

Giuseppe Perugini

Projects and Research

Cartoons Pictures • Roma

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Author Photo

In the texts are presented and written notes from the following publications:

Shrines of World War II: • delfe shrine them Fosse Ardeatine ', 1974 - Metron Architecture:

• A competition with the tail ", no. 18, 1946 - Metron Architecture: "Accommodation of the

Ardeatine Cave", no. 45, 1952 - Shrines of World War II: • The Museum of the Fosse

Ardeatine ', 1974 - Architecture, chronicles and history, The Italiano Pavilion at Expo in

Brussels », 1958 - Paese Sera, Next and other items: • Judicial • Rome - The architect-Inarch

"Joseph Perugini • new district court" in 1971 - Builders Romans News: "He was born in

Piazzale Clodius Judicial City" - Fermi - Life with the atom; (Summary publication) - The

Architecture, chronicles and history: "First competition INARCH-FINSIDER • - December

1967 - Architecture Chronicles, Messenger:" Quartiere Tre Fontane in Rome '- House

Beautiful: • the Fortress Metamorphosis ", 1969 - Necropolis : • The prize all'antistoria • -

The Architect in front of the industry, the Ministry of Public Works, Rome - The building

experiment by Ciribini, Ministry LL.PP .. Rome - Architecture and computers, ed. Bulzoni -

Country Books: • New urban forms "of Giuseppe Perugini, 1970 - Baumeister, Parameter,

Moebius:

• Project land bridge - Milan bypass, New dimension - Sicily Time: • The junction of

Resuttano », 1968-71, and the explanatory reports of the projects.

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We can not entrust our interests to an "elite " of men prepared, chredendo them to

explore, discover and create the environment intended to ospitarcz, Wed, iviglzandoci then

before work completed learning it came good work / as done; that it would in fact ourselves, each of us is committed to supervise and guard the right ordering of Earth's landscape, each with his spirit and his hands, in the portion that belongs to him, to avoid passing on to our children a minor treasure what our fathers left to us at.

There is also no time to waste, because humanity is restless and greedy, and the desire for us now forget the resolutions yesterday; again time, never! pursuing a goal, we cease to aspire to perfection, rather corruption, secure and fast, kills again hope and everything succumbs and falls into oblivion; we have time enough for any home: no time to subdue our material power the forces of nature; but if we turn our attention and our curious desire the beauty of the earth, there is no minute to lose in 1111, fearing that the continuing flow of human needs to weigh upon it and make it not 1111 desert of hope (which it was once), but a desperate prison; neither! fear, finally, to find that man has labored, struggled,

WILLIAM MORRIS

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This collection of events, experiences of projects spans the years interwar since the end of World War II to today. Years who form a particularly dense moment of events, often controversial but always debated in the history of Italian culture.

Perugini belongs to the / generation of architects for which this voltage is

It was important and for ... Mativa. Those architects who began their activities with that enthusiasm that characterizes moments redolent of instances of renewal, indicating the transition from an obscurantist period to a period of cultural and social openness. It was in fact re-establish that dialogue with the history that had been so violently interrupted for twenty years. V bodies years that had prevented Italian architects to try those stopped, anti- · innovators who quotevano Europe since the early years of the twentieth century.

The comparison between the Italian situation after World War I with that of Russia post-rivoluzionaria might seem hardly appropriate. But Russia, underdeveloped culturally and industrially under the rule of the Tsars, was to absorb all the achievements of that / industrial revolution that he had missed, without, however, prove the contradictions and

imbalances that developed in capitalist society, thus creating the appropriate conditions for the development of a movement that was intended to renew the way of life.

And in Italy the situation seemed to orientate themselves towards these global modification criteria; involving also the political cleanses the beginning, but then turning increasingly alone towards cultural cleanses and arrive at a situation of stalemate.

Already the 'rationalist instance had appeared and was absorbed by the few pictures that leaked out from architectural magazines of the two decades, came as "Futurism", where delirious articles not only put in interacts with the works of Sant'Elia those of Le Corbusier, but Derived from claiming / Italian genius, movements came the German Rationalism.

They came also, clandestinely imported, rare and foreign magazines .si held long discussions in a climate of cultural depravity.

All this knowledge and sensations / fiorava immediately dopo war. Of rationalist lesson the new generation accepts only pear anti-rhetorical synthesis, adherence to those criteria of essentiality that bring Adolf Loos to the "rigor" of eighteenth-century Carlo Lodoli.

