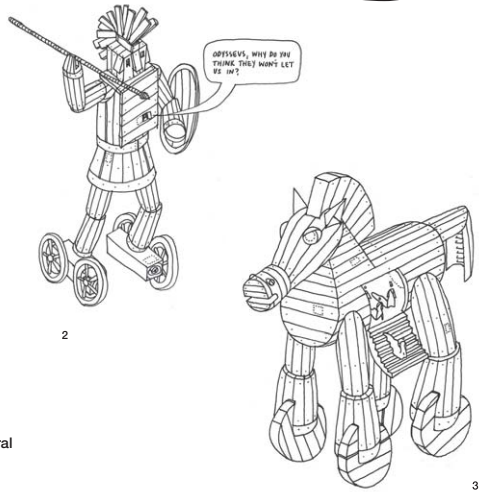
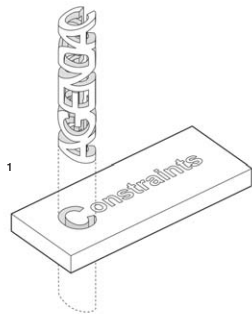


Agency

Every architectural practice has an agenda. For most contemporary architects, the agenda is formal. REX is fundamentally driven to challenge and advance type; we feel it's time for Architecture to do things again, not just represent things. But realizing any agenda in architecture—formal or social—is difficult. The modus operandi revered by our puritanical profession is to hold fast to one's vision, denying any accommodation of the Owner's realities for fear of compromise. This leads to a lot of unhappy architects, unhappy clients, and unfulfilled desires. We believe architectural agency can be resurrected if piggybacked upon the Owner's needs. Metaphorically, if the Owner's constraints form a round hole, why not pick an embodiment of your agenda that is a round peg? Then your vision will slip right through the Owner's needs without either being compromised. Fig. 1 Said more provocatively, if you want to get your soldiers into Troy, would you really roll a huge, wooden Greek soldier up to the gate? Fig. 2 Museum Plaza is a Trojan horse, but one filled with maidens, not soldiers ... Fig. 3

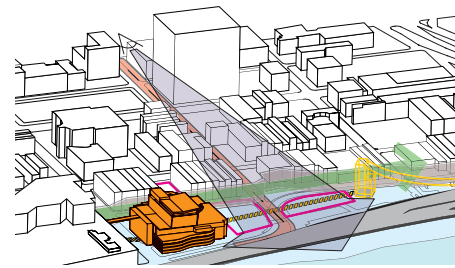


Two years ago, we were approached by an unusual, four-headed client. Two of the heads were a married couple with seemingly unrelated passions: contemporary art and saving Kentucky's horse farms from suburban sprawl. The third head was a developer who builds hotels in Southern Indiana and Northern Kentucky. And the fourth was a young lawyer and a leading Midwestern expert on tax-increment financing.

The client approached us with an even more unusual request. The couple wanted to build a 35,000-square-foot, contemporary art institution in downtown Louisville. Though the couple had the money to pay for it outright—she was an heiress to the Brown-Forman liquor fortune—they dared instead to demonstrate how wealth can be used as leverage to induce cultural benefits and to revitalize downtowns. They therefore assembled a client team to construct a for-profit development, the profit of which would go to offset a large portion of the capital cost of the art institution. With the exception of the art institution's size, they had no preconception of what or how much they would build. Only later did we realize how the project intertwined the couple's passions: by building a for-profit mega-structure with art as its physical and metaphorical center, they would simultaneously promote contemporary art in Louisville and divert development from rural areas back to the Central Business District. Fig. 4

