



Digital Reconfiguration of the Project of Brasini for the Soviet Palace in Moscow

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Abstract. The digital language makes it possible to reproduce non-materially constructed places, making them realistically perceptible and usable in the virtual dimension. The possibility of reconfiguring non-existing works in three dimensions is a graphic opportunity to investigate the contents expressed by the cultural heritage contained in projects not completed.

The contribution in this sense focuses on the study of the graphic heritage related to unrealized projects, referring to the analysis of documents left on paper that constitute an important cultural background to understand the historical and architectural events that underlie the failed achievements.

In particular, the survey methodology is applied to an emblematic international comparison, that relating to the competition for the construction of the Soviet Palace in Moscow which constitutes a salient episode for the history of twentieth-century architecture and can refer to new aspects through drawing. It is one of the first competitions that the Soviet Union opened to the West with the participation of many well-known architects and among them Le Corbusier, Erich Mendelson, Walter Gropius, Hans Poelzig with avant-garde proposals to which the monumental classicism of the utopian project of the Russian Boris Iofan, expression of political power.

The research conducted from the point of view of representation traces, through graphical elaborations, the requests formulated by the notice for the great building, that was never completed, of which some of the significant project proposals have been examined.

In particular, the survey focuses on the designs drawn up by Armando Brosino, the only Italian participant and teacher of Boris Iofan, who strongly influenced the style of the winning project.

The main objective of the contribution is to communicate the values of the graphic heritage expressed in the design solutions, analyzed, reconfigured and explored three-dimensional in the digital dimension.

Keywords: Design · Digital models · Moscow

1 Introduction

The conception of a “Labor Building” conceived as a multi-purpose center and place of activity of the Soviet should have been the symbol of Soviet power on a world scale, for

this reason the elaboration of the great project, after a phase of internal confrontation started in 1992 from the Association of architecture of Moscow in which the principal objectives were delineated, was opened to international level (Samonà 1976, pp. 84–85).

In June 1931 the international competition for the Building of the Soviet was run by a special council set up by the Stalin government, in the idea of the party, it had to be a multi-purpose building to be built near the Kremlin, so it was decided to sacrifice the Church of Christ the Savior.

The site in which the Christian temple stood corresponded to more requirements, it would have allowed the enlargement of the square in front of it, favoring an urban planning solution suitable for the transit of crowds, of the twenty-five thousand people that the building was supposed to host, and change the function of popular reception, transforming the sacred area into a place of secular worship.

The building was to be configured as an administrative and congress center, modern and multipurpose with libraries, concert spaces, large rooms to set up mass events capable of hosting performances and collective parades.

One hundred and sixty designers joined the competition, including a minority of foreign technicians, present with twenty-four proposals relating to the Building in the significant urban context. Famous architects of the international scene such as Le Corbusier, Walter Gropius, Auguste Perret, Erich Mendelsohn, Hans Poelzig and among them the Italian Armando Brasini participated (Pisani 1996, pp. 40–48).

Brasini is invited to participate by his student Boris Michailovic Iofan, and after resulted to be the winner of the competition.

The style of the selected project raises many controversies, especially compared to the great proposals of the other participants.

The proposal of Boris Iofan, of classicist derivation like that of his Roman teacher who receives a mention of merit for the occasion, will never be made for the onset of the Second World War. Only the foundations of the building were built on the site of the Cathedral of Christ the Redeemer, demolished in 1937, from 1958 to 1960 the Building was then converted into the largest open-air swimming pool in the world, to then give space at the end of the nineties to the reconstruction of the suppressed church (Vigano 2002, www.larici.it).

The contribution examines the values of the graphic heritage produced in this symbolic contest in which the documentary apparatus has assumed a preponderant role, due to the paradigmatic demands and the failed implementation.

The drawings make it possible to trace the compositional intentions of the illustrious authors in relation to the related ideological and political influences.

Through a series of comparisons and graphical analyzes, some of the significant projects presented that reveal the architectural qualities and the no less significant cultural and social implications, have been examined.

In particular, the competition results highlight an analogy between Rome and Moscow which, although motivated by different political convictions, manifest similar celebrative architectural choices adopted to express the greatness of the respective regimes.

