened the public support for private projects and blurred the line between the two main types of project proponents, public and private.

The First Step: Public Housing

Leaders in St. Louis had begun to consider the need for the redevelopment of some of the old and deteriorated areas of the City during the 1930s.[36] The 1947 Comprehensive Plan proposed reconstruction of obsolete neighborhoods by creating residential super blocks and a revised street system to limit traffic in residential areas.

These large-scale urban renewal possibilities were delayed by the economic depression and the war years of the early 1940s. The construction of new public housing projects introduced redevelopment on a moderate scale. The St. Louis Housing Authority, established in 1939, was the City's agency that worked with the Federal Public Housing Administration in both the construction and operation of low-income housing. The first two construction projects, Carr-Square and Clinton-Peabody Terrace, were in use by 1942 and remained the only city projects completed before the end of World War II.

By the late 1940s, renewed interest in providing housing was no doubt related to the fact that over half of the City's housing supply had been categorized as in some state of deterioration. The post-war projects included Cochran Garden Apartments, completed in April 1953, and the Pruitt-Igoe, Vaughn, and Darst-Webbe Apartments, on which construction began in 1953; none of these projects remain standing. This housing introduced a much larger scale of redevelopment (Figure 8) than earlier housing projects and St. Louis had several developments: ten large-scale public housing developments of 8,045 units, for approximately 30,000 residents, were completed by 1965. The sites for these new housing developments were relatively close to downtown St. Louis, and were situated on both the north and south sides of the CBD. The Grandel Urban Renewal project, initiated in 1967, provided both apartments and commercial development, and was the first urban renewal undertaking not immediately adjacent to downtown. An early 21st Century redevelopment of the Grandel-Blumeyer project area is nearly complete and all of the Gateway Years public housing projects have been demolished.

New Programs, New projects: Urban Renewal

Missouri Statutes. Critical state statutes supported the private/public partnership to redevelop urban areas in Missouri. The Urban Redevelopment Corporation Law was passed exclusively for St. Louis in 1943 and later made available to other large cities. This act granted eminent domain powers to private redevelopment corporations for land acquisition. An amendment in 1945 added real estate property tax abatement to private corporations for up to 25 years. St. Louis City leaders took a key step to make this program operable in St. Louis in 1951 when the Board of Aldermen created the Land Clearance for Redevelopment Authority (LCRA), as required by the 1949 Act. The LCRA could buy and clear blighted areas and then sell property to developers who agreed to rebuild in accordance with an approved plan. Though authorized in 1945, this "Chapter 353" provision, was not used for a decade. The Plaza Square project was the first in St. Louis to use Chapter 353 tax abatement; within a few years, hardly any project was undertaken in downtown St. Louis without it.[37]

The Expanded Federal Program.

1949 was a pivotal year for urban renewal plans as that year federal legislation authorized Title I Urban Redevelopment. Under this program, land cleared of existing buildings could be used for a variety of purposes – not just public housing. This program operated in conjunction with the Missouri Urban

[36] This section is drawn from *St. Louis Development Program,* St. Louis City Plan Commission, June 1973 and the City of St. Louis *1947 Comprehensive Plan*, Housing section.
[37] This section draws from St. Louis City Plan Commission, *St. Louis Development Program* (St. Louis 1973).

Redevelopment Corporation Law 353. Local authorities were authorized to identify and blight an area desirable for redevelopment. Federal funds could be used to clear and assemble the land. The new construction was likely to be in the hands of private redevelopment corporations. In a sense, the power of eminent domain was "borrowed" for private projects.[38]

Projects initiated under these programs changed the built environment of two main areas of St. Louis: the Mill Creek Valley Urban Renewal site and downtown St. Louis. Many post-war projects used more than one of the new governmental programs that came into being after World War II. St. Louis municipal leaders supported the use of Urban Renewal programs for land assembly and tax abatement for projects of various sizes in Downtown. No doubt, these projects were considered important for the image of St. Louis, its continuing appeal to the more prosperous residents of the metro region and for the attraction of commercial and industrial investment. As many of the urban renewal projects were located in the Downtown and the Central Corridor, they eliminated some of the worst residential areas, some of the city's oldest buildings that had been allowed to become substandard housing.

Mill Creek Valley Urban Renewal Area

Mill Creek Valley was the largest urban redevelopment area and, due to its central location along transportation routes and size, had a significant impact on the city. While the 1949 legislation allowed for land uses other than housing, an amendment to the federal Urban Redevelopment Law in 1954 placed greater emphasis on commercial and industrial redevelopment. St. Louis took advantage of this change to undertake one of the largest areas in the country cleared for renewal. The new plan for the area supported mixed use and transportation: new industrial sites and commercial expansion, new highways, and new housing (Figure 9). The area was determined to be "unsanitary," a term now replaced by "blighted," during the 1954-55 City Plan Commission work year and the LCRA began to acquire land in 1958. The cleared site of over 450 acres was so large and centrally located that it seemed like a scar in the city for years and earned the nickname "Hiroshima Flats."

One of the foremost effects of the land acquisition and clearance was the dislocation of over 1,700 families and another 600 individuals prior to the demolition of the existing buildings (Figure 10). Virtually all of these residents were African Americans with low incomes and few housing options. The Mill Creek Valley neighborhood disappeared and residents were moved to various locations. See "The African American Experience" section for a further discussion of the effect of the Mill Creek Valley relocations.[39]

Charles Farris announced in 1973 that the Mill Creek Valley Urban Renewal project was substantially complete. City leaders boasted that the nearly 7,000 residents lived in a safe, attractive, and physically sound portion of the city in new housing. Housing was developed in the form of distinct neighborhoods, and included both high-rise and low-rise buildings. Laclede Town was heralded as a very successful housing development. Operation Breakthrough projects, which demonstrated modular housing construction, completed the housing construction. Only a small portion of this housing remains. The Council Plaza project developed as elderly housing, listed in the National Register, has been recently rehabilitated. The nearby high-rise towers, originally known as the Grand Towers, and a small low-rise project to the east, Grand Forest, and Heritage House also remain as examples of Mill Creek Valley urban renewal housing. The east of Grand portion of the St. Louis University campus also represents the redevelopment of the Mill Creek Valley area (Figure 11).[40]

---

[38] Adde, 202 and *St. Louis Development Program*, 20.
[39] *39th Annual Report of the City Plan Commission, 1954-55*, 71; *St. Louis Development Program*, 20-22.
[40] Marie Agnes Murphy, *The Metropolitan Project: Leadership, Policy and Development in St. Louis, MO, 1956-1980.* (University of Virginia Dissertation, 2004), 100; *St. Louis Development Program,* 20-21.

The project also supported job creation and tax revenue with construction sites zoned for industry and commerce. Historian Marie Agnes Murphy, who studied St. Louis redevelopment during the 1956 to 1980 period, concludes that this aspect of the city's urban renewal program was shrewd and successful. Farris had been mandated to focus on the re-industrialization of the inner city. The area for this use was located between and adjacent to I-64/40 and I-44 and offered the conditions that could be found in suburban industrial parks. Parcel size was tailored to small and medium-sized firms that were most likely to have an interest in remaining in the city. The parcels were quickly redeveloped and then occupied throughout the 1970s and 1880s. The Mill Creek Park development, west of Jefferson and north of I-64/40, a small industrial park for light industry on the northern edge of the Urban Renewal area, epitomizes this reindustrialization in Mill Creek Valley.[41]

Murphy understands this industrial aspect of the Mill Creek Valley redevelopment as "a creative and impressive effort by local leaders to resolve contradictions of inner city commercial-industrial development."[42] Charles Farris and a group of city leaders attempted to establish conditions that provide economic opportunities and better housing, and in these ways revitalize the urban core of the city during a time of great change. Murphy states that the industrial redevelopment component of the Mill Creek Valley Urban Renewal project was critical in the strategy to provide a choice to manufacturing firms of whether to stay in the city or move to the suburbs.

The Kosciusko Area Renewal Project. This project, initiated in 1960, was an additional effort to provide parcels within the city for industrial and commercial development. The project displaced 2,200 residents from a 221-acre site located south of Downtown and included the demolition of some of the oldest remaining buildings in the city. The South Broadway Merchants' Plan guided the retention of commercial uses and the reorganization of the area and its rehabilitation. Eighty-two percent of the properties in the project area were purchased and demolished and 134.4 acres were redeveloped for industrial uses. There was no new residential development in this project area.[43]

The Grandel Project. This project was tailored to its location considerably west of Downtown, near the mid-town commercial and entertainment area known as Grand Center. It encouraged black entrepreneurship in the development of a small shopping center. The block east of Grand, between Page and Franklin, was set aside for this use and the blockfront on Grand to the north was to be used for institutional use, with commercial use as a second choice. The Blumeyer housing development was part of this project as well. Land clearance of the area began in April 1967; construction of new retail began in 1968 and included a modern supermarket, City Center Market. See the African American Experience section for more on this project.[44]

The New Approach to Development. Throughout the 1960s and 1970s, projects that used Urban Renewal incentives reshaped St. Louis. Redevelopment continued in the Kosciusko and Desoto-Carr project areas. The Ralston Purina Company was a key proponent of the LaSalle Park project, located just south of downtown where its headquarters was located. The company provided the local match for federal funding for projects in this portion of the city.

Through the use of the Missouri Chapter 353 Redevelopment Law, and federal statues, the City provided investors with land acquisition assistance and tax incentives. Many prominent projects were

---

[41] Marie Agnes Murphy, *The Metropolitan Project: Leadership, Policy and Development in St. Louis, MO, 1956-1980.* (University of Virginia Dissertation, 2004), 56-73, 102-111; *Mill Creek Park* brochure (c.1960).
[42] Murphy, 41.
[43] *St. Louis Development Program*, 22.
[44] *St. Louis Development Program*, 23.

the result of this public/private investment. So common was the use of redevelopment tools, that it was news if a major project in the City was relying solely on private financing.[45]

Bond Issues and Infrastructure Improvements

A bond issue passed in 1953 funded some initial projects in the renewal of the city's infrastructure. But two other funding initiatives – the 1955 Bond Issue and the mid-1960s Capital Improvement Program – had a broader reach in the city. In 1955, residents voted to spend over $110 million in a ten year program to upgrade various aspects of the city's infrastructure. The program included over 20 categories of projects, some of which had a highly-visible presence in the city and the work resulted in modern civic buildings in many neighborhoods. The bond issue funded the acquisition of property for expressways, improvements to parks and playgrounds, construction of the Planetarium, improvements at the Zoo, an addition to the Art Museum, new branch libraries, community centers and fire stations, and the construction of a civil defense center and the flood control walls. Thousands of streetlights were installed and miles of streets were resurfaced. The breadth of the type of projects included is notable. The Planetarium, designed by Hellmuth, Obata & Kassabaum in 1963, was known as the only such facility in the United States to be built with public funds, more specifically funds approved in a bond issue approved by popular vote. A list of 1955 Bond Issue projects is included in Appendix A.[46]

Mayor Tucker reported on the progress of these projects in 1959. By that time 30 miles of streets had been surfaced and 17 miles had been widened. The vehicle deck on the McArthur Bridge had been rebuilt and considerable work had been done on the city's railroad viaducts. Improvements to the City's health care facilities included a laboratory at City Hospital, a new clinic building near the Homer G. Philips Hospital, and the Cass Avenue Health Center. The fire department was using three new fire stations, some upgraded stations, and six new pumper trucks. A trash incinerator and a garbage grinding facility were among the more work-a-day items. Several public buildings had been cleaned and improved, including the Kiel Auditorium.[47]

The bond issues continued. In 1962, the voters approved 7 of 11 bond issues on the ballot. Over $23 million was approved to build and modernize school buildings. The Busch Memorial Stadium area public improvements were funded at $6 million and small amounts were added to the new juvenile court and detention facility, parks and playgrounds improvements, and branch public libraries projects. Air conditioning was installed in City Hall. Voters supported health and hospital projects and more street lighting and other projects in a 1966 bond issue and the following year voted to bond $2 million dollars for City infrastructure adjacent to the Jefferson National Expansion Memorial project site where the Arch stood. Voters passed a $95 million Clean Water bond issue for a new sewage treatment plant during the late 1960s.[48]

Community Planning and Development

Prior to this period, the City of St. Louis had a strong tradition of city planning and its City Plan Commission was an influential body on which prominent citizens served. The Commission guided the physical development of the city during the immediate post war period and Gateway Years with some important changes to zoning, project review, and plans for Downtown.

---

[45] "Progress on Major St. Louis Projects," *St. Louis Construction News and Review* (October 16, 1972) 1; Donald Lasater emphasized that no local, state or federal funds were involved in the Mercantile Center project.
[46] Toft, *The Way We Came*, 78; Women's Architectural League of St. Louis, *Architecture in St. Louis, Architectural Appreciation of Twelve Contemporary Structures* (St. Louis, 1974) 26.
[47] City of St. Louis, *Annual Report*, 1959.
[48] City Plan Commission. *Capital Improvement Program, City of St. Louis, 1965-1969*. 1965.

The City of St. Louis adopted a Comprehensive Plan in 1947 that was intended to frame development for the next 25 years. In a modest Midwestern tone, the introduction to the plan asserted that

> St. Louis is a generally satisfactory city, with much solid civic achievement gained in non-spectacular fashion, in keeping with the tradition of conservatism. It has municipal problems, but so does every other city; many of them are not unique, some are.[49]

The plan emphasized a few key issues that would support the goal of keeping a rather intensively built-up urban core area up-to-date for years to come. Some of these problems would be addressed through city ordinances: a new zoning ordinance and minimum housing standards. The city would lead the way with street system development and traffic congestion relief and the provision of more recreational facilities. Housing and a city airport were additional important initiatives.

The zoning plan reveals the projected remaking of the city in the following years (Figure 12). The land use plan recognized the T-shaped industrial area, the riverfront and the Central Corridor which divided the city into north and south residential areas. High-density residential use was shown east of Grand Avenue with a western extension along Lindell and into the West End. Much of the area between Grand Avenue and Kingshighway would have a medium residential density and the areas further west would be low-density, single-family residential in use. Commercial uses and apartment houses were seen as intrusions in single-family residential areas. Neighborhood commercial uses would be better limited to clusters at major intersections rather than lining the dominant thoroughfares.

The post-war traffic issues were multi-faceted. Since the 1920s the city had opened and widened some streets, creating the beginnings of a system of major connecting arterials: Gravois, Market, Olive, Vandeventer, Hampton, Chippewa, Watson Road, Delmar and Easton. The 1947 plan pointed out the need for express highways and connecting streets with grade separations. The routes of the Interstate Express Highways of the federal system – identified then as US 40, US 66 and US 50 –were under discussion. Federal funds were also anticipated for the development of major streets between the expressways, known as Urban Distributing Routes. Streetcars were still projected to be part of the mass transit system and the long routes radiating out from the CBD were on the map.

Changing Uses for Downtown

Despite the first welcome projects that got underway during the mid-1950s, the state of Downtown remained a concern. A City Plan Commission analysis of the CBD during the mid-1950s characterized it as an area that was the result of unplanned growth and, more recently, of unplanned decline. At the time, the CBD extended from the Mississippi River to 18th Street, and from Cole to Clark streets. The St. Louis CBD was somewhat larger and more diverse than was typical, in that industry and wholesale operations, as well as the business and commercial operations, were located in it. As the CBD provided the Metro area with an identity and a symbolic focal point, planners argued that every citizen should be interested in the CBD being an economically sound and physically attractive component of the region.[50]

By 1955, the occupants of the CBD had changed. Business uses occupied the greatest percentage of space, at 54 percent, a slight increase during the preceding decades. Retail uses, wholesale and manufacturing space had decreased. Automobile parking had increased by 360 percent since 1931; nearly all this parking for 10,000 cars was at ground level and 44 percent of it was between 3rd and 14th streets, Walnut and Delmar. Residential use was negligible. The CBD had a declining share of the retail trade in the metropolitan area. Much of the office space that became vacant during the 1930s was back into use, but there were almost no newly-constructed facilities. The daytime population of the CBD in

[49] *Comprehensive City Plan*, (1947), Introduction.
[50] City Plan Commission, *A Study of Space Use in the St. Louis Central Business District* (St. Louis, 1958), 1-3.

1953 was 160,000 persons. More than 60 percent of the value of buildings permits issued for a central portion of the CBD was for alterations to existing buildings.[51]

The planners noted complex interrelated factors of land use, specific use densities (such as shoe manufacturing), circulation and accessibility that explained the current conditions. The CBD was challenged by the physical obsolescence of its facilities and the almost entire reliance on automobiles reduced the advantage of its central position. On the other hand, it had an inherent locational advantage for establishments that served the entire metropolitan area, some of which was in Illinois, and was attractive to groups of related businesses. The anticipated completion of city's expressway program and the Arch grounds were seen as factors that supported a future for the CBD. The planners expected that office space demands would be higher than retail in the CBD and that manufacturing and wholesaling would decline and disappear. They concluded that the CBD would dominate the metro economy in the future, as it had previously, but that it needed to have a restored feeling of success in order to be the seat of economic leadership for an expanding metro area.[52]

Getting Restarted in Community Re-Development

While the 1947 City Plan was a guide for the future, and important rezoning followed, urban renewal incentives were dominant in the discussion of redevelopment projects. The use of the new Urban Renewal measures brought a formal relationship between the public and private sectors that provided great promise, but would require cooperation and trust. A first project – one that would demonstrate how the new systems worked – was essential.

A Critical Project: Plaza Square. The turn-around of St. Louis was closely tied to the Plaza Square project, which was large enough to have an impact, and successful enough to encourage subsequent projects. In fact, the complex funding and development strategies that made nearly all the rest of the new construction happen in the CBD were tested in the Plaza Square project. Mayor Kaufmann commented in retrospect on the importance of the project, asserting that if the Plaza Square had failed, it would have been hard to have any other urban renewal project in St. Louis go forward.[53]

Plaza Square, designed by Hellmuth, Obata & Kassabaum and built between 1956 and 1961, was proposed as a mixed-use development, consisting of one office building, six middle-class apartment towers, and a two-acre park along Market Street, immediately west of the Civic Center area. Two key steps took place in 1951: the formation of the Urban Redevelopment Corporation and the authorization of tax abatement for Plaza Square. The *Post-Dispatch*, which had been promoting action in its "Progress or Decay? St. Louis Must Choose" series, subscribed $250,000 to prime the pump for funding the project; 70 individuals and businesses followed suit to provide the private share. Public funds were not approved until 1953 and not without some trepidation. Voters turned down the first $1.5 million Plaza Square bond issue in March, but passed the resubmission in November. The project had its share of challenges and changes to the original plan, including initial low occupancy, financial problems, and the conversion of one tower into a residence for the elderly. Yet by early 1967 Plaza Square was 95 percent occupied. The project demonstrated the advantages of tax abatement in practice and proved that over time, an abated property would result in a financial benefit to the city when it returned to the tax rolls.[54]

Civic Progress. The organization Civic Progress, Inc. was instrumental in organizing private sector support for changes made in St. Louis. Founded in 1953 at the suggestion of Major Darst, eight corporate and civic leaders form an organization to work for the advancement of the city; later that year ten more individuals joined the organization. Civic Progress was a loose coalition of executives who were supported by their firms in their civic work. The group chose initiatives and projects to support,

[51] Ibid, 6, 10-15, 28.
[52] Ibid, 18-34.
[53] Adde, 204.
[54] Adde, 196, 210.

but maintained that it did not initiate projects. Civic Progress has been described as the "driving force behind every major civic improvement since its organization" and also recognized as a concentration of power in a closed, elite group. The organization supported funding initiatives, including the earnings tax, the 1955 Bond Issue, and the Metropolitan Sewer District bond in 1962. Members' companies came together in 1959 to form the Civic Center Redevelopment Corporation, which built Busch Memorial Stadium and owned it until 1981. Another Civic Progress-supported project was the formation of the St. Louis Community College District in 1962 and the passage of the bond issue in 1965 that funded the construction of three campuses.[55]

Downtown Has a Future. The 1950s was the decade during which St. Louis figured out how to move ahead with revitalization of the city and some new construction. By the end of the 1950s, a building boom was underway in Downtown that continued through the 1960s. This boom was the result of the investment of private capital in new construction and modernization programs, as well as federal, state, and city public works projects. The federal contribution was in the construction of the Gateway Arch and eventually its grounds and a Federal Building on Market Street designed by Murphy & Mackey and William B. Ittner, Inc. in 1962. Federal funding was also key in the construction of the Mark Twain Expressway (I-70), which significantly shortened travel time between downtown and Lambert Field and cut through north-side neighborhoods. The state-owned Missouri Division of Employment Security Office Building at Broadway and Washington, designed by Hellmuth, Obata & Kassabaum in 1959, contributed to the downtown revitalization. As to private investment, the Thomas Jefferson Building, designed by Jamieson, Spearl, Hammond & Grolock in 1959, downtown's first new general office building in over 30 years, was a much heralded symbol of a Downtown turn-around. Peabody Coal Co. moved its general headquarters from Kansas City into a Ralph Cole Hall-designed building in 1958.[56]

Donald F. Wilson, Jr., summarized his review of activity underway in Downtown in late 1959 with the statement:

> All in all, there is more is going on construction-wise and planning-wise in downtown St. Louis than at any time in history. If there exists any doubt about whether downtown St. Louis has a future, all one needs do for an answer is total up the hundreds of millions of dollars earmarked for investment in and around this important section of the city.[57]

The 1960s: The Riverfront Emerges

The City Plan Commission presented a view of what Downtown St. Louis could be in its plan issued in 1960.[58] The plan reminded readers that Downtown was the principal retail, wholesale, finance, business and professional center for the entire metropolitan area of more than 2,000,000 residents, as well as the location of entertainment, sporting events, and cultural activities for the region. More than 100,000 persons were employed downtown at that time – not as many as previously, but still a population to plan for.

The Downtown St. Louis Plan promoted many of the popular ideas of the time. Compactness was encouraged so that as new construction replaced obsolete buildings, Downtown would not need to grow in extent. Accessibility would be afforded by the projected interstate and urban highways, as well as a proposed expressway loop around Downtown that was not constructed. Circulation on the local streets would be improved with more one-way streets on three sides of the core downtown. Parking would be provided near the highways. The Central Parkway (later renamed the Gateway Mall), an

---

[55] Adde, vii;Civic Progress website, http://www.civicprogressstl.org/about_us/history/, accessed May 17, 2013; Lang, 104-106.
[56] Donald F. Wilson, Jr., "Downtown St. Louis," St. Louis *Construction Record* (December 1959), 6 and (January 1960), 5-6.
[57] Ibid, (January 1960), 6.
[58] City Plan Commission, *A Plan for Downtown St. Louis* (St. Louis, 1960), 1.

extension of Memorial Plaza to the west that would link the planned Jefferson National Expansion Memorial and the Civic Center area (Figure 13) would be a relief from the dense grid and a pedestrian oasis. A pedestrian mall on 6th Street, an idea not implemented, would afford new landscaped areas and vistas. Modernization of existing buildings and redevelopment of older ones would add a new vigor to the downtown. "Civic Design" would be important and new and modernized buildings and open spaces would be held to the highest aesthetic quality to set the desired tone.[59]

More specifically, the core area, from Broadway to the river, and Washington Avenue to Poplar Street, would need to be planned carefully as a new "front door" to St. Louis and to complement the Arch grounds at its center. This new Riverfront would be developed with hotels, motels, apartments, offices, restaurants and garages, east of 4th Street and flanking the Old Courthouse. A new stadium area south of Market Street would be a destination in Downtown and access to it from Illinois would be improved once the Poplar Street Bridge was completed. The Civic Plaza area west of 12th Street, which had an established character, could accommodate some new buildings and would be a link between the CBD and the Mill Creek Redevelopment Area.

As many aspects of the plan were realized, for much of the 1960s, some prominent portion of Downtown was a construction site.

A Critical Project: The Civic Center Stadium Project. Just as Mill Creek Valley was the largest, the Busch Memorial Stadium was the most breathtaking of the urban renewal projects in the City, declared *St. Louis Commerce*.[60] Charles Farris, the City's LCRA Director, seems to be the one who suggested the still somewhat novel idea of constructing a sports stadium in a downtown location. Farris, recruited to St. Louis because of his national stature and exposure, no doubt kept up with the newest ideas in City Planning and had a strong hand in making the project come about.[61] Sources agree that the plan was under consideration in 1958. While it took years to realize the dream, Busch Memorial Stadium was one of the first downtown sports stadiums, breaking with the practice of placing sports arenas at the outskirts of residential areas or, more recently, at freeway-served edges of a metropolitan area.[62] The LCRA initiated the blighted an 82-acre site near the riverfront, the first step in providing an area for the stadium and related facilities, including parking garages. The Board of Aldermen then approved the "Downtown Sports Stadium Redevelopment Project Area," which extended from the 3rd Street Expressway to 11th Street, Poplar to Market (Figure 14). The stadium was placed just south of the Market Street axis and close enough to the river to be part of the new Riverfront. The demolition required for this project included the razing of the city's Chinatown that existed between 1870 ad 1958.

Civic Progress members established the Civic Center Redevelopment Corporation to serve as a private owner-developer, as required by Missouri law. The stadium project was widely supported and businessmen, labor leaders, bankers, and others raised enough local equity capital by 1962. The City funded public improvements in the stadium area – the new streets and other changes – through a bond issue. The architecturally distinctive stadium (Sverdrup & Parcel, Edward Durell Stone, Schwarz & Van Hoefen; demolished 2005) was the Cardinal's baseball team's home from 1966 through 2005 (Figure 15).

---

[59] Ibid, 28-29.

[60] *St. Louis Commerce* (60), 40.

[61] Michael W. Dunlop, *The Downtown St. Louis Sports Stadium and Land Speculation: Factual and Legal Considerations*. (St. Louis, n.d., typescript on file at the Missouri Historical Museum Library and Archives), 4. Dunlop's source is a *Globe-Democrat*, December 17, 1968 article. Farris's tenure at the St. Louis LCRA was from 1953 to 1989, with one three year absence.

[62] Philadelphia, Pittsburgh, and Cincinnati, also built new stadiums in their downtowns between 1966 and 1970. Observers have noted that the new stadiums were built for various reasons, including keeping sports franchises and boosting new development in their central business districts. Steven A. Riess, "Historical Perspectives on Sports and Public Policy" in Wilbur C. Rich, ed., *The Economics and Politics of Sports Stadiums* (Quorum Books, 2000), 29.

The Downtown Sports Stadium Redevelopment Project area was developed with facilities that related to the stadium, as well as office buildings. This additional development was planned to be completed in four stages over a period of up to ten years. A pair of large identical parking garages were placed east and west of the stadium. A modern hotel/motel was part of the plan and opened as Stouffer's Riverfront Inn, within walking distance of the stadium. During the mid-1960s the Pet Inc. Headquarters Building, within the Stadium redevelopment area, and Gateway Tower within the adjacent blighted area, were under construction at the same time. The two office towers became part of the new Riverfront skyline. A second pair of parking garages, on the north side of Chestnut west of Broadway, also served the stadium as well as general downtown parking.

Framing the Old Courthouse. As development was proposed for the blocks north and south of the Old Courthouse, the courthouse completed in 1862, which was part of the National Park Service site, a civic design matter came to the forefront: how new buildings should relate to the historic one. The City Plan Commission proposed a height limit of 300 feet north and south of the Old Courthouse, but the restriction was not adopted. The Hellmuth, Obata & Kassabaum firm provided a solution and its design for the 1971 Equitable Building set a pattern for framing the historic building. A pair of forms – a low pavilion and an office tower – were placed so that the pavilion was on the Courthouse side, giving it some space in the skyline. For the Equitable Building, Hellmuth, Obata & Kassabaum designed a 21-story tower with a smooth, mirrored glazed exterior. This reflective exterior was intended to reflect the Old Courthouse and keep it as a focal point. Boatman's Tower, also designed by Hellmuth, Obata & Kassabaum in 1975, consisted of a 22-story tower rising beside a two-story banking pavilion on the Old Courthouse side. For this second tower, Obata designed a glazed exterior with a subtle shadow pattern.[63] The paired forms appeared again when Henmi, Zobel & Fott designed a hotel tower in 1976 to rise above Javier Carvajal's Spanish International Pavilion, which was dismantled and reconstructed in St. Louis following the 1964 New York World's Fair.[64]

By the end of the 1960s, much had happened in downtown St. Louis, and more changes were expected. A contemporary review of the period categorized it as "the most productive and exciting decade in Downtown St. Louis," a time when nearly $700 million was invested in private and public projects and the city's skyline was transformed from the Arch at the Mississippi River west to Plaza Square. The new office space was seen as a positive sign for the CBD as growth was five times the amount built during the 20 years between 1940 and 1959. The extent to which the new downtown residents at Plaza Square and the Mansion House Center would alter the nature of downtown was yet to be determined. Downtown was much more accessible with the completion of the Mark Twain (I-70), I-55 and Poplar Street Bridge and progress on the Daniel Boone (I-64) expressway. Visitors could stay in the new Bel Air East high-rise motel, designed by Hausner & Macsai in 1962 (remodeled and operated as a Hampton Inn in 2013) or Stouffer's Riverfront Inn, as well as at renovated older hotels. New corporate headquarters buildings had been completed for Pet Inc. and Laclede Gas, designed by Emery Roth & Sons in 1968. Three new office buildings were planned or under construction. The side-by-side new Federal Building and the Post Office Annex, a Leo Daly design built in 1971, further west on Market Street added to the presence of the Civic Center area. During the 1960s and early 1970s, St. Louis developed a "Riverfront" that extended from the Pet Inc. building north to the Bel Air East. Memorial Drive was lined with distinctive modern buildings that became the city's urban backdrop for the Arch.[65]

---

[63] "Equitable Building in Civic Center," *St. Louis Construction Record* (November 1968), p. 1; "Ground Broken for Equitable Building," *St. Louis Construction News and Review* (August 12, 1969), 8 and "Equitable Building (September 13, 1971), 9.

[64] Spanish Pavilion and hotel sources "The Jewel Reset," *St. Louis Construction News and Review* August 12, 1969, 10;

[65] Gordon L. Hopper, "Brief Look Back and Long Look Forward," *St. Louis Construction News and Review* (January 1970), 3.

Mayor Alphonso Cervantes' c.1967 publication, *A New Vision, A New Vigor* provided a "State of the City" overview of much of the Gateway Years. As for new construction in the city, data showed that there were peaks in activity in 1959 and 1961, and that 1964 was the busiest year. Although most of the construction was in the downtown, building and rebuilding had occurred throughout the City. Tourism and conventions were seen as facets of the economy that St. Louis should develop, as it was not yet getting its share. The "triangle for tourism" for downtown was projected to be the Arch, Busch Stadium and the Spanish Pavilion. The Arch was drawing two million visitors a year, yet was outpaced by Busch Memorial Stadium at three million attendees.[66]

Transition in the early 1970s

At the turn of the decade, St. Louis experienced a lull in the new construction frenzy, and in confidence in Downtown. St. Louis in 1971, in particular, was characterized by political unrest, citizen protests, zoning dilemmas, and federal funding delays. The defeat of the funding for a proposed $20 million Convention Center by a three to one margin in March, 1971, was seen as an indicator of some concern for the continued vitality of Downtown. Developers immediately reconsidered other projects related to the center.

The Convention Center was one of the major projects proposed during the 1960s that remained unfinished business in 1970. A Convention Center on the north edge of Downtown was at the top of the list of development projects through much of the 1960s, but land acquisition and other delays had prevented breaking ground on the project. The Parkway, or Gateway Mall, proposed in the 1960 *A Plan for Downtown St. Louis*, also remained unrealized. The City held a competition for the design of the Mall, and in 1967 announced the selection of the design of Sasaski, Dawson & DeMay of Boston. Land acquisition had not been completed and the demolitions required for the Mall were contentious preservation debates of the following period.