Sliding a Round Peg through a Round Hole:
Museum Plaza¹

Joshua Prince-Ramus



The physical constraints were significant. Fig. 5 First, our site included **the food wall**. Seemingly impossible to develop, the City sold the parcels to the client for one dollar. Second, the site was adjacent to the **Muhammad Ali center**, an important, new civic monument which had to be respected. Third, we were operating in an **active flood plain**. The two larger parcels were bound to the south by a 25 to 35-foot-high concrete **food wall**. The Ohio River floods these parcels two or three times a year, sometimes as high as 15 feet. Fourth, the two larger parcels were bound to the north by **560**, an important—and loud—east-west highway running through the Midwest. Fifth, **5th Street**, the main arterial connecting downtown to I-64, bisected the two larger parcels. Sixth, the **Louisville Gas and Electric duct bank** divided the larger parcels into quadrants. If we were to disrupt the duct bank, we would cut power to downtown Louisville for up to nine months. Seventh, the City asked us to provide an **ART-SCALE pedestrian corridor** that extended the existing **Holvedere**. And eight, the City required that we maintain the **existing view corridor** to the river. As you can see, we were working within a noisy, wet bucket, separated from the CBD by a concrete wall, and compromised by City infrastructure.

The economic constraints were equally significant. To meet the challenge posed by the client, we had to invent the program for, and realize, a mega-structure that overcame the site constraints, and which produced enough profit to offset a significant portion of the art institution's costs. In collaboration with the developer and his in-house team, we derived the project's size and programmatic mix through an iterative design-calculate-design-calculate process. Ultimately, the pro forma dictated a 1.1-million-square-foot development. To avoid over-saturating the market, it was necessarily multi-use, including luxury housing, offices, hotel, lofts, retail, a component of the University of Louisville's MFA program, and the art institution.



During Concept Design, we performed two simultaneous investigations: one focused on the building's overall organization, and the other focused on the art institution's core concepts. If we couldn't adequately resolve the site and economic constraints of the former while generating profit, the project would terminate and we would lose the opportunity to advance the latter.

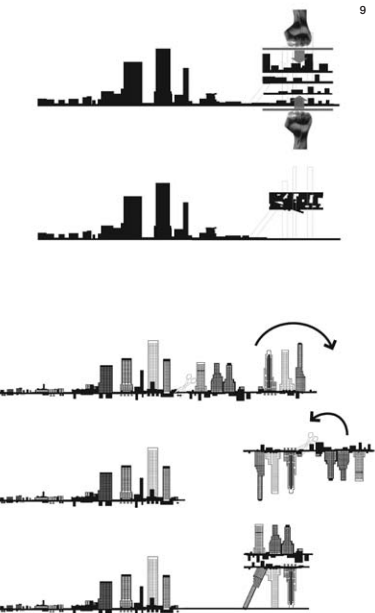
While playing with the pro forma, two building organizations eventually stood out. One had very clear structural advantages, performing like a tripod that touched each of the three sites. Fig. 6 By leaping over the foodwall and connecting the bulk of the project to Main Street, this organization also had positive impacts on the pro forma: the office and hotel components could be rented as Main Street properties. This scheme was structurally sound when complete, but due to its inclined legs, incurred insurmountable temporary-shoring expenses. The other organization naively stacked six of Louisville's city blocks atop one another. Fig. 7 Like the first scheme, this posed nightmares for vertical circulation, but the potential of replicating the urban fabric vertically was compelling.



Through this process one would expect that the developer was the client representative most difficult to please. While the couple was providing the financial backing, they relied on the developer—with the help of the attorney to secure public funding—to pronounce if the project was even feasible. Latent beneath the massing studies were three design strategies that identified, then appraised, the developer's fundamental concerns about the project's economic viability. By pursuing these issues doggedly, we arrived at solutions that we would never have otherwise conceived. And in the end, the developer was actually an important ally in convincing the other members of the client team that the design was "beautiful." How perverse is that?