In this sense, among the many possible, it was decided to re-configure Armando Brasini's project in three dimensions, explored through the spatiality of digital study models.

2 The Contest Requests

The brief description of the facts and the insolvency requests allows us to understand the proposed design solutions and the investigations carried out through the analysis.

The competition that foreshadowed linear and contemporary forms in its intent, required the creation of a unitary structure articulated in a series of rooms, two of which were large, joined by galleries and accessory rooms with restaurants, exhibition spaces and library, all to be arranged in a large square able to accommodate popular assemblies.

A pharaonic project at the limits of reality aimed at transposing the ideals of communist politics into architectural forms (Hoisington 2003, pp. 41–68).

The Council, designated for the construction of the representative building, specified the destinations of use of the environments and their capacities.

The main room for communicating collective work methodologies and Soviet reforms was to have at least fifteen thousand seats, arranged sectorally around a stage.

The smaller room with six thousand five hundred seats, for congresses and assemblies, should instead have included a gallery reserved for two thousand guests with an independent entrance. The special accesses allowed the possibility of approaching the speakers in hierarchical order, to the personalities who alternated in the mass events. Special posts were also reserved for the press, which had the task of divulging political activities.

Of these mass indications, the designers developed their selected proposals with awards, the first assigned was assigned to Boris Iofan, the second to George Hamilton and the third to Ivan Vladislavovic Zholtovskij.

In reality, it was not unequivocally to the choice of a definitive project, but to a succession of improvements, carried out on the first classified proposal, derived from the solutions of the projects considered best.

3 The Design Proposal of Some Illustrious Participants

Among the significant proposals, Le Corbusier occupies an important place, despite not having received any awards, he has been universally recognized by the commissioners and critics as a “masterpiece of functionalism” that is able to fit into the context with an antithetical expression of urban renewal.

Modern linear forms, state-of-the-art technologies and style counterbalance monumentality (Samonà 1976, pp. 40–44).

The project is based on the arrangement of the two trapezoidal-shaped rooms that mirror each other on the large square of the popular assemblies; the latter structured on several levels and crossed by an elevated element that acts as a link introducing the speaker platform. The smaller room towards the Kremlin perceptually directs the vision of the larger one highlighted by a system of septa that frame the large external stage (Fig. 1).

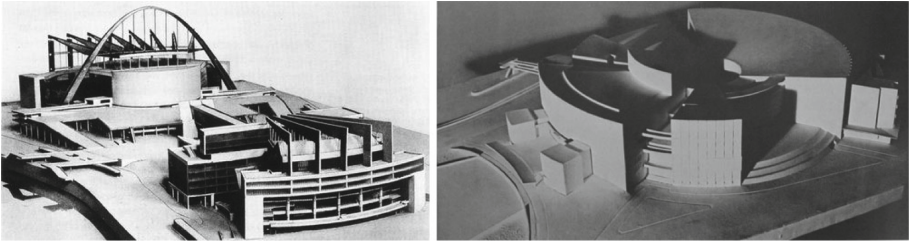


Fig. 1. Projects by Le Corbusier and Gropius, images of the models of the competition

On the contrary, Gropius's proposal is an isolated architectural element enclosed in the circular form that defines the organizational structure of the space.

The two rooms are in this case circumscribed within a cylindrical sector which occupies opposite parts of the generating circumference and find the contact point in the center of the composition. Externally it appears as a compact volume that does not open in the city but is distinguished from it, the contact occurs with the infrastructures that cross it on several levels, with the subway that cuts the base circle and the roads that enter along the rays.

Another exponent of the German architectural renovation Hans Poelzig, with ideas opposed to those of the Regime, intervenes in the competition to affirm the spatial and technological possibilities offered by the new materials. The designed solution distributes the building volumes on the large square, turning the smaller room towards the Kremlin with a horseshoe shape that extends with the lateral bodies up to the hall of the main block which opens like a fan. The compositional unity is resolved through the modular scanning of the light septa that cover the entire complex.

An innovative project is also that of Moisei Ginzburg, an exponent of Soviet constructivism, who proposes a planned relationship with the area of intervention.

