**TAFURI IN FORCE. THOUGHTS ON CONTEMPORARY ARCHITECTURAL CRITICISM IN LATIN AMERICA**

Jorge Francisco Liernur

It is clear that architectural criticism plays a key role in educating those people unfamiliar with the subject matter, although its representation in the press remains scarce as yet. Recent studies carried out in the United States focus on the role of architectural criticism in the country, and it seems that some of the characteristics present here are not so far removed from those occurring within this field in Latin America, albeit with nuances and slight differences. According to the report, drawn up by the National Program for Artistic Journalism at the University of Columbia, less than one third of the 140 newspapers analyzed in the study (with a circulation of more than 75,000) include architecture critics in their pages, and among those that do, only a third of them are dedicated full time to this activity. Other studies carried out by the program indicate that in newspapers, "the most scarcely covered artistic discipline is visual arts, and within this field, architecture is shown the least regard". In a great majority of cases, architectural criticism is included within the art section. Notwithstanding, and as we have previously mentioned, much road still remains to be covered, and even if we do not take into consideration the quality of the work carried out, it is clear that criticism aimed at educating the general public is not on equal footings with that directed towards specialized professionals in the field of architecture, although between the two there exists, or should exist, a close relationship.

If we are to quote Terry Eagleton, who alludes to the "Victorian man of letters" while at the same time extending this dilemma to the current circumstances, "criticism must either make an effort to justify itself in the eyes of the general public by upholding a general humanistic responsibility to culture as a whole, the amelioration of which will become increasingly cumbersome with the progress of middle class society, or become a sort of technological skill, thus consolidating its professional legitimacy at the expense of giving up a greater social relevance". While I believe that these two views are not mutually exclusive, but rather complementary, I have opted to focus my observations on the second of the two, as I feel that the concerns which have led us to hold this conference converge primarily in this area. I might also add that my own work is carried out within the field of specialized criticism. Having said this I should point out that my work is not characterized by metacritical discipline or creation, for which reason I must add my own doubts, in the hopes of shedding some light on them during the course of the discussion. To begin, I did not confine my position. I had the privilege of carrying out my postgraduate studies with Manfredo Tafuri, and it is to his ideas to which I turn in defining my opinions, not only because it is precisely these ideas which have served as an ongoing guide to my work, but because it is clear that I consider them to be as highly relevant today as they are scarcely understood.

Tafuri suggested in his work "Il Poegetto storico" the need to shatter the apparent unity of the object under analysis, rejecting as naive the idea that this fragmentation could be brought on by the mere inclusion of the object in context. Revising his own assertions from previous works, which were guided by the strictest adorium "criticism of ideology", and in a polemical position with Deleuze and Guattari's "metaphysics of desires", the "Project" also considers as essential the fragmentation of the context itself in planes or layers through what Tafuri referred to as "technical incidents" (underground ideologies, various control techniques, etc.). The outcome of this work would result in not one, but multiple meanings. Not that "power" and its attending institutions should be "unveiled" through critical analysis, but rather the confrontation between the various "diacritical" spoken by a power which, traversing in multiple directions what is real, left as a consequence remains, margins, traces. The mention of the French philosophers allows us to clearly understand that Tafuri's position was not too far removed from the debate at the beginning of the 80's, unmistakably marked by the so-called "linguistic expression".

**THE CORNER AS REVELATION. FROM SCHINKEL TO MIES**

Wilfried Wang

"After these things I saw four angels standing on the four corners of the earth, holding the four winds of the earth, that the wind should not blow on the earth, nor on the sea, nor on any tree."


This essay is a study in the cultural role of the corner as seen through the work of one principal building each by two architects: Karl Friedrich Schinkel (1781-1841) and Ludwig Mies van der Rohe (1886-1969). The architectural treatment of the corners in the Altes Museum, Berlin (1824-1830), and the Neue Nationalgalerie, Berlin (1965-1968) are, this essay proposes, indexes of wider cultural significances regarding transformed attitudes towards knowledge, the understanding of the world, including issues of certainty.

In normal circumstances of everyday building construction, corners reveal nothing. They are the mute servants of two surfaces closing on one line. Surfaces without acknowledgment of depth, lines without thickness, corners without physical presence.

However, architecture differs from simple building and abstract geometry. While on the one hand everyday building is oblivious to such cultural concerns and on the other hand abstract geometry is logical, conceptually pure and systematic, realized architecture is the bearer of cultural meaning and aspirations and is far from possessing any of the reductive logical, conceptually pure and systematic qualities of abstract geometry. Yet, some architects neglect wider cultural concerns in striving towards the abstract qualities of geometry in their designs.

The reality of architecture requires the architect to address many more qualities than logicality, conceptual purity and systematization. Real architecture constitutes and symbolizes culture. In construction, there is no such thing as a line without depth or a surface without thickness. Materials come together to create volumes with weight, surfaces with depth and lines with three-dimensional edges or corners.

There is nothing unusual or problematic about these facts, unless a particular desire, an idealized will, or a concept is pursued that requires the overriding of these facts. If, for example, this pursuit is for an ideal of formal purity or for an ideal of abstract order, both as expressions of metaphysical states realized and symbolized in architecture, then the design will seek to overcome some aspects of the physical impediments of reality: the transcendence of weight, thickness, the process of aging and other vicissitudes of real materials, crafts and technology will be sought.

Thus, for instance, in seeking formal purity, a purist geometric design will be composed in such a way as to reduce and even eliminate the appearance of undesirable facts such as the incompatibility of differently proportioned spaces vis-a-vis each other, the disjunctions between desired configurational forms, the incongruence between inside and outside, the difficulty of achieving a continuous surface without any joints, the irresolvable dilemma of the rhythm of multiple constructional elements not easily fitting into every given structural interval, and so forth.

More precisely, for a design concept involving the implementation of a geometric grid, basic decisions relating to the placement of the main structural elements, infill panels or walls, vertical supports and windows have to be taken.

The three dimensional geometric grid raises the question as to the placement of the primary structural elements in relation to the grid. Are the main structural elements placed on the cross axes of the grid? If so, are the infill elements equally on the grid or are they off the grid?

With the contemporary requirements for thermal insulation, can the primary structure be left without any cladding? In other words, can the primary structure be directly expressed?

The application of a three dimensional grid as an abstract geometric ordering system may be related to design concerns for regularity, for dimensional repetition and thus for a metaphysical idea of order.

A variety of ordering systems have been expressly followed in architectural practice from classical antecipoly through modern times. Most pronounced and widely translated into built reality were the prescriptive Renaissance treatises (Sebastiano Serlio (1475-1554), Giacomo Vignola (1507-1572) and Andrea Palladio (1508-1580) and the neo-classical lessons by Jean Nicolas Louis Durand (1760-1834). In more recent times, it has been Le Corbusier's "Five Points" that have had a lasting influence on international architectural production.

These treaties, lessons and rules share very few of the intellectual and aesthetic concerns of the ancient Greek masters. The Doric order, perhaps as seen in its most differentiated and mature instantiation in the peripheral temple of the Parthenon (448-432 B.C.) on the Athenian Acropolis, was subject to a search for a synthesis of sculptural perfection, tectonic logic and the accommodation of constructional vicissitudes; a synthesis that involved the precise placement and shaping of every single element in the building.

While the Renaissance treatises describe the various orders of architecture, and even Durand still includes a prescription for these, it is Durand who not only sees the corner column shaped no differently to any of the other columns of the colonnade, but
does not caution against the thoughtless and endless vertical and horizontal addition of more and more axes. His diagrams give straightforward rules regarding an abstract ordering skeleton of primary, secondary, tertiary, etc. spatial axes, which in turn simply require subsidiary grids for the placement of columns, windows and doors (Figures 1-2).

Durand's system is one of simplicistic certainty, of an unshaken belief in the marriage between unmarred metaphysical order and its mechanistic embodiment. Durand's insidious lessons are for those engineers, who do not wish to lose any sleep over cultural and aesthetic issues (Figure 3).

The tradition of formal differentiation in architecture, the cause of design concerns, can be easily ignored. The ancient Greek interest in formal refinement through visual correction of every tectonic element, not just the application of entasis and finding of the columns, or the axonomic inclination of the lateral columns, or the diagonal axis inclination of the corner columns, or the curvature of the stylobate, to name just some of the more well-known corrective devices (Figure 4), are born of a design rigor that does not merely require an understanding of their underlying intentions, their geometric framework, the translation of such a framework into a craft, it requires above all both an intellectual capacity as well as an aesthetic sensitivity, that straightforward builders and simple engineers may not possess or may not consider relevant.

Regardless of the exception that the Doric sensibility seems to represent when seen against the vast production of simple buildings since those times, the architectural discourse has intermittently given evidence of the presence of the Doric sensibility in the case of more complex building types than temples.

The cultural legacy of the Doric sensibility developed intellectual capacities and aesthetic sensibilities to confront three-dimensional ordering principles for multi-storey buildings. Well-known cases of these are the Roman theatres and amphitheatres, such as the Theater of Marcellus (ca. 13-11 B.C.) and the Colosseum (70-82), both in Rome and Renaissance palazzi such as Leon Battista Alberti’s Palazzo Rucellai (ca. 1452-1470), in which pilasters of different orders are symbolically placed on top of each other.Doric, Ionic, Corinthian.

The pilasters of these different orders represent pillars bearing the load of the building. Not only does each order of columns follow ancient rules of entasis, but the combination of the ever slimmer orders from the more solid Doric to the more extended Corinthian give an impression of a logical diminution of the symbolic structural elements towards the top. In visual terms, the diminution of the width of each successive layer of pillars gives the overall building an appearance of delicacy, even grace. Given this diminution from the lower to the upper floor, a dimensional curiosity, if not to say a geometric dilemma arises. While the dimension between the bays of each respective floor remains constant, an intriguing question arises in regard to the corner bay: are the pilasters at different levels placed on top of each other in such a way so as to form a continuous vertical line? Or are they stacked upon each other so that they are always aligned with the cross-axis of the geometric grid? In the latter case, each floor level would be set back by a small amount, thereby resulting in a stepped section. Whereas in the former case, irregular corner bays are the result. Each successive floor above the Doric level will have an ever larger corner bay dimension.

In the case of Renaissance palazzi, the pilasters, semi-engaged and full columns are merely representative, they do not bear any significant load; the masonry behind is the real bearer of loads. Louis Kahn’s Mellon Center for British Art in New Haven (1973-1977) combines the representative tradition of the Renaissance with the modern interest in primary and unmediated construction. Here the unclad reinforced concrete pillars and beams provide the principal structural framework, within which external steel and internal wood veneered panels are placed.

Kahn opted for the succinct, cubic outline of the building configuration as a whole. All four corners of the museum create flat vertical lines. The design resolution of the corner thus gives evidence of Kahn’s interest in unifying the building’s gestalt. The four aligned corners form the unshakable frame of the institution. Together with the steel façade panels and the glazing, both of which are set flush with the outer face of the structural elements, the museum is a tight pressure box, holding fast to everything within it. The corner treatment thus reinforces the underlying cultural intention borne by the edifice.

While Kahn followed the typology of the Renaissance palazzo, in which the multiple floors are expressed on the exterior by the succession of single floor height orders, both museums by Schinkel and Mies van der Rohe embraced the use of the giant or colossal order. The Altes Museum consists of three levels, the upper two receiving daylight through the first and second floor windows on the three side facades, while the giant order to the south created an impressive façade towards the former palace (Figure 5). The Neue Nationalgalerie consists of two public levels: the basement containing the exhibition galleries as well as offices and the tall raised ground floor for changing exhibitions.

In contrasting the Altes Museum with the Neue Nationalgalerie, there are obvious differences arising from the urban context and from the transformed conception of museums. Both differences could ultimately be cited as the principal reasons for the closed versus open corners. The Altes Museum marked the northern end to the palace’s vista, while the Neue Nationalgalerie was located in a terrain vague that had been cleared by the Nazi regime and postwar planning uncertainty (Figure 6). The latter’s orientation at the southern edge of the future Kulturforum, at the junction of the Potsdamer Strasse and the Reichsphilckscher, ideally suited Mies van der Rohe’s predilection for the multi-directional glazed hall.

In terms of the conception of museums, the Altes Museum was to receive prestigious collections of paintings, sculptures, coins and minerals to stand proud against those already displayed in London and Paris, while the Neue Nationalgalerie was to offer over the jumble of the area to change elements clearly a modern collection of paintings and sculptures was to find its new home. Despite these original programmatic conceptions, there have been numerous alternative uses to which the spaces of these two museums have since been put (Figure 9).

The Altes Museum was given its compact configuration and giant order so as to maximize its formal presence vis-à-vis the greater volume of the palace. In fact, the museum’s giant order to some extent upstaged the large, but otherwise simply articulated palace with its repetitive windows overlooking the Lustgarten. In his interest for a compact configuration, Schinkel accentuated the corners with what appear to be giant order pillars that could be understood to logically continue the giant Ionic order of the principal south façade (Figures 7-8).

Thus it is possible to offer some of the reasons for the different corner treatment in the Altes Museum and in the Neue Nationalgalerie as a young institution of the young Prussian state, the Altes Museum was seen as a treasure house in need of asserting its protective frame, while the Neue Nationalgalerie’s entrance level was a giant gallery for changing exhibitions and inviting visitors to its shows much in a manner of a large display case.

The subject of museology had not even been born at the time of Schinkel’s museum, by the time Mies van der Rohe had built his gallery the notion of art exhibitions had already been through serious revisions. The Neue Nationalgalerie has since become amongst artists a much sought after venue for site specific installations for artforms that Mies van der Rohe had never anticipated, but for which his concept of large, universal space is ideally suited.

However, these reasons are easily comprehended and do not pose any challenge. The speculative research that follows will concern itself with the issue of the corner detail and the intimately connected idea that gives rise to the different corner solutions.

It was noted that the four pillars at the corners of the Altes Museum underline the secure frame protecting the prestigious collection. In fact, Schinkel employed the accentuated, on some occasions even exaggerated corner treatment in numerous projects: the close-by Neue Wache (1816-1818) with its miniaturized evocation of the ancient fortifications (such as those found at one of the archetypes, that is the 4th century B.C. Fortress of Aquasultan at Megara on the Gulf of Corinth), the enlargement and alteration of the Humboldt Villa in Tegel (1820-1824) embracing the same typology of the castrum, or the more tectonic version of the Schauspielhaus in Berlin (1818-1821) with its extreme exaggeration of the corners.