The first strategy focused money where it should be intelligently spent. In our early studies, the towers were too articulated; their "design" negated any profit they might produce to pay for the complexity of the Island. The developer came back to us and said, "If the pro forma is really going to pencil out, then the towers must be dumb boxes." We therefore collectively agreed that the five towers—two luxury condos, one loft, one office, and one hotel—would be profit machines conforming to the ideal floor shapes, areas, and quantities dictated by the market. Fig. 11 Ideally, each tower could be taken to a bank and its financing easily secured because of its obedience; the unusualness of the overall massing would thereby be rendered irrelevant. By accepting these parameters, we could generate profit to offset the project's architectural "juice": the contemporary art institution, the University of Louisville's MFA program, and the towers' amenities, all marinating within the Island.

The second strategy reduced the client's exposure to market fluctuations. Large, multi-use projects often die on the vine because the developer is forced to set the program in stone before the architect begins. Over the several years it takes to design a building of this size, market forces change and the pro forma upon which the building's initial design was based is no longer ideal. By the time the developer attempts to secure financing, the gamble might not look as good, and parties get cold feet.

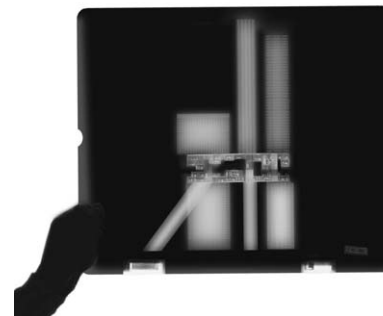


Ultimately, we created a hybrid that stole the most promising qualities from each. Fig. 8 We didn't know if this "thing" was a building yet, but we liked the collisions between culture and commerce that it nurtured, and we could prove that it was fundamentally buildable. From a costing standpoint, the redundancy of its four plates was extremely inefficient, so we packed them together into what we now call the "Island." Fig. 9 The conclusion of our investigation was the following diagram: cut out a portion of Louisville's skyline, turn it upside down, and flip half of it back on top of itself. Fig. 10 The study models that ensued began to look a lot like the final design: generic, speculative towers with a really dense, urban condition in the center.

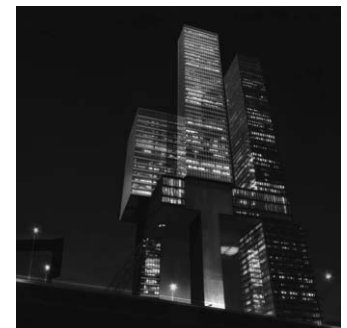
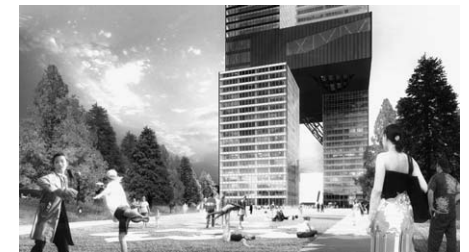
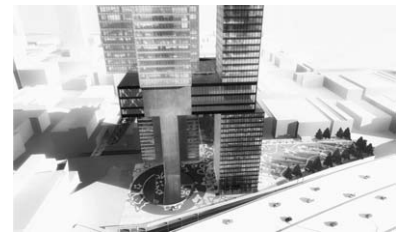


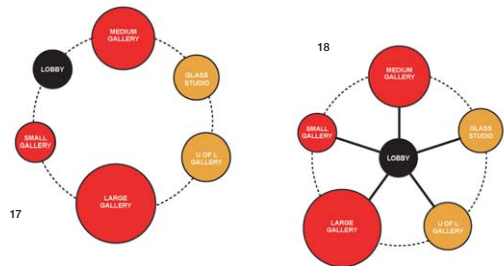
Museum Plaza's massing—its image—is a direct response to this problem. By keeping the "dumb" towers discrete from each other and from the Island, the developer had the freedom to adjust each component's dimensions—sort of like a stereo equalizer—until submitting the building's envelope for wind tunnel analysis. Fig. 12 Every few months, the developer performed a gut check and tweaked the numbers of office floors, the number of keys in the hotel, the number of loft units, etc. The Design Team set performance limits. For example, at a certain height the office block will get too large for the elevator core to provide Class A service; or a luxury condo tower will exceed the core's allowed structural slenderness ratio; or the condo towers will begin to resemble the World Trade Center's twin towers. But anything in between the upper and lower limits was fair game for the developer. The client's market exposure was reduced to only three months: from the moment the exterior envelope was set to the time we were able to use the wind tunnel information to finalize the foundation design and start construction.

