The MIT Press

Yale University, School of Architecture

The Convention and Exhibition Center of Salamanca
Author(s): Juan Navarro Baldeweg
Source: *Perspecta*, Vol. 27 (1992), pp. 154-167
Published by: The MIT Press on behalf of Perspecta.
Stable URL: http://www.jstor.org/stable/1567181
Accessed: 28/06/2014 18:16

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at
http://www.jstor.org/page/info/about/policies/terms.jsp

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Yale University, School of Architecture and *The MIT Press* are collaborating with JSTOR to digitize, preserve and extend access to *Perspecta*.

http://www.jstor.org

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions

The Convention and Exhibition Center of Salamanca

Juan Navarro Baldeweg

An Object Is a Section

A constructed object is a portion of matter, a fragment of material substance that exists in an open space of unlimited physical coordinates. An object is built out of artificial or natural elements taken from the amorphous and universal mass of nature. I think of an object as a cross section of this undifferentiated heterogeneous matter, which I organize in my mind as energy and material strata.

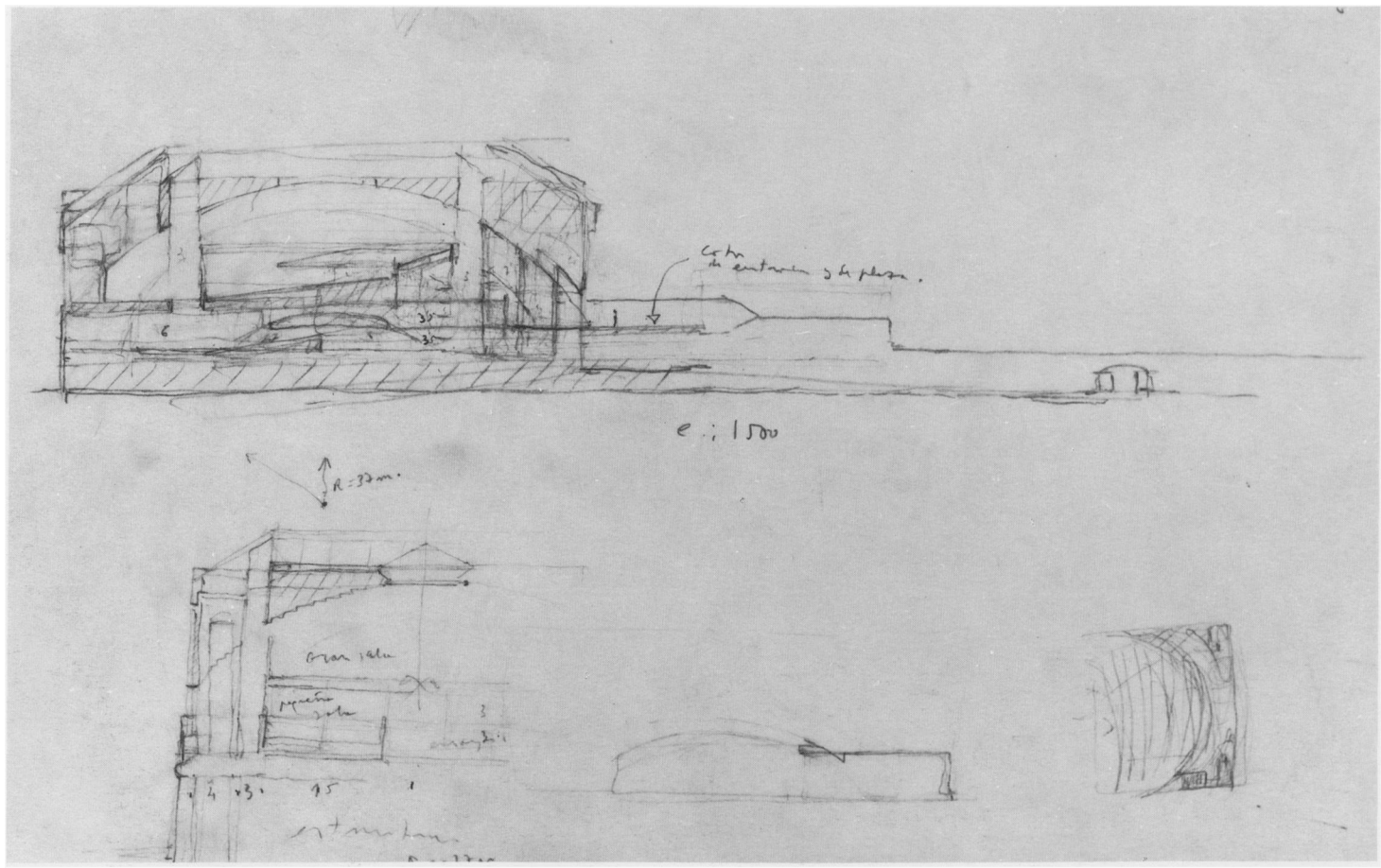
Given this premise, it would be difficult to accept the conventional distinctions between an object's inherent structure and its context. It is difficult to associate forms with limits. A building stands on the ground. Is that ground part of the building's system of foundations? Are building and ground fused together? Or, for instance, when it rains, can the water be separated from the building? The roof, the gutters, the waterspouts, and the drainage system provide an unquestionable continuity between the realm of the rain and the realm of the building. The building is merely a curl in the otherwise uninterrupted coursing of the rain.

The elements of an architectonic object obey constructive and geometrical laws and respond to figurative impulses that endow them with complete autonomy and unconditional independence. Each individual element, in accordance with the will of the designer, will manifest itself fully while coexisting with other elements under a law of equity. As in the accumulative universe of Brancusi or the graphic multiplicity of Hiroshige, these elements will coexist loosely and freely.

There is a need to maintain a balance between the vitality of independent parts and the unifying concept that guides them to a common objective. The object manifests its equilibrium in the tension that exists between the parts and the whole, between the differentiated and the homogeneous, between excitement and calm. The object is a summation of equilibriums framed by the fortuitous and the necessary. It will appear stable and easy, and it will take possession of the space that surrounds it.

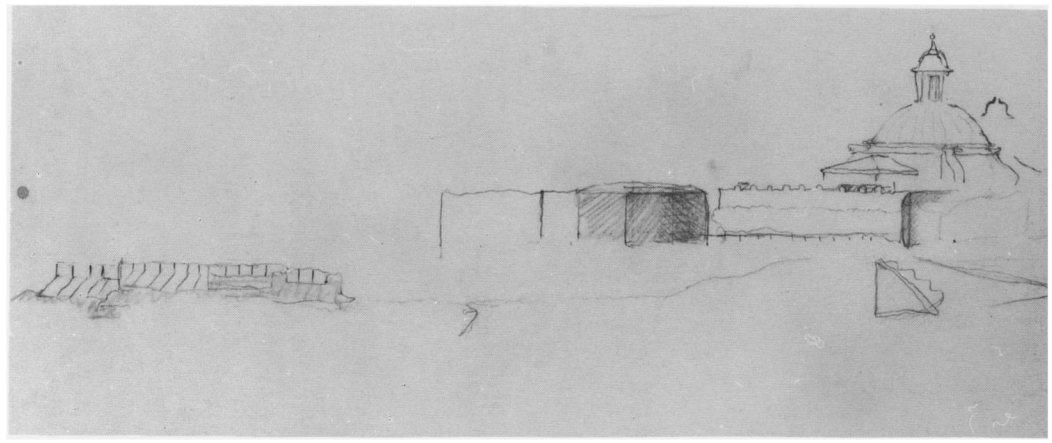
In our perception, a wavering ambiguity will occur between the apparent and the inapparent.