The Laclede's Landing area of the Riverfront was identified as part of the city's eastern gateway area that could be redeveloped through both the repurposing of old warehouse buildings and new construction. A better mass transit system and a North/South Distributor Expressway on the western perimeter of downtown were discussed. The outlook for the 1970s seemed bright enough at the beginning of the decade despite the fact that not many projects were moving forward.[67]

Another city planning effort was underway for Downtown. Mayor John H. Poelker initiated the crafting of a Development Program for the City in 1969. C. Warren Reed led the community effort to support the City Plan Commission's project. The plan issued in 1973 celebrated the renewal of the city that had already taken place and highlighted the need for further projects. Mayor Poelker noted that residents of St. Louis "must set our City in order, decide what the City can be, what it can no longer be, and rebuild our concepts and our city in the light of new and realistic goals and policies."[68] This plan was the first to include a "Visitor Industry" to be planned for. The construction of a Convention Center and riverfront development would be the key steps to take.[69]

The ambitious Mercantile Center, an project announced in October 1972, was presented as a ten-year effort. The Mercantile Center would be a complex of six major buildings, one of which would be an 800-room luxury hotel. The developers stated that no local, state or federal funds were involved. The local engineering firm of Sverdrup & Parcel worked with Thompson, Ventulett & Stainbeck, Inc. of Atlanta, architects, in the design phase. The site was cleared for the first phase, a 35-story tower, in 1973.[70]

---

[66] *A New Vision, A New Vigor.*
[67] *A Plan for Downtown St. Louis.*
[68] St. Louis City Plan Commission *St. Louis Development Program* (June 1973).
[69] Ibid, 125, 159.
[70] "Progress on Major St. Louis Projects," *St. Louis Construction News and Review* (October 16, 1972), 1.

The Convention Center had been seen as a way to boost downtown revitalization even further. In November 1972, the bond issue funding the center was finally approved. Almost immediately, Mayor Cervantes reported that leading architects from across the country asked to be considered as the design firm to undertake the convention hall and related projects; Sverdrup & Parcel began revising the plans for the project area it had developed in 1969.[71] The Convention Plaza Redevelopment Corporation was planning for a 16-block area adjacent to site of proposed convention center. An area to be known as Convention Plaza East, between Broadway and Seventh, would be the site of a hotel above a two-level retail shopping mall and have a parking garage. Convention Plaza West, between Ninth and 12th Streets, from Delmar north to Cole, would be developed with a hotel, two office buildings, and parking garages. These buildings would be connected with pedestrian bridges and designed to tie into the adjacent Mercantile Center complex, both aesthetically and functionally. The Convention Center, designed by Hellmuth, Obata & Kassabaum with Jenkins-Fleming, was built in 1976. The Convention Center and the Mercantile Center were key components of the next development period of Downtown.[72]

By January 1975, St. Louisans could readily see that the Downtown had been transformed and Downtown St. Louis, Inc. leaders could report the total amount that had been invested in downtown projects since 1958. When projects completed, started or proposed during the 17-year period were totaled, the category with the most investment – $240 million – was hotel and motel construction. $195 million had been invested in office building construction. Investment in the highway system was estimated to be $358 million. Parking garages under construction and completed offered spaces for more than 13,000 cars and four more were planned. The Mercantile Center and the Convention Plaza East Mall would offer 385 square feet of new retail space.

While the early 1970s had offered more plans than actual construction in Downtown St. Louis, in May 1974, for the first time in three years, cranes were visible in the downtown skyline. The completion of the Arch and some projects on the riverfront had provided the 1960s with a sense of Downtown progress; other projects were lingering on the drawing boards during the late 1960s and 1970s. An observer noted that the Downtown needed some re-fueling during the early 1970s. The announcement of the $150 million Mercantile Center in October 1972, followed by the passing of the Convention Center Bond issue in November of that year were important steps that served that purpose. By spring 1974, a "wave of quiet but active enthusiasm"[73] could be detected. First National Bank president Clarence C. Barksdale was "bullish on downtown." Mayor John Poelker credited banks with spearheading the new downtown development and the Mercantile Trust was hailed as getting things started by announcing its development before the bond issue for the Convention Center was approved. Jim Johnson, manager and promoter for Mercantile Center project and formerly involved with spectacular Peachtree Center in downtown Atlanta felt that St. Louis had tremendous potential.[74]

The Gateway Years Downtown: An Arch and a Riverfront

By the early 1970s, downtown St. Louis displayed the results of a concerted planning and development effort. The period was initiated by the Thomas Jefferson Office Building, (1959) — downtown's first general office building project in over 30 years — and the Plaza Square (1956-1961) project as important first steps during the late 1950s. The completion of the Equitable and 500 Broadway buildings in 1971 marked the end of the era. The early 1970s were a lull in development and the long-planned-for Gateway Mall and Convention Center projects remained on the drawing boards. In many ways, 1970 was the end of a period of development in downtown St. Louis that was the "Gateway Years."

---

[71] "Convention Center OK Boosts Downtown Revitalization," *St. Louis Construction News and Review* (November 18, 1972), 7.
[72] "Convention Center Catalyst for Redevelopment," *St. Louis Construction News and Review* (March 19, 1973), 3.
[73] Tom Finan IV, "Investors' Faith Revitalizes Downtown," *St. Louis Construction News and* Review (May 20, 1974, Section B), 3B.
[74] Ibid.

The Convention Center had been seen as a way to boost downtown revitalization even further. In November 1972, the bond issue funding the center was finally approved. Almost immediately, Mayor Cervantes reported that leading architects from across the country asked to be considered as the design firm to undertake the convention hall and related projects; Sverdrup & Parcel began revising the plans for the project area it had developed in 1969.[71] The Convention Plaza Redevelopment Corporation was planning for a 16-block area adjacent to site of proposed convention center. An area to be known as Convention Plaza East, between Broadway and Seventh, would be the site of a hotel above a two-level retail shopping mall and have a parking garage. Convention Plaza West, between Ninth and 12th Streets, from Delmar north to Cole, would be developed with a hotel, two office buildings, and parking garages. These buildings would be connected with pedestrian bridges and designed to tie into the adjacent Mercantile Center complex, both aesthetically and functionally. The Convention Center, designed by Hellmuth, Obata & Kassabaum with Jenkins-Fleming, was built in 1976. The Convention Center and the Mercantile Center were key components of the next development period of Downtown.[72]

By January 1975, St. Louisans could readily see that the Downtown had been transformed and Downtown St. Louis, Inc. leaders could report the total amount that had been invested in downtown projects since 1958. When projects completed, started or proposed during the 17-year period were totaled, the category with the most investment – $240 million – was hotel and motel construction. $195 million had been invested in office building construction. Investment in the highway system was estimated to be $358 million. Parking garages under construction and completed offered spaces for more than 13,000 cars and four more were planned. The Mercantile Center and the Convention Plaza East Mall would offer 385 square feet of new retail space.

While the early 1970s had offered more plans than actual construction in Downtown St. Louis, in May 1974, for the first time in three years, cranes were visible in the downtown skyline. The completion of the Arch and some projects on the riverfront had provided the 1960s with a sense of Downtown progress; other projects were lingering on the drawing boards during the late 1960s and 1970s. An observer noted that the Downtown needed some re-fueling during the early 1970s. The announcement of the $150 million Mercantile Center in October 1972, followed by the passing of the Convention Center Bond issue in November of that year were important steps that served that purpose. By spring 1974, a "wave of quiet but active enthusiasm"[73] could be detected. First National Bank president Clarence C. Barksdale was "bullish on downtown." Mayor John Poelker credited banks with spearheading the new downtown development and the Mercantile Trust was hailed as getting things started by announcing its development before the bond issue for the Convention Center was approved. Jim Johnson, manager and promoter for Mercantile Center project and formerly involved with spectacular Peachtree Center in downtown Atlanta felt that St. Louis had tremendous potential.[74]

The Gateway Years Downtown: An Arch and a Riverfront

By the early 1970s, downtown St. Louis displayed the results of a concerted planning and development effort. The period was initiated by the Thomas Jefferson Office Building, (1959) — downtown's first general office building project in over 30 years — and the Plaza Square (1956-1961) project as important first steps during the late 1950s. The completion of the Equitable and 500 Broadway buildings in 1971 marked the end of the era. The early 1970s were a lull in development and the long-planned-for Gateway Mall and Convention Center projects remained on the drawing boards. In many ways, 1970 was the end of a period of development in downtown St. Louis that was the "Gateway Years."

---

[71] "Convention Center OK Boosts Downtown Revitalization," *St. Louis Construction News and Review* (November 18, 1972), 7.
[72] "Convention Center Catalyst for Redevelopment," *St. Louis Construction News and Review* (March 19, 1973), 3.
[73] Tom Finan IV, "Investors' Faith Revitalizes Downtown," *St. Louis Construction News and* Review (May 20, 1974, Section B), 3B.
[74] Ibid.

The transformation of downtown St. Louis during the 1960s was a physical and psychological change that it would be hard to overstate. An observer noted that the obituaries for downtown written in the 1950s were premature. What had been perceived as a worn-out and out-dated Downtown had not only new buildings, it had a renewed character. Building owners and observers spoke of the downtown skyline. A Pet Inc. official commented at the groundbreaking ceremony for the new headquarters, "We believe that our building will add another distinctive landmark to the new St. Louis skyline and contribute to the surge of progress our entire metropolitan area is experiencing."[75] Punctuated by the Arch, the city's skyline was "rapidly becoming as famous and familiar as that of any city in the world."[76]

When Mayor Cervantes reported on "Making St. Louis a Better Place to Live" in 1973, he noted that tourist spending had increased five-fold in recent years, but asserted that the completion of a convention center would increase those numbers even more. He was certain that Downtown St. Louis would surge forward again with business, commercial and entertainment activity.[77]

Transportation

St. Louis experienced the construction of the interstate highway system as a transforming pattern during the World War II period, just as many other metro areas did. Interstate and limited-access highways that made more distant suburbs possible transformed the St. Louis metropolitan region. While the network of interstate highways that crossed the nation and state reduced on-street traffic congestion in the City, the highways also made it possible to work in the City and easily live in nearby communities. The city's central transportation corridor, historically dominated by railroad lines, was reinforced in importance with the construction of two east-west Interstate highways, Highway 40/I-64 and I-44. These routes reinforced east-west movement through the metropolitan region along with I-70.

The City took a first step to speed east-west moving automobile traffic with the construction of the Express Highway from the western edge of the City to Downtown. The 3.5-mile stretch that opened in 1937 extended from Skinker Boulevard and Hi-Pointe to Vandeventer Avenue. The route was extended to downtown the following year. The Express Highway connected with the US Route 40 Traffic Relief/Daniel Boone Expressway/I-64 west of the city to provide the first limited access route between downtown St. Louis and St. Louis County and beyond. The City Plan Commission approved an "Expressway Plan" in 1951-52. Although the entire system was not built, the North/South Distributor Expressway appeared in many images that projected what the Downtown would look like in the future (Figure 16).[78]

The State of Missouri formalized plans for its interstate highway system right after World War II ended, as requested by the U.S. Bureau of Public Roads. The Missouri State Highway Department had already begun to upgrade US Highways 40 and 66 as four-lane, controlled-access routes. As soon as the Federal Aid Highway Act became law in 1956, the Missouri State Highway Department was ready to let contracts for the first three interstate projects in the United States. One of these was a section of I-70 in the City of St. Louis; this segment was completed between Downtown and the airport during the 1950s.

The State of Missouri concentrated on interstate construction in rural areas during the last half of the 1950s and then, during the early 1960s, turned its attention to urban sections in St. Louis and Kansas City. The old Express Highway was widened and reconstructed to meet interstate standards. I-44 and I-55 were constructed during the 1960s. The Poplar Street Bridge, (Figure 17) carried I-55 and I-70 over the Mississippi River once completed in 1967; Sverdrup & Parcel and Associates designed it to have a

[75] "Pet Milk Company Breaks Ground for International Headquarters" *St. Louis Construction Record* (April 1966), 1.
[76] Ibid.
[77] Mayor Cervantes, *A New Vision, A New Vigor* , 1967 and *A Progress Report: Making St. Louis a Better Place to Live*, 1973.
[78] Gordon, 159-161; *36th Annual Report of the City Plan Commission, 1951-52*, 12-14.

slim silhouette that was in harmony with the Gateway Arch and that would afford travelers views of the Riverfront.[79]

Economist Charles L. Leven, who studied St. Louis extensively during the 1960s and early 1970s, notes that the decades of the 1950s and 1960s were an adjustment period during which St. Louis regional residents adapted to the new freeway structure. As each interstate through St. Louis was completed, it was possible for the metropolitan area to expand and for people to live farther from jobs in the City. Like other observers, Leven concluded that the shift from mass transportation to the car-traveled freeways was the most important transportation funding policy change of the era.[80]

Some segments of public transportation remained in the picture. Greyhound opened a new terminal Downtown (demolished) at Broadway and 6th in 1957. A new bus terminal where local and regional busses could exchange passengers was part of the 1960 plan for Downtown. The last streetcar ran in May 1966.[81]

The location of St. Louis near the geographic center of the United States and on the important north-south shipping route of the Mississippi River, had contributed to the City's importance in transportation and commerce. The City had organized its railroads through the Transfer Railroad, the handling of freight shipping through the Cupples Warehouse complex and other facilities, and the management of passengers, commuters, and parcel delivery with Union Station. Passenger service waned and with the advent of Amtrak service in 1971, train service was minimal and Amtrak stopped using Union Station in 1978. As long-distance trucking made use of the new interstate highways, St. Louis became home to a notably extensive group of inter-modal shipping facilities and truck freight transfer stations. These facilities became common along Hall Street and the central transportation corridor.

Lambert Airport was another significant aspect of transportation during the Gateway Years. St. Louis pioneered the pattern of a city owning and operating an airport when it assumed ownership of the airfield, 11 miles northwest of downtown St. Louis that Major Albert Lambert had developed for his own use during the mid-1920s. After making some improvements, Lambert offered the facility to the city. Voters passed a bond issue I 1928 that enabled expanding the field into an airport and other improvements and the City assumed ownership. During the following decades, a passenger terminal and other support facilities were constructed. The increase in passenger service after World War II prompted many cities to construct more modern passenger terminals. Minoru Yamasaki's main terminal of 1956 placed St. Louis in the forefront of airport development again, with its modern terminal with innovative and influential domed design (Figure 18). Ozark Airlines operated from the airport. Trans World Airlines inaugurated jet service to Lambert in 1959. For roughly its first decade, the airport was St. Louis' gateway, its "symbol of the future, its public statement of new vitality."[82] Then the Arch was completed in 1965, and attention shifted to the Gateway Arch while Lambert Terminal functioned as the more literal gateway to travelers.

The mid-20th century changes in transportation included new elements in the built environment. These ranged from the highways and their ramps, the Poplar Street Bridge over the Mississippi River, and a much-praised modern airport terminal. On a more mundane level, parking had to be addressed. In Downtown, parking was managed with the construction of municipal and privately-owned parking structures. Parking was also incorporated into new structures.

---

[79] George McCue, *The Building Art in St. Louis: Two Centuries* (1981), 23.
[80] Leven et al, 162.
[81] *A Plan for Downtown St. Louis*, City Plan Commission (1960). 11/13/57.
[82] Women's Architectural League of St. Louis, *Architecture in St. Louis, Architectural Appreciation of Twelve Contemporary Structures* (St. Louis, 1974), 18.

Peopling St. Louis: Demographic Changes

Loss of population was a predominant trend in the City of St. Louis during the post Word War II decades, while the larger metropolitan area consistently grew in population and geographic area. The lure of the suburbs had been felt before the war and the new residential areas had a strong pull in the immediate postwar years. A pamphlet promoting suburban life in St. Louis County asserted "People Who Can, Move Away" from older neighborhoods in the city. City officials promoted a different view: "St. Louis, with a colorful, historic past and a busy, variegated present, is still a city with a future."[83]

People did move out of the city. When the city's population peaked at just over 850,000 in 1950, that number represented about half of the population in the larger metropolitan area. During the decades that followed, the city's population dropped: to 750,000 in 1960, 622,000 in 1970 and 453,000 in 1980. St. Louis County's share of the region's population continued to rise. While the loss of population to the suburbs happened in many older cities, the extent of the reduction of residents in St. Louis was notable.[84]

The changes in population were accompanied by changing demographics and a shift of the remaining population. By 1970 the nonwhite population was at 41 percent and 15 percent of the population was 65 years of age or older. The smaller population had a lower median income and the proportion of high-income families had declined. Close to 60 percent of the white population left the city between 1950 and 1970. After 1970, depopulation accelerated in some areas, particularly from the Near Northside. There was a small in-migration of black residents as they spread out from limited areas where they had been restricted to live before the 1948 Shelley VS Kraemer Supreme Court ruling against racial covenants.[85]

The job market changed during this time, a factor that kept unemployment somewhat constant. During the 1950s, much of the manufacturing of shoes, textiles, and apparel, as well as meat packaging and beverage processing firms moved to surrounding counties, and the number of workers employed in the city declined during a 20-year post-war period. Manufacturing employment in the city was 61 percent of the total in the metropolitan region in 1960, 50 percent of the total in 1963, and by 1972 was only 38 percent. This loss was countered by increases in service jobs and state and local government work. Employment in retailing declined within the city as 54 percent of all retail sales in the metropolitan area were made in the city in 1954; in 1972 the city's share was only 23 percent.[86]

Suburbanization.

The dominant pattern of the explosive growth of suburbs and the relocation of residents, commerce, and industry to outlying areas of established urban centers affected the City of St. Louis primarily through loss of population to nearby suburbs. The physical extent of St. Louis City was established in 1876 and the City could not annex adjacent areas or consolidate with nearby towns and cities. By World War II, most of the city was built out with residential development, except for some small areas, the largest of which was in the western portion of South St. Louis. Therefore, nearly all suburban-type development in the St. Louis metropolitan area took place in St. Louis County, adjacent counties in Missouri, and across the Mississippi River in Illinois.

Although the St. Louis Metro Region exhibited many of the common suburbanization trends, the location of a second, rival CBD was unusual in its location. Rather than be at the edge of the metro area and served by several interstates, the suburb of Clayton, separated from St. Louis City by only University City, became another center of economic activity. The older residential suburb was transformed into

[83] Gordon, 22.
[84] Gordon and Leven, et al.
[85] Gordon, 25. The United States Supreme Court ruling stated that restrictive racially-based restrictive covenants are not, on their face, invalid under the Fourteenth Amendment. Therefore racially-restrictive covenents on residential propertycould not be legally enforced.
[86] Leven et al, 67.

one with a significant office building presence, as well as concentration of retail businesses. During the late 1940s office construction appeared in Clayton, following some retail development. The Brown Shoe Company's move from the Downtown to a new office building in Clayton in 1951 seemed to be a signal to other local firms that a move to Clayton should be considered. Between 1953 and 1964, 46 buildings were erected in downtown Clayton. Twice as many companies moved to or opened offices in Clayton between 1960 and 1964 than the previous five years. By 1966 Clayton offered one-third of the office space available in the downtown St. Louis. Many of the relocated businesses moved from downtown and midtown locations in St. Louis. By the 1960s, the St. Louis metro area had two major CBDs.[87]

The African American Experience

Richard G. Baumhoff devoted one of his installments of the 1950 "Progress or Decay" series to the "Problems of the Negro." He summed up his review with the statement that the nearly 200,000 Negroes of the area received the worst pay and fewest opportunities of the region's residents. Baumhoff's essay provided considerable evidence of the disparities.[88]

At that time, blacks in St. Louis lived a life characterized by segregation in housing, employment, and restricted access to public and private services. Segregation remained nearly absolute in recreational and cultural arenas. The residents of the black neighborhoods – Downtown, The Greater Ville, and Mill Creek Valley – had little access to recreational city parks. Blacks were not permitted to use outdoor public swimming pools and only three of the city's seven indoor pools were for black use. The Art and Shady Oak Theaters were the only non-segregated movie houses although blacks had their own neighborhood theaters. Blacks could dine in few places downtown and were barred from the Forest Park Highlands amusement park. Yet some municipal venues were open to all: the Kiel Auditorium, the Muny in Forest Park, public libraries, the Art Museum, and the Zoo, as well as events at the Arena and major league baseball games.[89]

The professional opportunities for the city's black residents were limited to the approximately 50 attorneys and the black doctors trained at Homer G. Philips Hospital. There were few high-profile businessmen and no black engineers or architects. The educational prospects were in a state of change. Archbishop Ritter had opened Catholic elementary and high schools to blacks in 1948. As for higher education, the women's colleges had been integrated within recent years and St. Louis University admitted black students. Washington University had opened its graduate schools – except dentistry – but not yet its undergraduate school.

While St. Louis was characterized as having a "public civility" in race relations, important structural changes took place during the 1950s and 1960s. A charter amendment of 1946 prohibited racial discrimination in city services. In 1950, the city employee rosters were not well integrated. The City had 24 black firemen, 3 percent of the department and 68 policemen, 4 percent of the force. Federal employment had become available with the Veterans Administration, Federal Security Administration and Internal Revenue Bureau. Blacks were gaining some roles in city government. In 1950, three of the city's 28 Aldermen were black. In 1960, the Black Caucus of the Board of Aldermen had six members, and by the mid-1970s had eight. The Public Accommodations Bill passed in May 1961 by the Board stated that there could be no discrimination in places offering food, shelter, recreation, amusement, and other services to general public. Many individuals and groups – elected officials and private citizens –

[87] Earl W. Kersten, Jr. and D. Reid Ross, "Clayton: A New Metropolitan Focus in the St. Louis Area," *Annals of the Society of American Geographers* 58 (December 1968), 637-649.
[88] Richard G. Baumhoff, "Problems of the Negro," Progress or Decay, Series 1950.
[89] Ibid.

worked to achieve integration and improvement of various aspects of life in St. Louis throughout the Gateway Years.[90]

Blacks and Urban Renewal

The black community suffered extensive dislocation in the clearing of the Mill Creek Valley redevelopment area. In addition to losing their homes and being forced to move to other neighborhoods, former Mill Creek Valley residents also had to relocate churches and small businesses. Historian Marie Agnes Murphy, who studied the Mill Creek Valley Urban Renewal Project, asserts that this disruption of the community seriously weakened a base of black entrepreneurialism and institutional life in the City. She reports that over half of the businesses and non-business enterprises in Mill Creek Valley had disappeared from the city by the mid-1960s, included nearly 450 that had closed.[91]

Historian Clarence Lang concludes that black voters favored slum clearance in general, no doubt, since over two-thirds of the buildings did not have running water and 80 percent did not have private baths. The need for repair of rental housing was nearly universal. However, Lang also notes that while black St. Louisans supported development projects in the city, they preferred neighborhood revitalization efforts that did not require dislocation of residents. The still unofficially segregated housing market made relocation particularly challenging, despite a desire to move to higher-quality housing. [92]

While civic leaders forged ahead with redevelopment projects and a high-profile city agenda that provided a sense of progress for the City, black leaders addressed critical day-to-day matters – employment opportunities, education, housing and poverty – that challenged the quality of life for a significant portion of city residents. The black community's disproportionate losses due to Urban Renewal projects were tempered by the possibilities for participation in the "progress" in housing and employment. The St. Louis NAACP chapter announced support of the Mill Creek Valley redevelopment project in March 1958, while it emphasized the need for housing for the displaced residents and lobbied for the use of black labor in both demolition and new construction.[93]

The Plaza Square project of the early 1960s was one of the occasions when the NAACP St. Louis Chapter campaigned against a bond proposal. City officials could not provide any guarantee that black workers would get their share of construction work or that black residents could rent apartments in the new complex. The predominantly black 4th, 6th, 18th and 19th wards voted against the bond, but did not prevent it from passing. Blacks did get some unskilled work in the demolition of Mill Creek Valley because the city undertook that work. But once the LCRA sold property to developers, the city had no control over labor practices, and blacks did not get construction jobs on Mill Creek Valley redevelopment projects.[94]

The Model Cities Program was another one of the federal programs during the heyday of Urban Renewal that addressed the inequities of black life in St. Louis. Congress approved a program in the spring of 1966 that was to assist local comprehensive programs for rebuilding slums and blighted areas, as well as provide public facilities and services to improve the general welfare of people who lived in those areas. The federal Department of Housing and Urban Development (HUD) oversaw the program although the city was responsible for local planning and implementation in officially designated "Demonstration Cities." Mayor Cervantes applied to the program immediately and on December 2,

---

[90] Baumhoff, "Problems of the Negro;" The Board of Aldermen, *A Report to St. Louis* (1960); Lang, 125.
[91] Marie Agnes Murphy, *The Metropolitan Project: Leadership, Policy and Development in St. Louis, MO, 1956-1980.* (University of Virginia Dissertation, 2004), 96.
[92] Clarence Lang, *Grassroots at the Gateway: Class Politics & Black Freedom Struggle in St. Louis, 1936-75* (Ann Arbor: University of Michigan Press, 2009), 139.
[93] Lang, 139.
[94] Lang, 104, 107.

1966, St. Louis became a Model City. The Human Development Corporation (HDC), a local organization, was already working on similar efforts in St. Louis.[95]

The Model Cities program was active in several neighborhoods on the north side of the city during the late 1960s and early 1970s. Model Cities operated a number of Community Schools programs for children and adults in public school buildings. One of the program's major projects was the development of the Arthur J. Kennedy Skill Training Center. Construction began in 1973 on the facility, which would have room to train 500 persons from low income and depressed areas with skills that would lead to employment. Health was a program area and a major complex on the near north side was planned to include a health center and recreational/neighborhood center building.[96]

The St. Louis Comprehensive Neighborhood Health Center, Inc. was established to provide health care to the Wells-Goodfellow, West End and Wellston areas of the city. A neighborhood health care center proposal was submitted to the Federal Office of Economic Opportunity in 1967 and was funded in 1969. The facility was housed in temporary quarters until the purpose-built two-building complex designed by the black architectural firm of Jenkins – Fleming opened on Dr. Martin Luther King Drive to provide medical, dental and supportive services.[97]

Black Employment and Capitalism

The relationships between black residents and buildings and places, other than their dislocation from Mill Creek Valley; the role of The Ville as the center of the segregated housing area; and experiences in public housing, are not well studied. Nevertheless, some specific projects and places were associated with Civil Rights actions and expanding opportunities.

Since the late 1950s, the St. Louis chapters of NAACP and CORE had been addressing the fact that the banks were not hiring black employees; blacks working in banks had a symbolic component that indicated access to financial management. The St. Louis NAACP Youth Council initiated job discrimination protests at five financial institutions in downtown in August 1963. Youth Council members formed human chains to block the tellers' windows. A CORE demand that five banks hire 31 blacks in sales, clerk, and teller jobs within two weeks was rebuffed by a spokesman for the banks. The subsequent bank boycott drew white St. Louisans in support of blacks. Picket lines, three waves of arrests, and fund-raisers held to raise money for bail and fines made the conflict highly visible. On October 11, 1963, demonstrators marched from the Jefferson Bank at Washington and Jefferson avenues to the St. Louis Police Department Headquarters. The response was the arrest of 32 protestors the next day at the Jefferson Bank. Demonstrations and unrest marked the rest of 1963 tensions remained.[98]

A 1969 HDC study of St. Louis reported that 80 percent of black-owned businesses in City were beauty salons, barbershops, taverns, and mom-and-pop ventures. Yet these small businesses had important roles in the neighborhoods and in forging social cohesion during times of change. An example is Miss Tillie's corner, where Mrs. Lillie V. Pearson operated a small grocery store from 1948 through 1988. She supported her family and served neighborhood residents as safety net for food and other necessities and was a stable presence in the north St. Louis neighborhood of JeffVanderLou.[99] Eight of 2,000 manufacturing firms in the city had black proprietors and blacks owned ten of 2,230 wholesale businesses. Part of this problem was access to capital – another "bank problem."

---

[95] Kenneth S. Jolly, *Black Liberation in the Midwest: The Struggle in St. Louis, Missouri, 1964-1970* (New York: Routledge, 2006), 29.
[96] *St. Louis Model City '74*, 12, 16.
[97] *This is Your St. Louis Comprehensive Neighborhood Health Center*, 1-2.
[98] Lang, 161-166.
[99] Tillie's Corner website at http://tilliescorner.com/, accessed May 29, 2013.

"Black Capitalism" programs emphasized the need for black-owned and managed business ventures and a greater share of free enterprise. Several challenges faced black entrepreneurs. Finding locations where businesses could prosper was one. Borrowing capital was another major hurdle. One of the programs designed to support Black Capitalism, the Interracial Council for Business Opportunity, opened an office at 4336 Natural Bridge in early 1969. The St. Louis branch the national organization sixth funded by the Ford and Rockefeller Foundations. Academics, looking back, relate the support for black enterprise to a shifting of emphasis from more volatile topics and actions and as a means to maintain order in uneasy urban communities.[100]

Two local banks were part of the Black Capitalism component of the era. New Age Federal Savings and Loan, established in 1916, was a pioneering black business in Missouri and the Nation, and remained the only black-owned financial institution in St. Louis into the 1960s. In 1958, New Age moved to a purpose-built bank building at 1401 N. Kingshighway, which the bank boasted was "one of America's most beautiful financial buildings." The modern New Age facility, with an all-black staff, drive-up banking and several teller windows, as well as competitive interest rates, was evidence of black business success.[101]

The Gateway National Bank was one of the important new businesses during the 1960s for the black community. The charter for the black-owned bank was approved in May 1964. Lee Bohanon, a regional director of the National Urban League, James E. Hurt, Jr., a local businessman, Clifton W. Gates, president of a real estate firm, and Howard B. Woods, Executive Editor of the *St. Louis Argus*, organized the bank. The bank selected a property at 3412 Union Avenue, one of the arteries through the western portion of the north side of the city and an older building was remodeled. Drive-through banking windows were added and a metal arch replicating the curve of the Saarinen Arch held the "Gateway National Bank" sign (Figure 19). The bank's goal was to serve the credit needs of the black community at competitive bank rates, offer convenient service to the neighborhood, and to provide jobs for young people. Gateway Bank was the eighth National Bank chartered in the previous two years with substantial black representation among the founders. Deposits were disappointing at first, but in 1968 the bank began to show a profit. Gateway National pursued commercial credit accounts from large white-owned businesses as well. By the early 1970s, the bank could boast that it had provided capital to several black-owned businesses, including owners of large mid-town gas-stations and a McDonalds franchise. In 1972, the bank had a staff of over 30 employees and was having an influence in the black business community.[102]

James E. Hurt stands out as a black business leader of the Gateway Years. Hurt was convinced that blacks had to share in the free enterprise system in order to fully share in the American Dream. Jobs were not enough, he asserted, blacks needed profits to maintain their community. Hurt was involved in financing projects as president of the Employees Loan and Investment Co., founded by his father and a director of Gateway National Bank. He was chief incorporator of Center City Foods and Chairman of the Board of Vanguard Bond & Mortgage Co. Vanguard was the first black-owned company in the United States to acquire and develop an urban renewal site – the commercial portion of the Grandel project where a shopping center was to be built near the Blumeyer Public Housing development. Central City Foods, one of the largest black-owned businesses in the city, was to be the major tenant. In addition to the grocery store, Hurt and others hoped to open a clothing store, cleaners, shoe store, quick-service restaurant, and other small shops. The capital was raised through a series of 50 meetings in Negro churches at which stock shares were offered for $10. More than 2,000 persons invested in the project. Central City Foods opened in 1969. After strong early sales, business tapered off. The Yeatman

[100] Lang, 235; Curt Matthews, "Black Capitalism Seeks Niche in Business World for Negro," *Post-Dispatch*, March 3, 1969.
[101] John A. Wright, *Discovering African-American St. Louis: A Guide to Historic Sites* (St. Louis, 1994), 91; Add newspaper source.
[102] Wright, 95; "Clifton W. Gates," in John N. Ingham, Lynne B. Feldman *African American Business Leaders, A Biographical Dictionary* (Greenwood Press, 1994), 274-275.