Seen in this array of Schinkel’s own work, the corner treatment at the Altes Museum looks distinctly subdued. Indeed, in contrast with the theatrical Schauspielhaus corners, whose breadth of the corner treatment is to be read as classical tectonic elements, the implied pillars at the Altes Museum on closer inspection underline the much more subtle calibration of the corner treatment.

In continuously prefacing the description of the corner pillars as “seeming”, a cautionary note is introduced that indicates that these “pillars” are in fact similar to the wall elements in the Schauspielhaus. The “pillars” are L-shaped pieces, in other words, they exaggerate their actual physical volume on the exterior, thus, to the casual observer, evoking a greater mass than that which is actually present.

While the presence of the L-shaped pieces cannot be sensed on the interior the northern side of the building, here the unity of the corner rooms takes precedence
over the manifestation of the giant order "pillar", on the south façade the L-shaped pieces are in part revealed. Walking around the southern corners from the side façade to the colonnade and looking at the inside of the stoa, the widths of the corner element are different, as if there were nothing particularly unusual about this.

The reason for the "revelation" may be more mundane than any interest on the part of Schinkel to openly display the dilemma of his own making: the width of the architrave spanning the giant Ionic colonnade is actually proportionate to the width of the end projection of the wall, otherwise known as an antae. But is there not a problem in presenting within one contiguous element a pillar from one angle and an antae from another?

In all the drawings, whether plans or perspectives, Schinkel accurately describes the unusual ambiguity of pillar and antae. Schinkel even writes about the same tectonic elements using two descriptions—antea and pilaster—in the same letter to a colleague. In referring to venerated configurational types of the past, Schinkel's adaptation of these served the volumetric unity of the overall building. Thus ancient Greek stoa—particularly the stoa poikile or painted stoa—and ancient Roman Pantheon are both strewned with wall elements, the former with short end pieces, the latter with four screen walls, completely hiding the cupola.

In gathering the venerated configurational types, not an unusual eclectic homage to what was at the time regarded as the birthplace of modern culture, Schinkel confronted an architectural problem of his own making. Rather than treating the configurations as independent volumes, as for instance the fettled Italian painter Giovanni Paolo Panini had done on countless occasions a century earlier for the souvenir eager tourists of antiquity, Schinkel merges the giant order stoa with the half-scale Pantheon by means of these screen walls. Seen in section, the proportional incongruity becomes evident. The stoa's architrave does not relate to that of the dome. Internally, Schinkel allows visitors to gradually discover these spaces and their literal reference to the ornamental and constructive details of the Athenian and Roman monuments by themselves.

The ingenious staircase between stoa and Pantheon raises the visitors to an unparalleled urban point de vue from which not only the roots of architecture can be understood, but also the history of modern civilization can be surveyed, through the depiction on the walls of the stoa and the stairway, and even, with a subtle degree of immodesty, a number of Schinkel's own works at the heart of Berlin (the granite bowl in the forecourt of the museum, the Schlossbrücke, the Friedrich-Wedersche Church, the Schauspielehaus) (Figure 12).

The principle of the panorama, the idea of the treasure trove, the unification of all strands of culture and civilization within the modern museum are summarized in the Schinkel's perspective from the upper landing of the open air, publicly accessible imperial staircase.

In choosing the ideal location for a point de vue, the best possible panorama could unfold. Conversely, in selecting the ideal building and with it the ideal spaces for a museum, the best possible frame may be given for giving an account of the unfolding of cultural civilization. Altogether, the Altes Museum provided a tight box with flexible side-tilt rooms for all kinds of exhibits. Stoa, imperial staircase, Pantheon, held in place by four strong "pillars" at the corners provide the only representative elements that remove the building from a simple depot, as were to inhabit the northern part of the island a few years later for Berlin's port facilities.

The four pillars of this tightly assembled box of venerated architectural types and works of art—within an otherwise frugal Prussian storage depot care were carefully proportioned by Schinkel to satisfy the aspirations by the general public. The four pillars of the treasure trove can be seen as defiant proponents against unwanted loss, stable guarantors of the solidity of the institution, quite the opposite to the open stoa, that addressed itself, with the Latin inscription in the architrave ("Friedrich Wilhelm III has given this place of calm to all studies of the antiquities and fine arts", translation by the author) to all students and lovers of the arts.

The Altes Museum embodies the unresolved duality of openness to the public on the one hand through the giant order stoa and the representation of frugal security through the three side elevations, all held together by means of the exaggerated pillars at the four corners. If in the field of projective methods the panorama was the complement to the parapeiton, then the obsessive cult of collecting objects of the highest ethical and aesthetic values in museums was the complement to the prison. All of these cultural concepts involved the belief in completeness and certainty, and the exaggerated pillars at the four corners are but the late embodiments of the fear of the apocolypse as foretold in the Book of Revelations.

With this possible explanation for the dilemma of pilaster/antea in mind, it nevertheless challenges the curiosity of the practicing critic to see if there were not other design options available to Schinkel. What if the pilasters were simply as wide as the walls themselves? Would they look too slim in relation to the Ionic column? Does it diminish the protective character of the biclial four corners? What if the stoa had been left open at the sides, would that have diminished the character of the museum? Could it have been treated as if the colonnade were a screen set in front of a cela, analogous to temple fronts? (Figures 13-19).

The various redesigns show that Schinkel's design is difficult to alter, even less to improve. Nevertheless, the dilemma of the pillars/antea suggests that Schinkel was not averse to the laterally closed stoa further strengthening the closure through the inwardly projecting antae. It is as if the stoa was not merely a u-shaped space with a porous colonnade, but u-shape with inwardly pointing sentry, so to speak.

This doubled expression of secure three-sided closure can be found at a more complex configuration as seen in Schinkel's design for the Charlottenhof (1826-1828) at Potsdam. Here a pergola connects the tripartite villa to a semi-elliptical apsis, thereby creating a self-referential composition. The stoa at the Altes Museum with its three-sided enclosure and its additional antae compensate on the interior what the exterior apparently leaves in.

That Schinkel has given evidence of his awareness of the corner problem not only in his projects but also in his theoretical reflections has already been mentioned. In his neo-classical version of his "Architectural Handbook" of the 1830s, Schinkel argues for the mere representation of a pillar instead of the literal embodiment of it even on the interior of a building's corner (Figure 20).

Indeed, in one of his main projects, the Bauakademie (1831-1836), Schinkel comes very close to solving the corner problem in terms of a universal grid of pillars: by allowing a brick pillar to be semi-engaged with a wall element to the rear, Schinkel merely leaves unresolved the problem of the visual aspect of the corner pillar appearing with a greater surface area than those along the length of the façade: the corner therefore is not just one vertical element in a field of vertical elements but an element with a special visual presence.

This is where Schinkel and Mies van der Rohe's interests coincide: in one of his last buildings, Mies van der Rohe comes very close to solving the corner problem for an unsualled building. For the Toronto Dominion Centre Banking Pavilion (1963-1968), synchronized with the Neue Nationalgalerie, Mies van der Rohe applied a "Prussian cruciform" profile to the posts. The width of the flange equates with the width of the span, while the narrower glazing frame is separated by means of a rectangular fillet: by allowing the multi-faceted cruciform to reveal all of its internal surfaces and by allowing the side flanges to retain their identity by recession the glazing frame, in terms of visual presence, the corner cruciform post has just a marginal advantage over the standard post.

At the Neue Nationalgalerie, Mies van der Rohe achieves two major feats: firstly, by avoiding the occupation of the corner with a structural element, the eight cruciform posts, set some distance away from the corner, are entirely equivalent in terms of their visual presence. Secondly, from the interior perspective, the avoidance of a corner structure allows the diagonal to be free, much in the sense that the bay window of the medieval period provided a larger viewing angle of the exterior from a room (Figure 21).

The notion of the free corner was popularized in modern times by Walter Gropius and Adolf Meyer in their façade design for the Fagus Factory at Alfeld (1911-1912). Later Le Corbusier had suggested expanding the view by means of these modern bay windows in his combination of the "Domino-House" and the strip window. The fact that he did not always follow the free corner himself, as he had done at the Villa Stein at Garches (1927) for instance, at the Weissenhofsiedlung of the same year, his double villa just has strip windows, even though the structure and site would have both allowed it, says little of the inconsistent but everything about the mechanistic sub-conscious of Le Corbusier. At the Weissenhofsiedlung, the double houses fall into the paraструктур compositional trap, which renders end walls of new buildings as the unevenful results of a simple "slice".

The free corner, heralded by modernists across western Europe, who had obviously not been to the towns of northern Spain, as the key to a liberated spatial sensibility, needed more than taking the compositional opportunities that were presented to designers. The ideal of a liberated spatial sensibility, the dream of freed existential possibilities through an unrammed, unimpended extension of space, particularly as defined by the corner, required more compositional differentiation than the coplanar
presence of wall and glass elements that Frank Lloyd Wright, Gropius and Le Corbusier had offered.

Even Mies van der Rohé, in evoking the syntax of the neo-plasticists and of Frank Lloyd Wright in the Brick House project (1923) was to retain the sense of security and order right through the Barcelona Pavilion (1929). Every corner of the pavilion is closed, even by an extended L-shape reminiscent of Schinkel's corner dilemma of the Altes Museum. It is from the Saks House (1960-1962) onwards, that Mies van der Rohé seems to begin his pursuit of uninflected, unspecific, liberating universal space.

If the Saks House was the beginning of this search and the Convention Hall for Chicago (1952-1954) was the giant sequel, then the Bacardi Headquarters (project, 1958), Georg Schäfer Museum (project, 1960-1963), Neue Nationalgalerie series finally found a building close to the ideal of universal space. The extended ground floor consisting of a uniform square grid of granite slabs, the smaller square roof and the smaller still glazed envelope are deliberately dimensioned to dissolve the hitherto coincidence of the spatial definition of floor, wall and roof. And yet, it did not go far enough.

For, in Mies van der Rohé's insistence on the perfect square, and in the absence of silicone joints for corner glazing, the glazing frame creates an impediment to the free corner. Nevertheless, an uninterrupted sense of spatial freedom existed for a brief moment: just after the steel roof had been lifted unto its eight posts and before the portico was enclosed with the glazing system. During that brief period, Mies van der Rohé's dream of a liberated universal space had come to life.

CONCLUSION

Undoubtedly, the corner in architecture can be a cultural index for those who want to engage with its discourse. Both Schinkel and Mies van der Rohé, in following the Doric sensibility, worked on the corner as a cultural index. The search for the resolution of the corner as seen from the Altes Museum to the Neue Nationalgalerie is a convoluted but persistent one. It involved numerous architects, the history is far from being told in its entirety. This essay has merely selected two architects, who have sharpened their wits on this subject.

It is clear that there could not be a more opposing approach to the notion of a museum than in these two cases: the former a fearful thesaurus, the latter an inviting and unworried gallery for the unknown; the former focused on certainty and order, the latter concerned with uncertainty and its associated power of the reshaping of order. The search is far from over.

CABRERO AND THE SEA

ESCUela DE FORMACIÓN PROFESIONAL JOSÉ ANTONIO GIRÓN, BARCELONA. 1968
Juan Coll-Barreu

Four years ago, Francisco Cabrero (Santander 1912-Madrid 2005) finished what would perhaps represent his greatest technical and plastic success. In 1964, while Spain was experiencing an economic and social explosion, the constructive section of the Pabellón de Cristal in Madrid culminated with absolute precision an architectural style steeped in technological ambition, which was perhaps more in accordance with the chronological age of the last third of the century than with its inherited geographical difficulties. The illustration placed two industrial-scale spaces side by side with the imperial audacity of the latest modern style, describing, for the first time in Spain, a completely novel relationship between the inner void, the structure and the skin. This outline area also represented a contemporary understanding of air conditioning systems reminiscent of North American building pragmatism and, finally, heralded the introduction of current market processes in set-up systems. The smooth glass and metal façade of the finished palace espoused the modern emphasis of the building, at the same time opening up to the compact and well-defined aesthetics of the turn of the century. Media coverage of the palace exhibition programming and the necessary haste with which it was built undoubtedly influenced in the contemporary and unifying triumph of the solution.

In July 1968, Francisco Cabrero began another flash project. The new building for the Escuela de Formación Profesional (Technical College) José Antonio Giron, was completed in September of the same year, just in time for the beginning of the 1968-1969 academic calendar. Cabrero labelled the design drawings just one month before work was completed, and dated them "August 1968." With the building already being used and in full academic swing, the President of the Mutualidad Laboral Siderometalúrgica (Iron and Metal Workers' Benefit Society) of Barcelona inaugurated it on October 16, 1968 on behalf of the Ministry of Labour, after whose enterprising predecessor the building had been named. Girón de Velasco had shaken up the severe hierarchical structure of the beginnings of the Franco dictatorship with his ambitious plans for the cultural guidance and professional training of farmers and the working class, which had reached mid-century both culturally and economically devastated. These programs were implemented during his nearly two decades as Head of the Ministry of Labour, between 1941 and 1957. During the 1960s, under the protection of the totalitarian regime, union vigour had given way to the cold technocracy of economic interests and private vigilance, which availed itself of the developmental yields of the unions themselves. At the close of the decade, the name given to the building designed by Cabrero appears as the dedicated proportionality of a dubious political persistence, as much as the brilliant execution of the work could show that the productive efficiency that had served as a cornerstone for the Pabellón de Cristal in Madrid was not the momentary result of a focused governmental effort but rather a legitimate testimony to the new period of growth in Spanish society, which was eager to take part in the technological moment.

The building was the author's only work in Barcelona, and has gone all but unnoticed by modern Spanish architecture critics, nearly to the point of obscurity. A solitary brief review in the monographic publication published by Javier Climent (Xarait, Madrid, 1979) bears testimony to the work in the historiography of the architect. Nor has the building been included in any index of historical or conservatist interest or cultural heritage, or even on any list, map or directory of buildings of interest. It has likewise never been considered for protection. The building remains standing, but it has been partially transformed: the vestibules and indoor vertical links have been removed, a large number of partitions and finishings have been altered, and the façade has greatly deteriorated. Despite these and other no less harsh consequences of the passing of time, the building shows no significant pathology in its structure, preserving its original vigour and the estern of its users. This brief essay aims to introduce the building into the field of architectural criticism, providing unpublished graphic documentation consisting of a selection of images, all of which are essential for a suitable published presence of the project: original blueprints with handwritten notes, photographs of the building process and others taken immediately after completion.