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



1 The Convention and Exhibition Center, Juan Navarro Baldeweg, Salamanca, Spain, section sketches.

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



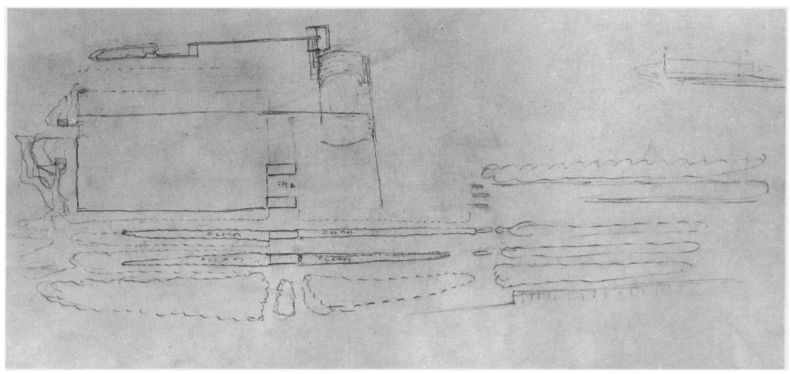
2 Sketch from the Vaguada de la Palma, with the monuments of the old city in the background.

The Project

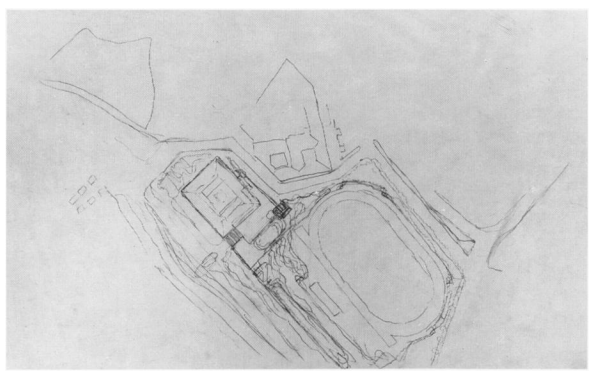
The Vaguada de la Palma, the bed of the Milagros River, is a natural topographic edge of the old city of Salamanca. At the site of the new convention center this natural edge is reasserted by a retaining wall constructed with the materials of the old Roman city walls. Located precisely at a point of rupture in the natural continuity of the Vaguada, the site occupies an important node where the streets from the Ronda, the road that rings Salamanca, are redirected to the urban center above it.

The new building benefits from its containment within this walled precinct and appears to be placed on a pedestal. We intended to sculpt our intervention so that it would reiterate the volumetric simplicity of the old city wall and allow it to maintain its character as a physical limit to the city. The new building thereby extends the mass of the old city and provides it with a new path and gate in the form of a propylaeum. On one side of this pedestrian path we placed the grand rooms of the convention center, which we counterbalanced on the other side with a small trabeated construction that caps a gallery. The path is thus animated by archetypes that unfold as one moves along it: the massive construction of the wall and box, the lighter architecture of the post and lintel, and finally, the powerful enveloping space of the baldachino, which hovers above the major auditorium. This last element is visible through the arched openings that are formed when the dome's section strikes the building's exterior wall.

The convention center extends its influence into what will eventually be the park of the Vaguada de la Palma, with all paths and landscaping to be organized in relation to the new building. It was our goal to give the building an unobstructed presence in the future park, and so we planned to allow the surrounding trees to partially invade the adjacent Calle Oviedo, thereby blurring the distinction between park and building that the street would otherwise accentuate. Two large terraces parallel to the city wall

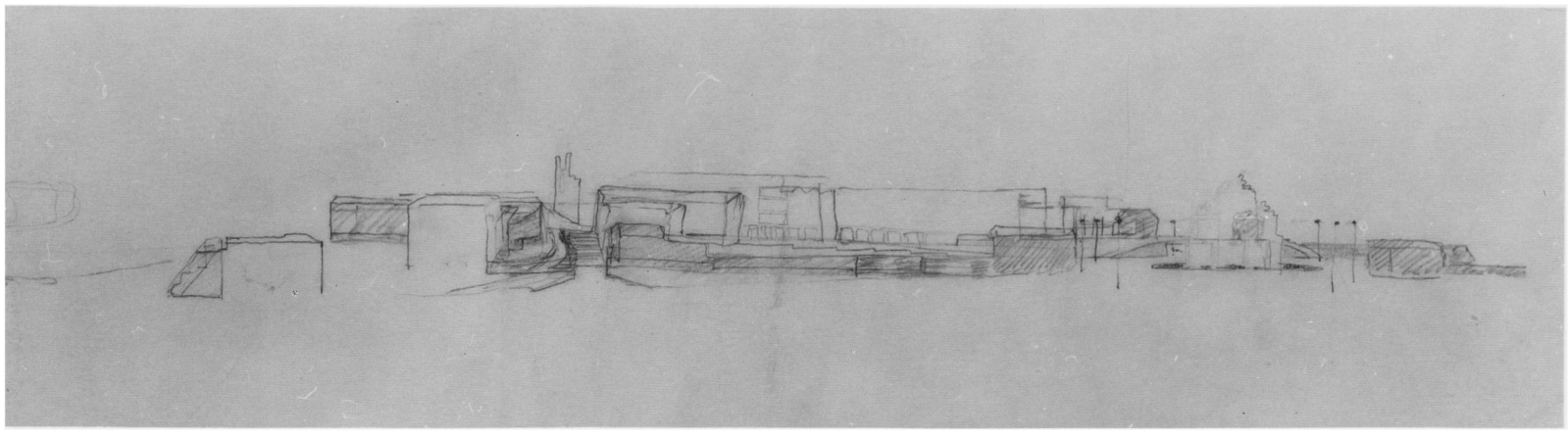


3 Plan study showing access terraces.



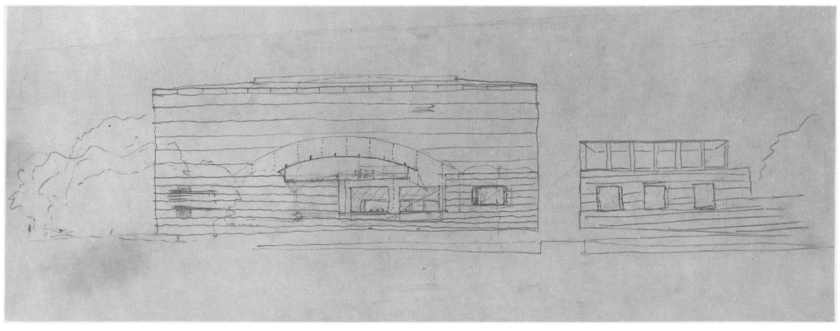
4 Site plan study.

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



provide pedestrian access to the complex and accentuate the importance of the building's position on the site. The elevation of these terraces allowed us to raise the level of the ground floor of the new building, thereby reducing its prominent height and alleviating the need to excavate basements, a difficult proposition given the proximity of the Milagros River.

On this green frame of the park, the new terraces and steps rise to the plaza, where the entrances to the convention hall, the cultural center, and the open-air theater lie. We located this plaza at an intermediate grade in the natural slope of the site so as to suppress the possible interference of the new building's mass with the views to the existing urban monuments above it. Rather than giving the new work stature in the city by virtue of its sheer size or allowing its monumental profile to compete with the existing context of older buildings, we instead strove to endow the building with a presence that derives from the intrinsic power of its form. The urban character of the building is thus threefold: it is an integral part of the existing context, and thus provides a pedestal for the historic city above it; it is an important object within the city's lower perimeter, and thus accentuates the profile of the old wall; and it is a vestibule and path that connect the historic core of Salamanca above with the new park of the Vaguada below.