This, in much aware of the fact that the Italian situation offriva of very different conditions from those in which had moved the Masters of Movement Moderno. Therefore, the issue was whether the new anti-rhetorical architecture had to exhume the bodies of the international style, or repeat ie discounting the reasons dell'architettura less Italian.

Of that / to architecture ie who attempted to smuggle instances rationalist integrating them with the most typical local elements and had to be content to operate on a small scale in how much the great works of representation were reserved to the masters of "Twentieth Century Style".

There are also remains of the period, the initiatives to find a common language, especially by dell'APA0. Association consists of the few Italian architects who were not integrated into the architectural weeding time came for example Ridolfi or collaterally BBPR While you were developing your own research, the 'organic architecture was rilanzata by Zevi. But its true significance was not understood and was thus considered a product of importazione came.

In fact the problem of a unztario language was deeply felt by young architects, in as much logical expression of those feelings Community who already had expressed during Reststenza and in / lutva not on political issues of that historic moment.

Yet, these experiences were short-lived; View, and the impossibility of a meeting on common themes, they constitute of the working groups that carry out very specific experiences, individualistic and characterized by the special interests of the components. The INA-CASA, through the establishment of registers and the formation of professional groups favors this disintegration. Furthermore, this separation allows various Italian cities to approach / understand circumscribed experiences creating real --schools --. Nell'accezione renaissance of the term.

In Milano, for example, the first experiences of INA-CASA districts relate to pure rationalism, while in Rome the most active groups consider with great interest the younger architecture lesson.

The opposition dialectics that constitutes the most interesting aspect of that moment could lead to exceptional results, the architects could result from this ongoing debate which was slowly developed an accord on fundamental principles.

In effect nothing auspicious how much, how much he looked ready to materialize, she has come true.

The reasons seem to many, not least the generation leap, or the risk / failure to acciarsi on the scene of the architects who had made during the twenty years and that came academics soviet Constructivist period, had patiently, and for a short time, given their triumphant return to prestigious positions they considered the legal spettacolo.

By participating in these **vicissitudes**, Perugini is measured in the useless discussions that characterize the short life of the A.P.A.O., which, created to bring together the architects around a precise methodology, once it has been ascertained the purpose of its intentions dissolves without leaving anything constructive.

'Now Perugia, all colors who had lived critically the' negative experience of two decades, and Perugini is among them, they sense that if the possibility of a common discourse had failed on! specific architectural plan, it could present it again Perugia as more general cultural and political initiatives, as well as teaching.

Del remains, Perugini affected by the more cosmopolitan vision that comes from the fact of being born in Argentina. Then, while continuing the search for a language that allowed them to express their view, participating in person in the discussions for the creation of those institutions that were supposed to provide architects the opportunity to become interpreters of the reality of the moment and to participate in social reconstruction and the nation's material.

We find it in fact, as well as among the founders of the A.P.A.O., Among those who make up the I.N.U. clear battles of professional orders and clear cultural struggles with friends found.

This was a way to save time, to reconstruct a coherent structure on which to base the discussion on the resume! Issues' architecture.

In the meantime, Perugini, together with other young architects, began "the profession ... He won the first competition for post-war architectural works, and perhaps the only competition in which the jury really considered the requests of the moment: the one for accommodation delle Fosse Ardeatine. This was not an easy work; the proposed / then abstraction did not adapt to the concept of the mausoleum that had been done during the twenty years. Its strength, which leverages more potential emotional than pompous rhetoricism could not be immediately understood on a theoretical level, from which the time for its realization, the result of which can be concretely evaluated.

In this stage of uncertainty, in which politicians also came, it can be seen from their confessions ; they were guided more by a revisionist stimulus than by the desire for a true and proper renewal, the reconstitution was urgently needed, the cities often revived without the help of architects, mostly engaged in the construction of models that remained submerged from the architectural generic.

The initiative of Ministry of Public Works to provide an experimental method did appeal to the industry to bring order to / chaos that was manifested on the reconstruction plan, which is also involved Perugini, or rather / the National Research Council, following an old aspiration of Ridolfi, saw in the dissemination of technical and technological standards, such as the possibility of a legal system in matters of architecture, are the only tentative attempts to bring the architects to the need for joint research.

Accepted then, for Perugini set out above, the criterion of autonomous experimentation, Perugini sets his speech in order to make its earnings results in the cultural environment of the moment. Rejecting such research at all costs of a "style" personal reaffirms its precise poetic architectonic consistent for what rigidity its rapport with stories, but above all, dry open new instances.