The third strategy reduced the client's overall financing exposure. While many projects are "fast-tracked," Museum Plaza's organization is explicitly conceived to maximize the overlap of design and construction. If you were to X-ray the building, you would see that all of its intricacy is isolated within the Island. Fig. 13 With our engineers, we developed the most efficient structural cage, suspended in the air on the three cores. Into this cage, we dumped all the project's amenities, and therefore all of the project's difficulties, such as exiting, circulation, and security. Because these programs were consigned to the Island—whose structure was pre-determined—we were able to suspend their design (and temporarily ignore their problems) and rapidly advance Construction Documentation of the towers and foundations. The General Contractor was able to get into the ground over a year before we finished the Island's tender documents.

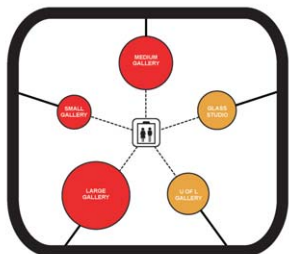


For these three reasons, architecture didn't come at the expense of—or at odds with—the developer's needs. We therefore didn't get sidetracked in the typical arguments about form. There were other possible organizations and massing solutions that could have solved the site constraints, economic constraints, and developer's issues; this is the one that we felt was the most beautiful. Figs. 14-16 But since the building's massing concept grew in direct responses to the developer's concerns, we didn't have to justify why we preferred this massing to any other. He was elated. And the result is that we bought time and resources to achieve the project's initial premise: a world class art institution.





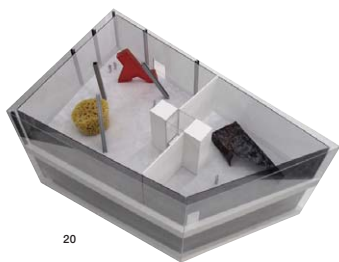
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In many ways, the first investigation set up an ideal scenario for pushing the agenda of the second: the mix of uses in the building, and their collision within the island, lent themselves to questioning the contemporary art institution's typology. In most large developments, culture is an afterthought, a bone thrown to mollify the municipality. At best, the mix between culture and commerce is parasitical, such as in MoMA's or Carnegie Hall's condo towers. Museum Plaza created an opportunity to mix culture and commerce in a legitimate, mutually beneficial way. After touring notable precedents in the U.S. and Europe with the client, we identified three core issues confronting contemporary art institutions, and took positions on these issues that we used to evaluate all subsequent proposals.

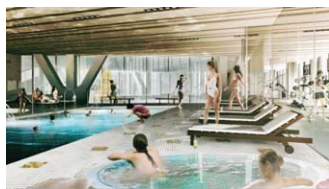
The first issue addressed the problems associated with a forced, linear procession. The conventional museum sequence is a lobby that starts and concludes a linear loop of galleries. Fig. 17 This compulsory circulation causes major curatorial and operational problems for its institutions: they must use all their galleries at once and cannot easily subdivide their space for simultaneous shows. The most obvious example is the Guggenheim: it simply can not exhibit a small show or a host of small shows within the main space. The drum's spiral and size demands blockbuster. All institutions with this sequence have to continuously "feed the beast," exhibiting blockbuster after blockbuster. And they have to support organizations capable of managing shows this size. We sought a lobby / gallery arrangement that would grant the freedom to use only one, or two, or three galleries; or to allow multiple, concurrent shows. Not surprisingly, our initial response was a hub and spoke system, with the lobby centered within a loop of galleries. Fig. 18 Once we started to design, however, we discovered that placing the lobby on the perimeter of the galleries, though unconventional, actually provided the most flexibility. Fig. 19 We extended the notion of lobby to include all non-ticketed areas, including store, auditorium, education, and event spaces. The perimeter lobby accesses any portion of the galleries, and can easily support multiple shows.