Economic Development Corporation stepped in with capital and management assistance. After two-and-a-half years, the store became profitable, a hopeful sign for the black neighborhood in which it was located. [103]

The Tandy Medical Center at 3737 N. Kingshighway was the culmination of the work of a group of black physicians and dentists, including founding member Dr. E. B. Williams. The medical office building housed medical and dental suites, the DeVille pharmacy, and the Northside Laboratories and a radiology department. The three-story masonry building masonry had a prominent lobby featuring a large chandelier, the work of art glass specialist Emil Frei; Schmidt, Perlsee & Black were the architects.[104]

Many of the buildings that housed new black-owned businesses – gas stations and restaurants – are typical of the time rather than architecturally distinctive. Johnny Lewis, former Cardinal baseball player, was one of the local team athletes who opened franchise restaurants. Lewis opened a Jack in the Box outlet at Natural Bridge and Taylor; the building remains though altered for other use. Brady Keys, former St. Louis cardinal football player had trouble financing his "All Pro Chicken" franchise business until First National City Bank of New York provided capital. Keys eventually owned several franchise restaurants through his All Pro Enterprises Corporation.[105]

The need for motels and hotels that would accommodate black guests – and make them feel welcome – continued into the Gateway Years. The Carousel Motel at 3930 N. Kingshighway and the Booker Washington Hotel and Courts at Jefferson and Pine were the two St. Louis businesses that advertised in *Ebony* in 1962. The Carousel provided air-conditioned "first-class and first-rate" lodging to black visitors to St. Louis. Cassius Clay (Muhammad Ali) stayed at the Carousel in 1968.[106]

Business, Industry, Commerce

The economic structure of the city, traditionally based on manufacturing and shipping, retained those elements of the economy, but both sectors evolved during this period. River shipping remained important, but truck transport on the new interstates displaced railroad shipping as the most important component of the goods distribution system. As long-established manufacturers of durable goods moved out of the city to larger facilities or closed, light industry replaced it. This collective term includes a wide range of operations, from those formerly accomplished in the "workshop" spaces – the dental laboratory for example – to printing and assembly of small items.

The Decentralization of Commerce and Industry

Several factors fostered the decentralization of commerce and industry during the Gateway Years. The development of downtown Clayton and shopping malls in the metropolitan region, coupled with the movement of population into new suburban areas, were significant impacts on retail activity within the city. Yet the city's extensive residential areas and had neighborhood commercial facilities. The era's newer types: small offices, convenience stores and fast food outlets were built in many areas.

---

[103] "Black Capitalism Seeks Niche in Business World for Negro" March 3, 1969; "Vanguard Project Awaits FHA Commitment" *Globe-Democrat* November 2, 1968; "Supermarkets," *Black Enterprise* 2 (June 1972), 32. "Clifton W. Gates," in *African American Business Leaders, A Biographical Dictionary*, pp.273-280. Hurt had additional business enterprises. His business empire collapsed during the early 1970s.

[104] "New Tandy Medical Center Dedicated on January 23," *St. Louis Construction News* (February 1966), 1.

[105] "Black Capitalism Seeks Niche in Business World for Negro."

[106] "Ebony's Annual Vacation Guide," *Ebony* (June 1962), 105, Google Books, accessed April 4, 2013; Thomas Hauser, *Muhammad Ali, His Life and Times*, Google Books, accessed April 4, 2013; Bernie Hayes, *The Death of Black Radio*, 55, Google Books, accessed April 4, 2013.

The Euclid-Maryland-McPherson section of the Central West End was an important commercial area at the time, but one noted as having a parking problem. Famous-Barr built its first branch store at Kingshighway and Chippewa in 1950. At that time, Sears had stores on north Kingshighway and South Grand that offered off-street parking.[107]

While housing had been built in some of the western-most neighborhoods of the city during the late 1930s and early 1940s, commercial development in those areas had lagged. New commercial areas emerged on Watson, Chippewa, Hampton and the southern reaches of Kingshighway and Gravois. The development tended to be a series of individual buildings, rather than small strip malls or larger developments, and to be restaurants and fast food outlets, office buildings, and retail stores. Older neighborhood commercial districts, including those in Baden, and on Manchester and Cherokee Streets, were revitalized with new storefronts and new buildings. A 1955 plan for the Cherokee Shopping area between Jefferson and Nebraska called for closing streets to make three long blocks and creating parking behind the buildings facing Cherokee. Although not implemented, the plan indicated that the area was projected to remain a thriving commercial area with parking needs.[108]

Hampton Village was the exception to the general pattern of development. Harry Brinkop conceived the idea for this early shopping center that offered extensive off-street parking. His Boulevard Frontage Co. spent years accumulating property at the intersection of Chippewa and Hampton near the western edge of the city on the south side, and then getting alleys and streets closed and the area rezoned for commercial use. He announced plans for a "complete drive-in shopping center" in 1941. At that time, Bettendorf's Hampton Village market, housed in a free-standing building surrounded by parking, was the only tenant. Brinkop considered the site to be ideal, as the newer portion of the city had many residences, with more to come, and was close to nearby highways. Architect Preston Bradshaw provided designs with "Williamsburg Colonial trim" for the group of 11 brick buildings for retail and office space that Brinkop proposed.[109]

Hampton Village became one of the city's largest retail centers that was classified as a shopping center during the 1960s when it had 45 tenants. Bettendorf's Foods (Figure 20) and Penney's were the largest stores in the Village, followed by a National Food Store, a medical center with 65 doctors, and Stein Bowl. Halls Ferry Circle, also considered to be a shopping center, was much smaller with ten tenants. Bettendorf's Food was also at Halls Ferry, along with the Circle Grill, Circle Garden Center, Tile Town, Porter Paints, Katz Drug, Steak & Shake and three service stations. The Famous-Barr store at Southtown near the intersection of Gravois and Kingshighway completed the city's roster of shopping centers.[110]

As the economic base of the city evolved, changes in zoning that supported industry, new transportation routes, and the construction of the flood wall underscored the T-shaped central core of commerce and transportation. The location of the City's larger urban renewal projects within the Central Corridor and close to the Downtown, reinforced a single, dominant center of the city. At the same time, the development of the interstate highway systems and their feeder routes also supported incremental redevelopment.

While the vitality of Downtown was important to the city in many ways, during the post war decades, business and industry decentralized throughout the prominent T-shaped non-residential corridors that paralleled the Mississippi River and extended west from Downtown on what was becoming a central railroad and Interstate highway corridor. The shift in dominance from the railroads to interstate highways and truck shipping influenced where new shipping-related and light industry would be located. The Multiple Property Documentation Form for *Manufacturing and Goods Distribution*

[107] "City's Ailing Heart," 1950.
[108] *40th Annual Report of the City Plan Commission, 1955-56*, 64.
[109] Boulevard Frontage Co., *Hampton Village, St. Louis*, 1941.
[110] St. Louis Post Dispatch, *Shopping Centers in Greater St. Louis*, 1961.

Resources, St. Louis Independent City (under review in Summer 2013) has contexts that expand on the changes in industry, transportation and commerce during the Gateway Years.[111]

The Redevelopment of Lindell Avenue

During the 1954-55 project year, the City Plan Commission studied the rezoning on Lindell between Boyle and Kingshighway, siting the demand for medical office buildings in the vicinity. The study also noted that new apartment buildings were being considered for Lindell and consequently there was still demand for residential use. The Commission report did not recommend rezoning Lindell at that time, but did rezone areas to the north and south for commercial use.[112] By the 1ate 1950s, a longer stretch of Lindell, between Grand and Kingshighway, had begun a transition from a residential street with substantial World's Fair Era dwellings and apartment buildings from the 1920s, to a thoroughfare lined with a mix of commercial and office buildings.

When 4236 Lindell was built as a general office building for multiple tenants in 1958, it was the first of that kind of property on Lindell. It joined some older buildings remodeled for commercial use and new office buildings for a single tenant, including the Sperry Rand Corporation at 4100 Lindell, built in 1956. By 1960 the Lindell-Kingshighway area was the location of fashionable new apartment buildings, two new motor hotels and new buildings at the nearby hospitals. The Central West End Neighborhood Association was at work in the area to keep it a desirable residential area.[113]

At the time the Auto Club of Missouri Building was completed on Lindell in 1976, Mayor Poelker commented that "the decision of the Auto Club to develop a midtown complex to service its members will bolster joint efforts underway to preserve the heart of the city as a business, educational, and medical center second to none in the metropolitan area."[114] Lindell Boulevard was a "strategic spine of the metropolitan community" but also one that needed revitalization as the effects of surburbanization were felt in the city.[115]

New Centers of Activity

Oakland-Macklind. The area of the city south of Forest Park had long been part of the City's recreational and entertainment district, as the Arena and the Highland Park Amusement Park had been south of the Park. During the last half of the 1950s, Oakland Avenue and Macklind Avenue extending south of it, were being developed with commercial and industrial facilities. George McCue, the architectural critic for the *Post-Dispatch*, noted that the new facilities had implications for community geography as the parcels available for development were large enough that new facilities could be complete with parking and even lunch rooms. They could be relatively self sufficient, echoing the nature of new facilities being erected in industrial parks or corporate headquarters in suburban areas. The new Scruggs Vandervoort Barney Warehouse near the corner of Macklind and Oakland, completed in 1954, was the pioneer new business in the area. The Merchant's Exchange, the executive offices of the Falstaff Brewing Corporation, the Lambert Engineering Company plant, and the Joy Manufacturing Co. were also built in the area during the mid-1950s.[116] The Highland Place Development, extending west from Macklind, is an example of the small, urban industrial park-like areas that appeared in the city during the 1960s.

---

[111] Ruth Keenoy, *Multiple Property Documentation Form: Mid-Twentieth Century Development of Industrial and Manufactured Goods Distribution Facilities and the Central Railroad and Interstate Corridor, 1940 – 1970*. 2013.
[112] *39th Annual Report of the City Plan Commission, 1954-55*, 53-55.
[113] (5/19/1957?) Vol 8 Architecture? Or general? – 1959 - Maryland shopping
[114] "A New Auto Club Building in St. Louis," *Midwest Motorist* (April 1976).
[115] Ibid.
[116] George McCue, "New Vista on Oakland Ave" *Post-Dispatch*, July 21, 1957.

Hampton Avenue. The portion of Hampton Avenue between Oakland and I-44 was developed primarily during the 1950s and early 1960s. The Bank Building & Equipment Company, the American Furnace Company, and other entities built on the portion of Hampton between Oakland and Manchester. The areas flanking Hampton developed into a center of distribution and light manufacturing plants during the 1950s. The parcels flanking the Hampton Oval south of I-44, and blocks to the east, were developed in a short period of time during the 1960s. Further south, Hampton was lined with a varied development, some areas residential, but mostly commercial in use.

Flood Control and Hall Street. The St. Louis Flood Control Project was an important civic improvement that supported the decentralization of commerce and industry by making low land adjacent to the river usable without concern for yearly flooding. The $85 million project consisted of the construction of a combination flood wall and earthen levee system parallel to the Mississippi River. 16-foot flood walls extended for seven miles along the riverfront and slightly taller earthen levees edged an additional four miles. The system was designed to withstand a 52-foot flood, a 200-year event. Fortunately, much of the wall and levee system was completed before high spring flood of 1973.[117]

Just as for the more celebrated Gateway Arch, the city's top civic, business and political leaders spent years lobbying for this project. Conceived during the late 1940s, city leaders worked to get Congressional funding and consulted with the Army Corps of Engineers in its design and construction. St. Louis residents contributed $7.7 million through bond issue funding. The project protected an additional 2,600 acres of land, 600 acres of which were considered to be developable. When completed in 1975, the St. Louis walls and levees constituted the largest single flood protection project yet built in this United States.[118]

The Hall Street Expressway was proposed during the mid-1950s and was funded by the 1955 Bond Issue. The development of adjacent areas with numerous truck terminals was a direct result of the flood control project. The land had previously been too flood-prone to be attractive for development. The truck terminals that line Hall Street demonstrated the new availability of this area for development and the increasing importance of truck transport of commercial and industrial goods during the post-war years.[119]

The construction of trucking terminals in several locations along railroad lines and throughout the central transportation and commercial corridor was a major component of the construction industry in the city during the late 1950s. The Murch-Jarvis construction company specialized in the design and construction of this type of facility. The firm built 28 terminals by the mid-1950s and completed its sixty-fifth terminal in 1965. The terminals – protected platforms used to transfer freight – were built for transportation firms, including Gateway Transportation.[120]

Institutional Growth

Hospitals

By the end of World War II, the city's hospitals, like those elsewhere, were older buildings that had suffered from maintenance deferred since the early 1930s. It was still the era of small hospitals and during the 1960s there were nearly 30 in St. Louis. The newest buildings had been built during the 1920s and many had wards rather than private rooms. Hospitals planned for more modern facilities and by the 1950s, building projects were underway. Nearly all of the hospitals in the city expanded and modernized their facilities to some degree. At the same time, some, lacking room for expansion and

---

[117] "City's Wall that Saved St. Louis," *Globe Democrat*, March 11-12, 1974
[118] Ibid.
[119] *39th Annual Report of the City Plan Commission 1954-55*, 10.
[120] "Trucking Industry Major Factor in St. Louis' Construction Volume," *St. Louis Construction News*, (September, 1965), 18.

considering the affects of suburbanization in the metropolitan region on the location of hospital services, decided to move out of the city. Missouri Baptist Hospital chose to move and occupied its new suburban facility in 1965. Christian Hospital expanded its premises on Newstead Avenue, and then decided to develop a new facility northwest of the city that opened in 1968.

At the same time, the expansion and modernization of what would be the two largest medical campuses in the city, the St. Louis University Hospital-Firmin Desloge complex and the combined Jewish-Christian-Barnes Hospital – and eventually Children's Hospital – complex were underway. Barnes Hospital had an active building program, with its new Wohl Building (1953), Renard Building (1955) and Queeny Tower (1966). Jewish Hospital was expanded with the Mark C. Steinberg addition that included the Aaron Waldheim Clinic, in 1956, and the Yalem Research Building in 1966. More changes were made during the early 1970s. By that time Barnes and Jewish Hospitals and the Washington University Medical School developed a Community Unit Plan that would allow for dense new development made possible by modifying zoning, setback and courtyard restrictions. Kenneth Wischmeyer designed the Barnes Central Pavilion, the new southern "front" of the hospital, which was built in two sections; the eastern portion was complete by 1972, and the western portion a few years later. The expansion project included an underground parking garage. Jewish Hospital was expanded during the early 1970s as well. Schwarz & Henmi was in charge of the building program that included the Shoenberg Pavilion, a nine-story tower on Forest Park Avenue. The McDonnell Medical Science Building, designed by Murphy, Downey, Wofford & Richman, and completed in 1959, and the Washington University Medical School, a Hammond, Charle, Burns & LePere design, were other major projects in the complex.[121]

Incarnate Word Hospital was increased in size three times by 1963. Across Grand Avenue, the Firmin Desloge Building at St. Louis University Hospitals was expanded with support facilities and the David Wohl Mental Institute (1961, demolished), as well as new cancer patient treatment areas in 1947 and in 1968.[122]

Deaconess Hospital was also expanded several times between the mid-1950s and the mid-1960s. St. Luke's Hospital on Delmar received several additions between 1951 and 1964. Wings were added to Alexian Brothers Hospital on S. Broadway and to the St. Louis Children's Hospital on S. Kingshighway. An out-patient clinic was added in 1960 to the Homer G. Phillips Hospital. Lutheran Hospital on Texas had additions during the 1950s and 1960s before a major new portion, designed by Rex Becker of Forese, Maack & Becker, was begun in 1970. Construction began on a 90-bed juvenile center at the St. Louis State Hospital in 1974.[123]

New hospitals of the period included the Veteran's Administration Hospital on N. Grand in 1950, Cardinal Glennon Hospital on S. Grand, built in 1956, and Faith Hospital on N. Kingshighway, completed circa 1960 (demolished).

The city operated Homer G. Philips Hospital (National Register 1982) and City Hospital (National Register, 2001) through most of this period. The city began construction of the City Hospital complex on Lafayette Street in 1905. The facility was expanded over time and the last new buildings were the 1961 Snodgrass Laboratory, designed by Jamieson, Spearl, Hammond & Grolock, and the Ancillary Services Building, designed by Schwarz & Henmi, that dates from 1971.

---

[121] "Kenneth E. Wischmeyer & Partners on Hospital Architecture," "Hammond, Charle, Burns & LePere on Hospital Architecture," "Schwarz & Henmi on Hospital Architecture," *St. Louis Construction News and Review* (September 21, 1970), 4B-20B ; Metropolitan St. Louis Hospital Planning Commission, *Inventory of Hospital Facilities and Services in the Metropolitan St. Louis Area; a Report on Fifty-nine Hospitals*, 1967 (1968).

[122] Rita G. Adams, Rita G., William C. Einspanier and B.T. Lukaszewski, S.J., *St. Louis University. 150 Years* (c. 1970) and *Inventory of Hospital Facilities.*

[123] Metropolitan St. Louis Hospital Planning Commission. Inventory of Hospital Facilities and Services in the Metropolitan St. Louis Area; a Report on Fifty-nine Hospitals, 1967. 1968.

Education

Elementary and Secondary Education

During the 1940s and early 1950s, the city operated a school system for white students and another one for Negro students, as was the case throughout Missouri. The city provided 37 elementary schools for 22,000 Negro children, and three black high shools, Sumner, Vashon and Washington Technical. There were 86 elementary schools for the 51,000 white students and seven white high schools. The city also operated two teacher's colleges, Stowe for blacks and Harris for whites.[124]

The state of the City's public school system in 1950 was characterized as "impoverished." Most of the school buildings were old and very crowded. Funding was poor and there were some notable gaps: no nursery schools or a community college.[125]

In 1950, the City completed one new school, the L'Ouverture, elementary school for black children living south of Mill Creek Valley. The school, designed by Wischmeyer & Lorenz, had several modern features: glazed tile walls, acoustical tile ceilings, radiant heating, fluorescent lighting, and green chalkboards to eliminate eyestrain, and was designed to accommodate community use when not in use as a school.[126]

A group of new elementary schools was completed during the 1950s under the oversight of Supervising Architect F. Ray Leimkuehler.[127] In May 1951 a school tax increase measure was approved by voters. A bond issue for school construction based on the crowded conditions in the existing schools was defeated narrowly in May, but was passed in June. In late 1952 an addition to the black Sumner High School in the Ville that included a pool, cafeteria, auditorium with stage, and 14 classrooms was completed as part of this building program. Some of these schools were built in more recently developed areas on the south side and some were near new public housing developments. Lists of elementary schools constructed during the 1950s and 1960s are included in Appendix A

Following the 1954 Brown Vs. Board of Education Supreme Court decision, the City School Board announced that same year that all students would attend the nearest public school that was part of one integrated school system. The building program would not be affected and no schools would be closed. The first step was the merger of the two teather training colleges, Harris and Stowe. The high school district plan was revised, based on the capacity of the schools, geographic distribution of school population, transportation, and other factors. New grade school district boundaries were set in January, 1955 for the following year, although students could choose to remain at their current schools. This seemingly smooth desegregation of the City's schools avoided open conflict, but did not result in actual integration as the residential pattern was highly segregated.[128]

Overcrowded conditions were again emphasized as the reason for a 1960 bond issue of nearly $24,300,000 to provide more school facilities. The ambitious list of proposed projects included 14 new elementary schools, 11 additions to existing buildings, and the expansion of 10 playgrounds. Five of the new schools would replace older buildings and the rest were intended to relive overcrowding by adding to the roster of schools.[129]

The high school part of the program would include a new high school in northwest portion of the city, additions to Southwest High School and McKinley High School, and the general modernization of the

---

[124] "Students Will go to Nearest Public School," *Globe Democrat*, May 18, 1954.
[125] Selym Petter, "The City's Impoverished Schools," Progress or Decay Series, *Post-Dispatch* April 2, 1950.
[126] "Most Modern City School to be Built For Negroes" *Globe-Democrat*, January 25, 1948.
[127] "Architect Says School Building Commissioner Told Him to Quit," *Post-Dispatch*, October 2, 1956.
[128] "Students Will go to Nearest Public School" *Globe-Democrat* May 18, 1954; "New High School Districts Drawn for Integration" *Globe-Democrat* November 16, 1954; *In Her Place*, 90-91.
[129] "School Board Group to Urge Bond Issue of $24,297,000," *Post-Dispatch*, February 7, 1960.

interior of many facilities. The Northwest High School project would be the largest of the bond issue projects and serve 1,000 students.[130]

Changing demographics furthered inequities in school facilities and overcrowding in north side schools was an enduring problem for the school system. During the early 1960s, "school resegregation" was noticeable and challenged. Between 1953 and 1963, the number of black students doubled while the number of white students decreased by 12,000. The numbers for 1964 made the trends very clear: there were 3,200 new black students while over 800 white students had left the system. At that time, 71 of the city's 134 elementary schools had only black students and 50 were all white. The high schools were also predominantly one race, depending on their location.[131]

By the mid-1960s, six new elementary schools and been completed, all on the north side of the city where the black population had increased significantly. Yet more new schools were needed for the west end neighborhoods. The loss of population from white neighborhoods in the city and increasing population in black neighborhoods had resulted in a bussing program. Black children were bussed to schools with empty classrooms in the south and northwestern portions of the City and taught in self-contained classrooms. Some children were taught in temporary, transportable classrooms, another condition that parents felt was unsatisfactory. Six new schools were proposed to eliminate the bussing program and the need for such ad hoc facilities. The new schools reduced the number of transported students significantly – from 4,800 students to 700. Multi-purpose additions were planned for several schools. As soon as this building program was complete, the need for yet additional schools was announced.[132]

Peak enrollment in the City's public schools occurred in 1967. By the late 1960s voters were weary of funding school building bond issues. A proposal to fund new schools failed three times in 1968 and once in 1969. The school administration used federal funds to build eight additional primary schools, each with a multi-purpose room.[133]

Parochial schools had long been a prominent component of Catholic parishes and as adjuncts to Lutheran congregations. Yet changes began to occurr during the 1940s. The Archdiocese desegregated its schools – elementary and high schools – in 1948. Catholic schools not under the control of the Archdiocese were not directly affected by the decision.

In 1959, 16 of the just over 100 parochial schools in St. Louis were Lutheran, with nearly all of the rest Catholic; in 1969 the numbers were similar with 10 fewer schools overall. Several of the existing schools responded to the significant increase of school age children after World War II with new buildings and additions. For example, a new eight-classroom building for the Lutheran Hope Evangelical Lutheran Church School was underway in 1952. Saint Elizabeth's School on Arsenal in the Tower Grove East neighborhood added to its girl's high school with a classroom wing, gymnasium, and convent in 1957. The new St. Nicholas parish that included a church, school, rectory, convent, and Community Center, was the first new Catholic Church to be built in downtown for at least 60 years. It served a predominantly black parish, the 400 members of which lived in the Carr Square Village and Vaughan Apartments. The parish school was significantly expanded to serve 400 students. Bishop DuBourg High

---

[130] *Post-Dispatch*, February 7, 1960 and "Northwest Project for 1000 Students High School Plan Shown" *Globe-Democrat*, May 11, 1960.
[131] Lang, 143-148.
[132] "Board to Build 34 Classrooms for West End" *Post-Dispatch* Jan 15, 1964; "Two New Schools to Be built in West, North Areas of City" March 5, 1965 (newspaper not identified).
[133] St. Louis Board of Education*, St. Louis Scorecard: St. Louis Public Schools* (1969); Sharon Huffman, *St Louis Public Schools 160 Years of Challenge, Change and Commitment to the Children of St. Louis, 1838-1998* (St. Louis Public Schools, 1998) 28.

School was completed in 1955 and almost immediately enlarged. A new campus was completed in two building campaigns during the 1960s for St. Mary's High School for boys.[134]

Between the late 1940s and early 1960s, enrollment in Catholic schools had increased by 100 percent. Nevertheless, by 1962 the prospect of attending a Catholic high school diminished to some degree, just as the baby boomers were filling high school classrooms. The Archdiocese decided that no new high schools or classrooms for its system would be built due to the shortage of qualified teachers – both religious and lay.[135]

The Missouri State School for the Blind, located on Magnolia Avenue north of Tower Grove Park, benefited from a 1956 State Bond Issue and expanded its premises. The new buildings, which included living units, were erected on the Magnolia side of the existing buildings in order to not encroach on playground space. The new buildings, designed to be both modern, cheerful, and create a home-like environment for the residential school, featured exterior walls of blue colored panels and brick.[136]

Colleges and Universities

The two large private universities located in St. Louis experienced considerable expansion during the Gateway Years.

St. Louis University President Paul Clare Reinert oversaw two important five-year development programs that expanded the campus to an area east of Grand Avenue. One of Reinert's first major projects was Marguerite Hall, the first modern residence hall for women, which opened in 1956. Pius XII Memorial Library, designed by Leo Daly in 1958, was an important project. A fundraising campaign, lead by August A. Busch, Jr. and Joseph H. Vatterott, was initiated in 1958. The purchase of 22.5 acres of the Mill Creek Valley urban renewal area east of Grand Avenue provided the space for the East Campus development, once a church-state law suit about the land purchase was dismissed. The Science and Engineering Center, also designed by Leo Daly, featured underground lecture halls; it was dedicated in 1965. The 150th Anniversary Leadership Program, a second five-year development effort, intended to raise significant funds for campus expansion. The Kenneth E. Wischmeyer & Partners' 1967 Cardinal Ritter Hall, College of Arts and Sciences and the Bank Building & Equipment Corporation's 1967 Busch Memorial Center, all on the east of Grand portion of the campus, were funded through this campaign.[137]

Washington University expanded its campus facilities, located at the western edge of the city and mostly in University City. Its post war building program included buildings designed by members of the faculty of the Architecture School and others. Steinberg Hall, a collaboration between Fumihiko Maki and Russell, Mullgardt, Schwartz and Van Hoefen, is located on the St. Louis city portion of the campus. It functioned as the school's art center and was intended to express the "cultural interests of its time."[138]

St. Louis Community College represents the new educational programs that were initiated during the 1960s and were quickly realized. Missouri authorized the creation of junior colleges in 1961 and a Junior College District of St. Louis-St. Louis County was established in 1962. Students enrolled at the St. Louis (Forest Park) Community College, as well as Meramec Community College and Florissant Valley Community College the following year and used temporary facilities. Funding for the Forest Park facility was included in the 1965-1969 Capital Improvement bond issue that was passed in 1965. Architect

[134] "First in this Century – New Catholic Church to be Built Downtown" *Globe Democrat* February 20,1960; St. Mary's website, http://www.stmaryshs.com/history.aspx, accessed May 28, 2013.
[135] "Archdiocese Halts Building of High Schools" *Post-Dispatch*, September 18, 1962.
[136] "School for Blind Aims for Cheeriness" *Globe-Democrat*, May 25, 1958.
[137] Rita G. Adams, et al.
[138] *Architecture in St. Louis*, 47.

Harry Weese & Associates re-imagined the urban campus and it consists of two long, narrow classroom buildings, a library, and a performing arts center. Classes were first held on the premises in 1967.[139]

Religious Life

St. Louis congregations joined in the enthusiasm for building during the post World War II years. A survey of church buildings that met a threshold for architectural design indicates that nine churches were built between 1940 and 1944. During the following 15 years (1945-60), forty-five churches were constructed in St. Louis and additions were made to several others during this time period. The church building boom was over by 1960, although some new building and addition projects date to that decade. Church building construction and ownership was affected by population changes by that time. Some congregations moved to the suburbs and sold their property to other congregations. Another trend was the growing number of small congregations that built quite small buildings or adapted buildings built for other uses.[140]

While several denominations experienced some growth, five new Baptist, and an equal number of additions to existing churches, and five new Missionary Baptist church buildings indicate significant growth and prosperity in the Baptist family of congregations. Both the Lutherans and Roman Catholics built six new buildings. Four Methodist and an equal number of Church of Christ congregations constructed new buildings as well. The Holy Cross Lutheran Church for the Deaf, designed by Froese, Maack & Becker in 1966, was a small distinctive building for sign-language services. Wedge shaped, it tapered from a 40-foot span to 18-feet at the altar. Its free-standing bell tower survives on the campus of Wells Fargo on Market Street.[141]

Cultural Life

Residents of the metro St. Louis area confirmed their support for local cultural institutions in two important funding initiatives. The 1955 Bond Issue for the city provided funding for an addition to the Art Museum, a facility owned and operated by the city at that time. Murphy & Mackey designed the auditorium wing completed in 1959.[142]

Beginning in the early 1960s, the St. Louis Art Museum and the St. Louis Zoo were both publicly funded by a tax in St. Louis City. A key vote in 1971 created the Metropolitan Zoological Park and Museum District supported by both St. Louis City and St. Louis County. This increased tax base secured the financial base for three entities in the city: the St. Louis Zoo, St. Louis Art Museum, and Science Center.[143]

An addition to the Jefferson Memorial, home of the Missouri Historical Society, was designed by Sverdrup & Parcel & Associations in 1972. The addition, which provided an auditorium and galleries, was positioned underground, so that the 1913 building would not be affected significantly.[144]

---

[139] St. Louis Community College website, http://www.stlcc.edu/About/History.html, accessed March 29, 2013. City Plan Commission. *Capital Improvement Program, City of St. Louis, 1965-1969*. 1965; Ronald E. Schmitt, *Architecture of Forest Park Community College* (R.E. Schmitt, 2009).

[140] Mary M. Stiritz, *St. Louis: Historic Churches and Synagogues* (St. Louis: St. Louis Public Library and Landmarks Association of St. Louis, Inc., 1995), Church Survey Master List, 125-135.

[141] Ibid; McCue, *The Building Art in St. Louis: Two Centuries* ((1967), 50.

[142] McCue (1967), 60.

[143] Metropolitan Zoological Park and Museum District website, http://www.mzdstl.org/History.htm accessed May 29, 2013.

[144] McCue (1981), 80.

Gaslight Square was the popular entertainment area during the Gateway Years. The area, centered on Olive, from Sarah to Newstead, acquired an identity around 1960. The Crystal Palace on Olive presented well-known acts. The relocation of O'Connell's Pub in 1972 signaled the demise of the area. New housing has replaced all evidence of Gaslight Square.[145]

[145] Joe Holleman, *Generation St. Louis. The Baby Boomer Years, 1955-79* (St. Louis Post Dispatch Books, 2008), 50.

Figures

Source. *St. Louis Development Program*, p. 14.

Figure 1. Map of City of St. Louis as described in 1973, showing the major elements of the city's structure: the east-west spine of intensive development in the Central Corridor, the north and south residential areas, and the industrial riverfront zone.

Figure 2. Gateway Arch under construction, 1965.

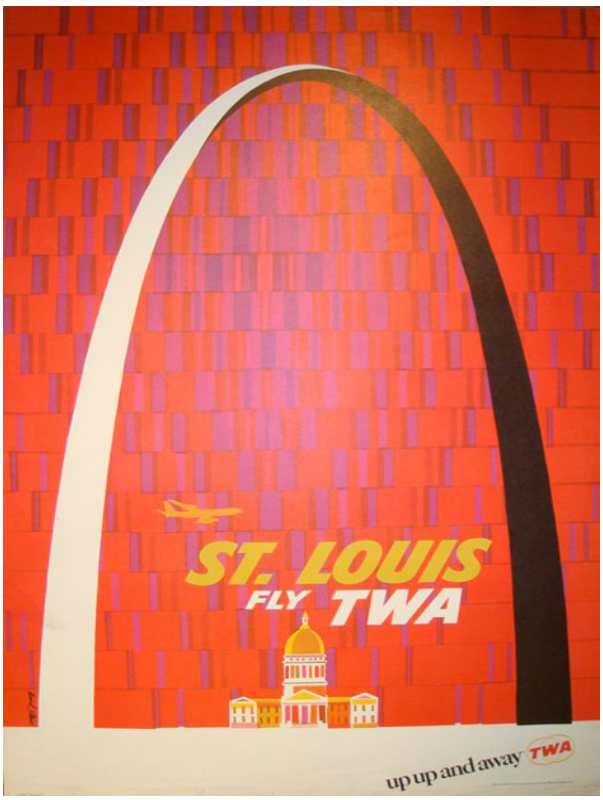
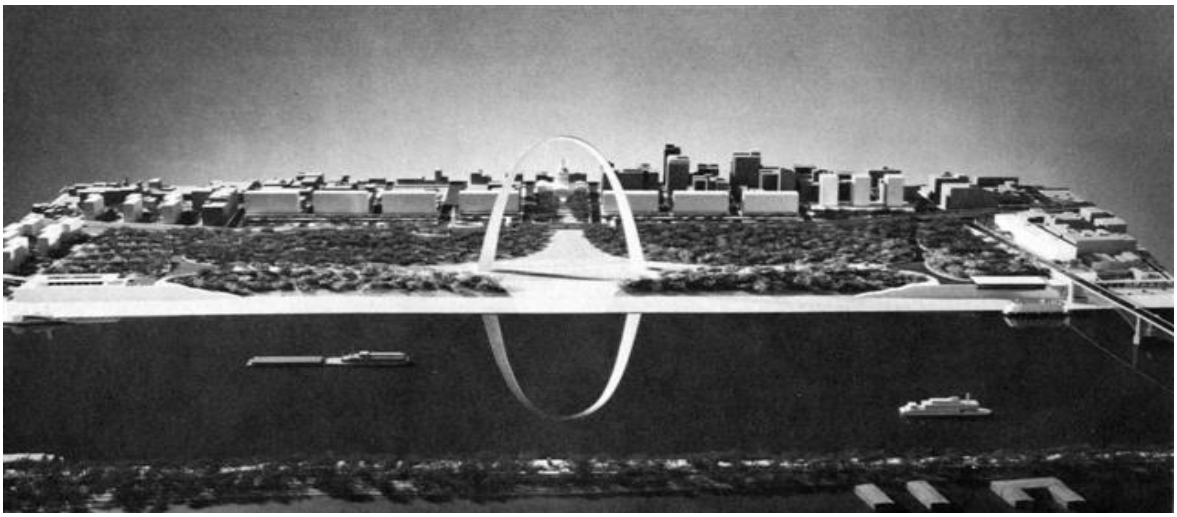


Figure 3. A TWA advertisement that highlighted the iconic arch as a symbol of modernity equal to that of the airline headquartered in St. Louis.