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DRAwING AT THE MOnASTERY OF EMa

WINDOWS AND Ramps in the WORk of LE CORBUSIER

Fernando Zaparain Hernández

A young Le Corbusier visited the Monastery of Ema, near Florence, for the first time in 1907, returning again in 1911. He always associated these visits of his youth with later projects for modern collective housing, for example those which are represented by the Immeubles Villas, a model which, in the spirit of the monastery, combined individual seclusion with nature and communal services.

First, an extensively disseminated ink drawing is compared with the section and ground plan of a typical cell, substantiating the evidence attributing it to the period of the first visit in 1907. The drawing does not seem to have been done "in situ," as it does not precisely correspond to any cell. It is more analytical than intuitive, confirming the hypotetical characteristics of the housing mechanism. The second set of drawings (in pencil) pertain to a travel book from his trip to the Orient in 1911, and it is easy to recognize the cell they represent. The pencil strokes are freer and more expressive than the previous drawings, and aim more to describe the cell as a means of vision.

An analysis of the drawings done during these visits, together in relation with the projects originating from them, offers us insight into Le Corbusier's particular vision, as well as his learning of concepts which would later become fundamental. The monastic cell is conceived as of a means of vision and a control of the territory. Through Le Corbusier's drawings we can make out an early understanding of the ability of architecture itself to provide structure through frames, and various types of window begin to stand out, such as the horizon, a painting or a mirror, which would later prove decisive.

The Monastery of Ema likewise represents one of Le Corbusier's first contacts with the ramp, later to hold the place of honour in the architectural style of the maestro.
AUTOPSY, ENCARNATION AND ARCHITECTURE OF HYPEROTOMACHIA POLYPHILI
José Joaquín Parra Bahón
The work entitled Hyperotomachia Poliphili, printed by Aldo Manuzio in 1499 in Venice and provisionally attributed to Francesco Colonna, is a book in which architecture, whether described or illustrated, is the true protagonist, representing the character to which the greatest number of words are dedicated. The manner of going about this is not that of the academic treatises which began to appear at that time, exacting the privileged position of the discipline among artifice and the arts and classifying and suggesting models to imitate, inspired on antiquity; rather, it held it to form part of that privileged being of reality in which occurrences take place: the physical and symbolic stage for the most relevant events. Hyperotomachia Poliphili, the text and its 171 xylographies, is a complete architectural analysis insofar as it represents an exegiastic critique of preceding constructions and ideologies, as well as a study and evaluation of the conditions of the area, the user and the landscape. It likewise represents the execution of a project methodology. Following an examination of the surrounding area comes an architectural suggestion which prods the flexible limits of reality: the suggestiveness of some of the most bizarre and curious buildings ever imagined, which succumb to the strict laws of geometry and proportions while paying no heed to the laws of gravity. Its modern qualities, interest and benefits for contemporary architecture are also to be found in other matters: in its use of composition techniques based on collage, superimposition and accumulation; in the novelty of the poetic concession of ruin and in the archaeological perception of inheritances and legacy; in the rejection of the city as a concept, like-minded dwelling site; in the pursuit of dispersion, fissures and fragments; in its insistence on the idea of architecture as a hollow, an inferior, a welcoming void, the domestication and humanization of a bit of space.

If the attribution of the unobtrusive facade to Perrault seems attractive to us moderns, it is because Perrault elaborated an equally unorthodox theory of architecture. Most analyses of Perrault identify an affinity between his theory of architecture and the design of the Louvre colonnade by attesting to the ostensible modernity that characterizes both. Alberto Pérez-Gomez puts it this way: "on the basis of Perrault's theory...the idea for the east façade of the Louvre almost certainly seems to have originated in his radically modern and original understanding of architecture". This assertion of the "radically modern" goes on to legitimate an account that detects in Perrault's Ordonnance des cinq espèces de colonnes selon la méthode des anciens (1663) clear evidence of the incursion of "modern science" into architecture, and irreproachable that this incursion amounted to a kind of original sin from which architecture has had to redeem itself ever since. If Antoine Picot has noted that Perrault's interest in architecture was marked by the "curiosity of a classical savant". Pérez-Gomez equates this curiosity with an opportunistic attempt to scientize the art of building by creating a rigorous discipline in which "creative tasks" occur as the literal application of a "theoretical position". In other words, for Pérez-Gomez it is Perrault's desire for creative agency that forever deprived architecture of the ability to create new meanings—and the attribution of the Louvre colonnade to Perrault is indispensable in this interpretation. Ironically, the reverse argument, according to which Perrault should be robbed of authorship for the façade, seems to stem from a similar logic; namely, that a mere physique-a-théorie is insufficient to explain the full architectural effect that Perrault brought to the Louvre colonnade, then, it is because his theories seem to be structured around it, not vice-versa. Nor can the colonnade's ubiquitous presence in the rhetorical oeuvre be explained away as a strategic placement in a list of canonical examples. These engravings alternately depict the colonnade as partially hidden, as incomplete, or under construction (Figure 2). Never a static object, the façade is repeatedly deployed as a backdrop—starting from the left, then disappearing behind objects in the foreground, as if to suggest that its doubled rhythm could extend beyond the frame ad infinitum. It is not the fact of its obliqueness (the doubled order as a symbol for architecture) but rather the process of constructing a system (the doubling of orders as generative of architecture) that becomes an allegory for architectural creation. In fact, by 1700 the building of the Louvre colonnade had become the analogy par excellence for architectural invention itself—not just in Perrault's writings, but also in academic debates. Whether or not he was solely responsible for its design, Perrault was the first in a long line of thinkers to deploy the Louvre façade as a generative trope in architectural discourse.

This essay revisits both Perrault's theory of architecture and the eastern façade of the Louvre as devices for ordering the orders, which offered late baroque France a new model for thinking about authorship and authority in architecture. The doubling of columns in the Louvre façade is here discussed in the context of the proliferation of parallelistas and symmetries that pervaded French architectural culture as Perrault encountered it, and in particular as he represented it in his conceptualization of the orders. This conceptualization, it will be argued, is evident less in Perrault's oft-cited polemical preface to the Ordonnance than in the semantic subtleties of his translation and the tabular system he devised to compute the proportions of the orders.

PARALLELS
If the Louvre colonnade stands as an allegory for architectural invention, it is only fitting that its authorship should have come into question. It was, after all, designed by a committee of three, which was convened at a time when the very nature of authorship in the arts was under debate. By the late seventeenth century, successive translations and disseminations of Vitruvius had established that modern artistic creation should stem from the dictates of ancient precedents. But the historical rationale for this debt to the past remained unclear. Was classical antiquity an unattainable ideal whose elusive perfection the moderns were striving towards? Or was it an original state, now surpassed, whose primitive works served as the basis upon which to build and improve? In other words, did the ancients stand at the beginning or at the end of creation?

One of the many texts entitled Parallel of the Ancients and the Moderns was written by Claude Perrault's brother Charles, influential royal advisor, founding member of the French Academy, and writer of fables, Charles was also an unrelenting spokesman for the ordonnance theory and its architectonic implications. Born in 1615 at Chatillon-sur-Loir to a family of notables, Charles received a Jesuit education before entering the royal service, the development of his thought being closely linked to his rise to power within the court. A prominent advocate of the ordonnance theory, Charles was one of the main proponents of the use of antiquity as a model for modern architecture. His works, such as the Parallel of the Ancients and the Moderns, were aimed at demonstrating the superiority of ancient architecture over modern, arguing that the ancients were the creators of true beauty and order, while modern architects, influenced by the excesses of the Renaissance, had strayed from this ideal.

His book, Parallel of the Ancients and the Moderns, was a seminal work that sought to establish the superiority of ancient architecture over modern, arguing that the ancients were the creators of true beauty and order, while modern architects, influenced by the excesses of the Renaissance, had strayed from this ideal. The book was widely read and had a significant impact on the development of French architecture, influencing a generation of architects and scholars.

In his work, Charles argued that the ancients had a clear understanding of the principles of order and proportion, which he believed to be the cornerstone of true beauty in architecture. He claimed that modern architects, by following their own personal tastes and innovations, had essentially abandoned these principles, leading to a decline in the quality of architecture. He believed that by returning to the principles of antiquity, modern architects could achieve a new level of beauty and order, which would set a new standard for the profession.

Charles' ideas were not without controversy, and some of his contemporaries, such as François Blondel, criticized his approach as overly rigid and脱离实际。然而，Charles' emphasis on the importance of order and proportion in architecture, and his advocacy of the ordonnance theory, had a lasting impact on French architecture.

In conclusion, Charles' work, Parallel of the Ancients and the Moderns, was a significant contribution to the development of French architecture, emphasizing the importance of order and proportion in creating beautiful and timeless buildings. His ideas, despite their criticism, continue to influence modern architectural thought, reminding us of the enduring legacy of ancient architectural principles in the modern world.
for the virtues of his brother. It was Charles who recommended that Claude be elect-
ed to the Academy of Sciences and commissioned to translate Vitruvius. It was also Charles who obtained for him a position in the petit conseil. And, perhaps most importantly, it was Charles who irritated the rumor that Claude alone had designed the Louvre colonnade. The Perrault brothers stood firmly on the side of the moderns, their solidarity evident even in Charles’s Parallel, which introduced the art of archi-
tecture by making an analogy between the two brothers’ domains: “Just as figures of rhetoric are available to all ... so it is that the five orders of architecture are equally in the hands of all architects. The merit of an architect therefore is not to use columns, but to place them with judgment and to compose beautiful buildings with them”. Architecture, like language, was for Charles composed of elements whose meaning was modified by their placement in a general scheme. Echoing his involvement in lan-
guage reform, Charles proclaimed architecture to be progressive—and the exemplary product of such progress was the new façade of the Louvre: “...it was thought that [the Louvre’s colonnade’s] execution would be impossible, and that this design would be more properly painted in a picture, because it was only in painting that one had ever seen anything like it, rather than in the front of a real palace”. From the parallel with language to the analogy with painting, Charles demonstrated that the progress-
ive codification of the arts had extracted beauty from “the buildings of the ancients” and turned it into a comparable value which could pass not only from ancient to mod-
tem times, but also from “painted picture” to “real palace”. The radicality of this claim for beauty’s translatability is perhaps best evidenced by the fervor with which a com-
peting Parallel, published in 1650 by Roland Fréart de Chambray, attempted to leave beauty where it was: burned deep inside the “mystery” of its classical manifestations. Fréart, too, was one in a pair of brothers; this pair, however, stood unequivocally on the side of the ancients. On the relationship between architecture and language, Fréart was clear: “the art of architecture does not consist in words”. Still, he opened his Para-
léle de l’architecture antique avec la moderne by quoting Vitruvius’s definition of the architectural order, as it to demonstrate unconditional deference to the authority of the ancients. Fréart then professed that words mattered little: “Another peradven-
ture, more subtle and penetrant than I, might find out the mystery of these words... I have thus translated them purely from the Latin text word for word, so that I may the more naturally propose them to those who shall desire profit by them”. Far from an admission of incompetence, the ambition to translate Vitruvius “word for word” constitutes an homage to the tradition that had always recorded classical pro-
portions literally from ancient monuments. Paradoxically, the reason for deferring to the “mystery” of Vitruvian words was precisely that their legacy was so stubbornly mysterious. Instead of dwelling on the word “order”, Fréart proposed a careful inven-
tory of its “ocular manifestations” gathered from treatises since the Renaissance. In plate after plate, Fréart displayed innumerable pairs of columns drawn in parallel across an imaginary central axis—only to render their discrepancies even more obvi-
ous (Figure 3). What Fréart offered was not simply a parallel between the ancients and the moderns but rather an endless series of parallels, a sequential permutation of unmatched pairs which seems to illustrate not that the ancients were mysterious but that all interpretations of the ancients had been mysteriously contradictory. The predicament of the architect in search of ancient authority is exemplified by Fréart’s dilemma: by his attempt to steer away from language and his compulsion to return to Vitruvius’s words; by his desire to let ancient architecture speak for itself and his vexed search for even one matching pair of proportions. Insofar as the originary text that gave architecture its figures of speech had survived without illustration, any def-
ition of the architectural order would necessarily be a translation (whether it was made in the name of the ancients or of the moderns).

Nearly thirty years after Fréart cited Vitruvius in his introduction, Claude Perrault was commissioned to produce a “new Parallel” of the classical text. This com-
mission prompted thequip that architecture must be very ill, if it needed a medical opinion; yet ironically it was precisely Perrault’s training as a physician who made him familiar enough with Greek and Latin to make an authoritative translation. In accor-
dance with his erudition, Perrault appended his translation with footnotes so copious that most of the pages are divided into two halves: translated ancient text at the top, and modern explanatory footnotes at the bottom (Figure 4). This format, allowed Perrault to present two theories of architecture, literally juxtaposed one to the other, and in this sense this translation of Vitruvius constitutes Perrault’s own version of a Parallel. Perrault saw doublings everywhere in Vitruvius’s text, often emphasizing dichotomies that previous editions had tried to overcome. Even the canonical figure of Vitruvian man—which explains the problem of Vitruvian man—was a circle simultaneously had famously occupied the minds and hands of architects since the Renaissance—was presented by Perrault as two separate drawings. (Figure 5).

Armed with a doubling lens, Perrault read Vitruvius in stereometric vision as a con-
fined field of textual dualities that needed to be disassociated and pulled apart. Perhaps most importantly, Perrault made use of this doubling lens to shed light on the Vitruvian definition of the architectural order that had so perplexed Fréart de Chambray. That sentence alone is appended with five footnotes, which provide termi-
nological clarifications on three quarters of a page. Before even translating the word “order”, Perrault establishes that the Latin words for proportion, symmetry, and rela-
tion all appear to denote the same idea. What results is a remarkable linguistic twist whereby symmetry becomes proportion:

Although the word proportion exists in French, I was not able to use it to translate the word symmetrica; because, since Vitruvius uses the words symmetria and proportio that mean the same thing in Latin, I had to find two words that also mean the same thing in French, which symmetry and proportion cannot do, since they mean something dif-
ferent... This is why I thought I could translate symmetria as proportion, and propor-
tio as rapport.