The solution is characterized by the presence of a main element that stands out from the context with a large and technological dome. The structure, intended to house the main hall of the building, was served by a spiral ramp and included an auditorium with a large stage on the inside. The courtyard and terraces complete the interesting proposal incorporating an articulated system of connections that connect the different spaces. Everything is enclosed within a square plate where the trapezoidal minor room is located and the assembly square is arranged (Fig. 2).

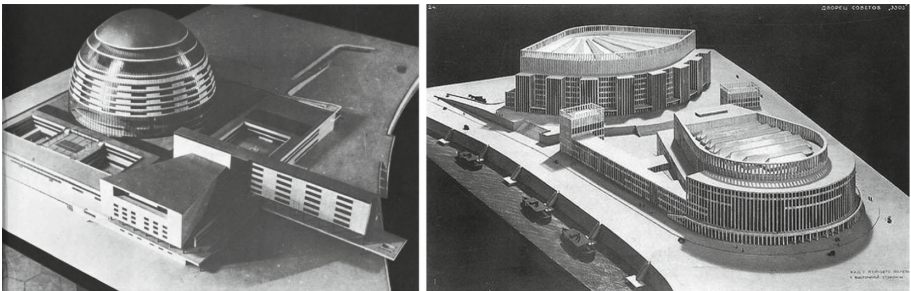


Fig. 2. Projects by Ginzburg and Poelzig, images of the plastics of the competition

The purity of the forms of Ginzburg, the rational linearity of Poelzig, the proportionate spatial organization of the volumes designed by Le Corbusier can only contrast with the plethorical solution of Jofan that with its 500 m in height, 80 of which occupied by the towering statue by Lenin, represent the ostentation of power, also readable through the graphic evolution of the drawings of the selected project.

The initial proposals of the architect, elected as the designer of the most prestigious work in Moscow, undergo requests for modifications that completely transform the compositional aspect. The changes requested transfigure the style, the statues magnify, the colonnades widen the already monumental composition, ironically defines as “wedding cake” (Fig. 3).

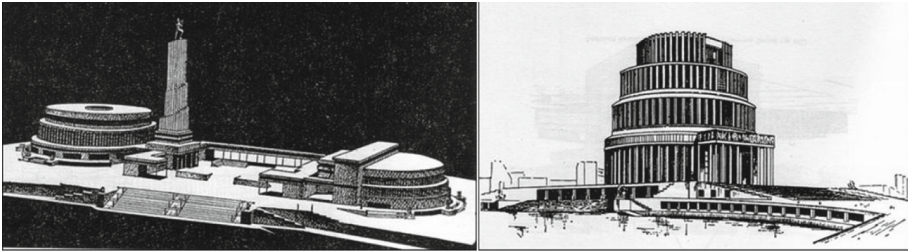


Fig. 3. Boris Jofan, images of the initial design solutions (1931–32)

The overlapping of volumes does not help the tormented project that has no definition, becoming for Jofan a political imposition from which he will not be able to free himself of.

4 The Project and Armando Brasini’s Role

It is appropriate to consider the role of Armando Brasini, an Italian participant and Boris Jofan’s teacher, to understand the educational influence from which the outcome of the competition arose.

The Roman architect at the service of the Duce who expressed his artistic and visionary skills mainly through the design from which, in reality, he received his best results.

His graphic talent led him to draw from the monumental architectures of the past different figurative repertoires, amalgamated with the mastery of the sign.

The theatricality of the designed proposals translate on paper the ideas indicated by Mussolini for state architecture that push him to enhance monumentality. The latter suggested by the dictatorship is further emphasized by Brasini who through a mixture of styles, with a preponderance of Baroque and neo-Gothic, manipulates his eclectic compositional lexicon. This compositional trend influences the training of the young Jofan who studies and works in Rome collaborating for a decade in the study of Armando Brasini.

The style of the winning project reflects the teaching received that is well suited to the ideological demands of the theme, the classic language is assumed for the symbolic representation of power. The conceptual and architectural circumstances that arise

between the two capitals thus create an unequivocal orientation in the design proposals of the two architects (Sedova 2006).