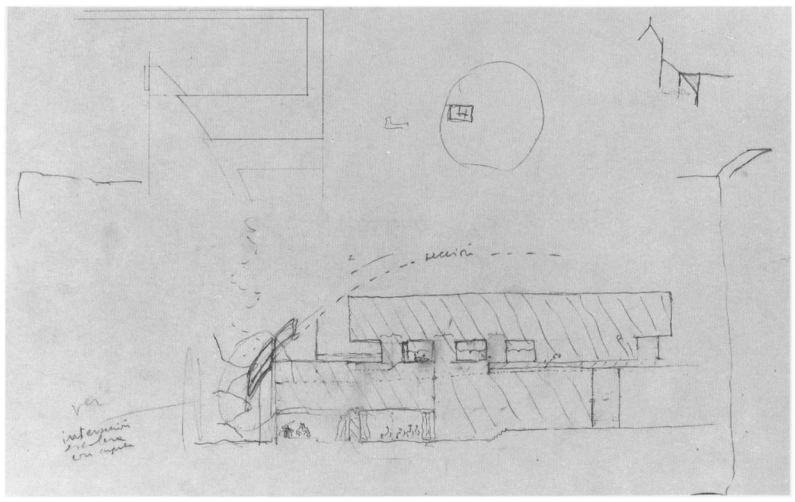


5 Elevation study from the Vaguada.

We resolved the program of the convention center by creating two visible bodies that are united at the ground level and that serve as a frame for the intermediate plaza. The large body houses the auditoriums, of which the smaller stands over the exhibition gallery and frames the sculpted mass of the outdoor theater. By giving each independent entrances, we have provided for the greatest flexibility of use: the seminar rooms and exhibition gallery can be used autonomously or in conjunction with the convention center and the grand exhibition hall. The latter, as required by the program, is linked to the auditorium vestibules, and a grand ramp connects the two exhibition spaces. This level of integration can accommodate the diverse cultural activities that are likely to take place in a city convention center.

Juan Navarro Baldeweg

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



6 Section study, detail.

We conceived the interior space of the main body as an architecture within architecture. It was our intention to resolve the complex program with a single gesture by generating, simultaneously, an architecture of continuity and of disruption, placing differentiated spaces within a free plan. Although the large auditorium, which seats 1,300, and the small auditorum, which seats 460, operate independently, the double-height spaces of their lateral vestibules provide a unifying spatial identity. Thus the continuity between the two spaces is maintained in spite of their necessary physical separation.

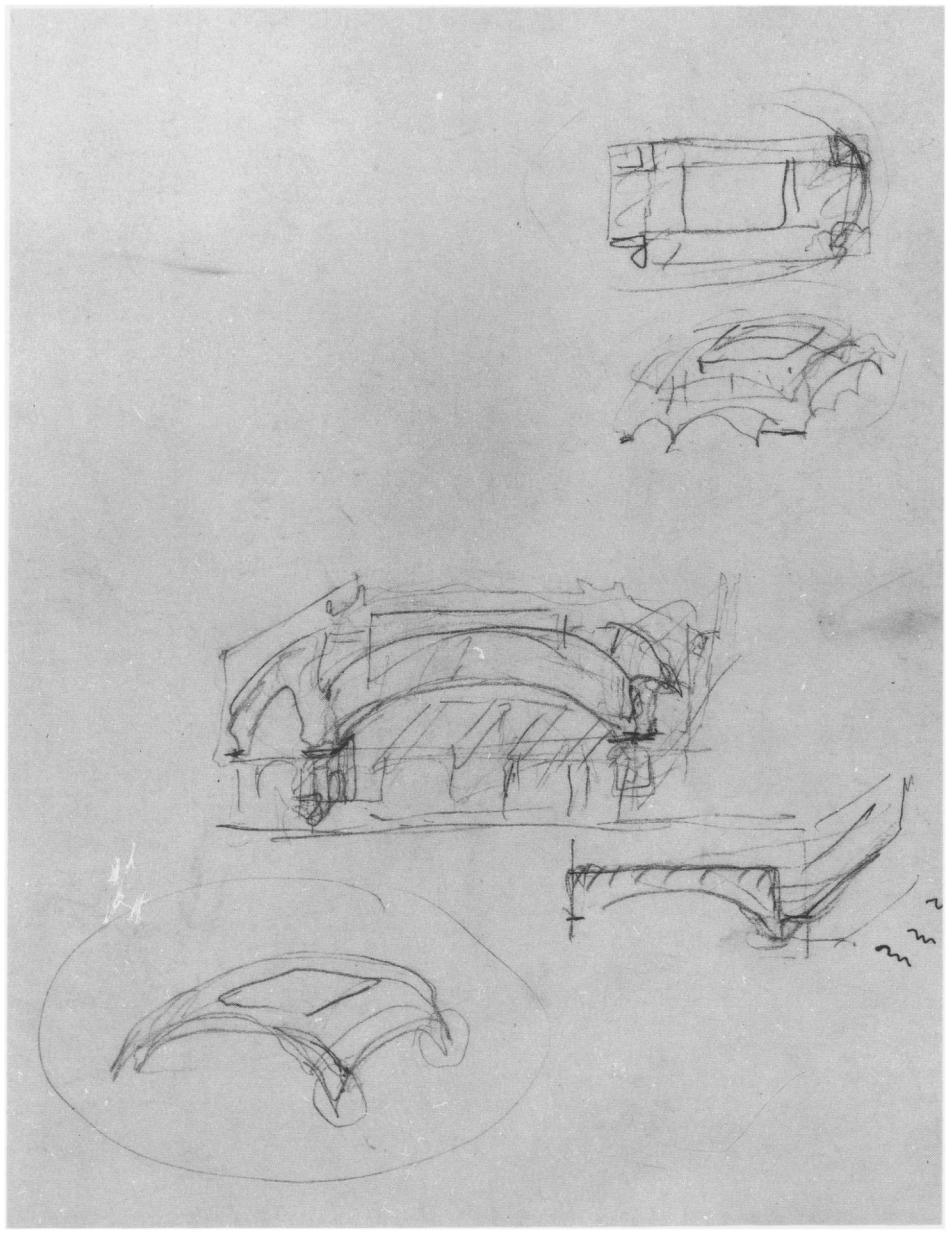
We have attempted to carry this conceptual resolution into the design of each autonomous part. For instance, in the main auditorium, a seemingly detached baldachino hovers above the floor. Its interior surface is molded in such a way as to augment its acoustical performance. Its form is a portion of a spherical dome that extends throughout the building and is visible in the interior as well as in the design of the outer walls. The baldachino is supported by load-bearing walls, which act as beams and transfer the weight through their arched forms to the corner towers of the building. The concentration of loads in the corners allowed us to eliminate any supporting pillars in the interior space of the auditorium, the stage, and the vestibules, and thereby allowed us to heighten the embracing continuity of the ceiling.

Our treatment of natural light plays a large role in the viewer's perception of the baldachino's structure. Light from the clerestory windows, which seal the connection between the dome and the building's envelope, washes down the walls, distinguishing the independence of the various elements of the interior and guiding the eye to the openings at the perimeter. These openings, arches carved in the walls of the building's exterior and derived from the dome's geometry, never actually touch the dome itself, thereby completing the desired spatial unity without sacrificing the ethereality of the dome's suspension. The planes that enclose the various rooms of the interior are dressed in naturally finished wood, marking them as distinct and discrete surfaces against the contrasting white background of the surrounding envelope. Silhouetted in light, and hovering above the main auditorium, the baldachino reveals an equilibrated tension between gravity and nongravity.

