THE TEMPLE OF JUSTICE
A New Federal Courthouse for the City of Baltimore
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Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Architecture in Architecture

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“Space is political and ideological. It is a product literally filled with ideologies... Architecture takes on the form of the new ideology, it becomes the movements thoughts and emotions of the society.”

-Jonathan Rosenbloom
ABSTRACT

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The New Baltimore Federal Courthouse was to be memorable. It would symbolize the transparency, power, and public worth of the American judicial system. It would be a modern temple to justice that would be worthy of the public’s trust. The new courthouse was to be progressive, with sky gardens rising in the tower overlooking the Baltimore Convention Center and over the harbor. This courthouse was to be a high performing, bioclimatic skyscraper and its stewardship to the environment would be as literally transparent as the courtroom would be figuratively. The procession of would be a heightened experience of majesty for the public, who would visit the courthouse out of civic duty and also privilege to participate in justice.
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THE PROBLEM
BALTIMORE FEDERAL COURTHOUSE

The existing Edward A. Garmatz Federal Building and U.S. Courthouse is located in downtown Baltimore, Maryland. It is located just north of the Baltimore Convention Center and only a few blocks west of the Inner Harbor. The existing building was complete in 1976 and totals 514,607 gross square feet. Major tenants include the U.S. District Court, U.S. Bankruptcy Court, and the U.S. Court of Appeals which consist of 77% of the facility. Additionally, U.S. Marshals, U.S. Attorneys, U.S. Trustees and the GSA are tenants with unique programs. (GSA)

This federal building is in need of modernization and does not best represent its “role in the constitutional framework of American democracy”(GSA). It is not worthy of the American people that it represents and the thesis emerges from this deficiency and opportunity. The new Baltimore Federal Courthouse and Office Building will be designed to honor the public and to represent a judicial system that is worthy of their participation and trust.

Figure 1 Map of Site (Google Earth)
Figure 2-4 Existing Edward A. Garmatz Federal Building and U.S. Courthouse (Google Earth)
“One of the most complex contemporary building programs - requiring essentially three buildings within a building (three sub-organizations within the whole organization) all independent, and still all connected to the courtrooms, the distributed interfaces of the building type.” -GSA
Prior to the design it was critical to understand the program and spatial relationships of the federal courthouse program. This would determine the early site planning and generate initial design concepts. Per the current GSA U.S. Courts Design Guide, circulation is complex but necessary to the security and function of a federal courthouse.

Three separate circulation zones must accommodate for the public, restricted and secure circulation systems. These circulation systems must lead to three distinct zones of activity; public, courtroom, and restricted zones. The stacking of these zones and circulation must provide distinct elevator and stair access which never intersect but seamlessly allow all building visitors to navigate through the courthouse.
COURTROOM ORGANIZATION

Initial studies included understanding the courtroom organization of existing courthouses. In a high-rise courthouse, the organization of the courtrooms to other programmatic requirements was critical. Due to the complex circulation it became apparent early on that courtrooms would have to be stacked on top of each other in order to achieve basic efficiency in terms of accessibility. A programmatic requirement was that a courtroom pair must share the holding (secure cells and circulation). It was logical to follow that the same two would thus share Judiciary and public access as well. This pairing of the courtroom would ultimately dictate the footprint of the building and generate the plans as well.

Layered Bar
Single Loaded Courtrooms on one side of a straight public corridor

Layered Bar | Double Loaded
Courtrooms on both sides of a public corridor

Layered Bar | L shaped
Courtrooms on one side of a public corridor bent at 90-degrees

Great Hall Type
Courtrooms centered around a central atrium and/or circulation feature
THE HEART OF THE COURTHOUSE

Based on organization and precedent studies the centrality of the courtroom became clear. The heart of the courthouse, the courtroom was the one location where all circulation systems converged. (Flanders, 155). It is the location where decisions are made and ultimately the final point in the sequences of spaces traveled through by all users in the building. Recognition of this became a driving factor in the entire design process. It became an architectural quest that the most distinctive elements of the courthouse must be expressed as an architectural celebration.
After digesting the site, existing courthouse deficiencies and learning about the complex program and function of a federal courthouse, I decided to focus on the following themes. These design opportunities would guide my crafting of the New Baltimore Federal Courthouse.