This effort to disassociate ancient words from their modern homonyms reveals an impulse to distinguish real meaning from mere resemblance. For example, Perrault erases the word “symmetry” entirely from his translation in order to avoid confusion between its ancient meaning and its modern one. There are two kinds of symmetries, Perrault explains in the previous footnote: the ancient operation, which projects the proportions of one element onto a larger one; and the modern, specifically French, operation, which reflects an element in its exact dimensions across an axis. Throughout his footnotes, Perrault repeatedly returns to the latter definitions of sym-
metry, emphasizing every time that in modern France one can only call symmetrical those elements which are in a relationship of “parity and equality”. In the cultural con-
text that consistently represented ancients and moderns as facing each other con-
tentiously across an axis, Perrault’s compulsive emphasis on symmetry must be understood less as a compositional preference and more as a new conceptual cate-
gory. If ancients and moderns are truly in a state of parallelism, Perrault seems to imply, then an axis can simply be drawn between them and they can be declared to be symmetrical, and hence equal.

ORDERS

In his preface to the Ordonnance, Perrault makes this parallelism polemically explicit:
It is famously proposing that architectural beauty consists of two separate—but, one might say, symmetrical—parts: “positive” beauty and “customary” beauty. Whereas positive beauty is a timeless value that corresponds to a viewer’s natural instincts, customary beauty, by contrast, changes over time and corresponds to the caprices of fashion. This doubling of beauty has often been read as the critical index of Perrault’s modernity—as a symptom of the characteristically modern propensity to make cate-
gories that artificially divide a previously homogeneous order of meaning. Yet one should avoid the equation of doubling with bifurcation, division with discord, and dis-
tinction with contradiction. Doubling, division, and distinction are just as easily equat-
ed with symmetry—thereby becoming constitutively values as opposed to contentious ones. Perrault’s own title, “The Ordering of the Five Kinds of Columns According to the Method of the Ancients” (italics mine), shows that he nested his analytical cate-
gories in a unifying scheme where modern agency and ancient authority might con-
verge. Nowhere is this desire for convergence more evident than in the first page of the Ordonnance—and here, a careful examination is warranted because, even under the seemingly innocent guise of explicating Vitruvius, Perrault transforms a paralyz-
ing confrontation into a productive device, doubling the architectural order so as to rein-
force it.

Perrault opens his treatise, like so many before him, by translating Vitruvius’s defini-
tion of the architectural order: “the Ordonnance, according to Vitruvius, is what deter-
mens the size of each of the parts of a building according to its use”. Having thus distilled from Vitruvius’s definition two elements (a building and its parts) and two attributes (size and use). Perrault then reveals that what had puzzled Fréart de Chambray was the lack of relationship between the respective pairings of element and attribute that Vitruvius mandates: size and parts (this relationship is regulated, as Vitruvius later explains, by “proportion”); and building and use (this link is regulated by “shape”). In other words, Perrault’s first page exposes the mystery of the ancients: namely, that Vitruvius’s definition is composed of two unrelated requirements—one concerning “proportion”, the other concerning “shape”—which are conjured by nothing more than his historically articulated unification of the word “comment.” To clarify the problematic approach, Perrault doubles this definition into two sepa-
rate operations: on the one hand, proportion determines the parts of a column; on the other, shape determines its use. Real architectural “orders”, Perrault contends, will
only arise when a single relationship emerges out of these two operations, accounting somehow both for the "shape of use" (such as Ionic or Doric) and the "proportion of parts" (such as architrave or capital). The single relationship reconciling "shape of use" and "proportion of parts" is signified by nothing more than a rhetorically well-placed "nevertheless". He writes that although "shape might be more fitting to determining use... nevertheless... the most essential difference between the orders... according to Vitruvius... is that of proportions". It is here that Perrault's invention occurs: by locating the "order" in an enigmatic "nevertheless", Perrault escapes the impasse of a bifurcated world. Proposition, ultimately, must guarantee the unity of the architectural order. "Hence", Perrault concludes, "the architectural order is what is regulated by the Ordonnance when it prescribes the proportions for entire columns and determines the shape of certain parts in accordance with their different proportions'. This definition would amount to a tautology (order is that which is ordered, proportion is that which is proportioned) were it not for Perrault's simultaneous use of active and passive voices: order is that which regulates all the while being regulated. From Vitruvius's statement of a single order, Perrault extracts the requirement of a doubled structure, and it is the singularity of doubling as a process that becomes the bearer of architecture's unitary authority.

What Perrault retains of Vitruvius's definition of the order is its organizational structure - its ability to order the orders. Placed at the beginning of the Ordonnance, the doubler device that Perrault had developed in his translation of Vitruvius's Ten Books becomes the conceptual basis not only for his inventory of the classical orders but also for his invention of a modern way of ordering. Having prefaced the Ordonnance with the startling claim that "the differences between the orders... are the only well-established matters in architecture", Perrault proceeds to organize these "differences" into the paired categories he extracts from Vitruvius's text. What emerges from all this is a two-dimensional structure that surfaces repeatedly: as a way to organize the Ordonnance into two parts; as a visual device for describing the orders; and as the basis for tabulating proportions by means of a grid.

Consider, for a start, the two-part organization of the Ordonnance. "Part I: Qualities that are common to all the orders", and "Part II: Qualities that differ in each order". Perrault structures his architectural treatise as a system of differences, a matrix that accounts for sameness as well as for distinction. Hence the division of columns into parts, which is "common to all the orders", is as integral to architecture as the elaboration of a column's shape, which "differs in each order". Consider also the missing illustration of the orders from Vitruvius's Ten Books, which had been reimagined since the Renaissance as a single plate of five juxtaposed columns. Here again, Perrault's two taxonomic variables - "shape" and "proportion" - can be detected in the visual structure of his illustration, which relies on two axes to dictate kind (Tuscan, Doric, Ionic, Corinthian, Composite) and part (capital, shaft, base) (Figure 6). Perrault's rendition of this plate is remarkably grid-like: a compact square whose cotted vertical lines provide visual continuity between column shafts. The integrity of the columns as objects has been sacrificed: they are fractured in two, made to fit under a single horizontal hang-line that compresses the profiles traditionally rising along a diagonal. Perrault's orders are not, as they had been for so many before him, labeled objects standing autonomously on the same ground. Rather, they are dimensions drawn together into a single matrix. Accordingly, this depiction of the architectural order - which for centuries had been perpetuated by a predominantly mimetic tradition - is nothing other than a taxonomic grid classifying architecture into a system of differences: on the one hand, difference in kind; on the other hand, difference in part. Perrault explains the architectural order as a two-variable system - but where his translation of Vitruvius had merely harmonized the descriptive power of symmetry, his Ordonnance activates the productive power of a grid. It is this same grid that Perrault later deploys in his tabulations in order to average out new proportions.

It is with this recurring structure in mind that we must approach Perrault's proposal for new "probable" proportions and the accusations it earned its author for over four centuries. The narrative according to which Perrault destroyed architectural creation insists that he was forced by his own analytical mindset to cast architectural beauty as arbitrary yet compelled by the weight of tradition to concede that beauty might be natural. This dichotomy is mapped onto Perrault's double vocation as an architect and a scientist; hence his infamous "averaging operation" was (and continues to be) understood by his detractors as a surreptitious attempt to supplant the "natural" with the "scientific"; science triumphs nature when the average of all arbitrary proportions, despite being "arbitrary", are understood as somehow "natural". The potential flaw in this narrative lies in its basic assumption that positive and customary beauty are necessarily contradictory; that one is "natural" and the other "scientific"; and that Perrault was caught between the two, uncertain as to his allegiance. What I want to suggest instead is that Perrault relied on this and other dualities to resolve conflict rather than produce it, and that, therefore, he saw the two notions of beauty as symmetrical, equally implicated in the production of an architectural order that emerges as a third element -scientific perhaps, but no less natural nor more arbitrary for it. We moderns have projected onto Perrault our contemporary understanding of science by assuming that he imported a ready-made "scientific" tool into an otherwise "natural" practice - despite the fact that Perrault extracted both his categories from architecture's own tradition.

Far from imposing a theory of discord onto a previously harmonious order of architecture, Perrault performed an analysis of architecture's discordant Vitruvian legacy in order to derive a two-dimensional grid calibrated to encompass both to the authority of the ancients and the ambition of the moderns. Consider again Perrault's two most polemical claims: firstly, that "the differences between the orders... are the only well-established matters in architecture"; and secondly, that "in architecture there is positive beauty and beauty that is only arbitrary". Neither of these two claims was particularly new in late seventeenth-century France. Where the first is concerned, inventories of the sort of Friez's Parallel had amply illustrated the differences between the proportions offered in previous treatises. The practice of measuring the orders had, further, extended beyond treatises to include ancient buildings. There were, indeed, only differences in the architecture of the ancients. As for the two kinds of beauty, it was a common trope of the literary Parallels and had begun to transcend its literary origins to inform Perrault's allusions to the nature of architectural beauty. It is well known that Nicole, in his 1659 True Beauty and its Phantom, Nicole distinguished between "real" and "false" beauty, the first "eternal", the latter "contingent", in order to propose auniﬁng aesthetics in which beauty was equally well-suited to "nature" and to "convention", equally attuned to the "true description of things" and to "the secret principle of human nature".

What Perrault aimed to describe with his infamous claims was not his own theory of architecture, but rather the predicament of architecture in his time. If the architectural orders were about differences, and beauty was always two-fold, then Perrault's contribution was simply to require that these assessments intersect. He fulfilled that requirement by producing a grid in which architectural differences could be inventoried and averaged. In this grid, the horizontal axis (the axis of what Perrault called "positive beauty") traces all the differences that have remained constant in history, whereas the vertical axis (the axis of "customary beauty") gathers the differences that have changed over time. What Perrault placed into this grid were the orders collect- ed in Friez's Parallel and the buildings measured by Desgodets in Rome. For example, the Table of Entablatures pulls together all the relevant measurements made or proposed since antiquity (Figure 7). This table is modeled closely on the plate of orders he devised to illustrate Vitruvius, with one significant departure: whereas the horizontal axis expectedly organizes columns by kind, the vertical axis - instead of marking the difference between base, column and capital - now distinguishes between Serlio, Palladio, Vitruvius, the Temple of Peace, the Colosseum, etc., Theorists, architects, and buildings: all are placed into the same matrix. In one fell swoop, Perrault transforms each iconic figure and building into an abstract numerical quanti- tity, arbitrarily different from its predecessors and successors regardless of the relative weight of its historical authority. Chronology is discarded, supplanted by a sliding scale from 'less' to 'more'. What Perrault proposed was not a new inventory but a new structure for an existing inventory, as a comparison of his tabulations with the table of contents of François Blondel's 1675 Cours d'architectu re enseigné dans l'académie royale d'architecture makes clear (Fig. 8). Blondel was a staunch defender of the ancients, dedicating an entire chapter to a denunciation of Perrault's heretical theory. Yet a discerning eye might examine his index of chapters and see Perrault's matrix emerging from the maniacal repetition of naries, orders, and parts. It was this kind of repetition of sources that Perrault placed into his grid, and it is not difficult to imagine the effect of this ordering on the authority of the ancients.

From an undifferentiated collection of discordant sources, Perrault extracted an impeccably elegant numerical progression. Where centuries of measuring had yielded only complexity and difficulty, Perrault's plate of the orders explained every proportional relationship with the paradoxical simplicity of ten roman numerals (Figure 6). In order to arrive at this simplicity, Perrault not only created a new module that transformed messy fractional entities into neat integers, but he also famously fudged his calculations. As a mathematician, Blondel deferred to the intractability of his sources, crowding his plates with numbers in the hopes that every mathematical entity might hold a key to the mystery of the ancients. Perrault's numbers, by contrast, are nothing but the means to an end - to a diagram equally well expressed in graphic or written form. Without a scale and almost devoid of numbers, Perrault's
ENGLISH ABSTRACT

The diagram of the orders is a pithy formula computed in Part I of the Ordonnance and repeated five times in Part II (once for each order). If Perrault eventually proposes new proportions, it is only to conclude with an assurance that he will defer to any body who proposes a better method of calculation. "Method" is the operative term here; the authority that emerges out of the conflict between ancients and moderns is the process of ordering itself. It is not Perrault's theory that is crippled by "complexities and contradictions" (to use Perez-Gomez's phrase). Rather, it is the Vitruvian tradition, unproblematically gathered in Perrault's plate of orders, which lays bare all of its accumulated discrepancies by means of a new ordering device that mirrors ancients and moderns around an axis and folds them into one. (Fig. 19).

COLIUMS
What does all this have to do with the Louvre colonnade? What is the connection between the authority of method and a façade without an author? In strictly proportional terms, the architectural order used at the Louvre is not the same as the Classical order proposed by the Ordonnance. Yet Perrault's numerator, the number we have seen, tolerates inaccuracy. Far more important is the question posed by the doubling of columns: what are we to make of the coincidence that, in an age of endless parallels, such a visible royal commission should feature paired columns rather than single ones? To be sure, there is a technical explanation: an added column helps to support the weight and withstand the thrust of an architrave spanning unprecedented lengths. But structural necessities are only part of the answer. I would like to suggest that the doubling of columns at the Louvre projects architecture onto Paris in the same way as the Ordonnance projects a method of ordering onto the Vitruvian tradition. My point is not that Perrault's method has literally been embodied by a colonnade, but rather that both function as devices for ordering. They both posit a conciliatory politics—for interpreting the orders, for giving an architectural face to the monarchy—that acknowledges the authority of the ancients all the while breaking the spell of their mystery.