His works are therefore characterized by the application of all those traditional rules of architecture, such as golden proportions or rational rigor, combined with often upsetting messages. As part of his symbolic works at the elementary level, we must remember the church-sanctuary of Piedimonte San Germano or the Memorial Fermi; the former was in fact meant to bring about the complete destruction of the country and its patient reconstruction while the latter constitutes a tribute to the genius of the great scientist.

The same project for the Judicial City of Rome, symbolizes the return of the concept 'Roman' of 'administer justice in the street, strongly contesting the concept of "temple" that has always characterized the courthouses.

Even the competition for the construction of a permanent exhibition in / the interior of the Fortezza da Basso Perugini in Florence offers the possibility to exploit the symbolic and psychological meanings that such a suggestion; and it is therefore facile recognize technological standards in the concretization in terms of a tangible .. explosion "of forms that vicine to oppose the static plant Fortress.

When in the 60s the computer became the new protagonist of the scientific world, Perugini was among the first to propose its use in architecture. By using them, however, not for sterile research aimed at having the computer designed / adorning it with the characteristic data of an ideal architecture, but instead by exploiting its unlimited possibilities to order, giving it coherence, the modular elements of a certain kinetic architecture.

And it is in this context that you must consider your hospital project or the one for the location of the U.N.I.D.O. in Vienna, as well as his research for the application of the results obtained in this field to the new cities.

His most recent works are developed on this basis, which, by combining the symbolic values with the most advanced technologies, attempt to unlock the stagnant situation of the specific by proposing the "sign" came to be an expressive value. Whether it is the circular sign symbol of territorial continuity of the bridge over the Strait of Messina or the technologically exasperated spirals of the Plateau Beaubourg project in Paris. So all the works of Perugini retain common characteristics.

These are: the message that every work of architecture must include; - the symbolic and psychological values; the desire to approach, always say between architecture and relates the technical process and scientific / ico.

Now, if the 'autonomy of' architecture is still a burning issue, it is out due to the fact that architecture is a cultural social ddl'attività branch; the his linguag • Thu must be f acilmente recepibile by the user, even if not "started" ' .

For this reason the characters present in the architectural works must have an educational value. And it is precisely for this purpose to facilitate understanding that Perugini has dedicated himself: the Fosse Ardeatine came to be a large tomb, the Judicial City became a real city with its problems and contradictions, the historical presences preserved in Piedimonte San Germano, the The ring that unites the two sides of the Strait of Messina are all works that use traditional evocative values, easily accessible to everyone. Perugini's discourse therefore arises as a unitary element, characterizing his work both at the level of the monolithic mass and at the level of spatial fragmentation.

It therefore deals with a "style" that does not change with the passage of time, remaining crystallized on the environmental positions and conditions that had produced its formation, but which adapts to the problems and instances of the present moment, evolving continuously .

There are therefore no more aspects of Perugini's work, thus providing the pretext for a non-existent eclecticism, but a well characterized poetics, an "open style", perhaps the only valid answer to the crisis of values that characterizes this historical moment; and it is with this spirit that we must observe the images of this collection.

## THE WORKS

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### Fosse Ardeatine 1944-52

The severe defeats in Africa and Sicily and the collapse of the fascist regime ; <leterminarono the final separation from the heavy Italian alliance with Hitler's Germany: the armistice with the Anglo-Americans was proclaimed at 19.45 8 September 1943. But the Germans wanted to resign pon inevitable breakthrough Italian and since 25 Luglio made to converge on the Peninsula numerous forces; the news of the armistice made our trip the plan for employment of 'Italy: disarmament and' internamen to those who wanted to oppose.

Unfortunately, in this terrible situation, particular circumstances brought about serious adverse uncertainties and confusion in the political and military leadership of the country, they facilitated the collapse of the apparatus \_militare in the Italian peninsula and in the Balkan area.

Despite the incettezza orders, which they favored the .. s rp; esa and the German penetrazione to Rome, the departments of the divisions arranged in defense around the city contrasted and rejected, on the night of September 9 and successive morning, the repeated attacks German inflicting significant losses, come in Manziana and Monterosi (Div. "Aries"), Monterotondo (Div. "Piave"), and Magliana Cecchignola (Piv. "Grenadiers").

The order of general ripiegamento to Tivoli increases the confusion and heel: the rearguard departments continued desperately fighting to counter the enemy advance: a total of 414 soldiers fell between 9 and 10 September; 10 bravest was awarded the Gold Medal Alia memory.

To combat these two days and other isolated incidents nella area of Rome participated daring young, old fighters and invalids; in those days well 183 civilian volunteers were killed. On the evening of September 10 the battle for the defense of Rome was lost and the Germans they accepted the capitulation, limiting the disarmament of the military. Many soldiers and civilians did not desist from the fight against the invader and spontaneously formed the first nuclei of resistance who acted in Rome and surroundings NCI durante the nine months of enemy occupation.