**Honor**  I  To honor the public with a Federal Courthouse that is worthy of their participation and trust.

**Hierarchy**  I  To distinguish through architectural expression the primary, secondary and tertiary functions of the court system.

**Procession**  I  A procession of majesty that creates a welcoming and positive civic experience.

**Function**  I  To understand the three distinct user groups and their unique programmatic requirements

**Security**  I  To minimize visual presence of security while convening a seriousness of place.

**Sustainability**  I  To design a vertical courthouse in order to give most of the site back to the city and to minimize environmental impacts.
“When architecture engages social, cultural, political, and ethical currents, it has the potential to transform the way we see the world and our place in it.”

- Thom Mayne, Architect, Morphosis

Figure 9  Existing site in urban context (Google Earth)
THE CHARACTERS

The thesis was explored through the fascination of the characters of the courthouse; the public who participate in the judicial system, the judge who determines sentencing, and the defendants who come to plea their case.

Always keeping the journey to the ultimate destination in mind, early site planning developed with unique experiences for each of the characters in mind.

Early sketch of the courthouse cast of characters
THE EXPERIENCE

The New Baltimore Federal Courthouse was to be memorable. It would symbolize the transparency, power, and public worth of the American judicial system. It would be a temple to justice that would be worthy of the public’s trust. Architecturally, a grand procession and elevational change would announce the profoundness of the building.

As history is made within the courtrooms, the new courthouse would also be forward looking, with sky gardens rising in the tower overlooking the Baltimore Convention Center and over the harbor. This courthouse was to be a high performing, bioclimatic skyscraper and its stewardship to the environment would be as literally transparent as the courtroom would be figuratively. The sky gardens would also provide a heightened experience for the public, who would spend most of their time in the Courthouse waiting.

Initial concept sketch
THE LANTERNS OF JUSTICE

The experience was in the details.

It was immediately apparent that the courtroom must be articulated architecturally in a manner that expressed and celebrated its unique position in the program of a courthouse. The courtroom was idealized as a “lantern” or “beacon” to the city. These figuratively transparent lanterns of justice became the grounds for which the courthouse was designed.

Early studies focused on the node where the judicial access to the courtroom occurred. This would be flooded with light and give views of the entire city to the judge just prior to entering the courtroom in order for the weight of the decision to be always in perspective.

Materiality remained an open question but the articulation of the Courtroom in juxtaposition to the Judges Access remained consistent through the final design. The early consideration of materials and unique moments in the courtroom’s choreography were driving factors throughout the entire design process.
Through rigorous examination of the nodes of The Courtroom, the final courtroom design was one worthy of the use of all of the characters of the courthouse. The lanterns of justice illuminate the city and shine tall as a lighthouse to the harbor. It is a strong symbol and a landmark to the city.
AN PROCESSION OF MAJESTY

The design development simultaneously continued to look at the Courtroom as the ultimate destination for all visitors to the Courthouse. This unique place became the only point where the three distinct user groups came together in the ritual of a court ceremony of justice.

The circulation for each “player” in the role of justice to access and leave the courtroom became a puzzle in which a successful design would allow for a clear but separate circulation system. The paths that would be taken to and from the Courtroom worked outward to dictate circulation throughout the entire site.
VERTICAL CIRCULATION
INTERSTITIAL SECTIONAL RELATIONSHIPS

This large courthouse required a different approach to the layout of a typical floor. The 2.5 acre site offered plenty of space to build, even with the fifty foot standoffs. However, an early goal to build tall in order to devote more land to the public and to sustainable strategies left me to reconsider the typical floor plate. After examining the U.S. Courts Design Guide and studying the programmatic adjacencies, I realized that the Judges Chambers did not necessarily have to be on the same floors as the courtroom.