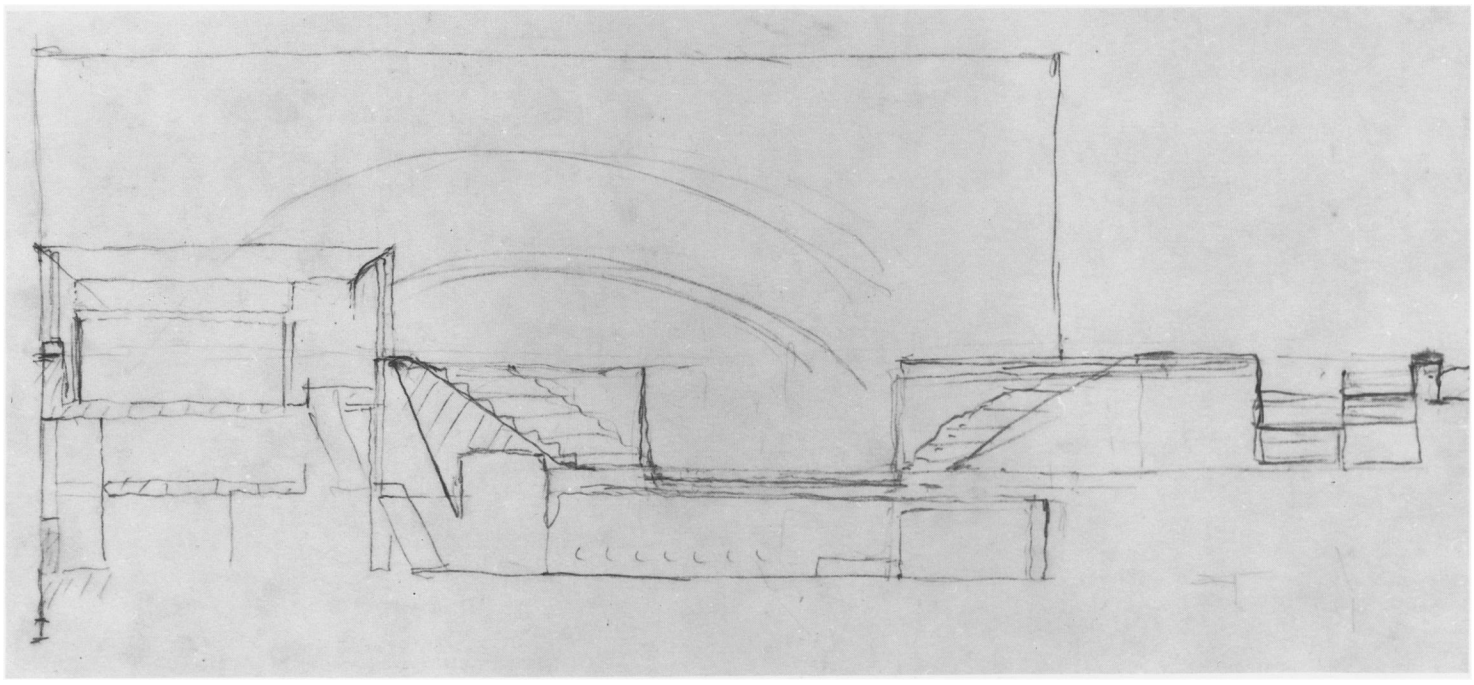
These contrasting effects are also manifested on the exterior of the building in the concave play of the arches and the adjacent amphitheater and in the alternating heaviness and lightness of the elements in the complex. In distinguishing between the closed prism of the main box and the openness of the small, temple-like body that crowns the exhibition gallery, we thinned the top lintel of the latter to free it from its load-bearing function, so that it appears only to delineate the volume that it encloses and thus augments the effect of lightness. The heavy, low arches of the entrance to the auditoriums contrapose the airiness of the open theater.

The Convention and Exhibition Center of Salamanca

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



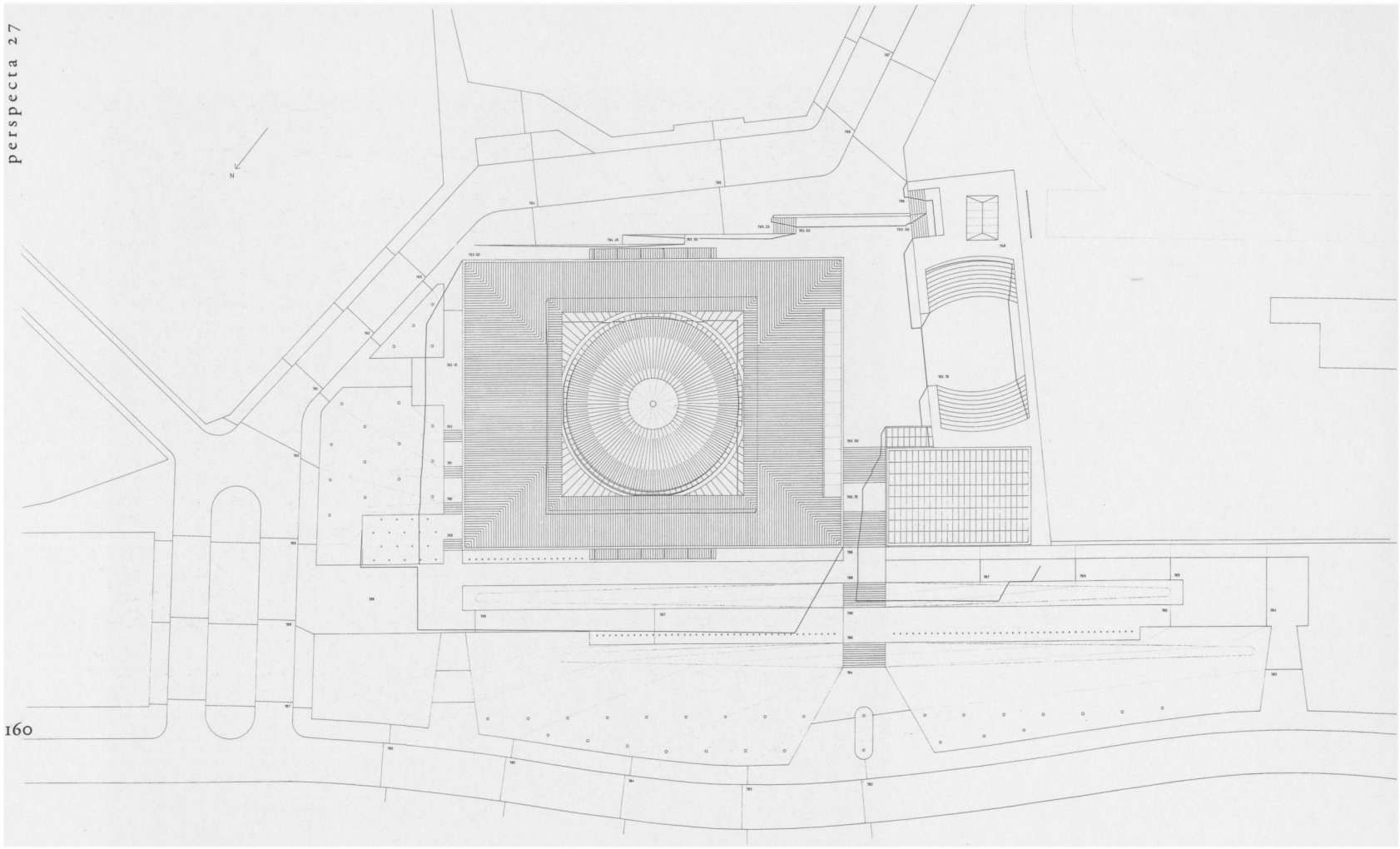
7 Studies of baldachino.