Symmetry is the key to understanding the colonnade's role—it is, after all, an operation that turns a single column into a pair by means of a vertical axis. Take the plate from Fréart's Parallèle comparing Alberti's and Vignola's Corinthian order; it is the disrupted expectation of symmetry—of seeing a single column and then realizing that two different halves have been conjointed—that creates the uncanny effect of seeing double (Fig. 3). Just as a vertical axis is endlessly repeated in the plates of Fréart's text, so a vertical line can be drawn between each pair of columns at the Louvre. Mapped onto the whole colonnade, this proliferation of axes of symmetry helps to explain the relentless flow of the façade and Perrault's insistence on representing it as a potentially self-perpetuating system of construction. By the same token, imagining these axes serves to shift our attention away from the columns qua columns and towards the space between them. This emphasis on intercolumniation, on the space in-between, leads us back to Perrault's translation of Vitruvius's Ten Books. It is in his explanatory footnote to the section on intercolumniation that the Louvre colonnade first appears as an exception to ancient rules. To legitimate what he calls (without claiming authorship) "the invention made at the Louvre," Perrault makes reference to Hermogenes—the only ancient architect who, in order to accommodate an entrance, had dared break the regularity of intercolumniation by slightly modifying the interval between the columns of his temples. In his footnote, Perrault draws two plans of four columns each, in a sequence that makes evident the process of ordering a colonnade (Figure 4). Hence the doubling of columns at the Louvre is not the result of an addition of elements, but rather of a modulation of distances: it is not that a column is added, as the diagram in his footnote makes clear, but that every other column is displaced. Rather than pairing identical columns, the Louvre façade appears to pair non-identical intervals; for every short interval between paired columns, there is a long interval between pairs of columns. In other words, if the Louvre façade is to be understood as a system, it must be understood as a system of differences. Just as in Perrault's Ordonnance, what matters is not the numerical measurement of the orders (the dimension of columns), but rather the accumulated differences between them (the space between columns). In this way, Perrault's colonnade is a system that orders amounts as asking what the difference between two kinds (espèces) of differences might be.

Perrault's footnote on Hermogenes concludes with the declivity modern assertion that, whereas the Ancients preferred their peristyles to have narrowly spaced columns, the French favor more generous intervals, which Perrault calls dégagement. This thesis of taste, Perrault argues, occurred because of usage, a concept that also appears in his brother's Parallèle in reference to the Louvre colonnade. Whereas in ancient times, Charles Perrault explains, ladies had to hold up holding when entering temples because entrance spaces were too narrow for two bodies, modern peristyles improve on their predecessors by making accommodations for usage. Hence narrow and wide intervals appear to be literal references to ancient and modern usage, respectively. And the Louvre colonnade can be understood as a serial juxtaposition of two kinds of usages: the ancient short interval, so narrow that it barely allows for the width of a single body; and the modern dégagement, made wide as possible through modern structural technology. The ancient interval, while remaining a reference point, only serves to underscore the amplitude of the modern dégagement, and the sociability it implies.

What, then, is the usage of dégagement at the Louvre? In Perrault's frontispiece to Vitruvius, we find another doubling of columns, to the left of the Louvre, in the Arc de Triomphe du Faubourg Saint Antoine that Perrault designed in 1687 to commemorate the royal entrance into Paris of 1660 (Figure 2). Here the pairs of columns flank an archway intended for the passage of the King, and the resulting intervals are clearly differentiated by usage; short intervals between paired columns are merely appended to the wall, whereas the wider ones between pairs allow for triumphal processions. Hence the Arc stands as the result of a properly French ordering of columns, whereby a modern dégagement befits the authority of the modern King and the ancient precedent is presumably displayed for its symbolic value. At the Louvre, by contrast, the entire colonnade stands apart from the wall, and never allows for passage of any kind. From the inside of the Louvre, one can only step into the peristyle and look through it, and it is from within this space that the entire façade from frontispiece to Vitruvius appears to have been composed. Here a picture of sociable architecture emerges. The allegorical figures conversing in the foreground are seated behind short and wide intervals; they are situated as if in the Louvre colonnade yet they also paradoxically face it, looking out onto a cityscape taken over by a plethora of coupled columns.

If the "invention" of the Louvre is to have detached its colonnade completely from the façade to form a peristyle, then the usage of this peristyle corresponds to another kind of dégagement: a pulling apart of one surface from another, a process that leaves traces on the wall in the form of coupled pilasters. As Pierre Patte's 1769 detailed plan shows, the space of the colonnade results from a doubling of coupled columns into coupled pilasters, a gesture that seems to echo Perrault's doubling of the canonical Vitruvian figure into circle and square (Fig. 9). As a result of this gesture, every interval between pairs of columns is matched by a perpendicular interval between wall and colonnade, and the two directions of this dégagement are clearly marked by the circle-in-a-square ceiling scheme that hovers above it and projects geometrical order from the coffers down.

Clearly the peristyle of the Louvre is an ordered space intended to be occupied by bodies, rather than simply a composed façade whose horizontal impact is intended to be perceived from a distance. What is more, it is not a given that the body behind the colonnade is the body of the King—as a comparison with another royal residence makes clear. A similar process of dégagement characterizes Jules Hardouin-Mansart's Galerie des Glaces, which was appended to the western façade of Versailles in 1678. Here, too, the interior wall bears traces of a perforated surface that has been detached from it; the same arcuated rhythm is found on the garden façade and on the wall of mirrors that is parallel to it. Yet whereas the mirrors at Versailles serve to bring its gardens inside the palace, the wall behind the Louvre colonnade remains impermeable. Whereas the Galerie des Glaces looks both inward and outward to reflect the supremely ordered world of Le Nôtre's gardens, the Louvre colonnade is an ordered space that mirrors itself indefinitely, projecting outward onto the chaos of a then-still-medieval Paris. And whereas the mirrors of Versailles reflect the King as he deambulates down his hall, rendering his body into a ubiquitous presence, the peristyle of the Louvre is marked by Louis XIV's absence.

Remember that the construction of the colonnade stands in the historical record as the architectural marker of the King's departure from Paris and his transfer of the entire court to Versailles. If, in Louis Mann's words, "the King at Versailles is at once everywhere and nowhere", at the Louvre, in contrast, the King is elsewhere—the King is at Versailles. By the time the colonnade was completed, all that remained of the royal entourage in Paris were the scientists, the artists, the architects—in short, the academicians. To be sure, the Louvre continued to dedicate the absolutist authority that had created it. But the task of representing this authority was being delegated to the Academies—bearers of France's newly institutionalized scientific and artistic ambitions. Imagine therefore the Louvre, teeming with so many artists and savants who, entrusted with the national academic mandates, are charged with developing an intrinsically French view of the world. In this scheme of things, the image of the colonnade as a projective ordering device takes on added dimension. No longer an
order to be contemplated from the outside, the colonnade is a space for looking out onto Paris through the eyes of an academician a space for seeing, through the inter-
vails of the columns (both narrow and wide, both Ancient and Modern), an entire
world that has yet to be ordered. The Louvre colonnade offers not an order to be
looked at, but rather an ordering device to be looked through, and what this device
imposes onto Paris is the numerical elegance of taxonomy, of classification, of order.
The passage from a contemplated single order to a sociable ordering device is vivid-
ly rendered in Charles Perrault's Parallel, an allegorical tale of the eclipse of the mys-
terious authority of the ancients. The Parallel is a satirical fable that follows three
characters — Le Président, le Chevalier and l'Abbé — as they travel to Versailles to
discuss the merits of modern inventions and ancient accomplishments. Arriving at
the question of architecture, they refer not to the château in front of their eyes, but to
the royal complex in Paris. Here, the Abbé contends, a single column contains architec-
ture's perfect order, meaning that all architecture should strive towards a single, ideal
proportion:

Abbé: It is said that, among the columns at the Palais des Tuileries, there is
one column which has the desired proportion. People go admire it, as if it
were the only one where the architect had reached the imperceptible point of
perfection. It is even said that, not long ago, an old architect had himself
brought there every day, and spent two whole hours sitting in his chair, con-
templating this masterpiece.

Chevalier: I am not surprised; this way he got his rest, and in a very plea-
sant place, too. By the same token he acquired a great reputation at a small
price, since, the less one saw what could possibly be so charming in this col-
umn, the more one supposed that he had a profound understanding of the
mystery of architecture.

Abbé: If those strong proportions had had natural beauty, no study would
have been required to judge them.

"An old architect" immobilized by the sight of a single column, all the while "getting
his rest": with what might be taken as a reference to Bernini's recent Parisian visit (he
was sixty-seven years old at the time), Charles offers a cautionary tale about the mys-
tery of the ancients. What he goes on to argue is that "in the Louvre façade alone
there is more architectural beauty than in any of the buildings of the ancients". What
this means, I want to suggest, is that the Louvre colonnade makes it impossible to
contemplate a single column — a single order — since this order is, quite literally,
no longer single. By ordering the orders, in other words, the Louvre colonnade breaks
the mystery of the ancients just as it allows space for the consolidation of modern
authority. In the end, the truly modern architect must stand behind the colonnade and
watch it project ancient authority and modern invention together onto the world in a
perpetually self-replicating system. It is this self-replication that ensures the emer-
gence of a properly French order, as architecturally coherent as it is politically
absolute.

Lucia Allais is the winner of the 2005 FAST-IP Excellence Award. "Ordering the Orders"
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THE ROCKEFELLERS: ARCHITECTS OF LATIN AMERICA'S CONSUMER IMAGINATION

Evan R. Ward

While John D. Rockefeller, Sr. was arguably the chief architect of the global petroleum
industry, his posthumous would transform the design and development of commer-
cial architecture throughout the world as a result of their wide-ranging international
business ventures. At the dawn of the Great Depression, Rockefeller's only son, John
D. Rockefeller, Jr. dared to build a mixed-use commercial project in midtown New
York in order to stimulate its economic viability. Under the direction of a host of amb-
tious architects, including Wallace K. Harrison, Rockefeller developed a model for
mixed-use commercial projects that would be emulated throughout the world for
the rest of the century. The daring, yet functional, project — eventually named Rockefeller Center — included millions of square meters of office space, separate buildings for international trade delegations, a massive theatre (Radio City Music Hall), under-
ground shopping malls, and apartment buildings. Rockefeller elegantly commis-
sioned world-class artists to add beauty to the complex, including frescoes by
Spanish José María Sert. By the end of the twentieth century, Rockefeller Center had
kept pace with the global transition from an industrial economy to a service economy
by evolving into a chic shopping center, entertainment site, and tourist mecca.

Similarly, three of John D. Rockefeller, Jr.'s sons, Nelson, David, and Laurance,under-
took a variety of commercial activities in Latin America in the post-World War II era
that required functional, yet innovative, commercial architecture to house their enter-
prises, which included supermarkets, shopping centers, and hotels. Nevertheless,
the Rockefeller attraction to Latin America went much deeper than the potential profits
to be made there. Instead, a fascination with Latin American cultures first drew the third
generation of Rockefeller sons south of the United States border. In 1933 twenty-five
year old Nelson Rockefeller visited Mexico for the first time. He spent a month there
studying pre-Columbian art, and upon his return he tried to convince the Metropolitan
Museum of Art and the New York Museum of Natural History to sponsor archeologi-
cal digs in South America. Four years later, as a board member of the Standard Oil
subsidiary in Venezuela, Creole Petroleum, Nelson embarked on a tour of South
America, which included visits to Brazil, Argentina, Chile, Peru, and the Panama
Canal. Earned in his admiration of pre-Columbian culture, Nelson financed the exca-
vation of one hundred mummies in the tombs of Paracas in Peru.

More reserved, yet no less sincere in his interest in the Americas was his brother,
David Rockefeller, the financier and economic theorist. "Two years before David began
traveling extensively throughout Latin America as part of his work for Chase
Manhattan's Foreign Department, Nelson gave David and his wife, Peggy, a surprise
second honeymoon to Mexico. As they made their way through the colonial and pre-
Columbian heartland of Mexican culture in Oaxaca, Puebla, Guanajuato, and San
Miguel de Allende, David recalls, "The tour opened our eyes to a new world: the pic-
turesque villages filled with people dressed in bright colors crowding the mercado,
where everything from tacos to beautifully made handicrafts were sold".

This cultural fascination of the Rockefeller brothers with art, culture, and society in
Latin America laid the foundations for a prolific family-based endeavor to transform
the consumer culture of Latin America during the second half of the twentieth centu-
ry. From his time as an enthusiastic art collector to his appointment by Franklin D.
Roosevelt in 1940 as the Coordinator of Inter-American Affairs, Nelson Rockefeller
created an economic framework that he believed would transform the economies and
societies of Latin American countries, raising the standard of living closer to that of
Americans. While he was ultimately unsuccessful in this broader goal, one of the tan-
gible institutions of his plan, International Basic Economy Corporation (IBEC), estab-
lished a wide net of supermarkets, shopping centers, and malls throughout Latin
America between the late 1940s and the late 1970s. Just as Rockefeller Center set a
standard for mixed-use Modernist architecture in the United States, the supermarkets
and shopping centers built by IBEC throughout Latin America set new standards for
commercial Modernist design throughout the region.

IBEC supermarkets and shopping centers created an emergent "Consumer
Imagination" in the countries in which they operated. The "Consumer Imagination" is
the theoretical community of middle and upper class consumers who share the same
values and consumer tastes (normally set by European or American standards),
regardless of nationality. In Peru, Venezuela, Argentina, El Salvador, and Puerto Rico,
IBEC supermarkets introduced modern design and architectural standards and
sophisticated products that encouraged Latin American shoppers to adopt similar
consumer values and ways of shopping as could be found at supermarkets in the
United States and Europe. Thus, the evolution of commercial architecture in the
region went hand in hand with raising the expectations of discerning consumers who
desired not only modern products, but also an appropriate architectural context for
their enhanced shopping experience.

IBEC's commitment to building modern shopping centers throughout Latin America
went hand in hand with revolutionizing the functional shortcomings of prevailing
shopping practices. A description of the Chilean retail food sector in the mid-1960s
presents a vivid picture of the antiquated process of retailing in the region:

Typical consumer shopping involves visits to several shops if the housewife is buy-
ging groceries, meats, fresh produce, etc. With slight variation, the following proce-
dure is followed in each shop. She enters the store with her shopping list and her own
shopping bag... She send the store clerk scurrying all over the store for her purchas-
es, many of which he has to weigh and price for her... The clerk informs the cashier of
the total amount of the purchase, and the cashier (usually the owners wife or
dauhter) prepares a sales slip, a required record under the sales taxation laws. The
customer pays the cashier, receives her purchases from the clerk, and is on her way.
It is unlawful for anyone handling money also to dispense food — but often the real
reason for separating the jobs is the shopkeeper's mistrust of an employee's ability or
honesty in handling funds. Part of this fragmentation of retailing stemmed from the lack of large-scale producers of food. Small stores were dependent on small-scale farmers for daily supplies of produce and fruit. Little incentive existed to produce large amounts of agricultural products. In addition to the deficiencies in distribution, retail stores throughout Latin America were generally dark, unorganized, and cus-
tomers were dependent on store clerks to acquire products from behind a counter. By developing modern supermarkets and shopping centers that placed all of an individ-
ual's shopping needs in one clear, self-service location, IBEC's structures also helped functionally transform the more chaotic methods of shopping that had prevailed previ-
ously.