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The second issue confronted the tension between capital costs and operational costs. Americans love putting their names on things, and are willing to donate a lot of money to do so. But we no longer deem sponsoring an institution's annual operating budget as sexy. This dichotomy has not yet adequately informed the design of cultural institutions. In new construction, the exuberance to build "the biggest and/or best museum ever" bequeaths an operational behemoth onto the new museum's director and infrastructure, with little or no means for perpetuating financial support. The two normative gallery typologies—the white box and, since Bilbao, the articulated box—exacerbate this problem. With the white box, a director must spend copious funds to invent unique environments for each new show. With the articulated box, a director must spend copious funds to quiet the overriding voice of the architecture for each new show. In all the precedents we visited, either gallery type taxed its institution's operational budget beyond its limit. We sought a hybrid that combined the white box's flexibility with the uniqueness of the articulated box, thereby requiring limited operational funds. Could we spend capital costs on infrastructure to limit operational costs? We learned a lot from the Whitney's main gallery: it's a big, reconfigurable box made remarkable by Breuer's oculus. Our response was what we termed the "Gallery Dump": two floors of banal galleries that can be subdivided with movable display walls. Fig. 20

The third issue, and probably the issue most important to our client, concerned the conundrum that many living, contemporary artists do not want to operate within institutional walls. How do you allow a contemporary artist to operate on real life, on real community, on real activity, while exhibiting within an institution? Our position began within a naive collage, whereby a gallery was placed next to a swimming pool. Fig. 21 In this image, an artist who wants to operate within the pool can slide the glass wall open and co-opt it. Security requirements and environmental control pushed the promise of this collage to a much more exciting idea. In the 1990's, JM developed a simple film, often placed on buses and trams, with a dramatic optical effect. A basic dot matrix, when rendered in gray, is perceived by the brain as opaque; when rendered in black, the brain fills in the black with the image behind and perceives the matrix as transparent. By adapting this idea to the perimeter of the Gallery Dump, we were able to bleed culture and commerce together without compromising the galleries' performance. Using a ceramic frit that is black to the exterior of the galleries and white to the interior, the art is visible from, and infused with, the everyday activities of the hotel, offices, condos, and lofts. Fig. 22 Yet, it maintains the pristine quality of the white box for the art patron. Fig. 23

These three positions led to the final concept design: the Gallery Dump in the center, surrounded by the non-ticketed cultural spaces and the commercial amenities. Fig. 24 The non-ticketed zone serves as the main circulation for the entire Island. Its ultimate architectural manifestation is a plate, bent to tie the cores together. Fig. 25, as well as reach the cardinal points of the galleries and commercial areas. The central galleries and their glass walls create a space for art that is not an enclosed temple, separate from life and commerce, but one which allows a range of interactions with art, from the peripheral to the engaged. The galleries' translucence allows art to perform in a whole new way—to both "see" and be seen—generating a new kind of energy and interaction between the art and the viewer.

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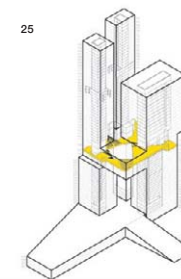


In Museum Plaza, our agenda was to challenge the museum typology. To do so, we had to first invent the program for, and then realize, a vehicle for this to happen. The reward met both the client's desires—a structure that literally and metaphorically places art at its center and inserts 10,000 people per day back into the CBD—and our own—a structure that engenders real dialogue between culture and commerce. Fig. 26 This is architectural agency.

1 Adapted by the author from the Eero Saarinen Lecture delivered at Yale University, October 29, 2007.



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