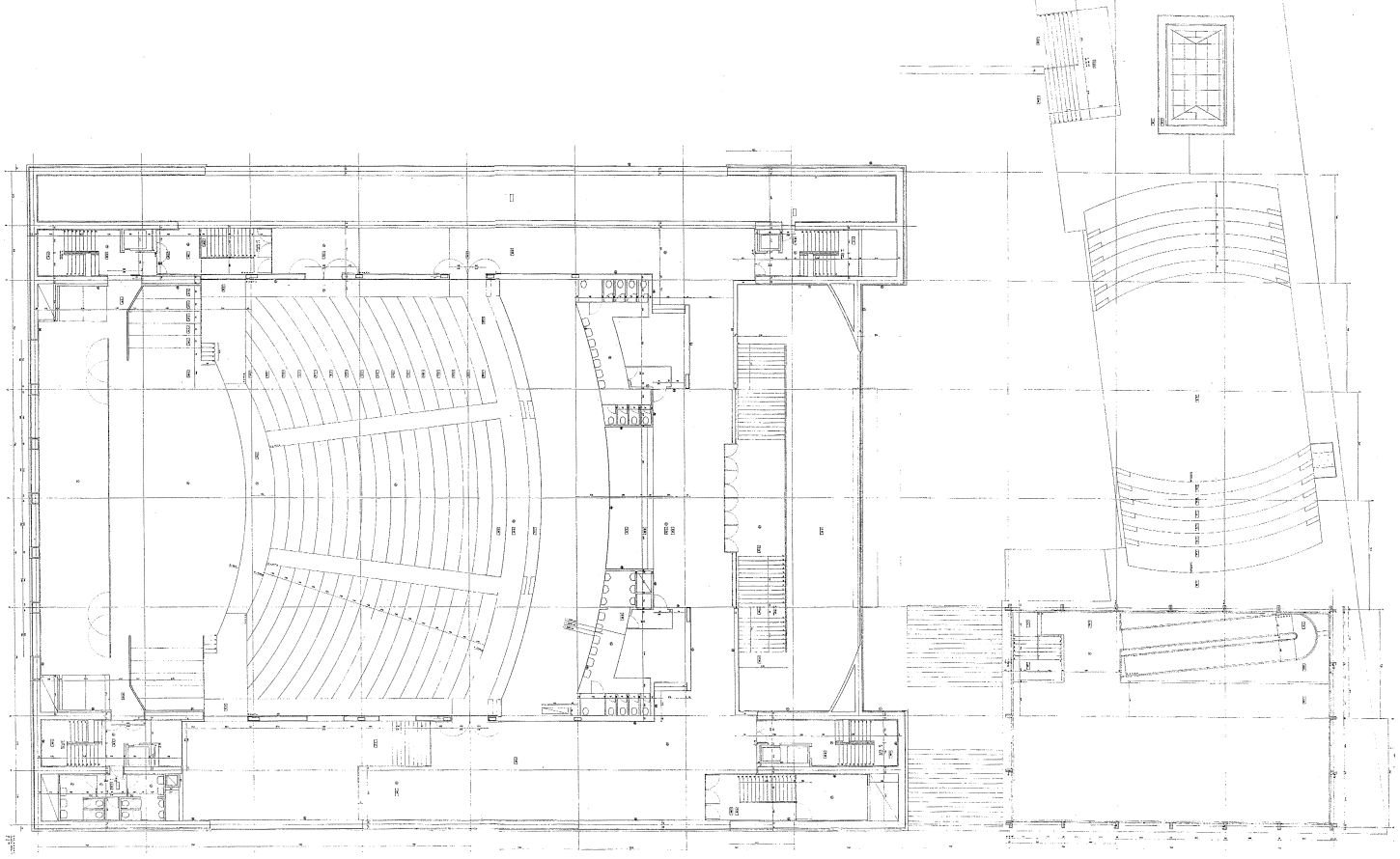
8 Section study through amphitheater and gallery.

Juan Navarro Baldeweg

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions

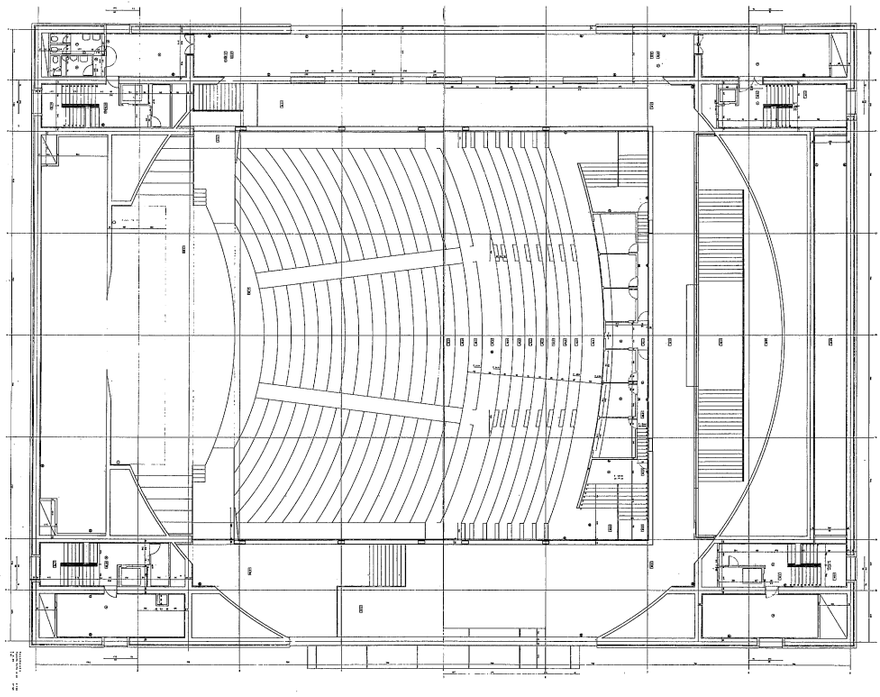


9 Site plan.

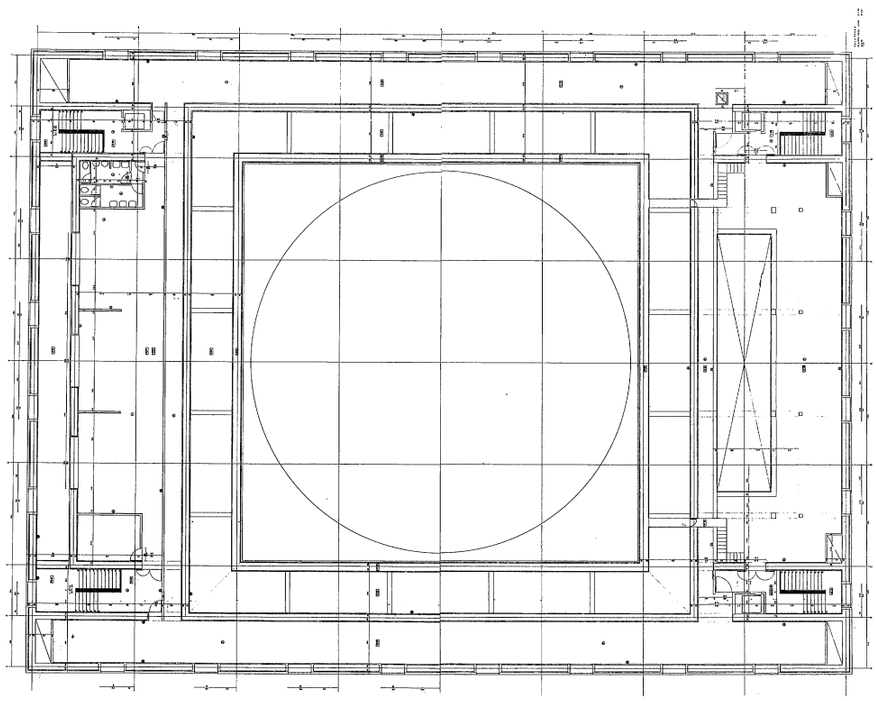


10 Plan: plaza level.

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



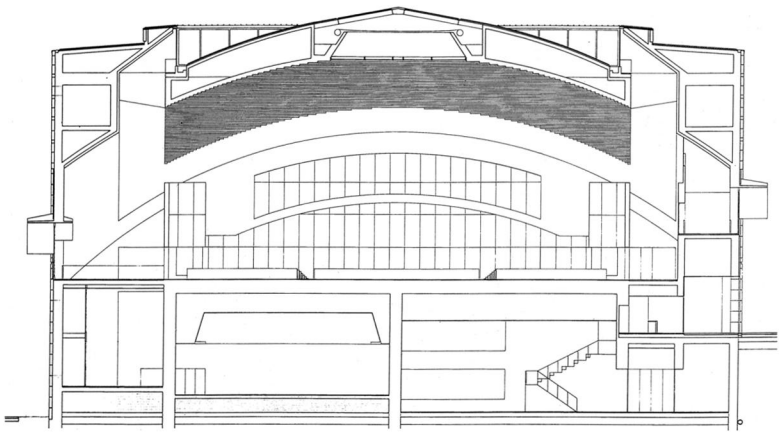
11 Plan: main auditorium level.