Source: A Plan for Downtown St. Louis, 1960

Figure 4. National Park Service Model showing a uniform row of buildings on 3rd Street/Memorial Drive.

Figure 5. The St. Louis riverfront from the river indicating how the Arch towers over the new Mansion House Center towers and older buildings.

Figure 6. Aerial View showing the more varied riverfront edge of the city, with Mansion House Center north of the Arch, Gateway Tower opposite the south leg of the Arch, and Busch Memorial Stadium flanked by the pair of parking garages.

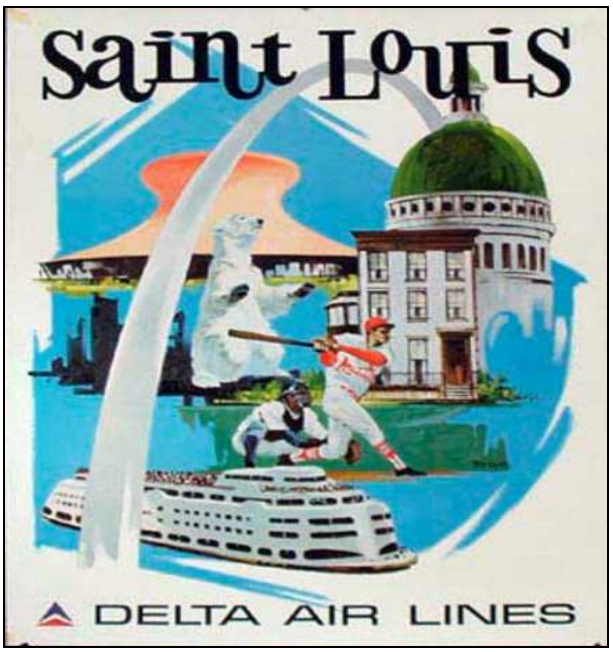


Figure 7. A Delta Air Lines poster presenting visitor destinations in St. Louis, all encompassed by the Gateway Arch.

Figure 8. The Pruitt-Igoe Public Housing Project is the superblock of white buildings in the distance.

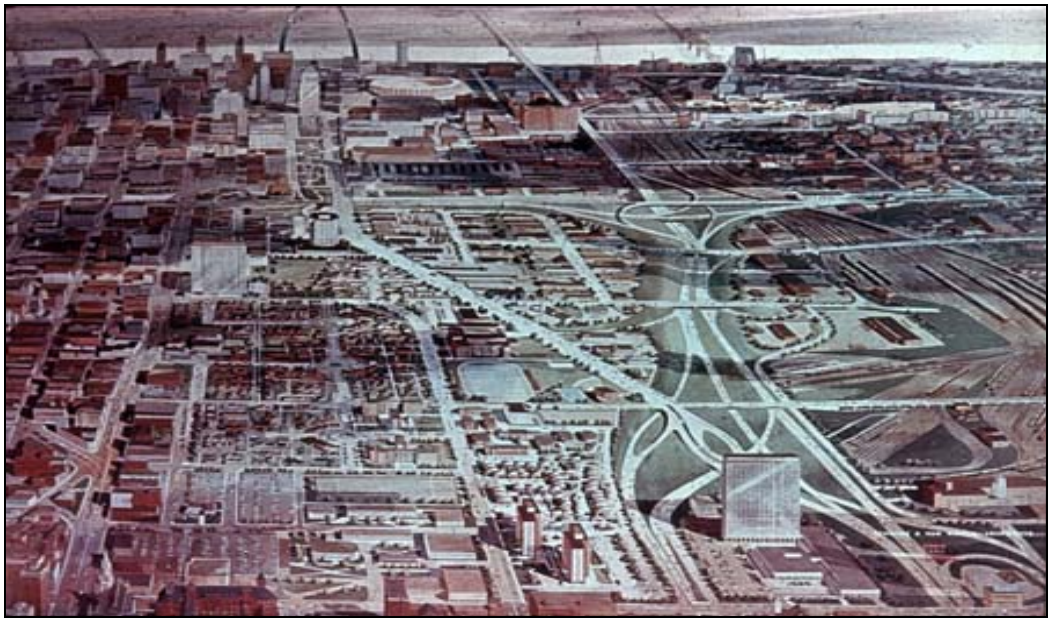


Figure 9. Rendering of the proposed Mill Creek Valley development inserted into an aerial photograph.

Source: George McCue Collection, UMSL

Figure 10. Demolition underway in Mill Creek Valley.

Figure 11. Plan of Mill Creek Valley new construction, 1972.

Key:
1 Laclede Town
2 Operation Breakthrough
3 Council Plaza
4 Grand Towers
5 Grand Forest
6 Laclede Park
7 Heritage House
8 St. Louis University Campus Extension

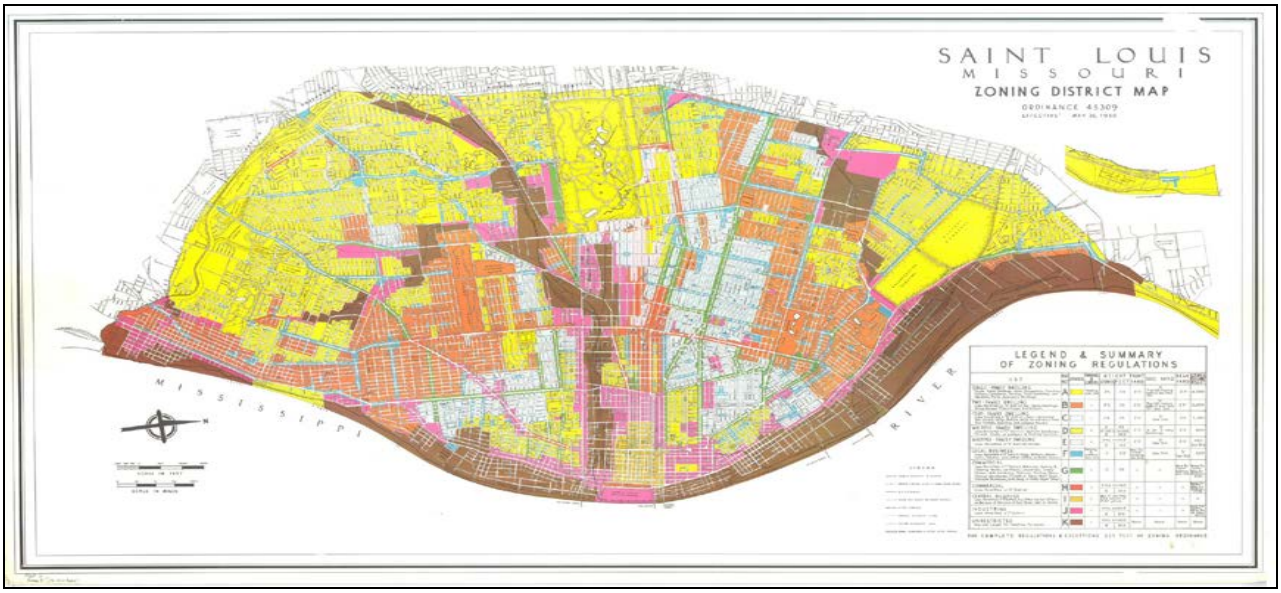
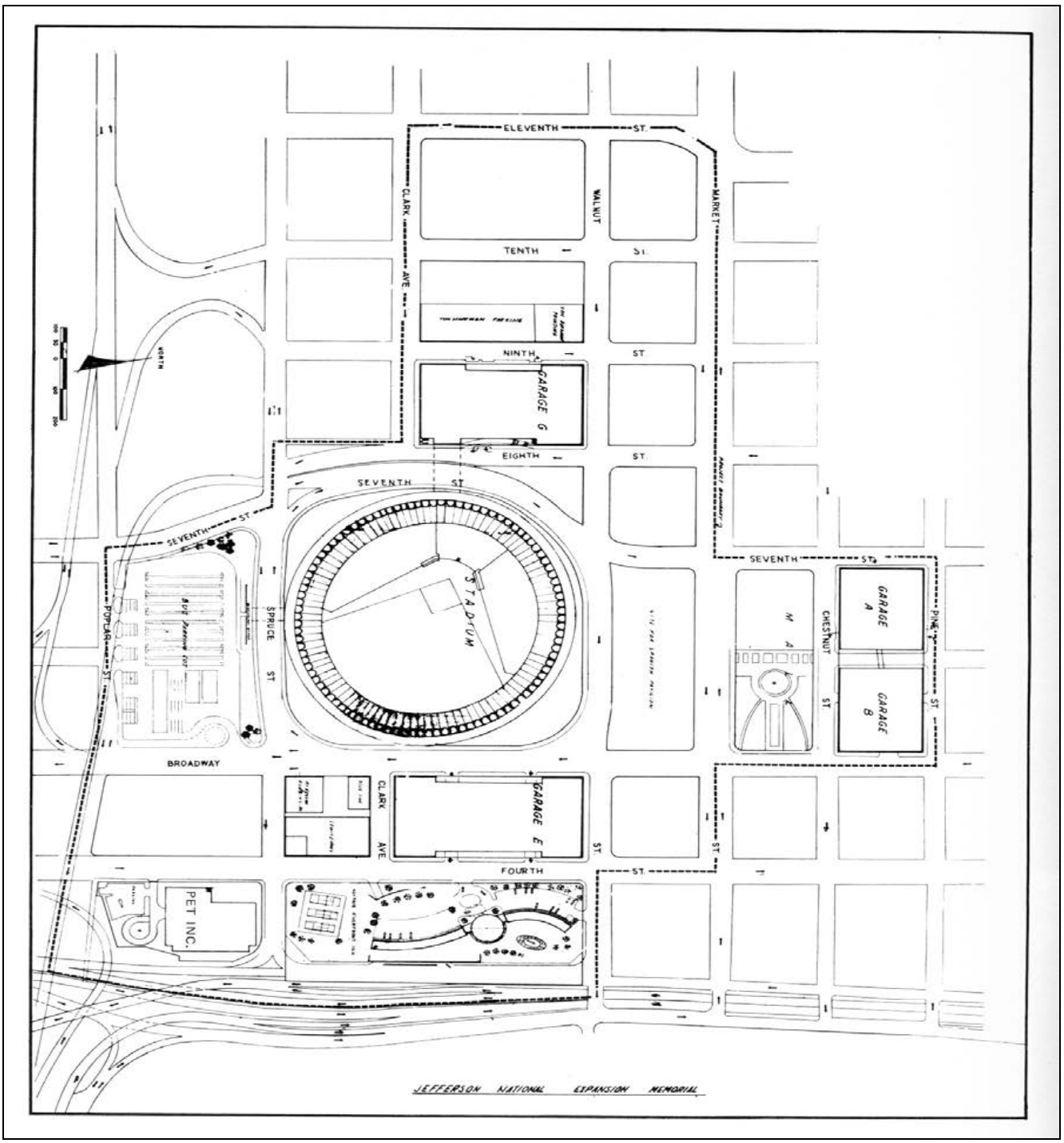


Figure 12. 1950 Zoning map that established more industrial areas, shown in the darkest shade.

Source: A Plan for Downtown St. Louis, 1960

Figure 13. Proposed "Parkway – Joining Civic Center and Jefferson National Expansion Memorial" as imagined in 1960.



Source: A Plan for Downtown St. Louis, 1960

Figure 14. The Downtown Sports Stadium Redevelopment Project Area, 1974.

Figure 15. Busch Memorial Stadium c.1966 with Cupples Station buildings to its west.

Source: A Plan for Downtown St. Louis, 1960

Figure 16. Imagined Bird's Eye view of Downtown St. Louis with the North/South Distributor Expressway in the distance.

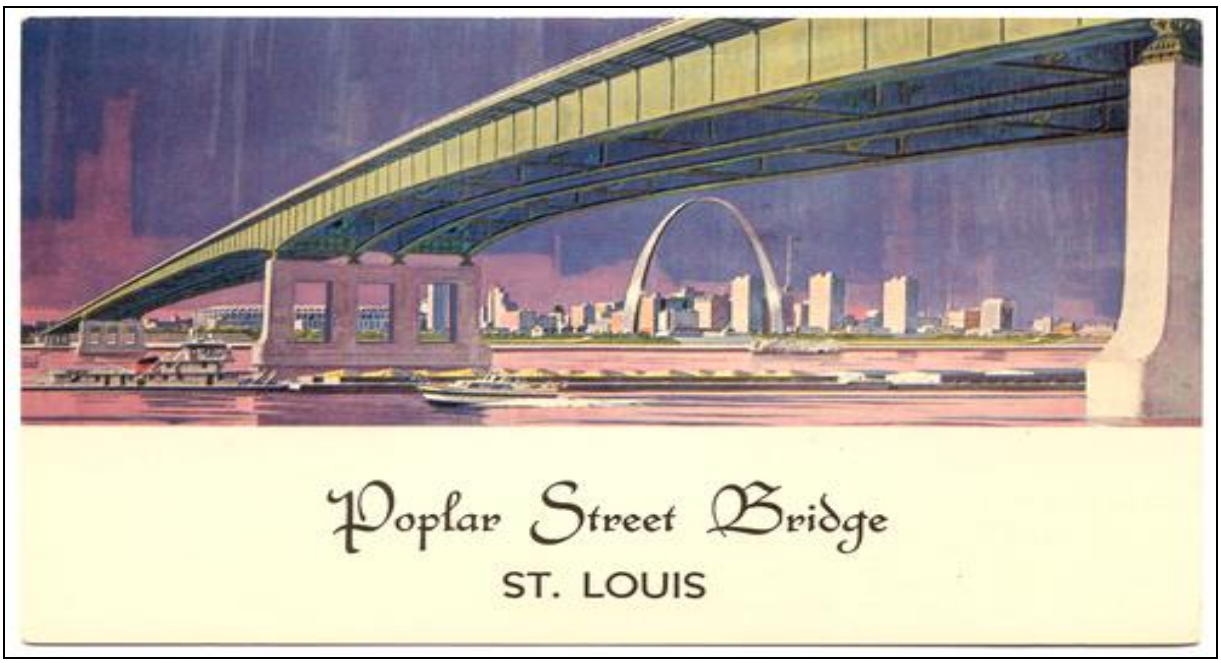


Figure 17. The Poplar Street Bridge was contemporary with the Gateway Arch.

Source: Lambert-St. Louis International Airport

Figure 18. Lambert Terminal at time of completion.

Source: McCue Photograph Collection, UMSL

Figure 19. Gateway National Bank

Source: George McCue Collection UMSL

Figure 20. Bettendorf's Foods at Hampton Village.

Selected Sources

Adams, Rita G., William C. Einspanier and B.T. Lukaszewski, S.J. *St. Louis University. 150 Years*. St. Louis, c. 1970.

Adde, Leo. *Nine Cities: The Anatomy of Downtown Renewal*. Urban Land Institute, 1969.

Boulevard Frontage Co. *Hampton Village, St. Louis*.1941.

City of St. Louis. *A New Vision, A New Vigor: Report to the People of St. Louis.* 1968.

City of St. Louis (Mayor Tucker). *Annual Report*. 1959.

City of St. Louis. *An American City, Four Years' Progress: St. Louis, 1949-1953*. 1953.

City of St. Louis Board of Aldermen. *A Report to St. Louis*. 1960.

City of St. Louis (Mayor Cervantes). *A Progress Report: Making St. Louis a Better Place to Live*. 1973.

Corbett, Katharine T. *In Her Place: A Guide to St. Louis Women's History*. St. Louis: Missouri Historical Society Press, 1999.

Fruin-Colnon Contracting Co. *Development of the St. Louis Region*. St. Louis, 1942.

Gordon, Colin. *Mapping Decline: St. Louis and the Fate of the American City*. University of Pennsylvania Press, 2008.

Gerber, Benjamin M. "Urban Height Restrictions Without Law: A Philadelphia Story," http://www.planning.org/divisions/planningandlaw/writingcompetition/pdf/gerber.pdf. Accessed March 21, 2013.

Holleman, Joe. *Generation St. Louis. The Baby Boomer Years, 1955-79*. St. Louis Post Dispatch Books, 2008.

Huffman, Sharon. *St Louis Public Schools: 160 Years of Challenge, Change and Commitment to the Children of St. Louis, 1838-1998*. St. Louis Public Schools, 1998.

Ingham, John N. *African American Business Leaders, A Biographical Dictionary*. "Clifton W. Gates." Greenwood Press, 1994.

Jolly, Kenneth S. *Black Liberation in the Midwest: The Struggle in St. Louis, Missouri, 1964-1970*. New York: Routledge, 2008.

Kersten, Earl W. Jr. and D. Reid Ross. "Clayton: A New Metropolitan Focus in the St. Louis Area," *Annals of the Society of American Geographers* 58 (December 1968), 637-649.

Lang, Clarence. *Grassroots at the Gateway: Class Politics & Black Freedom Struggle in St. Louis, 1936-75*. Ann Arbor: University of Michigan Press, 2009.

Leven, Charkes L., James T. Little, Hugh O. Nourse, and R. B. Read. *Neighborhood Change: Lessons in Dynamics of Urban Decay*. New York: Praeger, 1976.

McCue, George. *The Building Art in St. Louis: Two Centuries*. St. Louis Chapter, American Institute of Architects. 1964, 1967, and 1981.

Metropolitan St. Louis Hospital Planning Commission. *Inventory of Hospital Facilities and Services in the Metropolitan St. Louis Area; a Report on Fifty-nine Hospitals*, 1967. St. Louis, 1968.

Mill Creek Park. (brochure). St. Louis, c.1960.

Murphy, Marie Agnes. *The Metropolitan Project: Leadership, Policy and Development in St. Louis, MO, 1956-1980.* Charlottesville: University of Virginia, Ph.D. Dissertation, 2004.

National Park Service. *Jefferson National Expansion Memorial Gateway Arch Historic Structures Report*, Vol. 1 (June 2010), prepared by Bahr Vermeer Haecker Architects, Wiss, Janney, Elstner Associates, Inc. and Alvine and Associates, Inc. for the National Park Service. http://www.nps.gov/jeff/historyculture/upload/VOLUME-1-COMPLETE-HSR.pdf, accessed March 21, 2013.

Riess, Steven A. "Historical Perspectives on Sports and Public Policy" in Wilbur C. Rich, ed. *The Economics and Politics of Sports Stadiums*. Quorum Books, 2000.

St. Louis Board of Education. *St. Louis Scorecard: St. Louis Public Schools*. 1969.

St. Louis City Plan Commission. *Annual Reports*. 1951-1956, 1960-1968.
_____. *Saint Louis After World War* II. December 1942.
_____. *City of St. Louis 1947 Comprehensive Plan*. 1947.
_____. *A Study of Space Use in the St. Louis Central Business District*. 1958.
_____. *A Plan for Downtown St. Louis*. 1960.
_____. *St. Louis Development Program*. June 1973 .
_____. *Capital Improvement Program, City of St. Louis, 1965-1969*. 1965.

St. Louis Comprehensive Neighborhood Health Center. *This is Your St. Louis Comprehensive Neighborhood Health Center*. c.1972.

St. Louis Model City '74. St. Louis, 1974.

St. Louis Post Dispatch. *Shopping Centers in Greater St. Louis*. 1961.

Schild, James J. *House of God*, the Historic Churches and Places of Worship of the St. Louis Area, 1995.

Stiritz, Mary M. *St. Louis: Historic Churches and Synagogues*. St. Louis: St. Louis Public Library and Landmarks Association of St. Louis, Inc., 1995.

Stone, Stacy and Carolyn Toft. Pet Plaza National Register of Historic Places Nomination Form. 2004.

Toft, Carolyn Hewes. *The Way We Came: A Century of the A.I.A. in St. Louis.* Patrice Press, 1991.

Wright, John A. *Discovering African-American St. Louis: A Guide to Historic Sites*. St. Louis: Missouri Historical Society, 1994.

Apppendices

Appendix A

Project	Location
Wohl Community Center	Sherman Park
Pool and Pool House	Fairgrounds Park
Art Museum Auditorium Annex	Forest Park
Field House	Forest Park
Office building	Forest Park
Planatarium	Forest Park
Buder Branch Library	Hampton Avenue
Divoll Library	
Jacob Lashly Branch Library	West Pine
Health Center	Cass Avenue
Fire Station	TBD
Fire Station	TBD
Fire Station	TBD
Community Center	DeSoto Park
Juvenile Court and Detention Center	Vandeventer
Municipal Dock	Mississippi River
Flood Walls	Mississippi River front
Grand Avenue Viaduct	Grand Avenue over railroad corridor
Civil Defense Center	18 miles northwest of City Hall (location not disclosed)

Major Construction Projects, 1955 Bond Issue
To Be Determined (TBD)

Appendix B

School	Architect	Date
L'ouverture, 3021 Hickory	Wischmeyer & Lorenz	1950
Nottingham, 4915 Donnovan	TBD	1950s
Busch, 5910 Clifton	TBD	1950s
Blewett , 1927 Cass	TBD	1954
Peabody, 1223 S 14th	TBD	1950s
Pruitt, 1212 N 22nd	Ray Leimkuehler	1954
1130-1146 N. Euclid	Ray Leimkuehler	1954
5101 McRee	Ray Leimkuehler	1954

1950s Public School Construction

School	Architect	Date
Cook, Horton Place	HOK	1964*
Ford, 1383 Clara	Manske & Dieckmann	1964*
Langston at 5511 Wabada	William B. Ittner, Inc.	1964*
Mitchell at 955 Arcade	Murphy & Mackey	1964*
Stevens at 1033 Whittier	Study, Farrar & Majers	1964*
Williams at 3955 St. Ferdinand	Fred C. Sternberg	1964*
Lexington at 5030 Lexington	TBD	1964
Cole, 3935 Enright	Edward J. Thias?	Ca. 1965
Jackson, 1632 Hogan	Edward J. Thias?	Ca. 1965
Hickey, 3111 Cora	Burks & Landberg	1966
Stowe, 5759 Lotus	TBD	1966
Yeatman, 4265 Athlone at Holly	William B. Ittner, Inc.	1966
Hamilton Branch No 2, 5859 Clemons;	TBD	1969
Farragut Branch 2, 3000 Prairie	TBD	1969
Hamilton Branch 3, 450 DesPeres	TBD	1969
Clark Branch No. 2, 5183 Raymond	TBD	1969
Farragut Branch 1, 4130 Lexington	TBD	1969
Euclid Branch No. 1, 5057 Ridge	TBD	1969
Hempstead Branch 1, 1437 Laurel	TBD	1969
Cook Branch, 5890 Etzel	TBD	1969

1960s Public Elementary School Construction

Thematic Survey of Modern Movement Non-Residential Architecture, 1945 – 1975, in St. Louis City

Historic Context Statement

Architectural trends, forms, materials and expression important in the St. Louis School of Modern Movement Architecture, c. 1945-1975

Kristen Minor

City of Saint Louis Cultural Resources Office
City of Saint Louis, Missouri

Peter Meijer Architect, PC
710 NE 21st Ave., Suite 200
Portland, OR 97232

Architectural trends, forms, materials and expression important in the St. Louis School of Modern Movement Architecture, c. 1945-1975

I. Overview Of The Modern Movement In Architecture

II. St Louis Location And Setting
- A. Geography
- B. WWII And Post War Decline
- C. Urban Renewal
- D. Clustered Areas Of Growth

III. Modern Architectural Styles
- A. Early Modern/Moderne Styles (Excluded)
- B. Modern Architecture (General)
- C. International Style
- D. Neo-Formalism
- E. Neo-Expressionism
- F. Brutalism

IV. Modern Materials And Building Technology
- A. Pre-Fabricated Components & New Materials
- B. Planar Masonry
- C. "Finish" Concrete
- D. Thin Shell Concrete
- E. Curtain Wall Construction
- F. Truss Systems
- G. Steel Fabrication

V. Modern Building Forms And Types
- A. Travel-Related Architecture
  - a. Auto-Oriented Architecture
  - b. Air Travel Related Architecture
- B. Commercial
  - a. Retail
  - b. Office
- C. Union Halls/ Fraternal Organizations
- D. Financial Institutions
- E. Schools
- F. Modern Campus Planning/ Urban Design
- G. Civic/Public Buildings
- H. Hotels/ Motels
- I. Industrial Buildings And Complexes
- J. Healthcare Facilities
- K. Religious Institutions
- L. Multi-Family Residential
- M. Recreational Facilities

VI. St Louis Influences On Modern Era Expression

I. Overview of the Modern Movement in Architecture

The Modern Movement in architecture can be described as an era of developing a new style that embraced technological advances in materials and building methods, and rejected applied ornamentation and references to the past. Architectural design focused on simplicity, spatial clarity, and daylight to create healthy living and working spaces. The Modern Movement's thesis was that "form follows function," meaning that the result of design should derive directly from its purpose, and that buildings should have a "truth to materials," meaning that the structural element and materials should be exposed, not concealed or altered. Unnecessary detail and ornamentation is replaced with an expression of functionalism.

The nonprofit organization, DoCoMoMo US, part of the International working party for the documentation and conservation of buildings, sites, and neighborhoods of the modern movement, defines the modern movement as:

> an artistic and architectural movement that embodied the unique early twentieth century notion that artistic works must look forward to the future without overt references to historical precedent. Modern design emphasized expression of functional, technical or spatial properties rather than reliance on decoration. Modern design was conscious of being modern: it purposefully expressed the principles of modern design.[1]

Modern architecture was a result of reconciling the principles underlying architectural design with technological advancements and a rapidly modernizing society.

Large numbers of European intellectuals and artists fled to the United States to escape persecution with the onset of World War II. European architects, such as those from the Bauhaus school in Germany, had embraced a new vision of artistic and architectural design meant to reflect a new way of living. As these architects were appointed the deans of architectural schools, such as Mies van der Rohe at the Illinois Institute of Technology and Walter Gropius at the Massachusetts Institute of Technology, international design theory filtered into architectural practice throughout the United States.[2] Yet the modern movement was influenced by local architects, as evidenced in the advances in residential designs led by Buckminster Fuller, George F. Keck at Keck & Keck in Chicago, John Yeon in Oregon, and William Wurster in the San Francisco Bay Area of California. [3]

Advanced technologies and the development of pre-fabricated materials, combined with Urban Renewal programs at the federal, state, and local levels, greatly impacted the social changes, design innovations, and expressive influences on the built environment in post-war United States. "Modernism was a salute to the postwar era itself, spearheaded by architectural giants such as Mies van der Rohe, Eero Saarinen, and Philip Johnson. At the height of its popularity, the sweeping curves, sheets of glass, and absence of ornament signaled change."[4] The increased use of industrially-produced materials and components led to an adoption of a "machine aesthetic" in building design.

---

1 Do.Co.Mo.Mo_US. "How to Evaluate Modern Buildings and Sites," DoCoMoMo website. http://docomomo-us.org/register/how_to_evaluate

2 Leland M. Roth, *American Architecture, A History*. (Boulder, CO: Westview Press, 2001), 411.

3 Roth, 360-367.

4 Meghan Hogan, "The Future of Modern: Federal Architecture in an Era of Change," in *Common Ground* (Spring 2009), 28.

II. St Louis Location and Setting[5]

A. GEOGRAPHY

St. Louis was selected as a fur trading post due to its location near the confluence of the Mississippi and the Missouri Rivers. In 1765, French settlers began to construct a village on the site, situated on a bluff above the river, and named it after Louis IX of France. By 1900, St. Louis was ranked the nation's fourth largest city, after New York, Chicago, and Philadelphia.

Today, St Louis City Limits are bounded by the Mississippi River along the east and a curving boundary to the west creating an irregular teardrop shape, with a narrow segment of land running north along the riverfront. The city can be divided into general areas consisting of Downtown, which is a fairly small area on the riverfront, or the Central Business District; Midtown, which is just west of Downtown; and the West End, which is a larger area west of Midtown. The remainder of the City encompasses numerous neighborhoods within the South Side and the North Side of St. Louis.

Mid-century development in the city was shaped by the fact that its boundary had been established in 1876. The City did not expand with annexations and consolidations as many municipalities did during this period. The amount of land available for new development after World War II was quite limited and located in discreet areas. One of the important aspects of Urban Renewal was that it provided land for new construction. The programs that allowed for land assembly, the city's rezoning efforts, and support of several large projects allowed for redevelopment within the city.

B. WWII AND POST WAR DECLINE

Architecture was changing rapidly across the United States at the end of WWII. Though change was evident prior to the War as well, the War precipitated many of the drivers for the visual, technological, and material changes in the construction industry. During WWII, the collective feeling of patriotism and "doing one's part" for the war effort created a conducive environment for the rise of a more stripped, technologically advanced, and efficient style of architecture. Federally funded housing projects across the UNITED STATES demonstrated the new principles of "modular framing, prefabrication, and simple, functional planning, the very qualities that Modernism espoused."[6]After the War, this same trend towards economy and efficiency continued. Classical details were traded out for more utilitarian functions in design. Form and function became the primary drivers of modern design, eliminating the "extras" of classical details and architectural embellishment, and "many clients, most of the public, and some architects were talking more about bricks and mortar than about felicitous and harmonious design."[7]

In St. Louis, as in most American cities, the decade after the war was a time to address deferred renovations and repairs.[8] Although the war inflicted no physical damage on the United States mainland, most cities simply did not have the funds or the interest to invest in maintenance, much less construct new projects. There was little construction during the Great Depression, and no downtown construction during WWII, though St. Louis did benefit from wartime expansions in industry such as the McDonnell Aircraft Corporation near Lambert Airport.

---

5 For an in-depth discussion of St. Louis neighborhoods, growth patterns, etc., refer to "The Gateway Years," written and developed in 2013 by the City of St. Louis Cultural Resource Office.

6 Marcus Whiffen and Frederick Koeper. *American Architecture Volume 2: 1860-1976*. (Cambridge, MA: The MIT Press, 2001, 1st ed. 1981), 345.

7 Carolyn Hewes Toft, Esley Hamilton and Mary Henderson Gass. *The Way We Came: A Century of the AIA in St. Louis*, ed. by George McCue. (St. Louis: The Patrice Press, 1991), 90.

8 Toft, et al, 88.

The City Plan Commission, led by Harland Bartholomew, engineer, analyzed the data and trends in a 1947 document entitled the *Comprehensive City Plan*. "Obsolete" or "Blighted Neighborhoods" were listed as the areas to the north, south, and immediate west of downtown, including the area just east of Forest Park that would later become Washington University and Barnes Jewish College and medical school during the 1960s.[9] St. Louis could see the energy and construction of new projects beginning to occur outside of the central core, and within the suburbs surrounding the City. To revitalize the business district and to draw people back into downtown St. Louis, officials and planners needed a strategy.