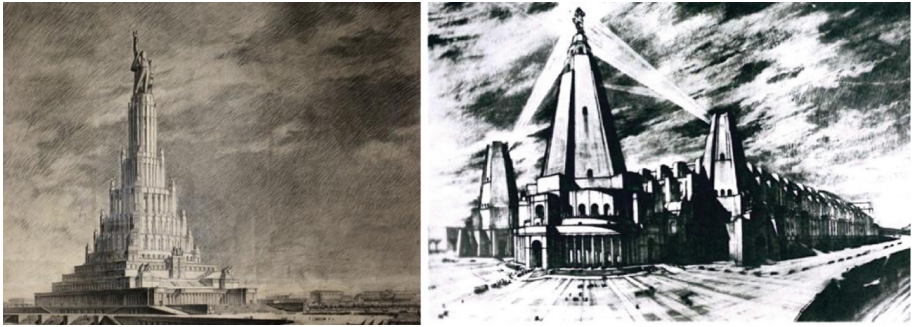


Fig. 4. Boris Jofan, final project 1936 and proposal by Armando Brasini

Brasini's solution shows clear references to the Roman Empire at the Pantheon, the Forums, the Colosseum reinterpreted in the drawings of the Palace of the Soviets which, in perspective views, appears as a compact monolithic block with soaring pyramidal truncated towers, from which beams radiate of light converging towards Lenin's soaring statue. From the two projects emerge similarities and contact points that are not very investigated from a graphic point of view (Fig. 4).

5 Digital Reconfiguration of the Armando Brasini Project

The first phase of the digital reconfiguration work involved the analysis of the original designs produced by Brasini for the competition which, through a sequence of graphic designs, describe the imposing layout and the compositional choices adopted.

The scenographic impact of the three external perspective views, amplified by the chiaroscuro effects made of graphite and charcoal illuminated by white lead on large format cardboard, show the appearance of the majestic palace presented like a mighty fortified structure. A sequence of buttresses dominated by volumes, similar to sentry boxes, surrounds the building that appears as a turreted citadel. The first level covered in rustic rustication is delimited by protruding spurs that mark the entrances to which great importance is assigned: the lateral ones were reserved for delegates who had separate entrances based on the political role, the main one welcomed the crowds sorted by means of a circular pronaos that follows the shape of the planimetric system introducing in the central courtyard and in the halls for congresses.

The perspectives that frame the rear, shown in a front and a side view, highlight the two curved ramps that allow the access of the cars inside the structure, capable of receiving even the aircraft welcomed in the large central arch, pivotal of the dynamic flows that permeate the building (Fig. 5).

The presence of the vehicular transit is confirmed in the perspective views of the interiors, which show the "carriageable portico" leading to the group B hall with the spectacular theatre and "Large concert hall for 15,000 seats" on which an airplane appears.



Fig. 5. Project of A. Brasini, perspective views of the rear and lateral front

The ostentation of grandeur is reaffirmed in the main front with the monument of Lenin that stands on the majestic central tower, pyramidal in shape, radiated by beams of light from the two lateral towers.

The perspective representations aim to surprise the observer by enhancing the monumentality accentuated also by the setting, by the groups of people and vehicles that like ants go towards the entrances. An out of scale loved by Brasini several times used in the visionary representations for “Urbe Maxima” for the visionary drawings conceived for Rome as the capital of fascism (Orano and Brasini 1917, p. 58).

In the Palace of the Soviets, the Italian architect shows off his entire figurative and symbolic repertoire which, through his extraordinary graphic skills, is well suited to indulging the megalomania of Soviet power.

The citations of the ancient are revealed above all in the grandeur of the interior spaces which compared to the more perched volumes modeled for the exterior, in which medieval echoes are recognized, clearly follow the architecture of the Roman Empire.

The meticulously designed plants seem to re-propose the sequence of the thermal environments which in this case house the numerous rooms that make up the multifunctional complex (Fig. 6).