By wedging the Judges Chambers between two levels of Court Units, I achieved two primary design goals. Most importantly, the division of the court volume would be separated, and this would provide the alternating two courtrooms stacked vertically to read as one volume. The “lanterns” of justice would be read as smaller parts of a whole, as opposed to a singular volume.

Secondly, the floor to floor height of the Judges Chambers was much smaller than that of the courtroom. The judges level became the datum for which the office support building was arranged on. In this restricted access building zone, on every third level the judges chambers became accessible. This arrangement united the courthouse as a whole, allowed a reduced floorplate, and allowed the hierarchy of the courthouse to shine architecturally.
FINAL DESIGN

Through rigorous examination of the heart of the courthouse and the characters who visit each day, the final courtroom design was one worthy of the use of each and every visitor to the New Baltimore Federal Courthouse. The lanterns of justice illuminate the city and shine tall as a lighthouse to the harbor. It is a strong symbol of the values of the federal government and a landmark to the district of Baltimore.
Glass fritted louvers provide sun-shading for the Judges Chambers & Court Room access.

Terra Cotta baguettes reveal the courtrooms as “lanterns” to the city.

Public Waiting volume seen through a series of double height “Sky Gardens” & double curtain wall.

Support office facade mimic curtain wall & sun-shading of judges chambers & access.

Security screening.

Public Access

Restricted Access
Judges Chamber Suites

Secure Access
Prisoner/Security Staff
The part to whole relationship of the distinct zones and circulation patterns were explored through a series of diagrams.

To the right, the building is diagrammed holistically with each function called out by color.

Below, each zone is pulled apart and looked at individually.
PUBLIC PLAZA & SITE PLANNING

Site design and sustainability were a key approach to integrating security to be as invisible as possible. Bioretention basins are designed around the perimeter to slow and treat on-site storm water runoff but also to act as a buffer to the courthouse. When cleaned the water then can infiltrate native soils and be directed to storm water drains and the inner harbor. The vast water basin acts to provide storage of excess storm water flow and aids in settlement and evaporation. Additionally this acts as an invisible security barrier and acts as the 50’ required standoff for a Federal Courthouse.

The urban plaza is designed with these sustainable and secure features which also extend to divide the vast plaza which becomes the “front porch” for the federal justice system. A teak “riverwalk” is covered by a glass and stainless steel canopy to provide shelter while queuing prior to security screening. Trees provide shade on half of the plaza which can be accessed by the public after hours and a portion of the granite stone plaza is intentionally left unprogrammed as a democratic space to allow for press releases, demonstrations, protests, and public civic functions. Public bathrooms and food service located on the plaza to accommodate for such functions.

The security screening wraps inside the pavilion and is virtually invisible to the public. After screening, an interior bridge leads to the lobby. The bridge heightens the experience for the public as they are ramping slightly upward and surrounded by water on both sides. This announces that they are passing the threshold into the courthouse. It is covered by a sculptural green roof and leads up to the public lobby where it is clear to take the elevators up to the floor of the Courtroom they are attending. If selected for Jury Duty there is a controlled access to the Jury Selection suite to the left on the ground floor and Jury selection services for processing. Public bathrooms and a view over the water and into the plaza allows for constant daylight and a pleasant experience. Because it is both their duty and privilege to be here they feel as though they are floating in a special place.

All other visitors to the courthouse enter through the northern edge of the site. The Secure and Restricted access both descend into separate parking garages below grade. Additionally, a pedestrian entrance is provided for the federal office employees. They have a smaller, more private entry plaza and enter on access with the public.
PUBLIC WAITING GARDENS

Public visitors then take the elevators up to the public waiting gardens on each courtroom level. Giant columns stretch upward and a delicate truss holds up the glass curtain wall, while resisting wind loads and is self shading the space. Constant daylighting and indoor trees provide an enhanced place for waiting between sessions.