Development of shopping centers initially went hand in hand with the establishment of supermarkets, particularly in Venezuela and Peru. In Venezuela, the first super-
market, TODOS, in Maracaibo was initially opened in 1949 and then expanded into a shopping center with rental tenants in the early 1950s. The next major shopping cen-
ter, Automercado, in Caracas, was initially planned as a shopping center with a super-
market anchor and office space for IBEC executives. Automercado occupied approxi-
mately thirty acres. This latter structure consisted of a two-story glass and steel building with open-air passageways and ample parking. The Automercado set the stage for development patterns outside of Venezuela, as IBEC emphasized the opportunity to introduce new forms of shopping, through the automobile driven shopping center, and make money through rental arrangements with tenants. These innovative stores were not only attractive to customers, but also to local presenters who appreciated the innovative architectural context within which their products would be viewed if marketed through IBEC supermarkets. Although IBEC was not the largest food retailer in Venezuela, its stunning stores set them apart from their com-
petitors. As IBEC executive Bernardo Jofre noted in 1957, "We should bear in mind, as we increase the number of our stores, that although the proportion of our sales in relation to the total national market will be more or less the same, the fact that we are operating a chain of modern and attractive supermarkets and shopping centers throughout the country is an important factor to local food producers. It means to them good publicity, prestige and stable outlets... IBEC supermarkets are without doubt by far the best in the country".

While IBEC's supermarket division generally operated in nations where modern retailing techniques were not widely practiced, it often worked to push the concept of mod-
ern consumer culture in concert with other prominent retailers or developers. Perhaps the most intriguing of these retailing synergies involved IBEC's relationship with Sears in Latin America. While there was no official relationship of cooperation between the two corporations, they often occupied the same shopping centers. Functionally, both companies catered to the emerging middle class, a characteristic reflected in their emphasis on building shopping centers away from the city, with plenty of parking. Like IBEC, Sears transferred modern architectural designs to Latin America from the United States. Much like the Spanish cathedrals and govern-
ment buildings that owed natives and peasants in sixteenth and seventeenth cen-
turies, these new stores signaled the onset of the modern age that was duly noted by local shoppers. Sears personnel specialist and Vice President, James Worthy, wrote, after a tour of the company's Latin American stores in 1956 that "[the] stores them-
elves—with their modern architecture, attractive interiors, efficient layouts, and imposing size—create highly favorable impressions, not only on the part of those who actually trade with Sears but on the part of the public generally". New methods of display inside the stores, as well as new advertising techniques, trans-
formed the way customers shopped. Instead of placing products behind counters, as was often the case in traditional Latin American stores, goods were placed within reach of consumers in Sears stores south of the border. An effective art and layout department facilitated shopping at all hours. "Window displays lighted at night", one study noted. "are another complete novelty in [Mexico City], where the custom has been to lock the steel store shutters every afternoon. People can now do their win-
dow-shopping in the evenings. Other stores are beginning, cautiously, to adopt this practice".

In 1954 IBEC expanded into Peru. Design of a modern shopping center was central to the expansion process. As part of the decision making process, management had to determine whether they would simply open a store on the six acres of land they had purchased in the trendy San Isidro area of Lima, or construct a shopping center in addition to the supermarket. The automobile, and its association with the middle and upper classes in Latin America, played a critical role in IBEC's decision to build a shopping center early on. Beginning in October of 1954, IBEC executive Fred Gardner wrote a memo to his colleague, Laurence Levy, regarding the prospects of opening a shopping center in Lima and if such a decision would be profitable,

Gardner pointed out that shopping centers and the supermarkets that often anchored them emerged in the early mid-twentieth century in the United States as a result of urban congestion and increased access to the automobile. While practically everyone in the United States owned a car, Gardner pointed out, only about ten per-
cent of the population of Lima had access to an automobile. In a stunning conclusion, Gardner noted, "merchandising trends can be analyzed in reference to motor trans-
port and the growth of town-and-country patterns of living and working". Gardner went on to note that in the San Isidro district, "automobile ownership begins to com-
pare with saturation ownership in the United States markets". However, he did not know that at all, in addition to very different patterns of shopping (dominated by markets and trips to the city center) would be able to justify designing and building a shopping center in Lima.

Gardner's analysis points the way to better understanding why IBEC, whose initial purpose in operating supermarkets was to lower prices and increase access to mod-
ern distribution facilities, ended up transforming the consumer culture of the middle class. There is no better architectural symbol of American consumer culture than the shopping center, be it the strip mall of the mid-twentieth century or the enclosed regional mall of the late twentieth century. Both would occupy the attention of IBEC executives. Indeed, by the early 1970s they were almost as concerned with develop-
ing malls as they were with operating supermarkets. The location of these shopping centers, in upscale, suburban neighborhoods, adjacent to new middle-class resident-
al subdivisions, targeted the market for the best available goods and ser-
rices and practices of American consumer culture. Despite their American pedigree, however, IBEC attempted to construct shopping centers that reflected modernity and Latin American culture. The 1957 IBEC Annual Report noted, "Modern architecture designed to blend with their locations characterizes IBEC supermarkets and shopping centers. Where the weather is warm, markets are air-conditioned. In some of the larg-

er shopping centers, reflecting pools and broad malls add attractiveness. Bold use is made of color". However, inside of the shopping centers and supermarkets, "the shopping area is laid out along the lines of United States markets".

IBEC went to significant lengths to include local architects in the design process for the San Isidro shopping center. In July of 1954, Lawrence Levy approached (local architect) Jose Alvarez Calderon to draw up plans for a shopping center on the pro-
posed lot. He would be provided with plans from the Automercado in Caracas, as well as receive assistance from Wallace K. Harrison's New York office. Calderon's plans are a testament to the impact IBEC exercised on the creative imaginations of architects, as well as shoppers. Instead of designing a conservative shopping center, he "includ-
ed drawings of a proposed office building and movie theatre which is far beyond any-
things we contemplated or asked him to do". Calderon's plans also embodied four cor-
ridors of stores, in addition to the supermarket, which would be beautifully land-
scaled and then complemented by a movie theatre. The modernistic design envi-
roned a two-story supermarket (like the Automercado In Caracas) and covered, open-air passenger ways that led to the large modernistic office building and contoured theatre. The fact that Calderon's concept was not accepted for design attests to the fairly conservative nature of IBEC architecture, but it also illustrates the new visions of shopping centers that IBEC had set in motion in South America in the late 1940s and 1950s. The TODOS shopping center, including twenty stores and a supermarket, opened in September of 1957. The design, completed by an unknown Peruvian archi-
ject, was modern in flavor, yet not futuristic, like the splendid design of Jose Alvarez Calderon.

International Basic Economy Corporation (under the retailing name of Minimax in Argentina) expanded south into Argentina during the 1960s, setting standards not only in retailing, but also modernist commercial architecture. In terms of design, the Minimarket stores reflected the aesthetics of modernity and progress. In 1971, Minimax opened three new stores in the Buenos Aires metropolitan area. Employee magazines, published by DACSA, provided a primer on modernist architecture for the workers. "The simplicity of the architectural lines makes this store [Urquiza] to bring a better and more attractive environment to the woman of the house in her daily purchases". The boxy exterior and clean interior reflected the locally conservative yet transparent facades of the store. The stores at Maure and Libertador on the other hand, also both new in 1971, were more of a European modernism, with a series of artistic acrylic scaffold-style designs rising above the brick and glass store front in front of the opening façade. Beautiful on the outside, yet functional on the inside, the interiors boasted wide aisles and an illuminated store, which "create the optimal conditions of shop-

ing, set against the backdrop of a serene and warm environment". The store at Libertador employed a similar brick, glass, and acrylic façade typical of the European-

style culture of Argentina. Again, the beauty of the exterior was complemented by the
functionality of the interior. “The 1,200 square feet of the store offer innovations that place it among the most advanced, siendo facilmente percebe the enormous letters that, occupying the highest part of the central wall, indicate the sector of the meats. The same happens in the fruit, vegetable, and milk sections which all have the same sítie, although in smaller proportions.” Libertador was also the first Minimarket to boast air-conditioning.

The following year, 1972, witnessed the opening of the last Minimar, located in the federal district of Buenos Aires at Colonof Díaz and French Avenues. The employee magazine again served to impress upon the employees the innovations of each Minimark store. In this issue, it was accomplished through a hook dialogue describing the store.

Claudia, I am amazed. I never thought that in our neighborhood that we would have a supermarket that combined the characteristics of beauty and comfort.

Look, Maria Laura, from today I can assure you that the savings in time resulting from shopping will permit me to dedicate several hours each day for other activities. Before I went from one place to another. The meat in one place; the fruit and vegetables in another; the products from the warehouse three blocks away. I guarantee you that it never would end.

I can assure you that this supermarket has “charm,” added Rosalía. When you go walk around the store you remain frozen by the thousand and one details of good taste. Its decoration, its quality infrastructure, its soft and well-selected music, the perfect distribution of the products, contribute to give it a special distinction that for me is “charming.”

These descriptions serve two purposes; first they were intended to educate employees of Minimar about the innovative features of the built structures of the stores. Second, they illustrate a high degree of cultural adaptation on the part of the corporation. For example, it was only after trial and error that Wal-Mart learned that Argentine’s shopped more frequently in larger groups than Americans in the wake of opening their first store in Buenos Aires in 1985. These descriptions and dialogues reflect a high degree of adaptation of the built environment of the American supermarket with the consumer and cultural preferences of the Argentine shopper.

International Basic Economy Corporation stores not only set a new design standard for Latin American cities during the mid-twentieth century, but also influenced new models of urban planning. Grupo Poma, today El Salvador’s leading developer of shopping centers, approached the Rockefeller in 1967 to invite them to place one of their supermarkets in Metrocentro, a mixed-use shopping center, hotel, and office building complex. In an effort to coax them into the center, R.A. Argüeta, business manager for the project, sent Sears and JCPenney detailed information about the traffic flows around the new shopping center, which would be located on the city’s main thoroughfare, Boulevard de los Héroes. The memo analyzed traffic volume at different points during the day, as well as the location of the shopping center in reference to the city center. “The Boulevard is heavily used by private cars, since it provides access to the high and middle income residential areas”, the report observed, “plus the major private schools and the National University.” This association between traffic flows from high-income neighborhoods and the new shopping centers represented a not so subtle appeal to the marketing power of the new shopping center. In listing the traffic flows throughout the day, the report also suggested that the hours for the new shopping center might be changed to better suit the demands of the international retailers. In the traditional shopping area downtown, all San Salvador businesses were closed after 7:00pm. As an inducement to considering placement in the plaza, Argüeta’s report noted, “The possibility of maintaining the Shopping Center open after 7:00pm must also be very carefully studied.” Finally, Argüeta’s report pointed to the advantages of Metrocentro’s plentiful parking (enough for more than one thousand cars).

In late 1970, a city ordinance was enacted prohibiting curb parking on most streets... this caused the automobiles to circulate and recirculate because of the lack of off-street parking facilities. Parking that this was extremely difficult at any time of the day. The commercial complex of METROCENTRO will have parking for more than 1,000 cars, which is about 60% of all the total parking spaces available in downtown. This mundane report of traffic patterns in San Salvador reveals the nexus between global brand placement and shopping center design in developing countries, in this case El Salvador. The innovative features of massive parking lots and easy automobile access for those most likely to purchase the luxury products carried by a foreign retailer demonstrated the architecture of attraction that developers could not afford to overlook in creating portals to the consumer imagination.

FROM SUPERMARKETS TO SHOPPING CITIES

Until the late 1960s, IBEC limited its development of shopping centers to the expansion of its supermarket chains. By 1968, IBEC’s experience with retail in Latin America embodied Rodman Rockefeller to expand IBEC’s activity to the field of regional shopping centers, the equivalent of the enclosed modern mall. The 1969 Annual Report reflected this, making a turn towards: Regional shopping centers containing large individual unit stores that serve entire communities with both food and non-food products. The integration of the two has won support from the consumer in Latin America for a number of reasons. A combination of higher income being enjoyed by the emerging middle class, together with a new mobility made possible by wider ownership of automobiles has made the regional shopping center a practical one. In addition, the notion of converting a shopping expedition into a family outing has made it an attractive one. IBEC intends to explore thoroughly these recent developments in making its plans for the future.

Culturally, this passage revealed IBEC’s awareness of Latin American shoppers’ preferences, as opposed to imposing an American model on the Latin landscapes. In fact, it is much more common to find both food and non-food stores in Latin American malls today, a factor that reflects class and cultural differences between Latin America and the United States. Furthermore, the concluding comment related to the social value of shopping in Latin America reflects the greater value of cultural and social interaction in Latin American malls than is manifest in American shopping centers.

The expansion from supermarkets and shopping centers to regional shopping centers also coincided with IBEC’s vision to cultivate a “consumer imagination” throughout Latin America. As with their supermarkets, IBEC entertained, as well as made, various proposals for regional malls. One of the first opportunities to develop such a shopping complex emerged in a region where IBEC’s supermarkets had not taken hold, but still demonstrated potential for retailing development: Puerto Rico. At the time, Puerto Rico was not without one of the better regional shopping centers in Latin America, the Plaza Las Américas. Plaza Las Américas opened in 1965 and was owned by the Plaza Las Américas Corporation, which like so many other Latin American business, originated as a family business. The Gerónimo Fonalledas family started operating a sugar mill in Puerto Rico and then diversified into the dairy business and later land development (1956). In 1963 they raised eight million dollars in order to fund the Plaza Las Américas Inc., which would operate the first regional mall in the Caribbean. Opened in 1965, the Fonalledas family looked the shopping center as a meeting place, as well as a place where people shopped. Located in the hip Hato Rey suburb of San Juan, the mall, covering fifty-five acres, boasted seventy-nine stores by November of 1968, as well as parking for 4,000 cars.