C. URBAN RENEWAL

St. Louis had been one of the first cities in the United States to make use of newly available Federal funding for public works projects under the "War Mobilization and Reconversion Act of 1944," or the George Bill. Newspaper articles from 1944 proudly trumpeted the City's lead over other major urban centers in making plans for improvement projects.[10] The Missouri Urban Redevelopment Corporation Law was passed in 1945, providing long term tax relief to developers. The land Clearance for Redevelopment Authority was created in 1945, allowing the City to buy and clear blighted areas, using federal loans, and then sell property to private developers with prescribed plans for redevelopment.[11] These programs all paved the way for St. Louis to wholeheartedly embrace Urban Renewal. The legal mechanisms created by federal urban renewal programs were extremely powerful. They vested "a city with the authority to take land from many owners and convey it as one parcel to one owner for redevelopment."[12]

St. Louis embarked on a large-scale urban renewal program after the passage of the Federal 1949 Housing Act and its later amendments in 1954 and 1960. The legislation allowed for slum clearance and the construction of low-income housing with Federal funds, while the later amendments allowed for commercial redevelopment.[13] Clearance took place on an incremental scale. Older buildings were razed by property owners for immediate use as parking lots in some areas of the central business district, as modest parking fees and tax savings incentives were enough to entice owners to demolish.[14] There was often a substantial lag in time between initial government clearance activities and the later rebuilding of a neighborhood. The DeSoto-Carr neighborhood, for instance, located just north of downtown, lost many properties and most of its population during the late 1950s and 1960s, but it was not until the mid- to late 1970s that redevelopment occurred.

D. AREAS OF CLUSTERED DEVELOPMENT

St. Louis' clearance and redevelopment programs coincided with the rise of Modern Architecture as a stylistic movement, and so various "redeveloped" areas of the City show a strong concentration of modern resources. While American cities experienced some clearance and redevelopment of their downtown cores, most cities during the postwar years expanded their growth on the periphery. St. Louis, however, was constrained within its geographical borders by natural features and a lack of

---

9 Harland Bartholomew, *Comprehensive City Plan: St. Louis, Missouri.* (St. Louis: City Plan Commission, 1947), Plate No. 13.

10 "City to be One of First to Get U. S. Aid in Postwar Plan," *St. Louis Globe-Democrat*, Oct 15, 1944, and "St. Louis Placed 'Far in Lead in Postwar Plans'," *St. Louis Post Dispatch*, September 12, 1944.

11 Development Program St. Louis, *History of Renewal in St. Louis* (St. Louis, MO: St. Louis City Plan Commission, c. 1967), 6.

12 James Marchael and George McCue, *The Architecture of St. Louis* (St. Louis: City Art Museum of Saint Louis, 1971), 6.

13 Deborah J. Henry, "Race, Power, and the Building Trades Industry in Postwar St. Louis," in *Other Missouri History*, ed. By Thomas Spencer (Columbia, MO: University of Missouri Press, 2005), 88-90.

14 Eric Sandweiss, *St. Louis: The Evolution of an American Urban Landscape* (Philadelphia: Temple University Press, 2001), 233.

available property. By 1945, most of the areas within City limits were already developed. Mid-century Modern architecture in St. Louis can be found both as infill projects in established city blocks as well as "slipcover" projects over existing older buildings such as the Mercantile Library and its associated buildings (1952-1956) and the Dorsa Building (1946).[15] However, the vast majority of Mid-century resources in the City of St. Louis are located in areas that were either cleared for urban revitalization projects; "reclaimed" along new transportation corridors; or in areas, due to their distance from downtown, that were never fully developed. The following clusters or areas have discernible concentrations of Mid-century non-residential architecture.

DOWNTOWN: The cleared Civic Center Redevelopment area was developed with new office buildings, parking garages, and the major focus of redevelopment, Busch Memorial Stadium. Important Modern-era buildings such as the Pet Milk Building, Stouffer's Riverfront Inn, the Gateway Tower, and the Equitable Building were all part of this central redevelopment effort. Other Central Business District redevelopment took place in the Mill Creek Valley area, Plaza Square, the Riverfront, Laclede's Landing, and other scattered areas throughout downtown. In addition to the individual buildings, 1960s planning is evident in the street grid of downtown St. Louis. The older street pattern is defined by blocks that are 250 feet square. The 1960s-era blocks are significantly larger. Planners disrupted numerous existing streets to create superblocks within the redeveloped area, substantially changing the scale of new development in comparison to the scale of the existing older blocks.

LINDELL: Lindell Boulevard is a major commercial roadway running east-west through the City along the north boundary of Forest Park. It continues from Kingshighway on the east side of the Park to Vandeventer, which marks the west end of St. Louis University's campus.[16] As the town of Clayton, the county seat for St. Louis County, boomed with the suburban postwar expansion, Lindell Boulevard benefitted as the major artery connecting St. Louis' downtown with the suburb of Clayton. Lindell now possesses, as a result of infill, a wide range of structures with various functional uses and architectural styles, including a good representation of buildings from 1945-1975. Some of the buildings along Lindell were built for another purpose but are now occupied by St Louis University, including Fitzgerald Hall (Smith & Entzeroth, 1964) and McGannon Hall (The Austin Co., 1956).

CENTRAL WEST END/ FOREST PARK: The area just east of Forest Park encompasses a mix of medical facilities, residential areas, and other institutions. In this area, Mid-century Modern architecture resulted primarily from clearance and redevelopment in the large Mill Creek Valley project and from highway construction. Examples of mid-century buildings include the Medical Clinic for the Local 88 (Harris Armstrong, 1957; now Alzheimer's Research Center) on Forest Park Avenue and the McDonnell Medical Sciences Building (Murphy, Downey, Wofford & Richman, 1970). Projects in Forest Park such as the well-known James S. McDonnell Planetarium (HOK, 1963) were built on open park land.

COLLEGE CAMPUS GROWTH/ CENTRAL CORRIDOR: Of the large cleared area of the Mill Creek Valley project, the City of St. Louis conveyed twenty-two acres to Saint Louis University (SLU) for expansion.[17] The conveyance of property helped convince SLU to expand its campus within City limits, rather than move to the suburbs, a decision the University was grappling with during the early 1960s. As a result of expanding within the city, SLU became involved in efforts to renew and revitalize the area surrounding the campus, while enlarging its campus towards the east. SLU now anchors a substantial area of midtown St. Louis.

---

15 Karen Bode Baxter, Timothy P. Maloney, and Michael Allen, National Register of Historic Places Nomination form for *Bel Air Motel*, 2009. Section 8, p. 20-22.

16 Baxter et al, *Bel Air Motel*, 7:1.

17 Development Program St. Louis, 13.

SOUTHWEST ST. LOUIS: Southwest St. Louis had several areas that were still not fully developed by the 1950s, thereby creating ideal sites for urban renewal a decade later. Specific project development included relocation of "automobile row" to Kingshighway south of Fyler, the creation of Hampton Village, one of the largest shopping centers in Southwest St. Louis and probably the oldest one in Missouri, completion of numerous buildings along Hampton Avenue south of the I-44 freeway and extending east to January Avenue, and the St Louis Police Officer's Association building (Mark Finler, 1961), an unassuming brick Union Hall on Hampton Avenue designed with panelized masonry screen walls set into a columnar framework on the front façade.

III. Modern Architectural Styles

A. EARLY MODERN STYLES (EXCLUDED)

Early Modern styles of architecture, such as Streamline Moderne, Art Deco, and Stripped Classicism are not included in the current survey. Art Deco and Art Moderne styles do break from earlier historicist and revival styles and look to technology for inspiration, but they continue to be generally load-bearing masonry structures, without the structural innovation that the International Style brought to the United States.

B. MODERN ARCHITECTURE (GENERAL)

Modern architecture was a style that embraced technological advances in materials and building methods, and rejected applied ornamentation and specific references to the past. Architectural designs focused on simplicity, spatial clarity, and maximizing interior exposure to daylight. There are a number of sub-styles within the Modern Movement which will be discussed in more detail. While it is useful to examine trends and styles within the general heading of Modern Architecture, it must be noted that not all, or even the majority, of Modern architectural resources fit neatly within one stylistic sub-group. Many buildings are simply Modern in style, without necessarily being "International Style," "Neo-Formalist," or any other specific stylistic trend under the umbrella of the Modern Movement. More commonly, a building will show influences of one or more of the predominant sub-styles discussed below.

Regional variants of the Modern Movement across the United States are rather subtle, and either show a preference for a certain material that is readily available in a certain location (as in the use of wood in the Pacific Northwest's Modern Architecture) or show a regional response to climactic factors (such as the extensive use of sunshades and jalousie windows in Florida). In St. Louis, a noticeable preference for light-colored brick as a building material is evident in its modern-era resources.

C. INTERNATIONAL STYLE

The term "International Style" originally was applied to a 1932 Museum of Modern Art exhibition of art and architecture by the curators, Henry Russell Hitchcock and Philip C. Johnson. Hitchcock and Johnson provided a definition of this emerging, mostly European style, based on three characteristics: "emphasis upon volume- space enclosed by thin planes or surfaces as opposed to the suggestion of mass and solidity; regularity as opposed to symmetry or other kinds of obvious balance; and lastly, dependence upon the intrinsic elegance of materials, technical perfection, and fine proportions, as opposed to applied ornament."[18]

Important hallmarks of the International Style include rectilinear forms; the celebration of "industrial" materials such as concrete, glass, and steel; rational grids or modularity; and smooth, "machined" finishes. Structural components of the building are typically evident on the exterior, and curtain wall construction, in which the exterior wall is supported from the structural frame, is common.

Generally, the International Style was used in the United States from as early as the 1920s to the mid- or late-1950s. Although the style was evident beyond that time period, many critics felt that the International Style became synonymous with a bland and monotonous corporate expression, especially as it was expressed into the 1970s. "Commercial architecture became an increasingly important form of public relations. International Style Modernism, originally conceived as an efficient design and construction methodology to solve social problems, was now co-opted by corporate America as a form

[18] Henry Russell Hitchcock and Philip C. Johnson, *The International Style* (New York: W. W. Norton & Company, 1966 with a new foreward and appendix by Henry-Russell Hitchcock, originally copyrighted 1932), 145-147.

of advertisement and aggrandizement."[19] Some architects began to find the style uncompromising, cold, and anonymous, and other strains of Modernism in architecture became increasingly popular.

In St. Louis, an excellent example of the International Style is the National Register of Historic Places listed S. Pfeiffer Manufacturing Company Headquarters, located at 3965 Laclede Avenue. The building, completed in 1946, is three stories in height, constructed of brick with bands of blue-tinted windows, and designed by St. Louis architect Bert Luer as office, lab, and factory spaces. Currently used as storage for automotive parts, the building has very good integrity and is considered an excellent early example of Modern architecture in St. Louis, built at a time when there were few other buildings being constructed.[20] The Pfeiffer Manufacturing Company's form exhibits the style's typical asymmetry, with a strong horizontality punctuated by a strong vertical element. The brick, buff colored at the front elevation and red colored at the sides and rear elevations, is typical of St. Louis Modern architecture. The use of brick in the design contrasts with the more typical International style use of smooth, machined, almost featureless materials such as metal and concrete or stucco.

Another example of the International Style in St. Louis is the Mark C. Steinberg Memorial Skating Rink (1957) by Frederick Dunn & Associate Architects. The building exhibits unmistakable characteristics of the International Style, such as stripped, boxy shapes and the horizontal length of its full-height glass wall.

D. NEO-FORMALISM

Neo Formalist architecture is defined by flat projecting rooflines, high-quality materials, columnar supports, smooth walls, and strict symmetry in design. The style includes abstract, simplified elements of classical architecture. The most well-known practitioners of the style, according to *American Architecture* authors Whiffen and Koeper, include Edward Durell Stone, Minoru Yamasaki, Philip Johnson, and Wallace Harrison. Harrison's Metropolitan Opera House in New York City, with its monumental colonnade, and Yamasaki's Northwestern Life Insurance Company building in Minneapolis, with its six-story screen of slender white arches, both exemplify the style.[21] The date span for the style of Neo-Formalism in the United States is considered to be generally from 1954 to the end of the 1960s.

In St. Louis, there are several notable examples of the Neo-Formalist style. One of these is the Missouri Division of Employment Security Building designed by HOK in 1959. This building has "screen-like" facades, symmetry, and a formality created by its vaulted window pattern and strong corner overhangs. The Lashly Branch of the St. Louis Public Library (now Society of Sacred Heart Archives), constructed in 1967 and designed by William B. Ittner Inc., is an excellent example of the Neo-Formalist style in St. Louis. The smooth, white verticals of the curving façade contrast with the dark inset glass to create a temple-like feeling of monumentality and solidity. This is one Modernist sub-style that did not get executed in brick in St. Louis; the abstract, white planes and forms necessary to achieve a feeling of abstract formality do not translate well to the warmth and hand-constructed quality of brick structures. One last example of this style in St. Louis is W. A. Sarmiento's AAA Building (1976). The perfect symmetry, monumentality, and white curving columns of this building illustrate the style well.

E. NEO-EXPRESSIONISM

Neo-Expressionism is outlined by Whiffen and Koeper as a revival of the German 1920s Expressionist movement typified by Mendelsohn's work. Neo-Expressionism owed a great deal to the technological advances in thin-shell concrete construction. The "streamlined shapes used with Neo-Expressionism

---

19 Roth, 413.

20 Julie Ann LaMouria, National Register of Historic Places Nomination form for *S. Pfeiffer Manufacturing Company Headquarters*, 2010. Section. 8, p. 4.

21 Whiffen and Koeper, 384-388.

have analogies in automobile styling, which considers visual identity above all else."[22] Neo-Expressionism can be defined in architecture by sweeping, curved rooflines and walls with arched or vaulted spaces. Symmetrical or geometric forms are minimally used or nonexistent. Surfaces are commonly faceted, concave or convex. Eero Saarinen's Ingalls Hockey Rink at Yale University and his TWA terminal at Kennedy Airport in New York exemplify the style, which began with the Kresge Auditorium at Massachusetts Institute of Technology in 1955 and continued into the 1970s.

A popular vernacular expressionistic movement of the same time period, allied to the thin-shell concrete organic forms but much less monumental in scale and not necessarily tied to concrete as a construction material, were buildings (and signs) labeled variously in Mid-century architectural history as "Space Age," "Atomic Age," or "Futuristic" Modern styles. Many of these exaggerated forms were typically used in roadside architecture, such as diners, bowling alleys, and gas stations. Seattle's Space Needle is considered an example of Space Age design, with its three curving columns and layered round forms.[23] St. Louis did not generally have the geographical space to develop a flashy automotive strip or "roadside" architectural style, such as that called "Googie" in Los Angeles. However, St. Louis does have a strong sampling of Neo-Expressionist architecture, from the largest-scale thin-shell concrete structures down to smaller commercial buildings using exaggerated elements of structure.

St. Louis' most illustrative Neo-Expressionistic designs, aside from Saarinen's iconic arch itself, are HOK's James S. McDonnell Planetarium (1963), a thin-shell hyperboloid structure, and the Lambert International St. Louis Airport, designed by Hellmuth, Yamasaki & Leinweber (1957). What these structures have in common are their curving, almost organic, shapes. Further, they are linked by their impressive scale. Neo-expressionist structures are meant to soar overhead to create forms and spaces that rely on the might of technology, yet evoke an almost spiritual awe. Some of the Bank Building and Equipment Corporation's (BBEC) St. Louis designs show exaggerated or expressive styling; for example the International Brotherhood of Electrical Workers (IBEW) Hall on Elizabeth Avenue (1959). The IBEW Hall features noticeable structural elements typical of this sub-style, in this case the prominent fins across the front of the building, which are far larger and taller than they need to be for any structural reason.

F. BRUTALISM

Brutalist Style resources typically have a blocky appearance; rough, exposed concrete materials; broad, expansive walls, and deeply recessed windows. They are notably "heavy," expressing the massiveness of their walls and forms. The style began as early as 1950, but is probably best associated with the Yale School of Architecture circa 1960, when Paul Rudolph was the chair.

In St. Louis, the best-known and a typical example of Brutalism, at least as compared to other examples across the United States, is the National Register of Historic Places-listed Pet Plaza. "Completed in 1969 as the world headquarters for Pet, Inc., the building was designed to reflect a fresh, assertive image for a company that had expanded far beyond its original product, evaporated milk."[24] The architect chosen was Alfred L. Aydelott, from Memphis. Aydelott reacted to the site "by designing a sculpted concrete tower capped by a distinctive crowning executive and conference room level with a signature elevator tower prominently exposed on the west facade."[25] The building was a vote of confidence in downtown St. Louis, since it was constructed during a period when many companies opted to relocate to the

---

22 Whiffen and Koeper, 378.

23 Matt Novak, "Googie: Architecture of the Space Age." Smithsonian blog posted June 15, 2012 accessed online at http://blogs.smithsonianmag.com/paleofuture/2012/06/googie-architecture-of-the-space-age/ on February 18, 2013.

24 Stacy Sone and Carolyn Toft, National Register of Historic Places Nomination form for *Pet Plaza*, Sec. 8, p. 6.

25 Ibid.

suburbs. The building was lauded by local architectural critic George McCue, and Dr. Osmund Overby stated that no building in Missouri's limited examples of [brutalism] comes "close to matching the authority and nuance of the Pet Building." [26] Pet Plaza was therefore designated as being exceptionally significant at the state level as an unmatched example of the Brutalist style in Missouri.

Unlike the Pet Plaza, however, the Brutalist resources in St. Louis are almost universally executed in brick rather than concrete. Examples are Harry Weese and Associates' St. Louis Community College-Forest Park (1965), the St. Louis Comprehensive Neighborhood Health Center by Jenkins-Fleming (1974), and the Washington University McDonnell Medical Science Building by Murphy, Downey, Wofford, & Richman (1970). The result, in each case, is a "softer" building than might have been rendered in concrete. The brickwork at both the St Louis Community College and the St Louis Comprehensive Neighborhood Health Center is particularly thoughtful, providing a subtle surface pattern and texture to the massiveness of the walls.

[26] Ibid.

IV. Modern Materials and Building Technology

A. PRE-FABRICATED COMPONENTS & NEW MATERIALS

Material efficiency and standardization were the key drivers behind developing pre-fabricated building components for Modern era architecture.[27] Modeled after automobile factories, mass production would maximize cost and time in building construction. Some examples of industrialized products that became widely available in the post-war years are glue-laminated timbers, pre-engineered trusses, and wall panel systems. The American belief in capitalism helped to drive the production of various new products, as people generally accepted the idea that large corporations using an assembly line model would be more efficient producers than small businesses.

Early experiments in packaging and selling pre-fabricated components took part within the single-residential building type. These included Lustron Houses (1946) sold by the Vultex Aircraft Company. But commercial buildings were using many more prefabricated components by the end of World War II. Entire buildings were available from pre-fabricated components, like the well-known steel buildings made by the Butler Manufacturing Company starting in 1940.

Technological innovations led to the introduction of new materials to the construction industry, such as fiber-reinforced plastic, glass block, vinyl tile, weathering steel, and new sealants. A demonstration structure built at Disneyland in 1957, the Monsanto House of the Future, was constructed of modular fiber reinforced plastic walls, with foam insulation.[28]

Many 1950s school buildings such as F. Ray Leimkuehler's Pruitt School (1954) used a combination of glass block and vision glass in the window openings, screening children from the distraction of a view while bringing in natural light.

B. PLANAR MASONRY

An important shift in the use of brick in mid-century architectural design was to emphasize the material as a planar element without decorative corbelling or other details. Although brick is not as prevalent as other "new" materials in Modern Era architectural resources across the United States, in St. Louis brick remained the most common building material throughout the postwar era. However, there was a general shift away from the red brick typical of older buildings. Buff, pink, or tan bricks became more common in St. Louis's Mid-century buildings, and a smattering of blue brick is also notable. "St. Louis has always been primarily a masonry town, by general preference reinforced by the building code. The easy availability of clay, which as every backyard gardener knows is just about everywhere, and of limestone, which the settlers quarried with crowbars right under their feet on the original town bluff, made brick and stone the obvious preferences.[29]

St. Louis University's Pius XII Library building, designed by Leo A. Daly and built in 1958, uses brick in its modern incarnation, as a curtainwall panel supported by the structure. The structure itself is vigorously expressed in both round concrete columns and the rectangular pilasters, entirely freestanding at the ground plane.

C. "FINISH" CONCRETE

---

[27] Edward R. Ford, *The Details of Modern Architecture, Vols 1 and 2* (Cambridge, MA, The MIT Press, 2003), Vol. 2, 11.

[28] Anthony J. T. Walker, "Fiber Reinforced Plastic," in Twentieth-Century Building Materials, ed. by Thomas C. Jester, National Park Service (McGraw Hill, 1995), 142-146. The house was included in the April, 1956 *Popular Science* and the December 1955 *Progressive Architecture 35*.

[29] Marchael and McCue, *The Architecture of St. Louis,* 8.

The Modern Movement in Architecture was responsible for elevating concrete to a finish material on buildings other than strictly utilitarian and service structures. Exterior concrete sometimes was imprinted with a textured finish from the board forms or with other visible marks of construction processes. The exterior of the Pet Plaza building is distinguished not only by its textured concrete finish, but also by the display of the steel reinforcing. "The steel reinforcing rods used in strengthening the walls were cut off on the exterior and capped with stainless steel disks."[30]

Prestressed and precast concrete elements were developed before 1900, but did not enter mainstream construction until after World War II. Major civil engineering projects such as bridges and culverts were the first to make use of pre-stressed and precast concrete, and Louis Kahn used prestressed concrete on the Richards Medical Laboratory on the University of Pennsylvania campus in 1971, one of the first documented uses of the material in architecture. In St. Louis, the C. Rallo Contracting Company was the first contractor in the region to use pre-stressed, post-tensioned beams. According to a 1965 article, the company was the first to use reinforced masonry beam construction, as well as the sliding method of moving scaffolding and metal pan forming without dismantling and then re-erecting the components.[31]

D. THIN SHELL & REINFORCED CONCRETE

The earliest innovations in thin-shell concrete construction took place in Europe, but as early as 1932, the patented "Z-D" (Zeiss-Dywidag) system of placing reinforcement in high-stress areas of concrete shell structures was introduced to the U. S.[32] Complex forms could be designed and constructed as a result of the technological engineering of placing metal reinforcement in specific areas within poured concrete. Thin-shell concrete construction allowed for large spans using relatively small amounts of material. Especially during the 1960s and 1970s in the United States, large-scale buildings such as aircraft hangars and airport terminals, sports arenas, and convention centers often turned to thin-shell techniques to provide the greatest economy, plasticity, and visual impact.

Lambert International Airport, designed in 1956 by Hellmuth, Yamasaki & Leinweber, exhibits the soaring domes and open interiors made possible by thin-shell concrete construction techniques. The unusual columns in Kramer and Harms' Fairground Park swim facility (1959) are reinforced concrete, echoing Frank Lloyd Wright's columns in the Johnson Wax Administration Building in Racine, WI (1939).

E. CURTAIN WALL CONSTRUCTION

During World War II, numerous factories sprang up across the United States to provide aluminum to support the war effort. After the war, these same factories were able to develop extrusion techniques simplifying the construction of curtain walls. Pietro Belluschi's Equitable Building in Portland, Oregon, completed in 1948, was the first building in the United States. to be constructed with an interior "skeleton," from which the exterior glass and aluminum "skin" was supported. SOM's Lever House in New York, completed in 1952, used a similar technique but the interior frame was steel rather than the reinforced concrete of the Equitable.[33] Ludwig Mies van der Rohe used layered and clad systems in building design because they "enabled him to achieve the level of precision in joinery he desired."[34] "By cladding the structure in simple seamless envelopes, [Mies] was able to hide the crude structural joints, minimize the number of joints exposed, and execute these exposed joints with the required

---

30 Sone and Toft, *Pet Plaza*, 7:1.

31 "AGC Profile- C. Rallo Construction Co., Inc.," *St Louis Construction Record*, (January 1965), 7.

32 Thomas E. Boothby, M. Kevin Parfitt, and Mark Ketchum, "Milo S. Ketchum and Thin-Shell Concrete Structures in Colorado," in *AP Bulletin, The Journal of Preservation Technology* Vol. XLIII, No. 1 (2012), p. 40.

33 Roth, 413-415.

34 Ford, 287.

precision."[35] Another technological advance in air conditioning systems allowed for the construction of completely sealed buildings in which the walls no longer had to serve the function of ventilation.[36] Buildings could be constructed using metal, glass, or composite panels, such as a fusion of glass and metal, with insulation already included.[37] Spandrel glass in particular, which referred in the late 1950s only to ceramic-coated plate glass, offered new opportunities in the use of color.

The Laclede Gas Building, designed by Emery Roth & Sons and constructed in downtown St Louis in 1968, has a bronze-tinted aluminum panel and glass curtainwall. It was one of the early glass highrise buildings to be allowed by a revised 1961 City building code.[38]Prior to this legislation, the exterior wall surface of a large building had to meet minimum thickness requirements for the majority of the surface area. Effectively, this meant that materials like glass or metal panels could not be used in St Louis to cover an entire building surface before mid-1961.

F. TRUSS SYSTEMS

Pre-engineered trusses were developed and sold in both wood materials and metal. Trusses enjoyed popularity in the postwar years for several reasons. Trusses use less material than typical post-and-beam structural systems. Residential homes could limit unused attic space by lowering the pitch of the roof, reducing the amount of material needed to finish the roof. Incorporating trusses reduces the amount of labor required to construct a building thus lowering project costs. At a time when there was strong demand for new buildings of all types, and construction managers and developers were looking to keep costs low, trusses often were their first choice.

In St. Louis, the National Register-listed American Zinc, Lead & Smelting Co. Building was completed in 1967, employing the Vierendeel truss as not only a structural element, but as the major aesthetic determinant for the building. Gyo Obata, of HOK, was the principal in charge of design. "Selected by Obata to meet a number of challenges provided by the desires of his client, as well as the limitations of the building lot, the ladder-like trusses are clearly expressed in the fenestration and dominate the facade of the building. The rounded openings dictated by the bracing of the trusses are echoed on the two visible elevations of the building." [39] The stainless steel-clad American Zinc, Lead & Smelting Co. building is considered to be an example of exceptional American corporate architectural expression.[40]

G. STEEL FABRICATION

The steel industry, though already highly advanced in engineered structures such as bridges and railroads as well as high-rise buildings, continued its technological advances through the 1950s. Developments in steel construction methods during World War II enabled the construction industry to

---

35 Ibid.

36 Cecil D. Elliott, *Technics and Architecture: The Development of Materials and Systems for Building* (Cambridge, MA, The MIT Press, 1992), 147.

37 Jester (ed.), *Twentieth Century Building Materials*, references an article by L. W. Ray in the June 1948 issue of *Finish* 5, p. 20 (not accessible at this time), discussing what is thought to be the first building (a White Castle restaurant) constructed with a porcelain enamel interior in St. Louis (1925). The White Castle restaurant chain branched out in 1934, starting a subsidiary company called Porcelain Steel Buildings. The company could assemble a moveable, prefabricated restaurant at any site, using porcelain enamel panels for both interior and exterior

38 Building code of the City of St. Louis : enacted pursuant to ordinance no. 50502, approved March 31, 1961, effective May 1, 1961.

39 Esley Hamilton, Doris Danna, and Steven E. Mitchell, National Register of Historic Places Nomination form for *American Zinc, Lead & Smelting Co. Building*, Section 8, p. 4.

40 Carol D. Shull and Beth L. Savage. "From the Glass House to Stonewall: National Register Recognition of the Recent Past." (Preserving the Recent Past conference, 1995).

continue its unabated appetite for steel. One of these developments was electric arc welding, replacing the riveting technique famously used throughout the heyday of 1920s skyscraper construction.[41] As one of the ideals of Modern Architecture was to express the structure of a building, steel beams and structural elements became part of the exterior of a building.

Though residential structures are not part of the survey associated with this context statement, one of St. Louis' masters of Modern Architecture, Harris Armstrong, bears a mention here. His Evans Residence in Ladue, of 1951, perfectly illustrates the expression of a framework of structure on the outside of a building. Unusually for a house, the structure is made of steel.

41 Elliott, 104.

V. Modern Building Forms and Types

A. TRAVEL-RELATED ARCHITECTURE

1. Auto-Oriented Architecture

Between World Wars I and II in the United States, society was changing rapidly. One of the profound changes was occurring in private transportation. The automobile became enormously popular and more affordable due to Henry Ford's innovative assembly line construction techniques.[42] The number of automobiles in the United States grew exponentially between 1900 and the eve of WWII in 1940. Probably more than any other single factor, automobiles changed our cities and our architecture, by making suburbs easy to reach.

New building types emerged as a result of the automobile, including the motel, the garage, the drive-in theater and drive-through bank, auto service stations, shopping strips, and later the shopping center. These types all depended on availability of land. The era of densely packed buildings oriented to the street within a city grid was replaced by a new model, where freestanding or loosely grouped clusters of buildings were connected by arterial routes.

After the war, St. Louis became a large automobile manufacturing city. Both Ford and General Motors operated assembly plants in or just outside of St. Louis. Manufacturers and dealers wanted big, gleaming showrooms, especially in locations closer to new suburbs and shopping centers. Main thoroughfares within St. Louis such as Delmar, Grand, and Jefferson attracted such dealerships, and Kingshighway was popularly called "Automobile Row" in the years after the end of the war.[43] This area continued to change and develop, becoming increasingly commercial in later years.

In addition to the business of selling cars, new building types evolved to service cars as well as to efficiently store them. Gas and service stations were constructed to be easily visible roadside resources. Parking garages made it possible to stack cars on multiple floors by using ramps that cars could drive on. Schwarz and Van Hoefen's Famous-Barr parking garage (1962) downtown on North 7th Street uses a spiral ramp, visually celebrated on the corner of the block with the edges completely free of supporting columns.

2. Air Travel Related Architecture

St. Louis capitalized on its demonstrated prowess in the aviation industry by making the decision to invest in a public airport terminal in the 1950s. Three companies based in St. Louis had together manufactured over 3000 military airplanes, and as a result, the use of Lambert Airfield, where McDonnell Aircraft was located, continued to expand.

The Lambert-St. Louis Municipal (now International) Airport Terminal, designed in 1956 by Hellmuth, Yamasaki & Leinweber, was the first building in the St. Louis area to win a national AIA honor award.[44] The terminal was built with three vaulted halls, each with 32-foot barrel-vaulted ceilings constructed of thin-shell concrete. Yamasaki's design established a model for the modern terminal- vaulted and expandable- which was later used in the John F. Kennedy Airport in New York City. A fourth dome was added to the Lambert Airport in 1964. By the affluent 1960s the airplane was the cynosure of public transit, a symbol of power, mobility, and technological might, and St. Louis was in the forefront of building a terminal that expressed this symbolism.[45]

---

42 Roth, 343.

43 Ruth Keenoy, Karen Bode Baxter, Timothy Maloney, and Mandy Ford, National Register of Historic Places Multiple Property Listing form for *Historic Auto-Related Resources of St. Louis*, Section E, p.13.

44 Toft, et al, 82.

45 Roth, 439.

B. COMMERCIAL

1. Commercial Retail

With the rise of the automobile, centrally-located department stores were often replaced by strip retail commercial developments. Retailers desired parking areas so their customers could easily stop and shop and retailers wanted their establishment to be noticeable from the street. Even small buildings such as the Weinhardt Party Rentals, at 5901 Elizabeth Avenue, were constructed in a modest way, but often included a more eye-catching element, such as the large concrete "false front" which served as the background for the name of the establishment.

One emergent type in the late 1940s and early 1950s was the suburban supermarket. Kenneth Wischemeyer designed the Bettendorf's (later Schnuck's) stores in Clayton and in Olivette as well as shopping centers in the new suburban model, with large stores surrounded by plenty of parking.[46] These stores no longer were located along sidewalks, with multiple levels above the street, but now were all one level, with huge interior spaces that had flexible layouts for inventory and rolling carts for shoppers to bring their purchases to the check-out counter. Many of these original supermarkets or suburban department stores in St Louis have been significantly altered over time, or even demolished.