The assembly of court units vertically allow for each “group” of four courtrooms to have the access to one garden. Access to the upper level of court units acts as a mezzanine looking down to the garden below which opens up the space to breath, allowing room for the trees to grow and also activates the space with more human activity. There are six garden waiting rooms stacked vertically. Circulation on these levels are clear and the only path to take upon exiting the elevators is the path to the courtrooms entrances. Signage is minimal as the architecture itself provides direction.
THE JUDGES CHAMBERS

Fit with a court unit above and below the Judges Chamber is accessed by the judge through the Court Core. All judges have an office on the corner overlooking the city and visitors to the chambers would access through the restricted staff support office associated with the federal offices. Each chamber has a private balcony where the terracotta baguette screen from the courts below acts as a guard rail.

On these levels, the secure circulation (defendant and escorting U.S. Marshall) pass through the core, either by elevator or via the stair. This scissor stair wraps around the judges stair and elevator, but never physically intersect. On the Judges’ Chamber levels the secure circulation simply pass through with no programmed space other than circulation.

Likewise, the public has no access to these floors. A curtain wall divides the public from restricted zones. Light penetrates this wall and travels through the waiting gardens and filters through the offices and chambers. More activated office functions (kitchenette and conference rooms) surround the public gardens and the public core and mechanical spaces are shared with the office support.
A BRIEF MOMENT IN THE COURTHOUSE

A provocative moment in the process of justice is depicted below. As the defendant and U.S. Marshall ascend to the holding cell, they are provided with views out past the judicial court access and over the city of Baltimore. These brief moments remind the defendants that they are still a members of society, as they have not yet been proven innocent or guilty.

Upon exiting the stairs or elevator the judge also has visual connections outward over the Convention Center to the Inner Harbor. The brief visual connections with the defendant allows an element of humanity to be a constant reminder to the judge of the magnitude of the decision at hand. This dynamic volume extends the full height of the building and is soaring above the water feature. As it is southern facing, the facade is a double curtain wall for thermal reasons. Due to the nature of the scissor stair that the Judge and Secure circulation wind around, there are moments where the prisoner and court marshall may share these views and be connected to the city as well.
THE COURTROOM UNIT

Each court level has two courtrooms. The 2400 SF District Court is the unit to the left and the Bankruptcy and Magistrate Courts are 1800 SF and closest to the waiting gardens. Upon entry to the courtroom the immediate views are outward past the corners of the space over looking the city and the Inner Harbor.

The scissor stair in the middle of the structural core allows the restricted and secure circulation to navigate around each other seamlessly, each arriving to the courtrooms, but never crossing paths.
THE “HEART” OF THE COURTHOUSE

The Courtrooms were designed to be “lanterns” or beacons to the city. The materials are pure and truthful, the concrete ceiling is sloped outward forcing views to the city. The curtain walls provide protection from the elements and an architecturally arranged series of terracotta baguettes direct views accordingly.

Typical courtrooms do not have windows, so this nonconformist approach needed an architectural solution to mitigate views. Due to the seriousness and magnitude of events occurring in each courtroom, views will be blocked outward by the public when they are seated. This is achieved by aligning the terracotta baguettes closer to prevent views at eye level when seated.
As the heart of the courthouse, the courtroom is the climatic point where everyone in the courthouse comes together. History is made in the decisions determined inside these walls and design process yearned for an understanding of materiality that brought justice to the justice system.
ARCHITECTURAL DRAWINGS

The final drawings represent the architectural concepts and well articulated moments developed throughout the courthouse design. The drawings seek to express the qualities that will make the New Federal Courthouse memorable as a wholistic building in the urban context of downtown Baltimore.
South Elevation
THE MODEL
BIBLIOGRAPHY


U. S. General Services Administration; Public Building Service. Site Security Design Guide. 2007

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