IBEC entered the shopping center business in Puerto Rico because they believed the market was underserved. They conceptualized the shopping center as “a new urban center”. Designed by Puerto Rican studio, Eduardo Molinari and Associates of Puerto Rico, the modernistic shopping center would be located adjacent to a regional hospital, government offices, a park, and new housing developments. After long and difficult negotiations with potential partners to develop the shopping center, as well as tenants, IBEC joined with General Growth Properties to create what remains today Puerto Rico’s second largest shopping center. IBEC divested itself of its stake in Plaza Carolina in 1960, but had created an impressive regional shopping center. Like Plaza Las Américas, Plaza Carolina was entirely air-conditioned, however it was also larger than Puerto Rico’s first mall. Having Sears and JCPenney as anchors also served to benefit consumer services on the island. According to Martin Burschbaum, of General Growth Properties, “With Sears and JCPenney as our anchor stores... we have been very successful in attracting and signing leases with well-known merchants from both Puerto Rico and the United States”. While most of the tenants in the mall were Puerto Rican, the magnetic pull of the anchors attracted the likes of Lenner, Kinney Shoes, Thom McAn Shoes, Florsheim Shoes, Gordon Jewellers, Zale’s Jewellers, Walgreen’s, and Woolworth’s. Plaza Carolina remains today San Juan’s second most important shopping center.

Perhaps the most impressive of the IBEC-driven shopping centers moved beyond the regional shopping center and into the realm of a “shopping city”. Like the Metrocentro in San Salvador, the Centro Ciudad Comercial Tamanaco (CCCT) located in Caracas, Venezuela, would be a multi-use property, offering first class accommodations for tourists and businesspeople, sophisticated shopping, as well as technologically advanced office spaces. Unlike Metrocentro, however, IBEC would provide major oversight for the project. Owned by the Venezuelan Government, the CCCT capped an almost twenty year tradition of innovative shopping center design in Venezuela. In the beginning, development of the CCCT involved the usual parties:
IBEC, Sears, and the architects. In this case, Judibana had contracted the architectural services of Chris Ramos, from Kansas City, and Diego Carbonell, noted Venezuelan architect. In April of 1972, representatives from the three parties came together in Chicago to discuss the proposed shopping center. The main purpose of the meeting was to inform Sears of the project and invite them to serve as one of the anchors. Von Zelovitch expressed his faith in the project, noting that tenants in GADA shopping centers throughout Venezuela were planning to buy shops in the mall. Sears presence would only strengthen the retail offering. Von Zelovitch and Chris Ramos then explained that spaces in the mall would be purchased, instead of traditionally leased (as in the United States), but that design criteria would be implemented by the architects in order to maintain quality of signage, etc., from the shop owners. Sears would ultimately not purchase one of the anchor spots at CQCT, opting instead to wire profit from a store in the deteriorating Bello Monte part of town. The meeting illustrated once again the close relationship between IBEC and Sears. Not surprisingly, in passing on the CQCT project, Sears Executive Bill Scalf "indicated that he had strong indeed that it was a pattern of shopping centers with us in Venezuela and Brazil...of particular interest is a location on the west side of Caracas and some locations in Sao Paulo".

In addition to concerns about tenants, there were concerns about building such a structure. In order to be an integrated shopping city, the CQCT had to promote easy circulation patterns by consumers, service workers, and cars, all arriving at the center for different purposes. In an undated review of the design, the accessibility of the shopping center from the rest of the city was stressed: "The site appears to be excellently situated and is well served by major thoroughfares reaching all important segments of the city of Caracas". The high level of automobile ownership in Caracas complemented the well-developed road system at the time. Designers were warned to work together with civic officials in carrying out the traffic circulation patterns for the center, as congestion in such an important commercial center could frustrate the thousands of parties who used the complex on a daily basis. Sex also played a role in the design pattern, as "ramps shown (in the original design) between the elevated parking decks appear to have gradients which are too extreme for safe use by women patrons". The design critics also noted the importance of coordinating service vehicles, buses, and emergency vehicles in such a way that they would be "compatible with customer traffic movements". Coordination of flow also extended to storage layout in the new mall. The original location of the bowling alleys, for example, would take "prime department store parking at prime shopping times". Similarly, "Seven motion picture theaters, vertically adjacent to supermarket, would create heavy competition for the same prime parking areas during the same prime time for sales".

DAVID ROCKEFELLER, FREE TRADE, AND MIXED-USE DEVELOPMENT

David Rockefeller’s influence on Latin American consumer culture was not constrained to ideas, however. By the late 1960s David, now chairman of Chase Manhattan, was helping to create a physical manifestation of zeal for free trade. This transfer of ideas into a tangible institution probably began early in David Rockefeller’s life, as he saw his father, John D. Rockefeller, agonize over his commitment to build what would become Rockefeller Center, the first multi-use urban structure dedicated to office space, international trade, shopping, and entertainment. Twenty-years later, David Rockefeller found himself trying to do for lower Manhattan what his father had done for Mid-town, rescue it from decline, as well as protect the families and investments in New York City (David had recently completed a new headquarters for Chase Manhattan in Lower Manhattan and had an interest in the area coming to life as a viable commercial and residential district). He took this as the ideal opportunity to create a new international trade center, the World Trade Center, for New York. He hoped that this would reposition New York as a trade and financial capital of the world. The buildings would be occupied by trading companies from all over the world who desired to do business in New York or in the United States. Their close proximity, as well as a myriad of business services, would offer a degree of commercial synergy difficult to find elsewhere. Curiously, however, the World Trade Center, would not simply be an office building. David took control of a group of businessmen in the lower Manhattan area who were interested in preserving the importance of the financial district, as well as adding to New York’s prestige. This group, the Downtown Lower Manhattan Association, established in 1958, hired the architectural firm of Skidmore, Owings, and Merrill to develop a plan for the center, which would be located on Water Street close to Battery Park. In many senses the new structure mirrored the multi-use format employed by David’s father at Rockefeller Center, in its emphasis on office space and monumental architecture. In other ways, however, the center was more sophisticated, and in addition to the presence of office space, the Trade Center would cater to the retail and hospitality industries. The New Yorker magazine described the new structure as follows: The center was to include a Commerce Building of sixty floors of offices surmounted by a hotel lobby and ten stores of hotel rooms, with a World Trade Club on top of them; a General Securities Exchange housing the commodity exchanges and...the Stock Exchange; a World Trade Mart of shops and exhibit space, and, running under these, a five-ramp, fifteen-hundred-car parking garage. The addition of the hotel set it apart from Rockefeller Center, yet the inclusion of retail shops meant that the World Trade Center would be just as much a consumer shopping center, complete with luxury hotel, than an office complex. It goes without saying that the original design for the World Trade Center was scrapped in its details, however the components of this cosmopolitan city within it a city remained the same in Minoru Yamasaki’s multi-tower design for the New York World Trade Center. Once responsibility had been passed from David Kennedy to his brother, New York governor, Nelson Rockefeller, for carrying out the World Trade Center through the New York and New Jersey Port Authorities, David was on to new development projects. In 1968 he and his brother, Winthrop, emerged as the principal developers, through the David Rockefeller & Associates Corporation, of an office/shopping/hotel complex in San Francisco, known as Embarcadero Square. Together with world-renowned architect, John Portman (architect of the soaring glass Westin Peachtree and adjacent Peachtree Plaza in Atlanta), David helped develop a complex comprised of four office towers "linked by plazas and walkways that would include substantial retail space for restaurants and shops. A Hyatt Regency Hotel provided hotel accommodations for businesspeople or tourists (a second Hyatt Hotel was eventually added to the complex). By the 1980s Embarcadero Center was the most important multi-use urban space in San Francisco. Nineteen modern art displays, in addition to a theatre, added in 1954 to show critically acclaimed films, provided the Rockefeller touch to the center that reflected the design of both Rockefeller Center and the World Trade Center. Although Rockefeller’s mixed-use complexes were not located in Latin America, they helped perpetuate a powerful new model of urban design that would eventually cross borders because of a new organization, The World Trade Center Movement. Once the World Trade Center project had been passed to the New York Port Authority, David Rockefeller’s close friend, Guy Tazooki, was given the charge of overseeing the design and construction of the World Trade Center during the late 1960s and early 1970s. Following the successful completion of that monumental feat he started the World Trade Center Association, whose purpose was to promote the construction of World Trade Centers around the world. Much like a brand of shoes or clothes, the WTCA exercised exclusive rights to administer the “World Trade Center” moniker. In many cases, the urban design of the World Trade Centers followed the structural pattern of mixed-use complexes comprised of office space for international trade corporations, hotels, and, of course, shopping centers. In spreading the message about the benefits of a World Trade Center, Tazooki often stated, “A World Trade Center in any city is a business shopping center, complementing and supporting the existing services of private and government agencies”. Perhaps he should have added that in many cases a World Trade Center is a shopping center, in addition to a hotel, and an office complex. In April of 2001, only months before the tragic events of September 11th, Silverstein Properties took over the lease of the World Trade Center from the Port Authority. At the time, Westfield Shoppingtown World Trade Center, located below the Plaza of the complex, was the 427,000 square foot complex of seventy-five stores was the most profitable retail space in lower Manhattan. When tragedy struck on September 11th, Banana Republic, Bath & Body Works, The Children’s Place, Coach, Cole Haan, Crabtree & Evelyn, Express, Gap, J. Crew, Radio Shack, Sam Goody, Sephora, Structure, Towneau (whose watches were located in the aftermath!), Warner Brothers, Godiva, Ben & Jerry’s, Ann Taylor, New Balance, and Krispy Kreme all lost stores in a very elegant shopping center between the Twin Towers. David Rockefeller’s imprint on Latin American consumer culture, a reflection of his passion for free trade, can be seen in design and architecture of the various World Trade Centers throughout the hemisphere. In many cases, the anticipation of free trade worked to stimulate interest in the development of a World Trade Center complex. Furthermore, because of lower buying power in Latin American countries, World Trade Centers throughout the hemisphere have often played an even more amplified role as centers of hotels and shopping space than elsewhere in the developed world. In many cases their connections with shopping centers are difficult to separate. In Uruguay, for example, the management team that administers the Montevideo World Trade Center is also the leading administrator of shopping centers, including Montevideo Shopping, the first mall in the Rio de la Plata region of South America. The mall and Montevideo shopping are not connection, but they are located
in the same affluent region of Montevideo and have benefited from their proximity to each other. The Sao Paulo World Trade Center, inaugurated in 1995, is home to a design and decoration mall, D&D Shopping, which boasts the largest and most exclusive collection of stores (over one hundred) dedicated to international and Brazilian trends in design, furniture, and decoration. Pointing to its role as a reflection of the cosmopolitan, "consumer imagination," promotion material observes, "Today, D&D Shopping functions as an obligatory reference point for those that are looking for solutions in decoration and design... with international tendencies in the sector."

Whereas Brazilians had walked down streets such as the Rua Augusta and Rua do Ouvidor in the early twentieth century to find out the latest fashions and designs from Europe, now the World Trade Center provided the opportunity within a "tranquil, comfortable, and safe" location boasting ample parking, the best brands, and numerous services for customers. The purpose of this appendage to the World Trade Center had as much to do with Brazil's image as it did with its actual services, for, "the shopping center illustrates that the structure of D&D Shopping is really on par with the first world, [because] it is part of the World Trade Center complex. It is because of this that D&D Shopping has the style of those with good taste." Together with a gleaming Sol Meliá luxury hotel, the Sao Paulo World Trade Center and D&D Shopping complex "revolutionized the built environment of Sao Paulo."

Still others of the World Trade Centers in Latin America demonstrated their critical functions as centers of retail commerce, as well as international trade points. As with the Sao Paulo Trade Center, the association of stores and hotels with the World Trade Center added to their cosmopolitan cache. In essence, the World Trade Centers were the material manifestation of the consumer imagination. In Panama City, for example, the "Commercial Tower" of the World Trade Center houses a Tommy Hilfiger store, a U.S. Polo Sport store, a Kenneth Cole store, in addition to other clothing boutiques and luxury goods stores. Delta Airlines also has an office in the Commercial Tower. Up the isthmus in San Salvador, the World Trade Center houses recognizable restaurants, including Subway, as well as others using American names to lend credibility to their bar or coffee shop (California Coffee and Manhattan Bar), Delta Airlines also has an office there to accommodate international travel. Mexico offers, perhaps, the most interesting role of a World Trade Center as a shopping center. It was not until the 1990s that efforts were finally completed to turn what was supposed to be a multi-use urban complex centered around a luxury hotel, initiated in the 1960s for the 1968 Olympics, into a sheer glass office complex worthy of the World Trade Center designation. With the approach of NAFTA's signing, Mexican developers pressed forward with plans to turn vacant space in the lower levels of the tower into a shopping center, anchored by American department stores. JCPenny and Dillard's Department stores both made initial commitments to "anchor" the World Trade Center. After Mexico's economy faltered in 1994, only JCPenny remained, opening their flagship Mexico City store in the late 1990s, only to sell it off to Mexico's wealthiest entrepreneur, Carlos Slim, in 2002.

In addition to the presence of retail in Latin American World Trade Centers, the presence of luxury hotels have made a mark as tenants of the centers. As Guy Tozzoli has observed, "Being designated as a World Trade Center gets premium tenants and rents for office space, and also translates into higher room rates for hotels that are part of the facility." In some cases this means that an American idea, the trade center movement, is paired with an American hotel chain. In November of 1993, Radisson Hotels signed a licensing agreement with Royal Hotels International to pair their hotels with World Trade Centers throughout Latin America. At the time Royal Hotels owned the right to brand hotels at World Trade Centers in Latin America. At the time Radisson announced ambitious plans to pair their hotels with trade centers in Santiago, Chile, Caracas, Venezuela, Panama City, and Montevideo. They would later add plans to build a hotel at the San Salvador World Trade Center. Radisson inaugurated a sleek glass hotel connected to the Santiago World Trade Center in 1996, followed by a hotel at the trade center in Panama City. The Hotel Radisson Plaza San Salvador was opened at a later date. In all of these cases, the hotel's architecture emphasized the commercial nature of the trade center and often reflected the fashions of Americans with skyscrapers in general.