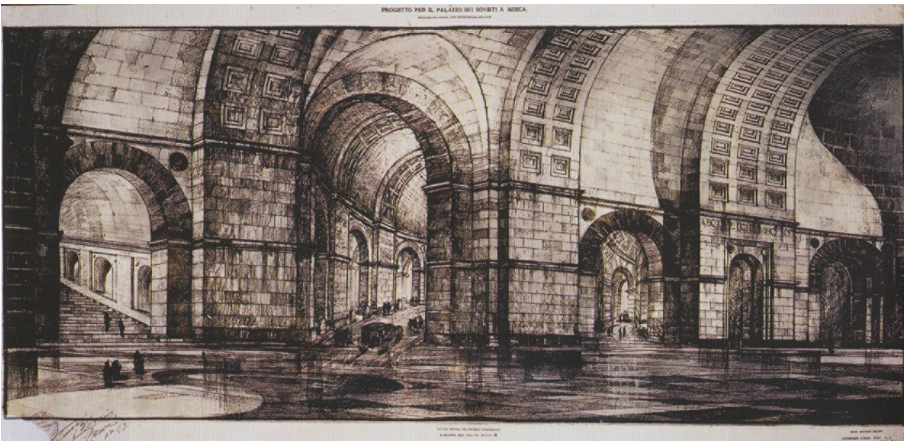


Fig. 6. Project of A. Brasini internal view of the carriageable porch

The basement was used for the numerous services necessary for the operation of the complicated structure: power plant, heating, kitchens, parking for 400 cars which was a record for the time, rooms for drivers, mechanical workshops. The ground floor was supposed to have a distribution plan capable of managing the network of important flows, relating to the aforementioned entrances hierarchically organized so as not to generate disturbances in large demonstrations, meetings and political parades.

Characterizing elements of the system were the two main rooms: the circular “A” placed on the main front with 6,500 seats, equipped with podiums, access ramps to the stalls and the stage with annexed exhibition rooms and library; the semicircular “B” on the opposite side was to contain 15,000 spectators and to have access from the large arcades, which can be travelled by cars. The two fulcrums were connected by a large open courtyard which lightened the compact structure allowing direct lighting to the rooms, functionally distributed in five levels. The upper floors follow the scheme of the underlying floors with smaller rooms, galleries, libraries organized in the spaces left free by the bulky volumes of the two main rooms extended over the entire height of the building.

Returning to the citations, the dome of the Pantheon with a similar design of the coffered ceiling is proposed again in the circular room of group A, where it doubles in height, rising in the upper part up to the connection with the truncated pyramidal tower from which particular light effects originate. The latter, filtered by the openings arranged around the main tower, was ingeniously addressed to obtain suggestive irradiation both in the conference hall and in the upper part where the statue of Lenin is placed, which was to appear suspended between the light beams, as drawn in the sections.

The stenographic light effects are represented in the perspective views that allow you to perceive the solemnity of the rooms, resembling Piranesian spaces reproduced with Baroque emphasis (Fig. 7).

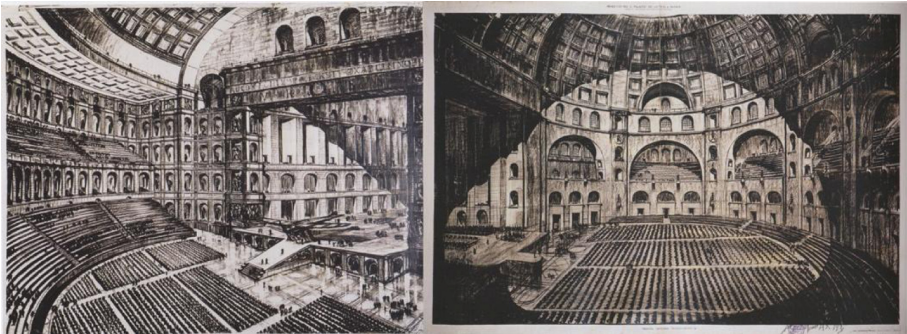


Fig. 7. Project of A. Brasini internal views of Congress Halls B and A

A déjà vu (once seen) which summarily unites and amalgamates a concentrate of exemplary monuments. The results is a hyper-monument that responds well to the megalomaniac requests of the competition and aims to generate a hegemony of spaces, undoubtedly quantitative, but arguably qualitative, especially when compared with the modern linearity of the other design proposals and with the history of the architecture.