2. Commercial Office

During the 1950s and 1960s, office parks and corporate campuses became new models for office buildings and corporations, developed on the outskirts of cities rather than in the heart of the traditional business district. In St. Louis, the Ralston Purina corporation (now Nestle) did invest in an urban location, occupying a portion of the LaSalle Park neighborhood, though some criticize it for its "suburban" character. In 1955, Harris Armstrong designed a campus outside of St. Louis for McDonnell Engineering, much admired by his contemporaries.

C. UNION HALLS/ FRATERNAL ORGANIZATIONS

St. Louis possesses an unusually strong unionized labor force within the construction industry. As recently as 2000, 19.6 percent of all construction-industry workers nationally were unionized. During the same year, St. Louis unionized construction trades represented approximately 85% of all construction labor and almost 100% of major public sector work.[47] The growth of these construction industry unions was fueled by the postwar urban renewal and revitalization projects. Accordingly, many of the fraternal/union organizations constructed a meeting hall during this time period representing various aspects of the construction trades. The Carpenter's District Council of Greater St. Louis, on Hampton Avenue (Study, Farrar & Majers, c. 1958) is one such union hall, with Modern-era styling evident in the building's ribbon windows, exposed concrete base, and splayed portico columns.

D. FINANCIAL INSTITUTIONS

Banks expanded their operations during the postwar period from their venerable downtown locations into more residential or suburban neighborhoods. One of the biggest changes to bank architecture was the allowance for "drive-through" banking. The Bank Building and Equipment Corporation (BBEC) was started in St. Louis in 1913 as a small woodworking shop. By the end of the 1930s they had become design leaders in financial architecture, particularly in the savings & loan institutions. Financial companies increasingly wanted new style trends and materials such as glass, metal, and fine wood, and the BBEC was able to provide excellent Modern architecture, inside and out, by hiring superb designers such as W. Sarmiento and W. C. Cann. As early as 1930, the BBEC provided technical and safety enhancements to new bank structures so that the old-fashioned teller cages could be eliminated, and

---

[46] Eric Mumford, "Triumph and Eclipse: Modern Architecture in St. Louis and the School of Architecture," in *Modern Architecture in St. Louis,* ed. by Louis Mumford (St. Louis: Washington University School of Architecture, 2004), 52.

[47] Henry, 113.

they pioneered drive-up facilities with teller windows that raised or lowered to the right level.[48] The BBEC grew quickly to become the national industry leader in bank design and was one of the first design/build firms in the country.[49] Sarmiento in particular created inventive and expressive financial institution designs in multiple cities across the United States.

In St. Louis, the home of the BBEC, there are several financial institutions designed by Sarmiento including the Jefferson Bank & Trust (1956) on Washington Avenue and the Chancery of the Archdiocese of St Louis (1962) on Lindell, which was not a bank but served many of the functions of a bank. The Jefferson Bank, with its angled, expressive façade and its multiple drive-through lanes and windows, perfectly illustrates the changed nature of postwar banking design.

E. POST-WAR PRIMARY SCHOOLS

The rapidly increasing population growth after World War II created a sudden demand for new schools and classrooms all over the United States. The rising birthrate coincided with a desire to compete on the world stage, especially against the perceived threat of Communism. The "little schoolhouse" model was seen as hopelessly outdated for providing children with a progressive education. The resulting redesign of the classroom environment was taken up not only by architects, but also by scientific researchers. In the mid 1940s, a Texas State Department of Health study was published which directly influenced the architectural designs of the modern classroom, including optimal light sources, colors, air movement, and seating arrangements. "Glass block above a "vision strip" of clear glass, included for social and psychological reasons rather than for luminousness, was one suggestion."[50] The Bishop DuBourg Catholic High School, designed in 1949 by Architects Murphy and Mackey and completed in 1953, illustrates these prototypical modern classroom windows.

F. MODERN CAMPUS PLANNING/ URBAN DESIGN

The primary college or university campuses in St. Louis are Washington University, St. Louis University, and St. Louis Community College. Washington University campus planning is not included here as the majority of its primary (Danforth) campus is located just west of Forest Park, outside of City limits and hence excluded from the survey area.

St Louis University is likely the oldest University west of the Mississipi, and has been in its current location since 1889. The campus basically follows the urban layout of the City streets surrounding and traversing its campus, and is a long linear shape bounded by Lindell Avenue on the north and Laclede on the south. The University's planning in the 1960s and 70s provided a distinctly Mid-century take on a campus "quad." Four new interconnected science and technology buildings, including Macelwane Hall, were designed in the early 1960s by Leo A. Daly. The buildings, not actually built until circa 1965, are oriented around an open, paved plaza. The plaza was not designed as a Beaux-Arts, axial design, but rather an irregular, spare space located behind the street-facing facades of the new buildings. The complex included a connecting underground level beneath the plaza that doubled as a fallout shelter.[51] One of the four buildings, a glassy pavilion, is solely a lobby to access the below-grade level.

---

48 "New Trend is to Lavish Office and Ultra-Modern Buildings," *Globe-Democrat* 2/22/62.

49 Carol Dyson and Anthony Rubano. "Banking on the Future: Modernism and the Local Bank" In *Preserving the Recent Past 2*, ed. Deborah Slaton and William G. Foulks. (Washington, D.C.: Historic Preservation Education Foundation, Association for Preservation Technology, and National Park Service, 2000), 2-53.

50 Amy F. Ogata, "Building for Learning in Postwar American Elementary Schools," in *Journal of the Society of Architectural Historians* (Vol. 67, No. 4, December 2008), 570. The studies were performed and reported by Darell B. Harmon and published in various magazines and trade publications.

51 "Saint Louis University Magazine," April 1962, p.4.

Funded primarily through a $47 M bond issue that capitalized construction on three campuses in 1965, the St Louis Community College at Forest Park was constructed on the grounds of the former Forest Park Highlands, an amusement park and popular picnic site destroyed by fire in 1963. It was designed by Harry Weese and Associates and completed in 1968. In May of that year, Eugene Mackey of Murphy & Mackey Architects wrote a short note to the Board of the Junior College. It said, "I simply want you to know how pleased I am that a building of the quality of the Forest Park Community College has been built in St. Louis."[52] The campus exemplified the move away from traditional Beaux-Arts axial plans and towards circulation as the primary organizational principle- in this case, as defined vertical nodes (stair towers) and linear corridors. The linear layout was considered flexible, since the design could expand when needed to accommodate more "units" of the building, grouping similar functions together.

G. CIVIC/ PUBLIC BUILDINGS

The Modern Movement in architecture tended to make government buildings and private-sector buildings much more similar in appearance than in any other previous style of architecture. The symbolism and monumentality of traditional civic buildings was replaced by a more economical and flexible use of interior space. The Modern ideals of equality and democracy were translated into shared plazas and open forecourt spaces. One example of government architecture of the era is the former L. Douglas Abram Federal Building, by Murphy & Mackey with William B. Ittner, Inc (1961). The building has a raised plinth at the base above the sidewalk, with the ground floor storefront set back, creating a covered portico at the ground floor. The building reflects the modularity and no-nonsense construction materials that were intended to show a frugal use of taxpayer money. The ground floor portico is meant to be open to all citizens. The former Buder Branch Library on Hampton Avenue (Joseph Senne, 1961) has a similar raised plaza above the sidewalk. The large windows create an inviting street presence for this civic building, yet, like the Federal Building, the building is restrained and economical in its materials and details.

H. HOTELS/MOTELS

Motels catering to distance automobile travelers were another automobile-related new building form emerging in the postwar years. According to Baxter et al, the Bel-Air Motel on Lindell (1958; McCormick with Russell, Mullgardt, Schwarz & Van Hoefen) was the first of these within St Louis. By 1971, the Polk's City Directory listed sixteen motor hotels in the city, constructed between 1962 and 1970, and almost all in the Modern Movements style.[53] The Carousel Motel (1961) is another Motel, located on N. Kingshighway and one of the sole establishments catering to African-Americans during the 1960s. The Carousel has angled concrete supports at both levels supporting the roof and balcony overhangs, which provide a touch of Mid-Century Modern styling to the building. Like the other motor hotel buildings, the Carousel has individually-accessible rooms to the exterior, with exterior stair (and elevator). One could come and go quickly and easily, and the cars were within view of the rooms in the surface parking just outside the building. Many of these motor hotels, like the Bel-Air, offered "luxury" amenities such as swimming pools.

I. INDUSTRIAL BUILDINGS AND COMPLEXES

Many of the manufacturing and industrial areas of St. Louis originally developed along the Mississippi River, the River Des Peres, and the railroad tracks. By 1945, the "top 5" growth industries for S. Louis' manufacturing sector were transportation equipment (other than automobiles), chemicals, electrical

---

[52] 20 May 1968 Correspondence from Eugene J. Mackey included in attachments to "Minutes of the Regular Meeting of the Board of Trustees- The Junior College District of St. Louis, May 27, 1968- 8:00 pm." Accessed online April 16, 2013 at http://www.stlcc.edu/About/Board_of_Trustees/Meeting_Minutes_Documents/1968/BOTminutes1968-05-27.pdf

[53] Baxter et al, *Bel Air Hotel*, 8:18.

machinery, machinery (other than electrical), and stone, clay, and glass products.[54] After the war, the historic port locations and rail yard freight yards became less critical to businesses as the trucking industry opened up new areas for industry. Via Bartholomew's 1947 Plan, two major new industrial areas were created in St Louis; Mill Creek Valley and Kosciusko.[55]

New fabrication facilities and light industrial buildings created in the 1950s and 1960s hew to the functional, rectilinear, and horizontal proportions of Modern architecture. Several groupings of small-scale, light industrial buildings in the Mill Creek Valley redevelopment area show strong similarities in architecture and materials. One of these is the Highland Park Drive area just south of Oakland Avenue, and the other is centered on Clark Avenue just north of I-40. As typical in St. Louis Modern architecture, the buildings are light-colored brick. The façades typically have a modular layout, with brick often applied in full-height panels between repetitive window bays, each of which might have a different brick or other material infill above or below the window. As the uses of these buildings often included a warehouse or manufacturing space with a front office, a few buildings such as 2811 Clark Avenue (1963, Hannon Construction Co.) have a visually separate "pavilion" piece as the more public part of the building, with full-height glass curtainwall and a "floating" entry porch with open steps.

J. HEALTHCARE FACILITIES

Healthcare facilities in St Louis developed during 1945 to 1975 are typically large, brick, institutional buildings. Harris Armstrong's Medical Clinic for the Local 88 (1957; now Alzheimer's Research Center) is a Modern Movements style building with a Neo-Expressionist wavy roof sunshade and stacked brick walls with irregular cut-outs. Jenkins-Fleming architects also utilized irregular openings in their Brutalist-style St Louis Comprehensive Neighborhood Health Center (1974, now Myrtle Hilliard Davis Comprehensive Health Center). These buildings generally did not have as much open glass area as many other building types, but their architecture expresses a sense of solidity and reliability.

K. RELIGIOUS INSTITUTIONS

Typically, one of the drivers in church designs is the desire for vertical space within the primary gathering area. In the Modern Movement, architects often utilized A-frame roofs, prow forms, and more plastic forms such as parabolic arches and other unique curvatures.

In St. Louis, as in many parts of the country, churches and synagogues are among the prominent and early examples of Modernist buildings constructed between the late 1930s and the mid-1960s. It has been pointed *out* that the embrace of Modern architecture with its structurally innovative forms by religious institutions is a paradox, considering that those institutions have "the greatest dedication to the eternal."[56] Yet, churches came to embrace Modern architecture for many of the same reasons that other building types and developers did. Modern architecture, in general, was more economical than traditional ecclesiastical architecture. Churches wanted to be seen as forward-thinking to attract young families to their congregations.

---

54 Harry L. Purdy, "An Historical Analysis of the Economic Growth of St. Louis 1840-1945"(undated), published online by BiblioGov 12/14/2012 and accessed via http://fraser.stlouisfed.org/publication-series/?id=401, P. 123.

55 Ruth Keenoy. National Register of Historic Places Multiple Property Documentation form for *Mid-Twentieth Century Development of Industrial and Manufactured Goods Distribution Facilities and the Central Railroad and Interstate Corridor, 1940-1970*, 2013. Section E:8-11. See also Lashly, Paul W., "'Land-Locked' St. Louis," printed in *St. Louis Commerce* by the Chamber of Commerce of Metropolitan St. Louis, April 15, 1953.

56 Kathleen James-Chakraborty "Modernate Modernism : Sacred Architecture in St. Louis & Its Suburbs" in *Modern Architecture in St. Louis,* ed. by Louis Mumford (St. Louis: School of Architecture Washington University, 2004), 27.

Unlike other building types, churches are generally constructed in residential areas, and in suburbs where the typology is almost exclusively residential. Several important modern era religious resources are located outside of St. Louis City limits in suburbs such as University City, Creve Coeur, and Jennings. Churches were erected in areas in direct response to population migration. However, many churches of the Mid-Century era are located in St. Louis, such as the relatively modest New Life church (formerly Kingdom Hall) at 3833 St. Ferdinand Avenue, dating from 1965. Another church, with a strong expressive prow formed by a steep roof, is the 1961 Union Memorial United Methodist Church on Belt Avenue, designed by William E. Duncan, Charles Novak Jr., and Harry O. Osborn.

L. MULTI-FAMILY HOUSING

Residential projects are not included in the current survey, but high-rise public housing projects made a significant contribution to the St. Louis skyline during the modern era. Most of these larger buildings have been demolished and replaced with lower-scale multi-family residential units.

Because it is a mixed-use project, the Mansion House Center development (1967) is included in the current survey. The Mansion House illustrates some of the Modernist tenets in Urban Design and Planning prevalent in St. Louis and across the nation at the time. These ideas include the re-making of small-scale street grids into superblocks with towers surrounded by plazas and landscaping being the ideal layout. The Mansion House Center development created a new plaza level where residents, office workers, and users of the buildings would congregate above street level and thereby be removed from the grittiness and problems of the existing streets. Decades later, the urban-scale planning of projects from this era has been generally judged to be bleak and dehumanizing. These projects were termed “megastructures” because they became almost islands unto themselves, changing the scale of the street grid, below-grade, and above-grade landscapes However, the Mansion House buildings; three bold rectangular towers with associated low-rise structures, all connected by parking below-grade; are an iconic part of the St. Louis skyline and excellent examples of Modern architecture.

M. RECREATIONAL BUILDINGS

Recreational buildings in St Louis tend to be constructed on open public lands within a park. Building designs between 1945-1975 show conceptual similarities to provide an egalitarian civic experience with large shared plaza spaces and visually open façades. An example of public structure design is the David P. Wohl Community center (Russell, Mullgardt, Schwarz & Van Hoefen, 1960) in Sherman Park in North St Louis. The International Style building features a pool wing with double-height glass and glass block walls, and a lower volume with modular tile panels, colorful metal panels, and windows set in a continuous storefront system.

The James S. McDonnell Planetarium at the St. Louis Science Center in Forest Park (HOK, 1963) is another important and beloved recreational structure. The round base of the building is characterized by an open continuous “storefront” with a surrounding raised walkway. The form of the concrete building is a hyperboloid, derived from a series of straight lines held within a circle, similar to a handful of drinking straws set within a shorter cup. Especially for a planetarium, the form is highly innovative, and only possible with the engineering developments that allowed for its thin-shell concrete construction.

VI. St Louis Influence on Modern Era Expression

The Gateway Arch

Eero Saarinen's winning design for the Jefferson National Expansion Memorial design competition included "a steel arch rising from an urban forest."[57] According to Toft et al's account of the AIA in St. Louis in *The Way We Came: A Century of the AIA in St. Louis,* Saarinen's design was "by far the most ambitious of the five [finalists] and presented the most problems in realization."[58] Saarinen was awarded a $50,000 prize for his 1947 design, but the arch itself was not completed until 1965. Reasons for the delay included the Korean War, and the difficulty of relocating the elevated tracks that ran along Wharf Street.[59] The memorial's construction remained unfunded until the National Parks Service visitor center program, Mission 66, provided the funds in 1962 for the construction of the arch and visitor center.[60]

Prior to its construction, the competition landed St. Louis some favorable publicity as the focus of an entire issue of *Progressive Architecture*[61]. Saarinen was a sculptor and architect, but he realized quickly that he needed advanced engineering to create the 630-foot tall form (the tallest man-made monument in the United States). Engineering employed the new concept of stress analysis, and structural design was done by Hannskarl Bandel at Severud Elstad Krueger and Associates.[62] Rather than using a steel "skin" filled with concrete as initially proposed by Saarinen, Bandel introduced orthotropic design principles, which had not been utilized before, and designed an inner skin and an outer skin which supported each other.[63]

The Gateway arch "sparked a decade of growth and signaled the arrival of Modernism as an architectural style in the city," as Robert Sharoff states in his book, *American City: St. Louis Architecture: Three Centuries of Classic Design.*[64] The monumental nature of the arch design, steel materials, and abstract, slender form were an influence on and an inspiration to Modern movement architecture, both in St. Louis and across the United States. The engineering component and technical advances making the arch design possible cannot be understated. Modernism was never conceived as an overlay or "style," but instead, as a celebration of materials, technology, and human ingenuity. While the direct influence of the arch on later projects is difficult to pinpoint (especially given the 18-year lag between design and completion), news of its design reached the entire construction industry, where it inspired (and continues to inspire) many architects and engineers.

---

57 Toft, et al, 75.

58 Ibid.

59 Toft, et al, 83.

60 Christine Madrid French, *The Emergence of the Mission 66 Visitors Centers*. Accessed online February 20, 2013, at http://www.mission66.com/documents/intro.html#progress

61 May, 1948 issue of *Progressive Architecture*.

62 J.E.N. Jensen, "The Construction of the Arch," on National Parks Website accessed online March 1, 2013 at http://www.nps.gov/jeff/planyourvisit/materials-and-techniques.htm and Richard Grigonis, "The Gateway Arch- Its History and Architecture," (April 9, 2011), accessed online March 1, 2013 at http://www.interestingamerica.com/2011-04-09_Gateway_Arch_Architecture_by_R_Grigonis_41.html

63 Bahr Vermeer Haecker Architects; Wiss, Janney, Elstner Associates, Inc, and Alvine and Associates, Inc, "Gateway Arch: Historic Structures Report- Vol. 1 (June 2010), p. 24, accessed online March 1, 2013 at http://www.archive.org/stream/GatewayArchHistoricStructureReportVolume1june2010/Historic-Structure-Report-for-the-Gateway-Arch_djvu.txt

64 Sharoff and Zbaren, xxi.

The form of the arch, however, was just as critical to its lasting impact on Modern design as its engineering innovations were. The arch is beautifully proportioned, ambitious, symbolic, and machined. The way these concepts came together in the arch perfectly summarize the consciousness of the times: optimistic, confident, and dedicated to the idea that science and engineering could fix any problem. Saarinen's intent as an architect went beyond what he saw as the three great principles of modern architecture: functional integrity, honest expression of structure, and the awareness of our time. What Saarinen added to his design was his commitment to conveying significant meaning as part of the inspirational purpose of architecture. [65]

Washington University in St Louis

Instrumental in the dissemination of architectural Modernism throughout St. Louis and the Midwest was the Architecture School at Washington University. Washington University's School of Architecture was started in 1901, in association with the School of Engineering. Both of these schools, as well as the Architectural Club, a prestigious design club for Architects in practice in St. Louis, were located in the same building on Washington University's primary downtown campus.[66]

The School of Architecture had extremely close ties to the local practice environment especially throughout the 1950s. [67] George Kassabaum, a partner in the international firm HOK, was on the faculty in the years 1947-1951. Many other practicing architects in St. Louis spent time teaching at Washington University, including George Ancelevicius, Roger Montgomery, and (earlier) Joseph Murphy. The architecture faculty members were actually asked to design campus buildings starting in the 1950s. This was an unusual honor and responsibility for architectural professors at that time. The Adolphus Busch III Laboratory of Biology, though often credited to Fred Hammond as the Architect of Record, was designed by "Claude Stoller, an architecture faculty member during the mid-1950s."[68] The Dean of the School of Architecture, Joseph Passoneau, designed Urbauer Hall in 1957. The best-known Modernist building on campus, Steinberg Hall, was designed in 1958 by Fumihiko Maki, only 30 years old at the time and teaching at the School of Architecture, in collaboration with the firm Russell, Mullgardt, Schwarz and Van Hoefen. "True to the spirit of its time, Steinberg Hall utilized cantilevered folded plates to express its inventive structure and, at the same time, create the vertical profile of a lighter building (composed of an elevated platform, recessed first floor, and cantilevered top floor)."[69] In the early 1960s, the full-time design studio instructors (Ancelevicius, Maki, Montgomery, Constantine Michaelides, and Bill Roberts) participated in a design competition together for a project in San Francisco.[70] Although by the late 1960s the spirit of collaboration had dissolved between the school and the local chapter of the AIA and local practitioners, the school worked to re-establish these ties and develop strong alumni relations throughout the 1970s.

The Architecture School strongly benefitted from an infusion of new ideas at the outbreak of World War II. In the fall of 1942, Washington University took in more than thirty Japanese-American students from

---

65 Peter Papademitriou, "Coming of Age: Eero Saarinen and Modern American Architecture," in *Perspecta*, Vol. 21 (The MIT Press, 1984), 116-143.

66 Sally Schwenk Associates, Inc, "Survey Report: Southwest Garden Neighborhood Cultural Resource Survey," May 2010, p.51.

67 Mumford, 65.

68 Constantine E. Michaelides, *Givens Hall 1960-1993: a personal journey*. (Published by the author, 2012), 104.

69 Michaelides, 104.

70 Michaelides, 28.

the West Coast who faced internment camps in their hometowns.[71] A few of these new students enrolled in the School of Architecture, including Gyo Obata and Richard Henmi. Other Japanese citizens came to the school to teach, including Fumihiko Maki in 1956-62. The school has nurtured and benefitted from a number of international connections, including a connection with Finnish architects serving as visiting professors and student opportunities to study in Finland.[72] The first visiting professor to the School of Architecture, Alfred Roth, was appointed in 1950. Roth, of Zurich, had worked with Le Corbusier in the late 1920s on two projects and with Marcel Breuer on another in the 1930s.[73]

The School of Architecture in 1956 was under the direction of Buford Pickens, who, prior to his own departure, fired all the teachers but two tenured professors.[74]He was succeeded by Joseph Passoneau, dean from 1956 to 1967. These were important years for Modernism in St. Louis, and the school was led by a relatively young, forward-thinking faculty. While there were certainly advocates of architectural Modernism in previous faculty members such as Frederick Dunn and Joseph Murphy, the School was not a unified voice in teaching and practicing the new style until the Post-War years.

VII. Conclusion

St Louis has benefitted from its central location as a crossroads, a starting place, and a place where many different groups and cultures have come together. Because of its location, the City has absorbed design influences from the influx of various new groups and cultures. These influences were vastly increased by the international reach of the Architecture School at Washington University. Especially throughout the 1940s and 1950s, practitioners had a close relationship with faculty and students at Washington University, where Modernism was already ingrained. St Louis also created the funds and the available land for Modern projects. The City jumped into urban redevelopment immediately after WWII, clearing "blighted" areas and then using federal funds, at least partially, to rebuild. Although African-Americans in particular were often pushed into the overcrowded areas that were cleared, and were denied opportunities for jobs in the rebuilding efforts, this is an aspect of the City's past that is not glossed over. Through historic documentation, education, and preservation efforts, the lives and stories of people who experienced injustice can be told.

There is much to celebrate in St Louis' excellent collection of Mid-Century Modern architecture. At least twenty-five, and probably many more, Modern-era resources appear eligible for listing on the National Register, all under the National Register's Criterion C for architecture merit. Some properties also appear eligible under other categories such as Criterion A, for cultural significance or in association with significant historical movements or events. The City offers very good examples of International Style architecture, by local Modern architects such as Bernoudy, Mutrux, and Harris Armstrong. Its Brutalist resources, almost all of which are constructed of brick rather than concrete, are particularly compelling as "warmer" and more texturally interesting than some of the more brooding, concrete examples of the style to be found in other regions. The City's inspiring Lambert Air Terminal, an expandable multi-domed design which set a pattern for other major airport terminals, is one example of Neo-Expressionism. Other Neo-Expressionist designs were the work of the St. Louis-based Bank Building and Equipment Corporation, which was one of the first design-build firms in the country, providing innovative designs in St Louis and ultimately expanding to numerous cities around the United States.

---

[71] Kavita Kumar, “Sheltered from Internment, Achieving Success: Washington U. Highlights WWII-era Students in Programs that Include Lectures and an Art Exhibit,” *St. Louis Post-Dispatch*, November 30, 2009.

[72] Peter MacKeith, “Learning from Finland,” on Washington University’s Graduate School of Architecture (Sam Fox School) website, (undated) accessed March 4, 2013 at http://samfoxschool.wustl.edu/files/Finland-Fulbright.pdf

[73] Mumford, 50.

[74] Michaelides, 38. Pickens fired long-term faculty members such as Erwin Carl Schmidt, who still taught in the classical tradition. See also Mumford, 55-56.

Neo-Formalism as the final sub-style under the umbrella of Modernism is represented well in St. Louis as well. One of the style's major and original practitioners, Minoru Yamasaki, worked for many years in St Louis.

Between the City's iconic symbol of the City and of Modernist ideals, its Mid-Century architecture, and a well-regarded and well-connected school of architecture which continues to nurture and inspire future generations of architects, St Louis deserves to be noticed for its contribution to the built environment during the Postwar era.

Selected Bibliography

Bakema, Jacob Berend and Washington University (St. Louis, Mo.) School of Architecture. *The Humane Core: A Civic Center for St. Louis, Mo*. St. Louis, MO: Washington University, 1961.

Bartholomew, Harland. *Comprehensive City Plan: St. Louis, Missouri.* St. Louis: City Plan Commission, 1947.

Do.Co.Mo.Mo_US. "How to Evaluate Modern Buildings and Sites," DoCoMoMo website. http://docomomo-us.org/register/how_to_evaluate

Dyson, Carol and Anthony Rubano. "Banking on the Future: Modernism and the Local Bank." In *Preserving the Recent Past 2*, ed. Deborah Slaton and William G. Foulks. Washington, D.C.: Historic Preservation Education Foundation, Association for Preservation Technology, and National Park Service, 2000.

Ford, Edward R. *The Details of Modern Architecture, Vol. 1.* Cambridge, MA, The MIT Press, 2003.

French, Christine Madrid. The Emergence of the Mission 66 Visitor Centers. Mission 66 Modern Architecture in the National Parks. http://www.mission66.com/documents/intro.html

Gordon, Colin. *Mapping Decline: St. Louis and the Fate of the American City.* Philadelphia: University of Pennsylvania Press, 2008.

Heathcott, Joseph. "Black Archipelago: Politics and Civic Life in the Jim Crow City," in *Journal of Social History* (Spring 2005), Vol. 38 Issue 3, pp 705-736.

Henry, Deborah J. "Race, Power, and the Building Trades Industry in Postwar St. Louis," in *Other Missouri History,* ed. By Thomas Spencer. Columbia, MO: University of Missouri Press, 2005, 81-114.

Hogan, Meghan. "The Future of Modern: Federal Architecture in an Era of Change," in *Common Ground* (Spring 2009), pp 27-37.

Hitchcock, Henry Russell and Philip C. Johnson, *The International Style* (New York: W. W. Norton & Company, 1966 with a new foreward and appendix by Henry-Russell Hitchcock, originally copyrighted 1932), pp 145-147.

James-Chakraborty, Kathleen. "Moderate Modernism : Sacred Architecture in St. Louis & Its Suburbs" in *Modern Architecture in St. Louis,* ed. by Louis Mumford. St. Louis: Washington University School of Architecture, 2004, 27-40.

Lipstadt, Helene. "Co-Making the Modern Monument: The Jefferson National Expansion Memorial Competition & Eero Saarinen's Gateway Arch," in *Modern Architecture in St. Louis,* ed. by Louis Mumford. St. Louis: Washington University School of Architecture, 2004, 5-25.

Marchael, James and George McCue. *The Architecture of St. Louis.* St. Louis: City Art Museum of Saint Louis, 1971.

McCue, George and Frank Peters. *A Guide to the Architecture of St. Louis.* Columbia, MO: University of Missouri Press, 1989.

Michaelides, Constantine E. *Givens Hall 1960-1993: a personal journey*. Published by the author, 2012.

Moynihan, Daniel Patrick. "Guiding Principles for Federal Architecture," United States Ad Hoc Committee on Federal Office Space, 1961. http://www.gsa.gov/portal/content/136543

Mumford, Eric. "Triumph and Eclipse: Modern Architecture in St. Louis and the School of Architecture," in *Modern Architecture in St. Louis,* ed. by Louis Mumford. St. Louis: Washington University School of Architecture, 2004, 43-69.

Ogata, Amy F. "Building for Learning in Postwar American Elementary Schools," in *Journal of the Society of Architectural Historians* (Vol. 67, No. 4), December 2008, pp.562-591.

Roth, Leland M. *American Architecture, A History*. Boulder, CO: Westview Press, 2001.

Saint Louis City Plan Commission. *A Plan for Downtown St. Louis.* St. Louis: City Plan Commission, 1974.

Sandweiss, Eric. *St. Louis: The Evolution of an American Urban Landscape.* Philadelphia: Temple University Press, 2001.

Savage, Charles. *Architecture of the Private Streets of St. Louis: The Architects and the Houses they Designed.* Columbia, MO: University of Missouri Press, 1987.

Sharoff, Robert and William Zbaren. *St. Louis Architecture: Three Centuries of Classic Design.* Mulgrave, Victoria, AU: The Images Publishing Group Pty Ltd, 2010.

Shull, Carol D. and Beth L. Savage. "From the Glass House to Stonewall: National Register Recognition of the Recent Past." Preserving the Recent Past conference, 1995.

Toft, Carolyn Hewes, Esley Hamilton and Mary Henderson Gass. *The Way We Came: A Century of the AIA in St. Louis*, ed. by George McCue. St. Louis: The Patrice Press, 1991.

Whiffen, Marcus and Frederick Koeper. *American Architecture Volume 2: 1860-1976*. Cambridge, MA: The MIT Press, 2001 (originally copyrighted 1981).

This page left intentionally blank.
Printed on 100% post-consumer paper.

Thematic Survey of Modern Movement Non-Residential Architecture, 1945 – 1975, in St. Louis City

Historic Context Statement
Modernist Architects in Practice in St. Louis, ca. 1945 - 1975

Chris Madrid French

City of Saint Louis Cultural Resources Office
City of Saint Louis, Missouri

Peter Meijer Architect, PC
710 NE 21st Ave., Suite 200
Portland, OR 97232

Modernist Architects in Practice in St. Louis, ca. 1945-1975

Context Statement

Christine Madrid French, June 13, 2013

Outline

- Methodology
- Context Statement
- Bibliography & References
- Annotated List of Featured Architects
- Appendix I: List of Architects that attended or taught at Washington University of St. Louis and List of Deans of the School of Architecture, from its founding in 1910

Methodology

- **Selection of Architects:** The architects selected for the list below include individuals and firms that headquartered their practices in St. Louis and/or attended, taught, or graduated from the School of Architecture at Washington University of St. Louis during the study period. Each listing is augmented with a biographical paragraph and a select list of buildings. The biography is written to provide critical information and dates to facilitate further research in this area.
- **Geographic Area:** During the mid-twentieth century, the population of St. Louis as a metropolis expanded far outside the formal city borders, to populate a series of suburbs and smaller adjacent towns. Those buildings, and the architects that designed in the cities surrounding St. Louis, are not included in this survey. A number of buildings designed by the architects in this list are located in suburban areas, but are not detailed within the scope of this study.