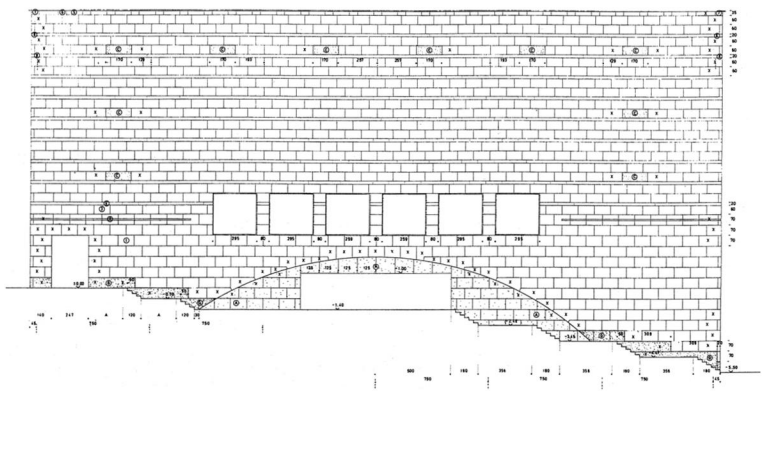
12 Plan: catwalk level.

Juan Navarro Baldeweg

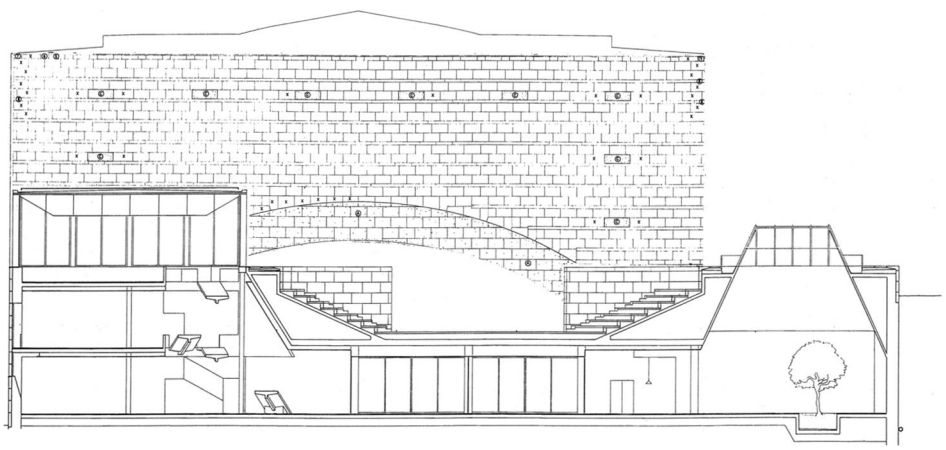
This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



13 Cross section through auditorium.

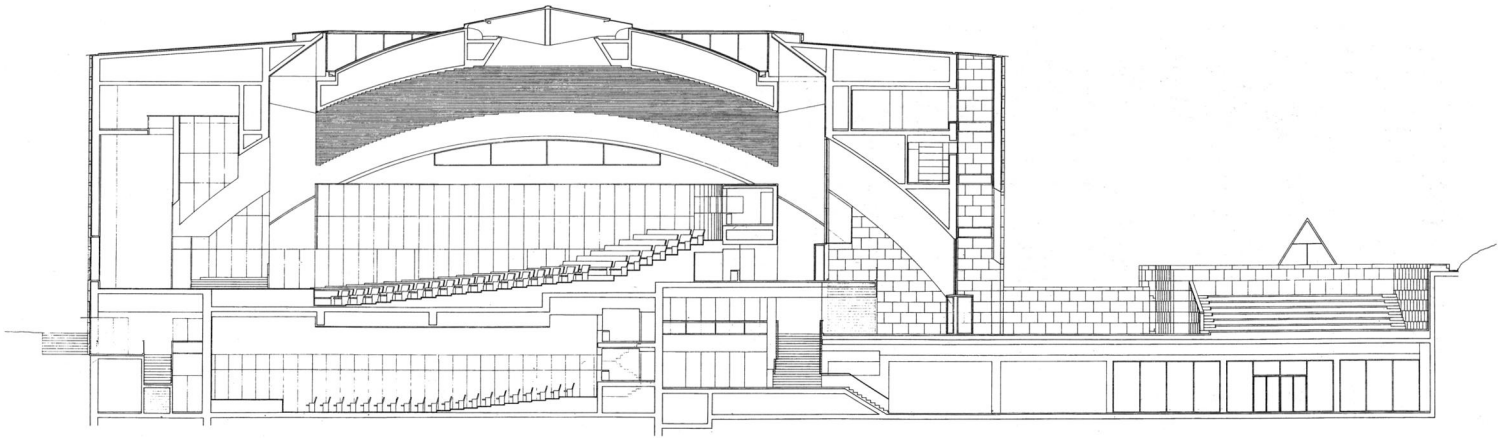


14 East elevation.

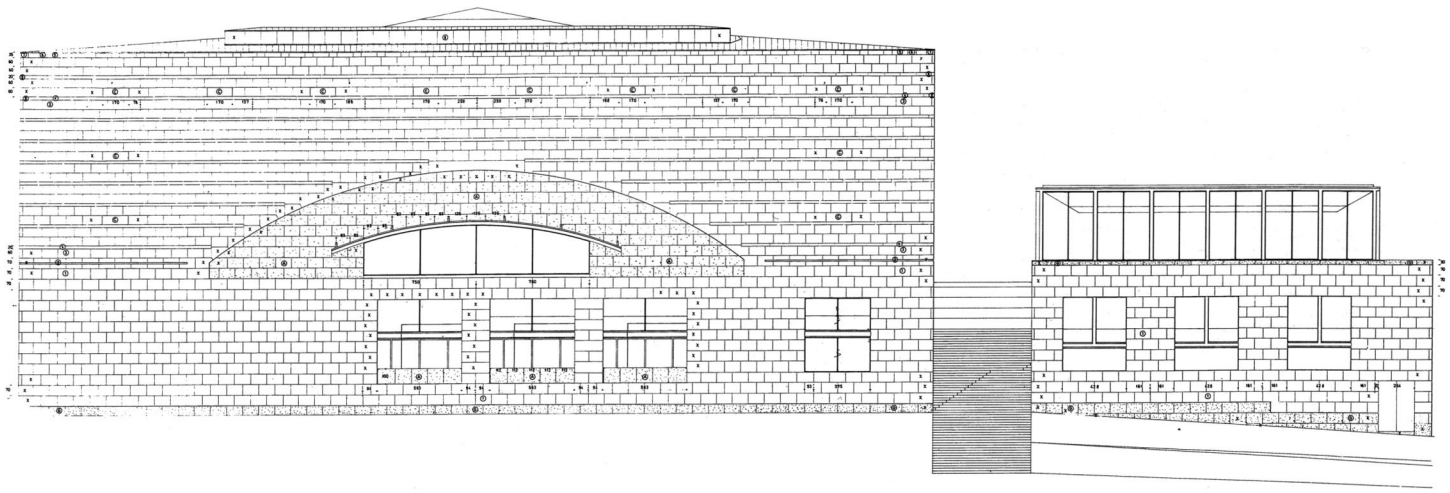


15 Section through amphitheater, and west elevation.

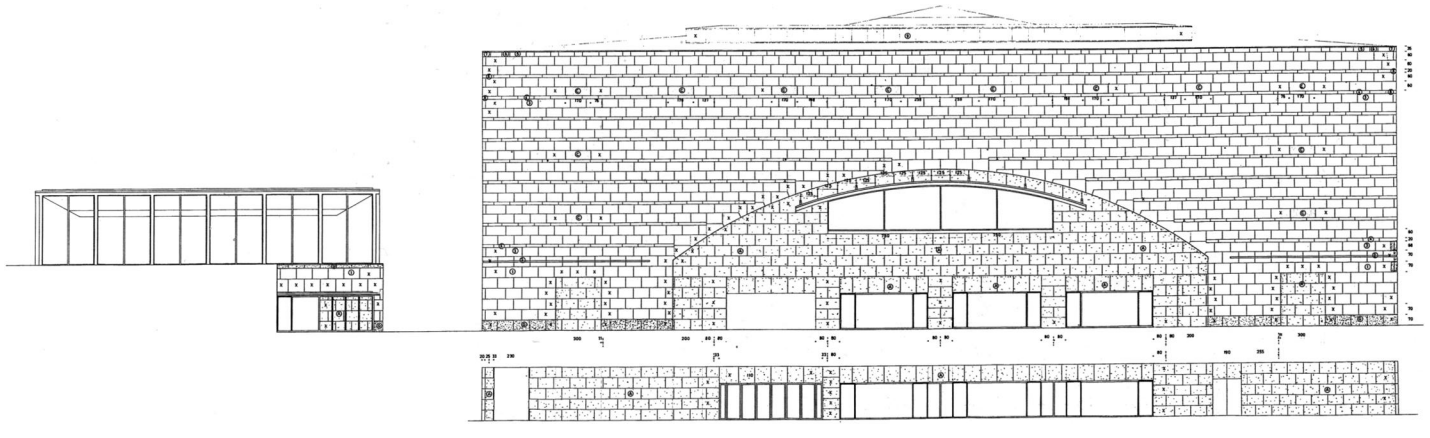
This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