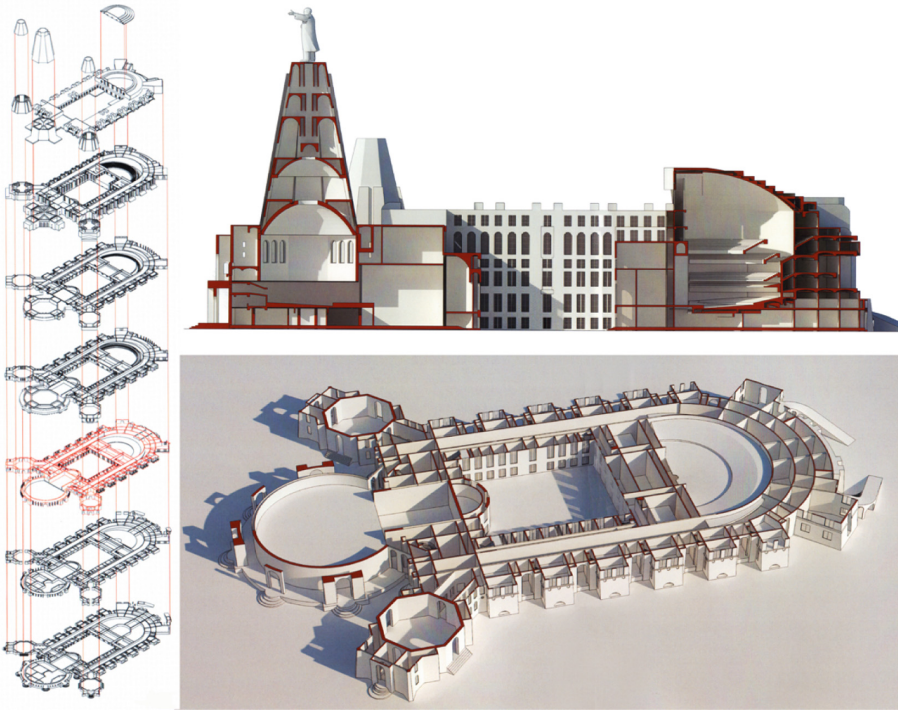


Fig. 8. Digital reconfiguration. Three-dimensional study models

The sensation of the already seen also accompanies the pharaonic space for meetings, theater and large concert hall of the group B of semicircular shape, in which they find themselves in addition to the replicated dome of the Pantheon, in this case halved to be adapted to the planimetric system, the bleachers that echo the shapes of the Theatre of Marcello, mixed with the arches of the Colosseum. An amalgam of quality ingredients readjusted if necessary through the mastery of the design.

The suggestion provided by the chimerical images characterize the work of Brasini and justify the low consideration of the critics who assessed the design contents, in evident contrast to the modern proposals of the other European participants, but which from a graphic point of view constitute the excellence of the character, a value for “graphic heritage” or for “heritage graphics”.

To conclude using the words of Paolo Portoghesi who defines him “...one of the great intruders of twentieth-century architecture” but considers him “...a great designer, capable of creating architectural tables that attest to him as one of the greatest artists and visionary designers of the twentieth century in Italy”.



Fig. 9. Digital reconfiguration. Three-dimensional study models

6 Conclusion

In conclusion, the contribution through graphic analyses carried out on the project drawings, through comparisons and analogies with the other designers involved in the singular competition of the Palace of the Soviets, proposes a review, an investigation conducted by means of the representation that leads from traditional documents to digital explorations, highlighting further results on international competition expressed through modern visualizations (Fig. 8).

The construction of three-dimensional study models allow us to restore the spatiality of the forms conceived for the Palace, to understand its design, the volumes, to enter the rooms visually perceiving the architectural language of the heterogeneous compositions (Fig. 9).

Failure to carry out the work extends the intangible values of the graphic heritage left on paper, the many solutions that, with the help of today's increasingly realistic and immersive technologies are able to communicate important contents and addresses, often dictated by political-cultural choices.

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