Context Statement

St. Louis Architects in the Modern Age

In 1944, the Museum of Modern Art in New York City published a follow up to the widely popular book and exhibit *The International Style,* with a second exhibit titled "Built in U.S.A.," focusing solely on modern architecture. The museum cited three factors accountable in the "great post-war flowering of architecture," in the U.S., the first of which was "a generation of architects trained in schools that no longer teach the traditional styles" entering the commercial field and beginning their own practices.[1]

This "first generation" of American modernists flourished in St. Louis, beginning a tradition of design innovation and encouraging a culture of architectural exploration that changed the face of this Midwestern metropolis. Newly graduated from the Washington University of St. Louis, or arriving from other cities to begin anew, these architects came armed with both knowledge and training in the "new way of building," based on precedent-setting designs by early twentieth-century modern masters such as Frank Lloyd Wright, Le Corbusier, Walter Gropius, and Ludwig Mies van der Rohe. Yet, rather than follow their architectural ancestors by rote, these designers created modern structures with a distinctly regional flavor, incorporating traditional materials—such as red brick—into buildings that satisfied their client's needs along with the demands of site and climate particular to the St. Louis area. The new modernists assertively led a movement that eventually penetrated the most conservative areas of design, leading to a total revolution in the character of St. Louis' regional architecture.

By the 1930s, even the general public was aware of a growing change in architectural design, one that addressed the conditions of the twentieth century, rather than the context of the past. *Popular Mechanics* published a number of articles on the rise of modernism, bringing the topic into the homes of Americans and reminding the populace that the time to move forward in design had arrived:

> "The machine age is tackling a long-neglected job—modernizing the exteriors of homes and buildings. With steel, stone, concrete and glass, architects the world over are designing and building structures to remind people that they are living in the day of streamline trains and air transports…Useless ornament, decoration, and adaptations from Greek, Roman and Spanish architectural styles are strictly taboo these days. Architects have decided that a modern man can't live in an Italian Renaissance house or mid-Victorian flat and feel that he belongs to the twentieth century."[2]

The modern city, no less its modern residents, clamored for architecture in the "new" style. Communities competed to demonstrate their mastery of the modern century and their rise in capital in a game of one-upmanship held throughout the country. Modern design quickly gained credibility as a sign of economic prosperity, a visible and prominent symbol of city growth. In St. Louis, architects and clients sought out modern design as a key to civic survival; recovery of the city hinged on the embrace and promotion of this new vision of American life.

A number of local architects took up the challenge of reinvigorating St. Louis, including Harris Armstrong, Charles Eames, William Adair Bernoudy, and Edouard Mutrux among others. Their early works from this period set the design tone for the middle years of the twentieth century. The stylistically bold buildings encompassed a range of modern vocabularies, including the rectilinear character of the International Style, the Frank Lloyd

[1] The Museum of Modern Art, "'Built in U.S.A.: Post-War Architecture' to be shown at museum," press release, January 18, 1953. http://www.moma.org/docs/press_archives/1673/releases/MOMA_1953_0003_3.pdf?2010
[2] "This Changing World," *Popular Mechanics Magazine,* vol. 64, no. 14, July 1935, 26.

Wright-inspired incorporation of regional and natural materials, and variations on high style Art Deco, with rounded facades and luxurious finishes. Armstrong's dental clinic design for Dr. Leo Shanley in Clayton (7800 Maryland Ave) in 1935, widely recognized as one of the first examples of modernism in the St. Louis area, features characteristics of modernism in its blending of interior and exterior elements and in its use of poured-concrete walls. The Shanley Clinic brought international attention to St. Louis: Armstrong won a silver medal at the Paris World's Fair of 1937 for this design, named as the "first 'international modern' building in the Midwest."[3] Armstrong drew from Wright's work in his regionally-sensitive design for the Dr. Samuel B. Grant clinic (114 N. Taylor St., St. Louis) of 1938, which incorporated red brick and a copper roof, typical materials for buildings in the Midwest but unusual in the high-style modernist cannon of the time.

Two of the earliest modern designs in the city of St. Louis were created by engineers, rather than architects. In downtown, the 1933 Tum's Building designed by Widmer Engineering Company, combined a street-level entry Art Deco treatment with an International Style façade above, featuring the cantilevered corners, ribbon windows, and complete absence of decorative motifs advocated widely by pioneer modern architects such as Richard Neutra. William C.E. Becker, a city engineer, created the beautifully transparent Jewel Box for Forest Park in 1936, drawing on nineteenth century greenhouse precedents but also revealing an enthusiasm for celebrating modern technology and materials, seen later in the precedent-setting vaulted halls of Hellmuth, Yamasaki & Leinweber's 1955 Lambert Field Main Terminal, the geodesic form of the 1960 Climatron by Murphy & Mackey, and, of course, in Eero Saarinen's 630-foot-tall stainless steel Gateway Arch, completed in 1965.

The Jefferson National Expansion Memorial (JNEM), brought worldwide attention to St. Louis. Architects had long fought for the nation's memorials to better express the modernity of the twentieth century, rather than Egyptian or Classical prototypes, and viewed the JNEM competition as their moment to prevail in a national design forum. Noted modernists from all corners submitted entries to the 1948 competition, including Edward Durrell Stone (with Isamu Noguchi), Harris Armstrong, Charles and Ray Eames with John Entenza, Harry Weese, and Louis Kahn, among others.[4] The jury consisted of S. Herbert Hare, landscape architect; Charles Nagel., Jr., a local architect and museum professional; Fiske Kimball, an pioneer architectural historian and architect; Louis La Beaume, a St. Louis architect; Roland A. Wank, a modern architect from Hungary who worked on Tennessee Valley Authority projects; and designer Richard J. Neutra, under the chairmanship of William W. Wurster, architect and professor. The winning design, a glistening metallic arch submitted by Eero Saarinen, was not immediately embraced and, in fact, not constructed until more funding became available in the 1950s. In a signed statement, the jurors defended Saarinen as the winner and lauded the symbolic significance of the arch form (and stanched critics who disparaged modernist design's European origins), by stating that "the parabolic and the hyperbolic arch, with their structural advantages, have become characteristic forms of functional modern architecture…The form is public domain; it was not invented by the Fascists."[5] Despite initial skepticism from the public, the structure became a municipal icon. The arch broke one of the last barriers for modernist designers, inspiring both local architects and others nationwide to fully explore the possibilities of modernism in all types of contemporary projects, from the utilitarian to the high style.

---

[3] "The Work of Harris Armstrong, the dean of modern architects in St. Louis, will be highlighted in a lecture and tour," *Webster-Kirkwood Times,* Oct. 16, 1997, 16.
[4] Helene Lipstadt, "Co-Making the Modern Monument: The Jefferson National Expansion Memorial Competition and Eero Saarinen's Gateway Arch," in *Modern Architecture in St. Louis: Washington University and Postwar American Architecture 1948-1973* (St. Louis: School of Architecture, Washington University in St. Louis, 2004), 13-16.
[5] "Exhibit 'B', Statement by the Jury of Award on the Winning Design in the Jefferson National Expansion Memorial Competition." n.d.

Changing the face of St. Louis—by changing its architectural image—became a critical endeavor, initiated to address contemporary needs and ensure cultural longevity. The nostalgic glow from the 1904 World's Fair faded as the community faced a host of new challenges in the mid twentieth century. St. Louis lagged behind its municipal competitors in design, economics, and business, a struggle to keep up that the press eagerly reported to the public, often in national forums. *Life* Magazine, a popular weekly, described St. Louis's growing pains in a 1954 pictorial report comparing St. Louis to its neighbor Kansas City. St. Louis was described as "a city settled down after its most spectacular surge of success has passed." The once vibrant community was likened to an "old dowager" overseen by an outdated mayor in an antique building, while its sister city propelled forward with a "young and brash" character.[6]

Architecture expressed the tenor of its own time; by the 1950s pre-World War II buildings appeared outdated and representative of another era, one which needed to be left behind in order to advance. City leaders and citizens vowed to change St. Louis, voting in a $110,000,000 bond issue in 1955 (the largest in its history) to fund new projects including four new branches of the public library, expansion of the zoo, a planetarium, eight new fire stations, a new hospital, and three community centers, along with "slum clearance," street lighting, and street resurfacing.[7] The new projects, designed by different firms and architects, emerged in a variety of modern styles, including New Formalism, the International Style, and Brutalism. Local modernists questioned the design logic for building "revivalist" styles, such as erecting a likeness of the Mausoleum of Halicarnassus (ca. 353 B.C.) for use as a mid-western Civil Courts Building (1930, Klipstein & Rathmann). Instead, contemporary architects sought to create entirely new forms that nodded to regional precedents while exploiting innovative building technologies to their limits.

Public acceptance of the "new" architecture varied considerably. Modern design eliminated the "safe, familiar things" that generations relied upon as cultural touchstones; a number of honored St. Louis architectural traditions, such as decorative cornices, disappeared. Indeed, as a whole, no other architecture movement was "more deeply distrusted by the public," than modernism.[8] Nonetheless, the advantages of building in a modernist style in order to attract the public were well known. The new buildings inspired optimism and generated a renewed interest in old institutions. In the 1960s, the Bank Building and Equipment Corporation of America, headquartered in St. Louis and the largest firm in the country to specialize in the design and construction of bank buildings, discovered that new or remodeled buildings brought an associated increase in deposits.[9] Architect Frederick Dunn, speaking of his 1954 design for a dramatic floor-to-ceiling glass façade building in Jennings, asserted that "We have designed Faith-Salem Church as an evangelical tool, to bring in the people. It will be hard to keep tourists and visitors out."[10]

Collaboration and Community

The School of Architecture at Washington University in St. Louis provided a common thread amongst many of the architects that worked in and visited St. Louis during the mid-twentieth century. The university brought the most important element to the scene: intellectual capital in the form of recently graduated, trained architects that specialized in modern design. Founded in 1910 after a split with the School of Engineering, the School of

---

[6] Edward Clark and Howard Sochurek, "Kansas City and St. Louis: Picture Portfolio Shows Some Contrasts Between Striving City and a Settled One," *Life Magazine*, Mar. 29, 1954, 106-115.
[7] http://www.umsl.edu/virtualstl/phase2/1950/events/perspectives/documents/votingsheet.html, League of Women Voters Collection, Western Historic Manuscripts.
[8] Elizabeth Mock, ed., Built in USA: Since 1932 (New York: The Museum of Modern Art/Arno Press, 1944, reprint 1968), 13.
[9] "New Trend is to Lavish Office and Ultra-Modern Buildings," *St. Louis Globe Democrat,* Feb. 24, 1962.
[10] John T. Stewart, "A Radically New Church Structure," *St. Louis Post-Dispatch,* Oct. 24, 1951.

Architecture gradually moved away from the traditional Beaux Arts methods offered under dean Lawrence Hill, who retired in 1948 after fourteen years in the position, and towards modernism, with the appointment of Joseph Murphy, who became acting dean and then dean of the School of Architecture at a pivotal moment in the University's history.

The School of Architecture was well poised to take the lead in the regional modern design movement after World War II, training a new generation of architects who had returned from the war eager to enter the workforce. Murphy oversaw a core faculty composed of local modernist designers, including Harris Armstrong, Frederick Dunn, Eric W. Smith, Edouard Mutrux, and Eugene J. Mackey, Jr.[11] The school embraced a "strong base of Bauhaus-inspired American modernism," from that time forward, and invited a steady stream of visiting professors to augment the program, including Alfred Roth (Zurich, Switzerland, 1950), Frei Otto (Germany), Jacob Bakema (Holland), and Shadrach Woods (France).[12] Additionally, many of the students attending the school in the late 1940s had traveled through Europe during their tenure in the armed forces during World War II, bringing back an international perspective on community design and urban planning.

Gyo Obata, one of the founders and principals of HOK, recalled that the curriculum at the Washington University of St. Louis was predominantly modernist, led by a coterie of young professors that shunned traditional architecture. Obata sought refuge in St. Louis during World War II, as Japanese-Americans in western states were subject to internment after the bombing of Pearl Harbor. He joined the student body at Washington University the night before his family—including his father, who worked as a professor at the University of California, Berkeley—was sent to a prison camp. More than twenty Japanese-American students arrived at Washington University that year, and at least six of those new residents majored in architecture.[13]

Throughout the years, the school maintained a "sense of shared purpose," and a "collegial spirit" necessary to nurture confidence in design, despite initial public skepticism.[14] The community approach defined many of the professional relationships in St. Louis, with architects creating new firms together, assuming partnerships with former classmates and professors, and maintaining familial relationships in their business practices in a competitive, yet cooperative atmosphere.

For instance, Joseph Murphy, dean of the School of Architecture, formed a partnership with Eugene J. Mackey, Jr., who taught at the school, to form Murphy and Mackey. George E. Kassabaum graduated from the school in 1947, worked in Murphy's office, and later joined the faculty at Washington University. Kassabaum then worked as a designer for Hellmuth, Yamasaki, and Leinweber in St. Louis from 1949 through 1955; George Hellmuth also graduated from the School (B.A. M.A., 1928, 1930), and was the son of noted St. Louis architect George W. Hellmuth. In 1955, Hellmuth and Kassabaum co-founded a firm with fellow graduate Gyo Obata (B.A. 1945) to create HOK, now an internationally-renowned architectural design company. These relationships at times moved beyond the business office: Hellmuth's next-door-neighbor was fellow architect Frederick Dunn.

The university further influenced the regional environment by commissioning a number of campus buildings in the modern style, created by architects that continued to design and build in St. Louis while teaching at the school. The campus reflected the same dramatic changes seen in architecture throughout the city between the

[11] Eric Mumford, "Triumph and Eclipse: Modern architecture in St. Louis and the Washington University School of Architecture," in *Modern Architecture in St. Louis: Washington University and Postwar American Architecture 1948-1973* (St. Louis: School of Architecture, Washington University in St. Louis, 2004), 48.
[12] Cynthia Weese, Forward to *Modern Architecture in St. Louis: Washington University and Postwar American Architecture 1948-1973* (St. Louis: School of Architecture, Washington University in St. Louis, 2004), 1, 3.
[13] Telephone interview with Gyo Obata, 24 May 2013, with Christine Madrid French, Orlando, Florida.
[14] Weese, Forward to *Modern Architecture in St. Louis,* 3.

1930s and 1950s; in one case, the design for a columned neo-classical addition (unbuilt) to Givens Hall morphed into a folded-plate concrete pavilion for the arts and architecture under the hand of Fumihiko Maki. Maki, a professor at the School of Architecture, completed Steinberg Hall, his first commission, in 1959 with Russell, Mullgardt, Schwartz, and Van Hoefen. The concrete roof is set above a series of clerestory windows, with a similarly styled concrete overhang extending from the first story. This architectural zig-zag pattern stood in stark contrast to the traditional solidity of the building's neighbors on campus.

Washington University commissioned a number of new buildings during its "70 x 70" campaign, started in 1963, in which Chancellor Thomas Eliot intended to raise $70 million by 1970. Joseph Passonneau, dean of the School of Architecture (1956-67), "attempted to introduce a new design vocabulary to the campus," in the exposed-concrete, Brutalist student center near Olin Library.[15] Faculty member Constantine Michaelides (working with Smith-Entzeroth) contributed with a design for Bryan and McMillen Halls, utilizing a combination of Missouri red granite and exposed concrete to both bridge the gap between the old character of the campus and the modern period, but also to better link the campus to the community (with a pedestrian access bridge over Forest Park Parkway).

Form and Style

The modern architects of St. Louis developed new methods of engaging in design and business as the city began its cultural and civic regeneration in the 1950s. Because the St. Louis modernists collaborated so closely during this period, the structures and buildings appear, from today's perspective, to form a collective corpus of work. Yet, each building is a singular finished piece created under specific design criteria and considerations, fusing the user, the technique, and the site in the process. Architectural inspiration drew less from the rigid "building as machine" example of Le Corbusier's era, and into a more balanced period, where architects sought to incorporate the needs of the user within the "heroic ambitions," and "technological bravura," required to compete in this age of innovation.[16]

The architectural community also led St. Louis in overall city planning efforts. Arthur F. Schwarz envisioned the Arch as the center of the metropolitan region, as part of a "total community on both sides of the Mississippi."[17] But, changing an older city did not come easily, and progress was elusive. Joseph D. Murphy, former dean of Washington's School of Architecture, resigned from the St. Louis County Planning Commission in 1954, when the members failed "to act on his suggestions for a long-range planning program," and "tabled his resolution for hiring of outside consultants," an action he considered "vitally necessary to the growth of the county."[18] Joseph Passonneau, Dean of the School of Architecture, fought the city's "growing pains" by encouraging the careful selection of developers for new projects and "[basing] architectural decisions on architectural values."[19] In all cases, the buildings and landscapes were marked with the confidence of architects exploring seemingly limitless possibilities.

Minoru Yamasaki, a master of New Formalism, captured the eclecticism of the city's mid-century modernism, and his own work, in a speech delivered in 1959: "Through my memory's blur of the images of hundreds of

[15] Eric Mumford, "Triumph and Eclipse: Modern architecture in St. Louis and the Washington University School of Architecture," in *Modern Architecture in St. Louis: Washington University and Postwar American Architecture 1948-1973* (St. Louis: School of Architecture, Washington University in St. Louis, 2004), 61.
[16] Robert A.M. Stern, *New Directions in American Architecture* (New York: George Braziller, 1977), 117.
[17] James Dutson, "City Planner with a Big Vision," *St. Louis Globe-Democrat,* Feb. 15-16, 1969, 4C.
[18] "Joseph D. Murphy Quits County Planning Board, "*St. Louis Globe-Democrat*, July 8, 1954.
[19] George McCue, "Outspoken Foe of St. Louis Dowdiness," *St. Louis Post-Dispatch,* Mar. 27, 1960 (no page number).

designs…I remember the persistent search for new form and texture which prevailed…This attempt at enrichment characterized designs from all regions, their very frequency seemed to presage a national movement. The efforts varied from building to building in intensity. Some were timid, some bold, and some hysterical. There were rows of gables or simple folded slabs, there was a gamut of shells and grills of every description." Yamasaki, and his colleagues, felt compelled to more fully explore the variety of forms, shapes, and expressions available to the modern architect and resist the "limited palette available in the dogma of rectangles," promoted by adherents of the International Style.[20]

Architects, thus liberated from the strictures of the International Style, felt free to draw from the past and incorporate an eclectic interpretation of traditional forms within their modern designs. For instance, Yamasaki reported that New York's Grand Central Station, opened in 1871, inspired the creation of the 1956 Lambert Field terminal at St. Louis, noted nationwide for its three sets of intersecting barrel vaults that formed a concourse more than 400-feet-long. Despite this admiration, Yamasaki and other modernists harbored no romance with old buildings. During the campaign to save the venerable New York train station from demolition in the mid-1960s, Yamasaki said: "Though it is a marvelously beautiful room, Grand Central is in an archaic style [and] does not particularly express the exciting materials or exciting methods of construction we have today."[21]

Within the St. Louis region overall, the successful completion of a few modern buildings created a record of accomplishment that convinced skeptics of the economic, structural, and aesthetic benefits of new design versus traditional expressions. Architects fought vigorously for modernism; designer Frederick Dunn once arranged a private tour of new St. Louis structures in a successful effort to convince the congregation to accept his flat-roofed, glass-walled design for the Faith-Salem Evangelical and Reformed church. The deciding factor: a visit to the Eric Mendehlson-designed B'nai Amoona Synagogue in University City. "This fine building really bowled our committee over," said Rev. Kurt Schmiechen. The pastor further defended the practicalities of building in a modern style, saying that "the radical new design is the result of down-to-earth thinking by my people about their needs. The next largest factor was economy." Dunn agreed to the abandonment of the Gothic Revival, saying "We can't use the methods of the middle ages, for we don't have their craftsmen or their materials. We must take the crafts and materials of today and adapt them to new forms."[22]

The dictates of the "masters" of modern architecture were often adapted in the quest to create an architecture that suited the specific needs of St. Louis. Smith and Entzeroth, founded by 1956 by Eric W. Smith, Jr., and Robert E. Entzeroth, detailed this modified approach to modernism in a trade newspaper of the period. Design work centered on the "interaction between the client, the site, the technology and the architect," with the client's needs serving as the "generating force in any design." The architects dictated that the environment must be incorporated into the design "to have maximum usefulness for the client and the community." The firm did not rely solely on traditional materials and methods, nor did they blindly follow modernism, but instead determined that the best economical and functional course was to use "the most appropriate technology and materials of our era." And, within all this, the firm vowed to address "beauty" in design, which was only achieved "through the architect's ability to compose and articulate these elements in a harmonious manner."[23] Joseph D. Murphy, of Murphy and Mackey, incorporated a similar spirit in his design, saying that "A building should be a joy to look

[20] "Yamasaki's Address at P/A Design Awards Banquet," *Progressive Architecture* (March 1959), 154-155.
[21] Robert A.M. Stern, Thomas Mellins, and David Fishman, *New York 1960* (New York: Monacelli Press, Inc., 1995), 1139.
[22] John T. Stewart, "A Radically New Church Structure," *St. Louis Post-Dispatch,* Oct. 24, 1951.
[23] "Architectural Excellence in Masonry," *St. Louis Construction News & Review*, Jan. 14, 1974, 9.

at, a joy to participate in, a joy to build it in such a way that it helps project its purpose.[24] Yamasaki also asserted that "I am for delight in architecture," above other considerations in design.[25]

The idea of architectural "delight" or beauty, synthesized well with the creation of modernist sacred spaces. St. Louis architects created a profusion of soaring, inspirational buildings for local denominations throughout the area using traditional materials in new ways and pushing the limits of new technologies. Frederick Dunn forged a path of innovation for the religious community in the construction of a number of church buildings that broke radically from conventional forms. His first, the 1939 St. Mark's Episcopal Church in nearby Jennings, with its white-brick planar walls and almost total absence of religious iconography, evoked a number of critical remarks from the community, ranging from "tongue-in-cheek ridicule to downright resentment," from "people who admitted they knew nothing about architecture, but knew what they liked in a church." [26]

Despite initial public skepticism, churches embraced modernism throughout the St. Louis region. W.A. Sarmiento, an architect with the Bank Building & Equipment Corporation of America now recognized as a prominent contributor to modern built landscapes nationwide, designed the Chancery of the Archdiocese of St. Louis (the Catholic Center) in 1961, just steps away from the 1914 Byzantine Revival Cathedral Basilica of St. Louis on Lindell Boulevard. The buildings initially appear incongruous, dissimilar in form, materials and intent. Yet architect Sarmiento successfully exploited this unique opportunity to add a free-standing structure to a landmark site, incorporating classical elements into an entirely modern structure. The scale and size of the white, circular jewel box he created—a bold statement of its own time--expresses the form of the tholobate (or cylindrical drum) that supports the dome of its older, more traditional neighbor. The smaller building is set on a plinth of natural stone, and is surrounded by space-age columns to create a continuous temple-like façade.

Sarmiento, and the Catholic Church, set the bar for new buildings along Lindell. At mid-century, the city relied on Lindell Boulevard to connect the downtown area with the emerging suburbs and university campuses located past Forest Park. The street transitioned from a residential avenue lined with elegant homes to a busy road with showcase modern works designed by noteworthy architects. The buildings are reflective of the variety of their creators and clients. Although the styles, materials, and forms differed from site to site, the architects universally designed eye-catching façades to captivate the automobile-bound viewer and promote a new vision of St. Louis to city dwellers and suburban commuters.

The interaction of artists and architects played a large factor in the success of the modern buildings of St. Louis, both in religious and secular structures. Emil Frei, Inc., a long-established firm specializing in stained glass works, contributed to a number of notable designs, including Frederick Dunn's Faith-Salem Evangelical and Reformed church. Isamu Noguchi created a custom-designed amorphic ceiling treatment for the American and the Stove-Magic Chef Headquarters designed by Harris Armstrong in 1946.

Practicing architects at mid-century embraced adaptability and changed their design approach in order to serve clients that demanded the new and spurned tradition. Joseph Senne, for example, designed a number of fairly conservative buildings such as the modified Gothic-Revival First United Presbyterian Church in St. Louis, before he arrived at the artful New Formalist-designed Buder Branch for the St. Louis Public Library, finished in 1961. As styles began to change again in the early 1970s, a few architects refused to abandon the modernist vocabulary. Unlike a number of his colleagues, Isadore Shank maintained an allegiance with the "Masters of Modernism." He

[24] Mary Kimbrough, "He's 'Mr. Chips' To His Fellow Architects," The Magazine, *St. Louis Globe-Democrat,* April 30-May 1, 1983.
[25] "Yamasaki's Address at P/A Design Awards Banquet," *Progressive Architecture* (March 1959), 154-155.
[26] Walter E. Orthwein, "City's First Modern Style Church: St. Mark's Episcopal Started New Trend 25 Years Ago," *St. Louis Globe-Democrat,* Jan. 12, 1964, 3F.

decried postmodernism as "the name we have given to the age of the ugly," and promoted the "great works of art," by Walter Gropius and Eric Mendelsohn as design exemplars. Shank kept a tight rein on both his clients and his designs, saying "I operated the way I felt like operating, and the bulk of my work was done for people who were appreciative."[27]

St. Louis entered the era of the "megastructure" with the completion of the Mansion House Center development on the riverside, designed by Schwartz and Van Hoefen, in 1965. Fumihiko Maki coined the typological name of "megastructure" in 1964, the result of research conducted during his appointment as a faculty member at the Washington University of St. Louis School of Architecture (1956-1963). In his groundbreaking publication "Investigations in Collective Form," printed by the school, Maki credited the "challenging architectural climate," at Washington University in his work, which included an analysis of--and first printed reference to—the megastructure, or a "large frame containing all the functions of a city." [28]

The enormous structure of the Mansion House Center—with an integrated series of three 28-story apartment buildings (finished in aluminum), recreational spaces, shops, restaurants, and a chapel—moved beyond the "collective form" of independent buildings and embodied the comprehensive urban planning and design concepts promoted by Maki in which "many and diverse functions may beneficially be concentrated in one place..[with] utility in combination and concentration of function."[29] Minoru Yamasaki's work at the housing complex of Pruitt-Igoe, by contrast, is composed of thirty-three individual, free-standing structures (built 1956) intended to support a large residential community.

A number of monumental modern buildings focused on satisfying a long list of functional requirements within one structure, such as the McDonnell Medical Science Building of 1970, designed by Murphy, Downey, Wofford, & Richman, or the Post Office Annex, finished in 1969 by Leo A. Daly. The designs aesthetics differed, however, in terms of exposing interior functions on the outer walls. At McDonnell Medical Science Building, the interior spaces penetrate the exterior façade in the sculptural half-circle projections housing the utility lines, whereas the Post Office Annex presents a classical façade, with regularly-spaced pilasters running along the length and width of the building to present an unbroken, vertical rhythm that disguises any differentiation of interior functions. The same concept of regularity informed the New Formalist design of the now-demolished Busch Memorial Stadium, designed by Sverdrup & Parcel with Edward Durrell Stone in 1966; a massive circular structure featuring a row of ninety-six arches along the crown of the façade.

The University's own megastructure—Mudd and Eliot Halls, designed by Swiss architect Dolf Schnebli in 1969 and 1971, utilized "repetitive concrete elements" built with the ability to expand the design as the program, and university, grew over the decades. But, the promises of modernism as the future direction of the city began to turn sour by the mid-1970s. Yamasaki's work at Pruitt Igoe was demolished by the St. Louis Housing Authority, beginning in 1972, and other major designs (such as Mudd Hall) quickly lost favor with the public and became "lightning rods" for growing anti-modernist sentiments.[30]

Materials and Technology

[27] "Isadore Shank, 90, of Ladue; Was Prominent Area Architect," *St. Louis Post-Dispatch*, Mar. 17, 1992.
[28] Reyner Banham, *Megastructure: Urban Futures of the Recent Past* (New York: Harper & Row, 1976), 70. Fumihiko Maki, "Investigations in Collective Form, A Special Publication, Number 2," Washington University of St. Louis, The School of Architecture, June 1964, v, 8.
[29] Maki, "Investigations."
[30] Eric Mumford, "Triumph and Eclipse: Modern architecture in St. Louis and the Washington University School of Architecture," in *Modern Architecture in St. Louis: Washington University and Postwar American Architecture 1948-1973* (St. Louis: School of Architecture, Washington University in St. Louis, 2004), 64.

Modern materials and innovative technologies formed the base for the pioneering forms erected in St. Louis during the middle years of the twentieth century. A coterie of architects—including Minoru Yamasaki, Gyo Obata, Murphy and Mackey, and Harris Armstrong, and others with ties to the Washington University of St. Louis School of Architecture program—changed the built landscape of the city with a series of groundbreaking designs for sacred spaces, office buildings, airports, and museums.

In St. Louis, perhaps more than in other metropolitan locations, masonry remained a material of choice, even among the modernists. The city had established a national reputation for the quality of its clay-working companies as well as its own collection of brick buildings. Charles Nagel and Frederick Dunn set a local precedent in their use of brick for their 1939 St. Mark's Episcopal Church in St. Louis, a simple building that dispensed with overly conscious decorative motifs in preference for a planar-walled modernism that expressed "cherished cultural values, including thrift, democracy, and community," in a twentieth-century design vocabulary.[31] Edouard Mutrux created a contemporary home for his family, finished in 1940, which was "built of brick, both inside and out," and inspired by the work of Frank Lloyd Wright.[32] F. Ray Leimkuehler (who studied at the Ecole des Beaux Arts in Paris and graduated from the School of Architecture at Washington University with two degrees), designed a number of traditional buildings before he changed direction and moved towards modernism; his continued use of the standard St. Louis masonry remained a constant, however. Harry Weese, best known for his concrete structures in Chicago and Washington, D.C., designed a four-story series of red brick buildings for the St. Louis Community College in 1965. The Brutalist-design buildings are set on concrete and present an image of solidity, with monolithic tower forms and narrow windows.

In 1973, Smith and Entzeroth were awarded the Architectural Excellence in Masonry Award (sponsored by the St. Louis Masonry Development Trust) for their later work at the St. Louis University School of Social Services at 3550 Lindell Boulevard. The award recognized the "fine building showing restraint and consistent use of masonry—an ageless material." Here, the architects used light "orange-red-toned brick" with buff-colored mortar, selected to "give the new facility a strong sense of unity with other campus and neighborhood structures." The deep-set, slant-sill windows were sized according to interior functions and graduated into smaller openings in ascending order.[33]

Modern architects, by design necessity, increasingly turned to concrete, steel, and glass, to produce contemporary forms drawn from mathematics rather than the past. Hellmuth, Obata, and Kassabaum (HOK) excelled in this area; their James S. McDonnell Planetarium is a hyperboloid rendered in a thin-shell of concrete. The awe-inspiring upsweep of the roofline—appropriate for a building intended to embody the excitement of space exploration--was created as a series of straight lines passing through the circumference of a circle at an inward angle, otherwise known as a negative Gaussian curvature. Murphy and Mackey adapted Buckminster Fuller's geodesic dome technology for the 1960 Climatron at the Missouri Botanical Garden. Josephy Murphy, designer, was described by his colleague Verner Burks as "the finest architect of his generation in this area; Joe worked on the edge."[34] Murphy and Mackey was the first American firm to win the R.S. Reynolds Memorial Award, and the $25,000 prize, for their aluminum and glass structure. The jury for the award specifically admired the building as "sensitively executed and strikingly appropriate to its purpose." Additionally, the Climatron took

[31] Kathleen James-Chakraborty, "Modern Modernism: Sacred Architecture in St. Louis & Its Suburbs," in *Modern Architecture in St. Louis: Washington University and Postwar American Architecture 1948-1973* (St. Louis: School of Architecture, Washington University in St. Louis, 2004), 27.
[32] Emmet Layton, "Fine Example of Modern Design," *TEMPO,* Dec. 2, 1951.
[33] "Architectural Excellence in Masonry," *St. Louis Construction News & Review,* Jan. 14, 1974, 9.
[34] Patricia Rice, "Joseph Murphy Dies," *St. Louis Post-Dispatch*, Jan. 13, 1995, 1, 4.

the international claim as the "first fully climate-controlled display greenhouse;" another first for St. Louis and the world.[35]

Gyo Obata's interest in the elements of structure fueled his pursuit of new forms. He credits the lower labor costs of the mid-twentieth century for his ability, as a designer, to utilize the best of modern technology and materials. He believed that the "labor to create the [concrete] form work fit within the budget restraints," for projects such as the planetarium, an expense that has proportionally grown too large for building projects today. Overall, Obata worked towards a singular result: that the "concept of the building [remain] very simple and very clear. That was my goal, always." Though he studied with Saarinen at Cranbrook, Obata credits Walter Gropius as a "big impact," on his groundbreaking work in form and structure.[36]

Throughout the middle years of the twentieth century, the modern architects of St. Louis actively sought to regenerate the form and style of buildings for their own city and the nation. Their leadership in the field helped to propel St. Louis into modernity and regain its place in the American architectural lexicon. At the wane of the 1970s, however, architects and their clients again sought to re-evaluate their design priorities, leading to dramatic changes within the urban built landscape as the post-modern era emerged.