16 Longitudinal section through auditorium.



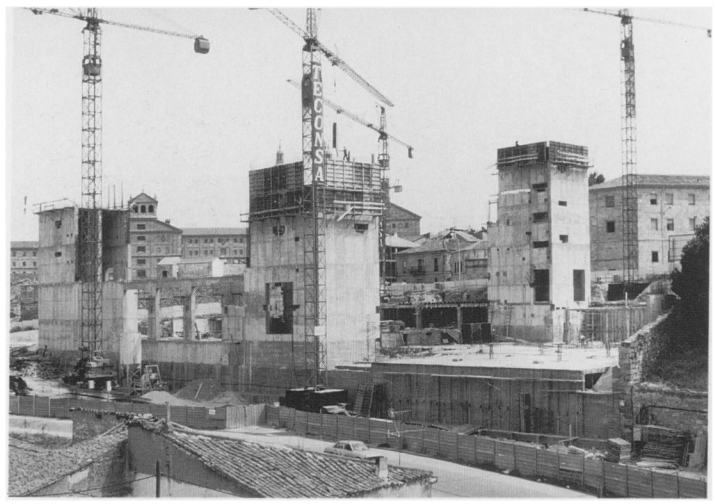
17 North elevation.



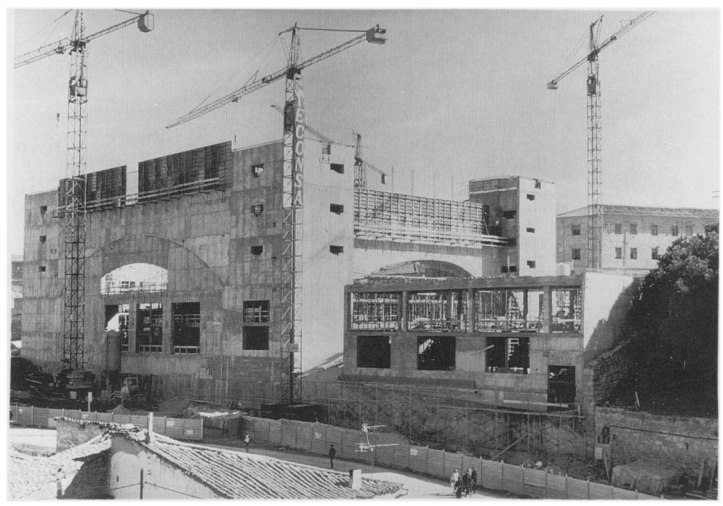
18 South elevation.

Juan Navarro Baldeweg

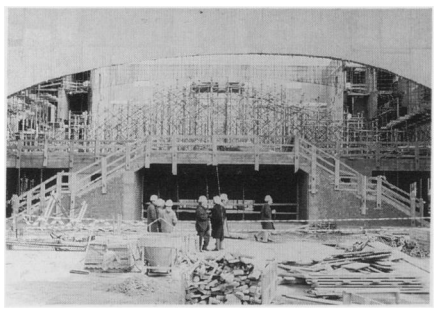
This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



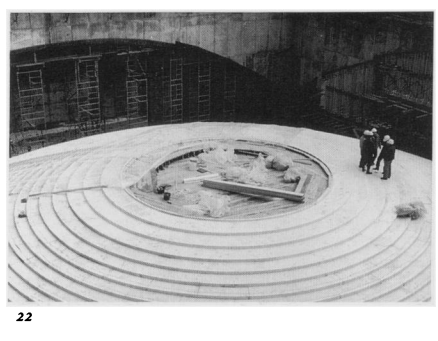
19



20

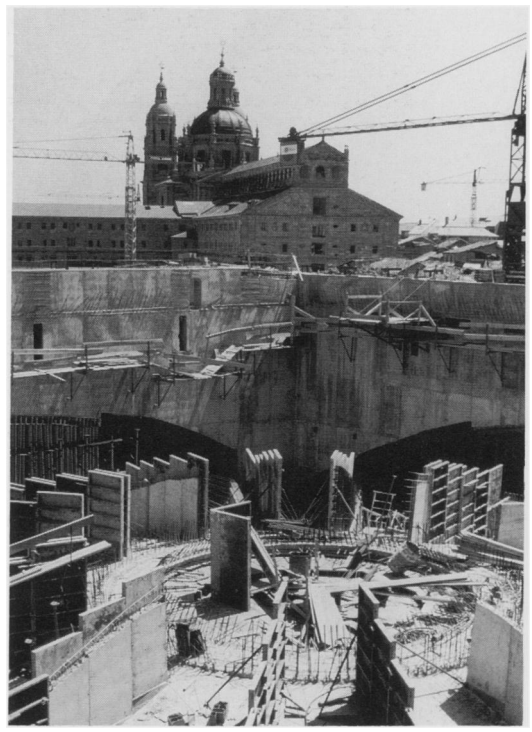


21



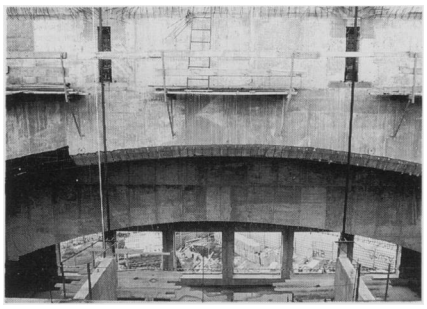
22

The process of construction of this reinforced-concrete building reiterated the shifting relationship between the autonomy of various structural and formal elements and their overall coordination in service of the final architectural objective. The site, at the city's perimeter and framed by the monuments of the historic center, first saw the erection of the four corner towers that would eventually carry both the structural load of the roof and the building's stairs and elevators (19). The four towers were then connected by the perimeter walls to complete the envelope (20). Inside this completed box, formwork for the domed baldachino was constructed on the ground (21). It is a squared segment of a sphere composed of three parts: a lower shell, which makes up the fluted interior ceiling of the auditorium (22); a layer of radiating concrete fins, which separates the upper shell from the lower, thereby lightening and stiffening the dome simultaneously (23); and an outer shell, which is the final roof over the main body of the building (24). Once completed, this assembly was raised to its final position by jacks precisely coordinated by computer (25, 26). Then in place, the dome was anchored to the perimeter walls with sixteen finlike concrete connectors (27), each received by a steel bracket that in turn was inserted into sockets cast into the walls (28).