In the Santiago property, for example, it was written, "The $24-million hotel features a striking architectural design with one portion of the building cantilevered over the other, forming the appearance of two unique tower structures connected only at the top floors with a free-floating space toward the building's center." The proximity of the hotels also reinforced the focus of the trade centers. As the General Manager in Santiago noted at the inauguration, "The location adjacent to the World Trade Center complex is an important asset for this hotel... The combination of the hotel's location, design and technology positions it as a national gathering point for Chileans to host global business." Of course, no World Trade Center was simply designed for business, as the hotel is "within walking distance to the city's most elegant shopping district..."

Ironically, the greatest example of the multi-purpose urban office/hotel/shopping complex employed in a center of world trade is the Miramar Trade Center, located in Havana, Cuba. To be sure, Cuba joined the World Trade Center Association back in 1980, at the end of the Carter era of closer ties with our southern neighbor, but the Havana World Trade Center consists of largely unnoticeable office space in downtown Havana. By 1987, however, as Cuba grappled with the reality of attracting foreign investment from Europe to offset the lack of subsidies from the former Soviet Union, CUBALSE, one of the three powerful companies under the Castro regime with the ability to deal in the international marketplace, unveiled a plan to build eighteen six-story buildings with wired offices in the Havana suburb of Miramar, where wealthy Americans and Cubans had once lived prior to the Cuban Revolution. With the assistance of an investment group headed by Israel's, Grupo BM, the proposed investment of two hundred million dollars was the largest national investment to date. The buildings would not only house the offices of multi-national corporations, but also provide retail stores on the ground floor, restaurants, and appropriate travel and office services. "Together with the modules of offices, in order to conform to the requests of the clients"; one news report noted, "there will be included agencies of information, travel and reservations, banks, international and national communication, car rental agencies, parking decks, walkways, green areas, gymnasiums, restaurants, cafeterias, beauty salons, stores, boutiques, salons... among other services."

The bold Miramar Trade Center project stalled after the first two buildings had been completed near the turn of the century. A third building was completed around 2003. While it has not flowered into eighteen smart buildings, the interior plazas and walkways, together with the vegetation, provides a very pleasing atmosphere, almost making one forget that he is in an under-developed nation. The trade center has served as a magnet not only for business, but also for Cubans and foreigners who had enough money to shop, to the surrounding retail and hospitality services. Since the Miramar Trade Center is only a couple of blocks from the sea, it attracted numerous hotels, including the Melia Habana, the LTI Panorama (German), the Novotel Miramar (French), as well as proposals for hotels built to American standards (South Florida building code) by the Canadian firm, LCI. It is also not surprising that the best upscale shopping in Cuba is caddy-corner to the Miramar Trade Center at the Galeria Comandora. Largely intended for tourists and diplomats, the loosening of restrictions on Cubans visiting and shopping in these stores has invited curious young people to at least visually participate in the consumer imagination. Up the road from the Miramar Trade Center new luxury apartment buildings are being constructed in anticipation of a business boom in Havana. With names like Monte Carlo Palace, Havana Plaza, and Gardens of Fifth Avenue (the street along which the trade center and embassies are located in Miramar), the trade center is transforming suburban Havana into a community hoping that the synergy of the components will create greater business opportunities for Cuba, as well as for its international partners. Ultimately, the Miramar Trade Center was clearly influenced, architecturally and functionally, by the concept of the World Trade Center. As one news report noted, "in its design it is considered the most modern and multi-functional Cuban structure [like] similar European and North American buildings."

CONCLUSION

When IBEC sold off its interest in 1976, Rodman Rockefeller elaborated on the status of mall development in Venezuela, observing, "Shopping center design and development... is almost an unknown talent in Venezuela and presents excellent prospects..." By the turn of the century, Venezuela could count on its own architects and contractors to build shopping centers rivaling any in the world. In 1996, the Salomon Cohen group, Grupo Sanbali, opened the largest mall in Latin America, surpassing the retail space of CCCT. The eight-story, two million square foot complex serves not only as a selling machine, but also prominent social space in Caracas, compete with aquarium, movie theatres, art exhibits, and landscaped passages.

Finally, IBEC’s transition from solely operating supermarkets to looking for opportunities to construct regional shopping centers and shopping cities (such as the CCCT in Caracas) leads one to wonder if there are more tangible links between the third generation of Rockefeller businessmen and international retailing in Latin America and the world at large. Guy Tozzoli, president of the World Trade Center Association, has suggested that David Rockefeller was responsible for the idea of the World Trade Center Movement, as well as construction of the World Trade Center in Lower Manhattan. The World Trade Center Movement has not only been responsible for the
establishment of World Trade Centers throughout the world, but also architectural
complexes, virtual "cities within a city" that convey the concept of a multi-use
offices/shopping/hotel complex inherent in the Rockefeller Center and the World Trade Center.

The Rockefeller family has received a great deal of attention for their influence on the petroleum sector, as well as for their generous philanthropy. This article suggests that the Rockefeller family has also played a significant role in the diffusion of innovative commercial architectural models, namely the multi-use urban complex. Cesar Pelli, for example, uses Malaysian motifs to beautify the Petronas Towers, however the Kuala Lumpur City Centre, of which the towers are one component, structurally looks like the new-destroyed New York City World Trade Center complex. Perhaps this is no coincidence, as Cesar Pelli helped to design the World Financial Center in New York City as an extension of the World Trade Center complex. Other mixed-use complexes around the world also betray functional and structural similarities to Rockefeller Center and the original New York City World Trade Center, including Roppongi Hills (Tokyo) and Raffles City (Singapore). Ultimately, John, Jr., Nelson, and David, deserve a prominent place in the history of commercial architectural development as proponents of the mixed-use complex concept.

LOUIS I. KAHN. PARASOL HOUSES

Noelia Galván

Kahn began designing social housing projects and urban housing developments for immigrants and workers in Philadelphia in the 1930s. During his lifetime he worked on some sixty projects, including houses, terraced homes, housing additions, refurbishing and apartment buildings, although the great majority made it no further than the paper they were designed on. In fact, if we limit ourselves to detached homes, beginning with Osar House, which he built during the Second World War, and ending with Korman House, finished in 1973, Kahn only built 10 of these projects.

During the War years he worked together with architects Alfred Kastner, George Howe and Oscar Stonorov, dedicating his efforts to developing a series of experimental projects in the search for a new type of architecture in keeping with the new economic and social conditions imposed by the depression and the subsequent military conflict. With the sponsorship of various corporations, magazines and building material manufacturers, they designed houses, hotels, office buildings and even entire neighbourhoods. This work carried on for several years following the war, and was attended by a growing commitment to social activism and unionism, public housing policies and urban planning.

As a result of this work numerous imaginative projects emerged, including the Parasol Houses, one of the most interesting and ambitious fruits of the collaborative work between Kahn and Oscar Stonorov. The Parasol Houses, along with the New House 194X project, sponsored by Architectural Forum magazine, aimed to provide a social reply to housing design based on prefabrication.

In 1944 the Hans G. Knoll Associates furniture company organized a building design competition called "Equipment for living", inviting various architects to submit their proposals. Among those tendered, in addition to that of Kahn and Stonorov, were proposals by Serge Chermayeff, Charles Eames, Antonin Heythuur, Joe Johansson, Ralph Rapson and Eero Saarinen. The objective of the competition was to create a planning unit that would provide a solution to the latest needs of contemporary society, and which would integrate a series of features - furniture and appliances - that the firm intended to manufacture and offer to their customers.

The project developed by Kahn and Stonorov included a series of furniture sets, although they ended up focusing primarily on developing a new housing typology that would respond to the current needs and uses of tenants.

In order to provide a solution to all of these determinants, the project was designed using elements of social exchange which would favour privacy, while at the same time promoting a feeling of neighbourhood community. They designed a series of terraced houses with a flat, continuous roof, under which the living area of each family was configured. At the same time they organized areas of social interaction and passage areas which connected the street with the inside of the lots.

The answer to this single roof would be a new structural element, represented on several occasions in the drawings that remain of the project: the Parasol.

From the remaining sketches belonging to Louis Kahn we can trace the design process through its various stages, from the initial diagrams, through the typological trials and progressive adjustments, to the prospects of presentation. In the various drawings we can appreciate the relationship that existed between the general idea and the architectonic realization, between structural order and the randomness of the floor plan. While it is possible to distinguish several stages and various alternative solutions in this graphic development, in this article we shall focus on describing and analysing the solution that Kahn and Stonorov submitted to the tender.

CONCLUSION

Kahn and Stonorov went on to develop other typologies - always similar to those mentioned here - even designing two-storey houses where one parasol structure sat atop another, very much like Frank Lloyd Wright's famous lily-pad columns, designed for the Johnson Wax Building in 1936.

It was this original structural project that undoubtedly provided the idea which spawned the project for the typology of the Parasol Houses, more than the design of furniture units. Even so, and is often the case in the great majority of projects, there were precedents of this new typology of housing: the plans for the court houses by Mies van der Rohe, the Domino project by Le Corbusier, the experimental housing project of Marcel Breuer or the previously mentioned Frank Lloyd Wright building.

It is certainly not our intention, however, to play down the importance of Kahn's design, but rather the opposite. The way in which Kahn assimilated and interpreted the designs of others, transforming them with the aim of creating a new urban sensibility, functional as well as social, is the key to appreciating the importance of the Parasol Houses in the context of housing research during this initial part of his biography.

To sum up, while quite ambitious, the design did not win the tender. Paradoxically, excessive research into housing design as well as an inordinate audacity in their approach was what led to failure. Knoll Furniture did not commission further projects from them.

THE ARCHITECTURAL DIMENSION OF BRITISH PLANNING: AMENITY

Izaskun Azequínolaza

There is no doubt about the success of Urban Design in the identification and search for urban quality thanks to the use of specific means and practice. However, its acceptance as an independent part of Planning has meant that it has had to abandon those formal aspects which have been an integral part of it since the beginning of English urban legislation: the Housing and Town Planning Act, 1909.

This article tries to show how the aims that Urban Design suggests were already assumed by the Physical Planning until the seventies. Thus urban quality is identified in the concept of amenity which was introduced as the basis of Town Planning in the 1909 law. The identification of the Amenities with the urban beauty proposed by Abercrombie and his formulation of the Civic Design support this interpretation.

LUIS BOROBIO NAVARRO, IN MEMORIAM

Juan Miguel Ochoaorena

Luis Borobio Navarro (Zaragoza 1924-Pamplona 2005), architect and professor, died in Pamplona the 2nd January, in 2005. Borobio was Professor of Aesthetics and Honorary Professor of the Escuela de Arquitectura of the Universidad de Navarra (ETSAIN). He received his professional degree as an architect in 1951. In 1953 he went to Colombia. He was professor of Theory and History of Architecture, during the following 15 years, at Universidad Nacional de Colombia (Bogotá and Medellín) and at Universidad Bolivariana de Medellín.

He came to Pamplona in 1968 to teach in ETSAIN, and was in charge of diverse subjects, Project design, Aesthetics and Composition, Art History, and Architectural drawing. All his life was a many-sided person: apart from being architect and professor, he was a painter, poet, essayist, writer, even musician. He also developed a profeous work in the art of caricature, in which he was a consummate master. His bibliography is full of titles around art, architecture, aesthetics, drawings, poetry.

The last part of the article deals with the content of El Arte expresión vital, one of his last books.

Finally, this article is a tribute to professor Luis Borobio Navarro.
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thresholds 33
form(alism)

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thresholds, the bi-annual critical journal of architecture, art, and media culture of MIT's department of architecture, invites submissions for issue 33 form(alism).

submissions due: 31 August 2006

Architectural debate no longer waffles only between the blob and the box but is also caught today between debates regarding form and formlessness. Formalism is to art and architecture what the 80's is to recent fashion. It periodically threatens to make a comeback under the guise of not being its old self, ultimately peeking from underneath some singular design. From the form of cities, with the now normative megalopolises and the emergence of other novel urban typologies, to architecture's technological revolution, with the use of algorithms to generate form or the application of aeronautical software in its design, formal paradigms, boundaries, and processes are being reconsidered and reconfigured. All of these reorganizations of space, capital, material, and time beg for a critical analysis of form(alism), its definitions, realization, and deconstruction, as well as processes of form making, from within the object and without.

thresholds 33 asks what new concerns about form(alism) have emerged in art/architectural fields today. How can we evaluate theoretical issues of form and content/ form and autonomy/ form and ornament/ form and formlessness? What/ how is the formal relationship with the subject challenged, enriched, or elided? What projects/ methodologies demonstrate emergent processes or redefine formal limits/ boundaries? Where are the anti-formalists today? Where can we place form(alism) within cultural practice and aesthetic discourse today?

thresholds 33 invites contributions from a wide range of disciplines, including art, architecture, anthropology, animation, video, urbanism, history, theory and cross-pollinations. Submissions need not be limited to scholarly work and may include comedic and spoof submissions. thresholds 33 will include a web component for time-based media.

thresholds attempts to publish only original material. Materials should be postmarked by 31 August 2006.

TEXT: Manuscripts for review should be no more than 2,500 words. Text must be formatted in accordance with The Chicago Manual of Style. Spelling should follow American convention and quotations must be translated into English. All submissions must be submitted electronically, via e-mail or disk, and accompanied by hard copies of text and images. Text should be saved as Microsoft Word or RTF format, while any accompanying images should be sent as TIFF files with a resolution of at least 300 dpi at 8" x 9" print size. Figures should be numbered clearly in the text. Image captions and credits must be included with submissions. It is the responsibility of the author to secure permissions for image use and pay any reproduction fees. A brief author bio must accompany the text.

MEDIA: Media submissions below 8MB can be submitted via e-mail to: sadia@mit.edu and by disk. Submissions above 8MB must be sent on disk and/or posted on a server for download. Most common file formats will be accepted. Thresholds reserves the right to request reformattting of works for final publication. It is the responsibility of the author to secure permissions for proprietary media use and pay any reproduction fees. A brief author bio must accompany the work.

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Please send all submissions to thresh@mit.edu

TEXT/IMAGE submissions: thresh@mit.edu

MEDIA submissions (below 8MB): sadia@mit.edu

INQUIRES: thresh@mit.edu

ANALOG:

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