Bibliography

Banham, Reyner. *Megastructure: Urban Futures of the Recent Past*. New York: Harper & Row, 1976.

Jacobus, John. *Twentieth-Century Architecture: The Middle Years 1940-65*. New York: Frederick A. Praeger, 1966.

Maki, Fumihiko. "Investigations in Collective Form, A Special Publication, Number 2," Washington University of St. Louis, The School of Architecture, June 1964.

McCue, George, *The Building Art in St. Louis: Two Centuries.* St Louis: St. Louis Chapter, American Institute of Architects, 1967.

Mock, Elizabeth, ed.6 *Built in USA: Since 1932*. New York: The Museum of Modern Art/Arno Press, 1944, reprint 1968.

Mumford, Eric, ed., *Modern Architecture in St. Louis: Washington University and Postwar American Architecture 1948-1973*. St. Louis: School of Architecture, Washington University in St. Louis, 2004.

Stern, Robert A.M., *New Directions in American Architecture*. New York: George Braziller, 1977.

Stern Robert A.M., Thomas Mellins, and David Fishman, *New York 1960*. New York: Monacelli Press, Inc., 1995.

[35] "Architects Win Prize for Climatron," *St. Louis Post-Dispatch,* Apr 2, 1961, 4H.
[36] Telephone interview with Gyo Obata, 24 May 2013, with Christine Madrid French, Orlando, Florida.

Annotated List of Architects

- Harris Armstrong (6 Apr. 1899-9 Dec. 1973)
    - Armstrong was born in Edwardsville, Illinois, in 1899. He attended the Washington University School of Architecture for one year and Ohio State University for one year, but never graduated from either institution. He worked with La Beaume & Klein as well as Hood, Godley & Fouilhoux, before beginning a partnership with Boyer (1930-32). He started his own firm in 1932 in Kirkwood, Missouri. Armstrong won many awards during his career, including three Silver Medals, two Gold Medals and the Honor Award from the AIA. Armstrong later served as a visiting critic at Yale, Texas University, and Washington University in St. Louis. One of his designs was considered during the final judging for the Jefferson National Expansion Memorial competition. He was honored in 1955 as a Fellow in the AIA. He is best known as the "dean" of St. Louis modernists and is credited with designing the first modern buildings in the area, including the dental clinic for Dr. Leo Shanley in Clayton (1935) and the Dr. Samuel B Grant clinic (1938).
- Bernoudy, William Adair (4 Dec. 1912-1988)
    - Bernoudy was born in St. Louis is 1912. He attended the Washington University in St. Louis, but did not graduate. Bernoudy left Missouri to study with Frank Lloyd Wright for five years as one of the initial group of apprentices accepted to the Taliesin Fellowship (begun in 1932). Bernoudy returned to St. Louis in 1936, working briefly with the Historic American Buildings Survey for the U.S. government. He later began a practice in the St. Louis area in 1940 with a house on Sumac Lane on the north edge of Ladue; he was considered a regional pioneer in modern residential construction in this area. Bernoudy partnered with Mutrux on a number of houses, but their partnership was interrupted by World War II. In 1947, Henry H. Bauer joined as a third partner to form Bernoudy-Mutrux-Bauer, until the business dissolved in 1966. Bernoudy is described as St. Louis's "most prominent Prairie Style architect."
- Boulicault, Marcel (4 Jul. 1896-xxxx)
    - Boulicault was born in St. Louis, Missouri, and received his education at the School of Fine Arts at Washington University in St. Louis and at the Beaux-Arts Society in New York. Beginning in 1914, Boulicault worked for Roth and Study in St. Louis, eventually becoming a partner before the firm dissolved in 1924 (Roth & Study, Study, Farrar and Boulicault). After that time, he began an individual practice, holding an architectural license in Missouri, Texas, and Illinois. His firm included as many as 35 people at one time, with an average of 12 permanent employees per year. The practice specialized in larger projects, including public works and industrial plants along with commissions with the federal government and the Corps of Engineers. He held memberships in the AIA, the Missouri State Association of Registered Architects, and the Engineers' Club of St. Louis. During World War I, he worked in the Camouflage Division of the Corps of Engineers, a division known for an unusually high number of architects in its ranks.
- Duncan, William Edward (18 Jun. 1924-xxxx)
    - Duncan was born in Zanesville, Ohio in 1924. He graduated with a bachelor's degree from the Washington University School of Architecture (1949); after that time he established Duncan & Associates.
- Dunn, Frederick Wallace FAIA (15 Dec. 1905-1984)
    - Dunn was born in St. Paul, Minnesota, in 1905. He received his bachelor's and master's degrees in architecture from Yale University (1933) and started his own wallpaper-design business with his wife Tizrah May Perfect. In 1936, he began a partnership with Charles Nagel in St. Louis (one

of his teachers at Yale), until Dunn left in 1943 to serve in the Navy. In 1962, he was elected a Fellow by the AIA. He left St. Louis in 1963 to begin practicing in New York, working as director of design for Charles Luckman, Inc., and Rogers, Butler, & Burgun; Dunn retired a decade later.

- Elkington, Robert (xxxx-17 Jun. 1994)
    - Elkington (who changed his last name from his Japanese surname) grew up in St. Louis and graduated from The Washington University School of Architecture (1937). He began his career with Nagel & Dunn that same year, and practiced in St. Louis until approximately 1990. Elkington started his own firm in 1947, and taught night courses at Washington University. His work was covered in "82 Distinctive Houses from Architectural Record" (1952) and "Quality Budget Houses: A Treasury of 100 Architect-Designed Houses from $5000 to $20,000" (1954, Katherine Morrow Ford and Thomas H. Creighton). He served as president of the St. Louis chapter of the AIA in 1954, and was named a Fellow in the AIA in 1965.
- Entzeroth, Robert Elleard, FAIA (74 Jan. 1926-24 Aug. 1991)
    - Entzeroth was born in St. Louis in 1926; he graduated from the Missouri School of Mines & Metallurgy in 1944. His first architectural position was with Bert Luer in 1948. As a student at Washington University's School of Architecture, Entzeroth worked as a draftsman with Harris Armstrong (1950-51), and graduated in 1951. He was the 1952 recipient of the LeBrun Traveling Fellowship for Study and Travel in Europe, a design competition administered by the New York City Chapter of the AIA. He worked with Murphy & Mackey for four years (1951-54) as a draftsman and designer, and started his own firm Smith and Entzeroth in 1954; that firm merged with Stone, Marraccini & Patterson in 1986. In 1965 the Architectural League of New York named Entzeroth on their "40 under 40" list of rising architects known for their design skill and potential. In 1974, Entzeroth was elected to the College of Fellows of the American Institute of Architects, a life-time honor awarded for his significant contribution to the profession. Entzeroth served as a visiting critic in design at the Washington University School of Architecture.
- Harms, Joe George (23 Nov. 1909-xxxx)
    - Harms was born in Keytesville, Missouri, and received his B.A. from the Carnegie Institute of Technology. His career began at the Missouri State Highway Department. After serving in World War II with the Navy, he joined the firm of Maguolo and Quick. In 1956 he started Kramer & Harms with Gerhardt Theodore Kramer.
- Hellmuth, George Francis (5 Oct. 1907-6 Nov. 1999)
    - Hellmuth was born in St. Louis, and received his education from the Washington University in St. Louis (B.Arch, 1928, M.Arch, 1930). He also won a Steedman traveling fellowship in architecture in 1930, and earned a diploma from the Ecole des Beaux Arts, at Fontainebleau, France, in 1931. Hellmuth lived and worked in Detroit where he co-founded Hellmuth, Yamasaki and Leinweber (1949). In 1955, the firm disbanded and Hellmuth co-founded Hellmuth, Obata and Kassabaum (HOK) in St. Louis. He was named a Fellow in the AIA in 1973 and served as President of the Municipal Art Commission for the City of St. Louis (1950-66) and chairman of the Landmarks & Urban Design Commission of St. Louis (1966-70).
- Henmi, Richard Toshio (Jan. 1924- xxxx)
    - Henmi was born and raised in California. He moved to St. Louis in 1942 to begin his studies in the Washington University School of Architecture, but was called to serve as a lieutenant with the Railway Security Division of the U.S. Army in Europe during World War II (1945-47). He initially worked towards an aeronautical engineering degree, but changed his emphasis to architecture and graduated in 1947. Henmi worked as a draftsman-designer with William B.

Ittner, Inc., and later moved to become chief designer with Charles B. Spencer, architect (1949-51). In 1951, he joined the firm of Schwarz and Van Hoefen as a designer, became associate in charge of design in 1956, and then a partner in the firm in January 1968 (which precipitated a name change to Schwarz and Henmi). He has maintained a corporate membership with the American Institute of Architects since 1956, and joined that group as a student member in 1944. He was also a member of the MARA.

- Hill, Lawrence (14 May 1879-1968)
    - Born in New York City, Hill graduated with a B.S. from Columbia University. He began his career as a draftsman at Andrews, Jacques & Rantoul for a year, followed by two years at Coolidge & Carlsen. He then attended Harvard (1904-05). Hill returned to St. Louis as an architectural historian and professor in the School of Architecture (1911-1948); he later became dean of the school (1934-1948). Hill was awarded the title of Fellow by the AIA in 1952.
- Ittner, William Butts, Jr. (8 Aug. 1899-19 Oct. 1979)
    - The son of a Missouri architect (William B. Ittner, d. 1936), William was born in St. Louis and educated at Cornell University (1919) and Washington University of St. Louis (1923). Ittner served as a partner at William B. Ittner, Inc., with Lester C. Haeckel, H. Curtis Ittner, and Donald Stephen. He also acted as Assistant Chief Architect of the Pentagon in Washington, D.C. (1940-42) and as president of the St. Louis Chapter of the AIA (1941, 1947).
- Kassabaum, George Edward (4 Dec. 1920-15 Aug. 1982)
    - Kassabaum was born in Atchison, Kansas, and received his B.A. from Washington University (1947). He then worked as a draftsman for Joseph D. Murphy (1947-49), and a designer for Hellmuth, Yamasaki, and Leinweber (1949-1955). When that firm dissolved, he co-founded Hellmuth, Obata, and Kassabaum (HOK) in 1955, which continues as an internationally renowned firm today. Kassabaum served in numerous posts for the St. Louis Chapter of the American Institute of Architects, and as vice president (1966-68) and president (1968-69) of the National AIA. He was named a Fellow of the AIA in 1967.
- Kramer, Gerhardt Theodore (26 Oct. 1909-4 Dec. 2001)
    - Kramer was born in New Orleans and received a degree from Tulane University (1930), followed by a M.Arch from Cornell University (1932). His early architectural career began in the French Quarter of New Orleans, where he assisted on historic preservation projects. After serving in the Navy during World War II, Kramer moved to St. Louis and joined the firm of Hugo K. Graf. After Graf's death, Kramer operated the firm as Gerhardt Kramer Associates until partnering with Joe Harms in 1956 to create Kramer & Harms. Kramer was one of the founders and served with the Preservation Landmarks Association of St. Louis (1960-62, 1965-67), and as vice president of the Concordia Historical Institute of St. Louis.
- Leimkuehler, Francis Ray (22 Jan. 1895-1962)
    - Leimkuehler was born in St. Louis, and earned two degrees from Washington University (B.Arch, 1917, M.Arch, 1920). In 1919, he traveled to Paris to study at the Ecole des Beaux Arts. He worked with a number of colleagues, including William B. Ittner, before starting his own practice in 1928. He also assisted in the design of the Pentagon in Washington, D.C., in 1942, and served as the supervising architect of the St. Louis city school system from 1948-1956.
- Mackey, Eugene Joseph, Jr. (1 Dec. 1911-27 Jul. 1968)
    - Born in Lenox, Massachusetts in 1911, Mackey graduated from the Carnegie Institute of Technology in Pittsburgh (1936), and received a master's in architecture from the Massachusetts Institute of Technology in Boston (1939). He began his own firm that same year and later partnered with Joseph D. Murphy to form Murphy & Mackey (1951). Mackey won a

  - Born and raised in San Francisco, Obata graduated from Washington University (B.Arch 1945) and Cranbrook Academy in Bloomfield Hills, Michigan, where he studied under the guidance of Eliel Saarinen (M.Arch 1946). Obata arrived at Washington University the night before his California-based family was transferred to a Japanese internment camp during World War II. He worked with Skidmore, Owings and Merrill in their Chicago Office (1947-51) before returning to St. Louis to join Minoru Yamasaki Associates, Inc. He co-founded Hellmuth, Obata, and Kassabaum in 1955, and continues to practice in the St. Louis office. Obata was elected a Fellow in the AIA in 1969, and received the AIA St. Louis Gold Award in 2002.
- Passonneau, Joseph (xxxx-August 2011)
  - Passonneau earned two degrees at the same time under the GI Bill: a graduate degree in architecture from Harvard University and a master's degree in civil engineering from the Massachusetts Institute of Technology. He worked as chief of architectural design for the Tennessee Valley Authority before moving to St. Louis to teach part time. He later worked as dean of the Washington University School of Architecture (1956-1967). In 1967, Passonneau moved to Chicago and then Washington to continue his practice. He was awarded the title of Fellow in the American Institute of Architects in 1964, cited for distinguished service in education. He served as the first president of Landmarks, Inc., and also worked on the City Plan Commission and the Governor's Committee on the Arts. He won awards from Progressive Architecture for his work in Chicago.
- Sarmiento, Wenceslao A. (W.A.) (28 Sep. 1922-xxxx)
  - Sarmiento was born in Trujillo, Peru, and attended the National School of Engineering in Lima (graduated 1946). He worked as a draftsman with Oscar Neimeyer in Brazil for eighteen months between 1949-50, before moving to St. Louis to work as chief designer for the Bank Building and Equipment Corporation of America beginning in 1951. He started his own firm about 1964 and practiced in St. Louis until he moved to California in 1978, where he currently resides.
- Schwarz & Van Hoefen (Schwarz and Henmi)
  - This firm, founded in 1900, changed principals many times during its decades of operation. In 1953, the firm prepared "A Suggested Plan for Downtown St. Louis," which included the preliminary concepts for the Gateway Mall, which was later incorporated into the City Plan Commission's Downtown Plan, released in 1960. The firm changed its name to Schwarz & Henmi in January, 1969, to reflect the participation and rise of Henmi within the design enterprise; he was named a partner a year earlier in January 1968 followed by the resignation of Hari Van Hoefen (after 16 years of service) a few months afterward. By the late 1960s, there were two principals, three associates, and a 25-member staff. The associates included Jack Rausch, W. Evans Campbell, and Heinz E. Zobel. In 1972, the firm changed again, with Schwarz and Henmi adding Zobel as a partner to the nameplate. Richard G. Wiedemann and Norman S. Fott came on as associates the same year. Wiedemann was a graduate of the Washington University School of Architecture and worked with Vincent Kling, HOK, Architectural Design Associates, and Harris Armstrong. He received the AIA Book Award at the Washington University School of Architecture. Fott graduated with a master's degree from the University of Oklahoma and served on the faculty at the school of architecture there. He also worked with HOK before coming to the firm. Zobel received his bachelor of architecture degree from Washington University, graduating in 1956. He was a government certified fallout shelter analyst, and a member of Landmarks Association.
- Schwarz, Arthur "Art" Frederick, Jr. (17 Aug. 1909-13 Oct. 1971)

Stauder studied at the Chicago Art Institute, and later focused his designs on church and institutional work. Adolph reopened and renamed the business in 1920, after a brief closure during World War I. In 1930, the business was renamed again when his son Arthur Stauder (xxxx-23 July 1978), joined the firm after graduation from the Washington University School of Architecture. The firm was dissolved in 1970.

- Stinson, Nolan Lawrence, Jr. (17 Sep. 1922-2 Oct. 1997)
    - Stinson was born in St. Louis in 1922, and graduated from the Washington University School of Architecture (1947). He organized his own firm in 1962, after working as a partner with Frederick Dunn from 1952-62. Stinson also worked as secretary of the St. Louis AIA chapter (1962-63), and president (1968-69).
- Sverdrup, Leif J. (11 Jan. 1898-2 Jan. 1976)
    - Sverdrup was born in Ytre Sula, Norway, and emigrated to the U.S. in 1914. He graduated from the University of Minnesota with a degree in civil engineering (1921), and worked for the Missouri State Highway Department. In 1928, Sverdrup began a firm with his college engineering professor John Ira Parcel, headquartered in St. Louis, MO. Sverdrup & Parcel specialized in engineering projects, including bridge construction. Sverdrup served as a colonel in World War II, as Chief Engineer under General Douglas MacArthur. Designed Busch Memorial Stadium, 1966, demolished in 2005. Worked with Edward Durrell Stone on this project; he designed the 96-arch Crown of Arches above, to express the shape of the Memorial Arch, opened the year before. The firm was one of the largest of its kind in the world in the early 1960s; the American Society of Civil Engineers bestows a management award annually, named after the partners and in recognition of their achievements.
- Van Hoefen, Hari (20 Mar. 1905-xxxx)
    - Van Hoefen was born in St. Louis in 1905 and educated at Washington University (1925-56), the University of Texas (1927-29), the University of Southern California (1928), and the St. Louis School of Fine Arts (1930-31). He worked as principal of his own firm from 1934-52 and as a partner with Schwarz & Van Hoefen from 1952-68. In 1968, he began his own firm again, under the name Hari Van Hoefen, Inc. He served on a number of committees and in an advisory capacity to the General Services Administration (1967-70) and as a Chairman of the Planning Committee to the Board of Trustees of the City Art Museum of St. Louis (1969). Van Hoefen was honored as a Fellow with the AIA in 1964. He served as president of the National AIA Accrediting Board and chairman of the State Licensing Board's architectural division.
- Wischmeyer, Kenneth Edward. (23 Sep. 1908-16 Jan. 1996)
    - Wischmeyer was born in Missouri in 1908. He graduated from the Washington University School of Architecture (1930), and the Massachusetts Institute of Technology (M.Arch 1931). He initially worked as a principal with Murphy & Wischmeyer (1938-43), then Wischmeyer & Lorenz (1949-52), before founding Kenneth E. Wischmeyer & Partners in 1960. Wischmeyer served as vice president (1946) and president (1947 and 1948) of the St. Louis Chapter of the AIA, became director of the Central States Region (1941-43), and then second vice president (1948-49) and first vice president (1950-51) of the national AIA.
- Yamasaki, Minoru (1 Dec. 1912-7 Feb. 1986)
    - Yamasaki was born in Seattle, Washington, in 1912. He earned his undergraduate in architecture from the University of Washington (1934) and completed graduate work at New York University. One of his first positions was with the firm Shreve, Lamb and Harmon, in New York. In 1945, Yamasaki arrived in Detroit, and joined Smith, Hinchman, and Grylls. He later moved to St. Louis, and acted as a principal in Leinweber, Yamasaki & Hellmuth (1949-1955),

Stauder studied at the Chicago Art Institute, and later focused his designs on church and institutional work. Adolph reopened and renamed the business in 1920, after a brief closure during World War I. In 1930, the business was renamed again when his son Arthur Stauder (xxxx-23 July 1978), joined the firm after graduation from the Washington University School of Architecture. The firm was dissolved in 1970.

- Stinson, Nolan Lawrence, Jr. (17 Sep. 1922-2 Oct. 1997)
  - Stinson was born in St. Louis in 1922, and graduated from the Washington University School of Architecture (1947). He organized his own firm in 1962, after working as a partner with Frederick Dunn from 1952-62. Stinson also worked as secretary of the St. Louis AIA chapter (1962-63), and president (1968-69).
- Sverdrup, Leif J. (11 Jan. 1898-2 Jan. 1976)
  - Sverdrup was born in Ytre Sula, Norway, and emigrated to the U.S. in 1914. He graduated from the University of Minnesota with a degree in civil engineering (1921), and worked for the Missouri State Highway Department. In 1928, Sverdrup began a firm with his college engineering professor John Ira Parcel, headquartered in St. Louis, MO. Sverdrup & Parcel specialized in engineering projects, including bridge construction. Sverdrup served as a colonel in World War II, as Chief Engineer under General Douglas MacArthur. Designed Busch Memorial Stadium, 1966, demolished in 2005. Worked with Edward Durrell Stone on this project; he designed the 96-arch Crown of Arches above, to express the shape of the Memorial Arch, opened the year before. The firm was one of the largest of its kind in the world in the early 1960s; the American Society of Civil Engineers bestows a management award annually, named after the partners and in recognition of their achievements.
- Van Hoefen, Hari (20 Mar. 1905-xxxx)
  - Van Hoefen was born in St. Louis in 1905 and educated at Washington University (1925-56), the University of Texas (1927-29), the University of Southern California (1928), and the St. Louis School of Fine Arts (1930-31). He worked as principal of his own firm from 1934-52 and as a partner with Schwarz & Van Hoefen from 1952-68. In 1968, he began his own firm again, under the name Hari Van Hoefen, Inc. He served on a number of committees and in an advisory capacity to the General Services Administration (1967-70) and as a Chairman of the Planning Committee to the Board of Trustees of the City Art Museum of St. Louis (1969). Van Hoefen was honored as a Fellow with the AIA in 1964. He served as president of the National AIA Accrediting Board and chairman of the State Licensing Board's architectural division.
- Wischmeyer, Kenneth Edward. (23 Sep. 1908-16 Jan. 1996)
  - Wischmeyer was born in Missouri in 1908. He graduated from the Washington University School of Architecture (1930), and the Massachusetts Institute of Technology (M.Arch 1931). He initially worked as a principal with Murphy & Wischmeyer (1938-43), then Wischmeyer & Lorenz (1949-52), before founding Kenneth E. Wischmeyer & Partners in 1960. Wischmeyer served as vice president (1946) and president (1947 and 1948) of the St. Louis Chapter of the AIA, became director of the Central States Region (1941-43), and then second vice president (1948-49) and first vice president (1950-51) of the national AIA.
- Yamasaki, Minoru (1 Dec. 1912-7 Feb. 1986)
  - Yamasaki was born in Seattle, Washington, in 1912. He earned his undergraduate in architecture from the University of Washington (1934) and completed graduate work at New York University. One of his first positions was with the firm Shreve, Lamb and Harmon, in New York. In 1945, Yamasaki arrived in Detroit, and joined Smith, Hinchman, and Grylls. He later moved to St. Louis, and acted as a principal in Leinweber, Yamasaki & Hellmuth (1949-1955),

forming Yamasaki, Leinweber & Associates (1955-59), and finally Minoru Yamasaki Associates, Inc., in 1959. Yamasaki was elected as a Fellow in the AIA in 1960.

Appendix I:

Selected List of Architects at the Washington University School of Architecture

Name	Dates attended/graduated/Faculty
Armstrong, Harris	Attended in the 1920s for one year; never graduated. Served as visiting critic.
Bernoudy, William Adair	Attended 1931, did not graduate.
Duncan, William Edward	Graduated 1949.
Dunn, Frederick	Faculty
Eames, Charles	Attended, but did not graduate.
Elkington, Robert	Graduated 1937; taught night courses.
Entzeroth, Robert Elleard, FAIA	Graduated 1951, also served as a visiting critic.
Hellmuth, George Francis	B.Arch 1928, M.Arch 1930.
Henmi, Richard	Graduated 1947.
Hill, Lawrence	Faculty
Ittner, William Butts, Jr.	M.Arch 1923.
Kassabaum, George E	Graduated 1947; Faculty.
Leimkuehler, Francis Ray	B.Arch 1917, M.Arch 1920.
Mackey, Eugene J., Jr.	Faculty
Maki, Fumihiko	Faculty
Maritz, Raymond E.	Student
Murphy, Joseph D.	Faculty 1935-1948; Acting Dean 1948; Dean 1949-1952.
Mutrux, Edouard J.	B.Arch 1930, M.Arch 1931; Faculty.
Obata, Gyo	B. Arch 1945.
Pickens, Buford Lindsay (d. Jun 11 1995)	1953-1974 Faculty; 1953-56 Dean of School of Architecture; 1956-1963 Director of Campus Planning
Schwarz, Arthur Frederick, Jr.	1931
Senne, Joseph H.	B.Arch 1914.
Shank, Isadore	M.Arch 1925.
Smith, Chloethiel B. Woodard	1933
Smith, Eric Wilburn, Jr.	Asst. Professor & Critic, 1947-56.
Stauder, Arthur Jr.	Graduate.
Stinson, Nolan Lawrence, Jr.	B.Arch 1947.
Van Hoefen, Hari	1926
Weese, Cynthia	Grad 1965; Dean 1993.
Wiedemann, Richard G.	Graduate.
Wischmeyer, Kenneth E.	B.Arch 1930.
Zobel, Heinz E.	Graduate.

Deans of the School of Architecture, from its founding in 1910 through the study period

1910	John Beverly Robinson
1916-1934	Gabriel Ferrand
1934-1948	Lawrence Hill
1949-1952	Joseph Murphy
1953-1956	Buford Pickens
1956-1967	Joseph Passonneau
1968-1973	George Anselevicius
1973-1993	Constantine Michaelides

This page left intentionally blank.
Printed on 100% post-consumer paper.

Bibliography

See the bibliographies for each of the three developed Context Statements for this survey project; "St. Louis: The Gateway Years, 1940-1975," "Architectural Trends, Forms, Materials, and Expression Important in the St. Louis School of Modern Movement Architecture, c. 1945-1975," and "Modernist Architects in Practice in St. Louis, c. 1945-1975."

Aside from these sources, other major sources for information used throughout the survey project and the database came from newspaper sources, especially the "clippings files" at the public library in St Louis. Issues of St Louis Construction News were also available there.

The Cultural Resources Office had access to information such as permit records, and to library at the Planning and Urban Development Agency. Information on a number of architects and their works was found at the Missouri Historical Society, and at the University of Missouri- St. Louis.

Other historic information was available online, such as Bowker's AIA directories from 1946, 1956, and 1962; various National Register nominations; especially useful websites such as "Defining Downtown" about the work of the BBEC; and various union, club, or commercial websites with historical information.

This page left intentionally blank.
Printed on 100% post-consumer paper.

RLS Architectural Style by Date

From 1945 to 1949

Architectural Style	Quantity	%
International Style	2	33.33%
Modern Movements	2	33.33%
Modern/ Neo-Expressionist	1	16.67%
Moderne	1	16.67%
Total:	6	

RLS Architectural Style by Date

From 1950 to 1959

Architectural Style	Quantity	%
Brutalist	2	4.55%
International Style	8	18.18%
Mixed	1	2.27%
Modern Movements	25	56.82%
Modern/ Neo-Expressionist	7	15.91%
Modern/ New Formalist	1	2.27%
Total:	44	

RLS Architectural Style by Date

From 1960 to 1969

Architectural Style	Quantity	%
Brutalist	8	6.67%
International Style	21	17.50%
Modern Movements	75	62.50%
Modern/ Neo-Expressionist	14	11.67%
Modern/ New Formalist	2	1.67%
Total:	120	

RLS Architectural Style by Date

From 1970 to 1975

Architectural Style	Quantity	%
Brutalist	9	52.94%
International Style	2	11.76%
Modern Movements	5	29.41%
Modern/ Neo-Expressionist	1	5.88%
Total:	17	

RLS Architectural Style by Use

Architectural Style	Quantity	% of tot.
Brutalist	19	9.50%
Commerce Trade	6	31.58%
Education	2	10.53%
Government	1	5.26%
Health Care	5	26.32%
Religion	2	10.53%
Social	1	5.26%
Transportation	1	5.26%
Unknown	1	5.26%
International Style	33	16.50%
Commerce Trade	20	60.61%
Education	2	6.06%
Government	3	9.09%
Health Care	3	9.09%
Recreation Culture	2	6.06%
Social	2	6.06%
Unknown	1	3.03%
Mixed	1	0.50%
Religion	1	100.00%
Modern Movements	116	58.00%
Commerce Trade	60	51.72%
Defense	1	0.86%
Education	10	8.62%
Government	12	10.34%
Health Care	2	1.72%
Industry Processing Extraction	4	3.45%
Other	1	0.86%
Recreation Culture	2	1.72%
Religion	10	8.62%
Social	5	4.31%
Transportation	4	3.45%
Unknown	5	4.31%
Modern/ Neo-Expressionist	26	13.00%
Commerce Trade	8	30.77%
Education	3	11.54%
Government	3	11.54%
Health Care	1	3.85%
Other	1	3.85%
Recreation Culture	1	3.85%
Religion	5	19.23%
Social	3	11.54%
Transportation	1	3.85%
Modern/ New Formalist	4	2.00%
Government	1	25.00%
Health Care	1	25.00%
Social	1	25.00%
Transportation	1	25.00%
Moderne	1	0.50%
Commerce Trade	1	100.00%
Total:	200	

RLS Architectural Materials

Material	Quantity	%
Aluminum	2	1.00%
Brick	126	63.00%
Bronze-tinted aluminum	1	0.50%
Ceramic Tile	2	1.00%
Concrete	48	24.00%
Glass	9	4.50%
Granite	1	0.50%
Limestone	2	1.00%
Other	3	1.50%
Stone	5	2.50%
Terra Cotta	1	0.50%
Total:	200	

RLS Architectural Style

Architectural Style	Quantity	%
Brutalist	19	9.50%
International Style	33	16.50%
Mixed	1	0.50%
Modern Movements	116	58.00%
Modern/ Neo-Expressionist	26	13.00%
Modern/ New Formalist	4	2.00%
Moderne	1	0.50%
Total:	200	

PROPERTIES OF THE MODERN MOVEMENTS STYLE IN ST. LOUIS LISTED ON THE NATIONAL REGISTER (DOES NOT INCLUDE RESIDENTIAL USES OR DISTRICTS)

NAME	ADDRESS	STATUS	DATE BUILT
American Zinc Lead & Smelting Company Building	20 S. Fourth St.	NRHP 1998	1967
Bel Air Motel	4630 Lindell	NRHP 2009	1957
Central institute for the Deaf Clinic and Research Building	909 S. Taylor	NRHP 2004	1951
Council Plaza (includes saucer gas station)	212, 300, 310 S. Grand	NRHP 2007	1964-68
Executive Office Building	515-517 Olive	Pending	1962
Gateway Arch	Riverfront	NHL 1987	1947
Peabody Coal Company National Headquarters	301 N. Memorial Drive	NRHP 2008	1958
Nooter Corp. Building	1400 S. Third	NRHP 2008	1959
Pet Plaza	400 S. Fourth	NRHP 2004	1969
St. Louis Post-Dispatch Printing Building	1111 Olive	NRHP 1984	1941
General American Life Insurance Company National Headquarters	706 Market	NRHP 2006	1974-77
Roberts Chevrolet	5875-91 Delmar	NRHP 2007	Alt. 1947
Seven-Up Company Headquarters	1300 Convention Plaza	NRHP 2004	1950
Wellston J. C. Penney Building	5950 Dr. Martin Luther King	NRHP 2009	1948
Western Electric Southwestern Bell Telephone Distribution House	4250 Duncan	NRHP 2011	1948
Farm & Home Savings and Loan Association	1001 Locust	NRHP 2008	Modernized 1954-55
General American Life Insurance Company Buildings	1501-11 Locust	NRHP 2002	Modernized 1960-61
S. Pfeiffer Manufacturing Co Headquarters	3965 Laclede	NRHP 2010	1946
St Mary's Infirmary	1536-48 Papin St.	NRHP 2007	1945-46 & older bldgs
United Shoe Machinery Building	2200-08 Washington Ave	NRHP 2007	1939