23

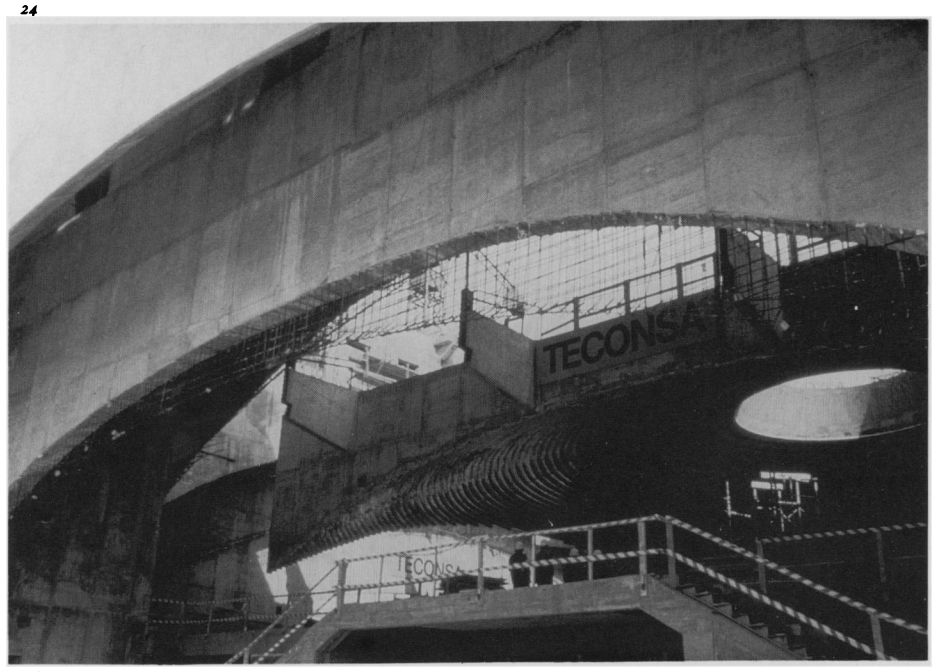
This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



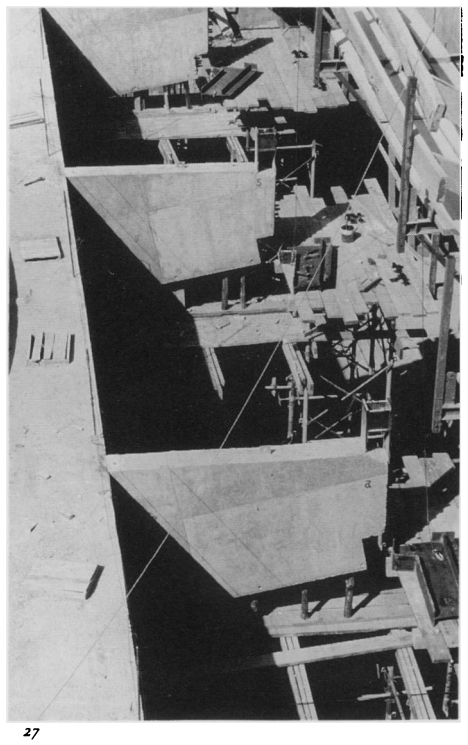
25



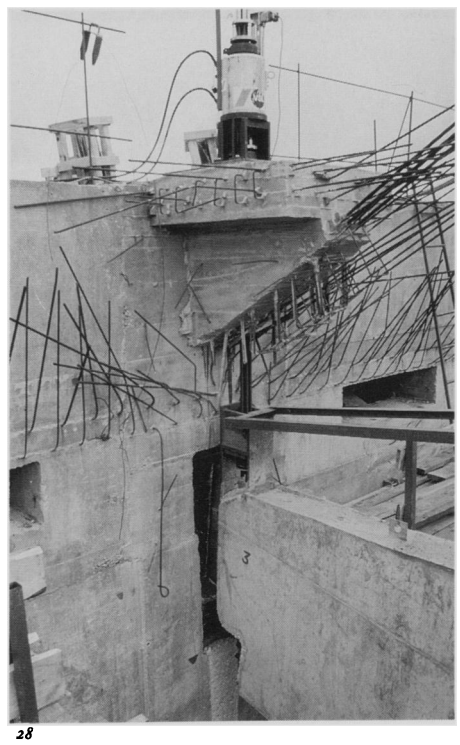
24



26



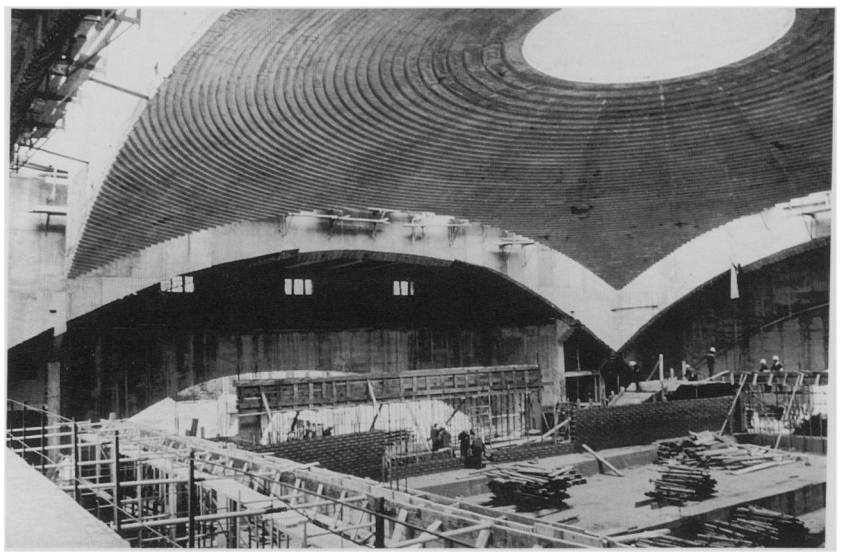
27



28

Juan Navarro Baldeweg

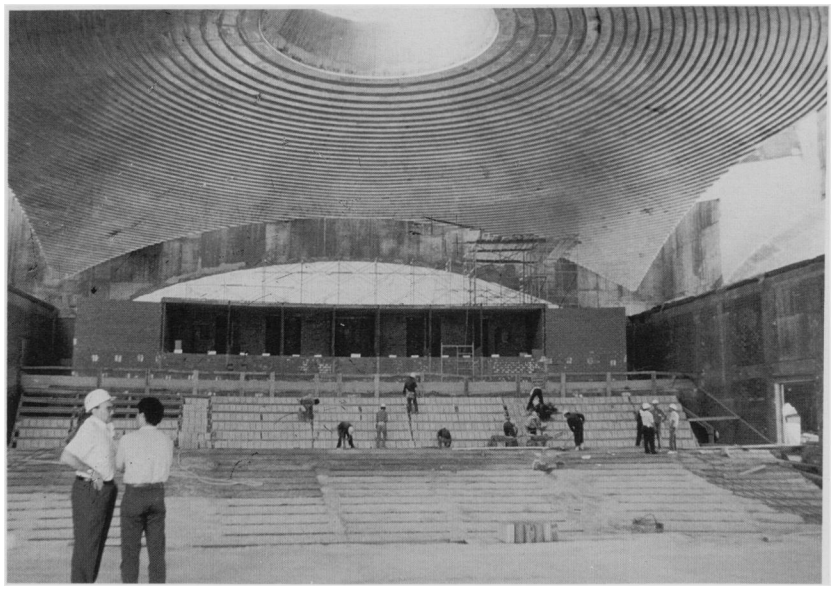
This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



29



30a



30b

The lifting of the dome into its final position accentuated the dome's seemingly ephemeral nature. The full volume of the auditorium was revealed not slowly and incrementally as with the great domes of the past, but suddenly, as if its production were as effortless as the dome's suspension (29). The abstracted elaborations of the design process were immediately and irreversibly visible in the quality of the light that fell from the beveled oculus at the dome's crown, and in the intensity of the light that was reflected off the inwardly focused ceilings of the lateral vestibules carrying the geometry of the dome (30).

From the Vaguada, the finished exterior surface of the building, sheathed in native Salamancan stone, works to recompose the existing wall of the old city and thereby allows its continuity. But from the historic center above, the copper-covered dome of the baldachino (31) asserts itself as the centerpiece of a new monument in the city.

The Convention and Exhibition Center of Salamanca

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions



31

Juan Navarro Baldeweg

This content downloaded from 91.223.28.76 on Sat, 28 Jun 2014 18:16:39 PM
All use subject to JSTOR Terms and Conditions