On the afternoon of September 9 representatives of the anti-fascist parties, deliberarono:

"Just as the Nazis tried

to restore in Rome and in Italy its fascist ally, the anti-fascist parties will constitute in the National Liberation Committee, PCR call Italians to fight against resistance and Italy win back the place which competed it! assembly of free nations. "

In the first 15 days of Rome could enjoy a semblance of come "Open City autonomous power". Allow the Germans to buy time to deal with the Anglo-American advance and reconstitute fascism with Mussolini: these, from Quartier Generale of Hitler, on September 15 emanated decreets of the constitution of the "Italian Social Republic", wanted by Germany facilitate the control of Italy occupied.

From 23 September the Germans assumed direct complete control of the capital and, ably helped by CSR armed, began raids and arrests against the alleged "resistance", raids in

neighborhoods c roundups in the streets to capture the Jews and to oblige the young to "the. service work."

#### Terror police in Rome -Constitution CLN

A growing tcrrore police sations with ves, oppression and violence borne heavily on the DTTA, already distressed by the grave of \$ cultured <li power and by Allied bombing.

The anti-fascist parties had dispersed. Dersi and act clandestinely and -cospirazione. In Rome, the Nazi-fascist oppression reaction was COSL follows:

- passive resistance: the entire Roman popolazion\_e, endured with great dignity and pride in a common spirit of solidarity among all the citizens layers.
- active resistance: implemented by! "Clandestine Military Front '(FCM) with the task to resume Arroi and ensure' orderly trap, ace of powers after re pulls German ta. Out of Rome on the FCM coordinated 'activities, much more aggressive. and reckless, d Ue · 'External Bands "that operated it! · In Abruzzo and Lazio, with frequent attacks and sabotage the rear Germanic. Most of the esponentl FCM d lla Capital were discovered, arrested and tortured: of these, 67 fell at the Fosse Ardeatine, 22! Urono fud \ ati the Fort Bravetta and 5 to retort.
- Armed Resistance: implemented by groups of a few gio.yani, auçlaci, reckless, ready to tuuo - "dare to hit the enemy and respond, dry provocations". Particularly active were the "Patriotic Action Groups' (GAP), directed by PCI, which played sabotage, bombings and armed attacks in the city center.

Other political groups, not framed it! CLN, spontaneous and popular germinating, were widely spread in the outlying districts of the city and surrounding areas, putting into light with bold actions and reckless, led by legendary leaders who were then almost every shot. The Group 'Red Flag' leave on the ground Fallen 128: 53 were wounded and 15 were arrested and deported.

In conjunction of the Allied landing at Anzio, d \ tl 23 to 25 January 1944 were arrested and tortured in prisons in Via Tasso the most active leaders of the "Military Front"; shortly after, by way of warning, they were shot in Forte Bravetta 20 among the most intrepid and valiant Roman partisans.

. - The Resistance in schools and universities: it was particularly strong with demonstrated

administrations, and spreads of vohmtini. newspapers. Several professors and students were arrested; of these, 5 professors and six students were shot, dry Fosse Ardeatine. On March 23, a group of 16 partisans (GAP) put into effect in broad daylight a sensational attack on a 160 SS armed unit marching on via Rasella: an explosive charge hidden in a cart, was exploded in the center of the German column, while other partisans threw bombs and fired bursts of gunfire towards the rear of the unit, resulting in a total of 32 dead and 38 wounded.

With. the arrival of reinforcements the reaction

It was immediate and angry with shootings, raids and looting of homes Circus: stand. But the Nazis wanted to implement immediately a. terrible reprisals to punish and terrorize the city: Hitler was giving notice .mata shooting, · 24 hours, 10 Italians for every German killed.

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In the list of 270 prisoners vittinie they were included · German police of Via Tasso and Regina Coeli and other 50 appointed by the Quaestor of Rome, even among incarcerated Regina Coeli. At the news of mofte of one of the wounded, Kappler said 15 victims.

L 'horrible carnage was carried hidden within the hollow of the Via Ardeatina, ne! the afternoon of March 24, by the SS in Rome, under the direct control of Kappler.

. The bodies were then -occultate with the bursting of mines that caused the cave-in of the vault of the quarry: the list of killed was never known.

The news of the attack appeared only in print on March 25, after the press << Stefani "issued on March 24, dry 22,45:" ... of the German Police · 32 men were killed and several injured ... command German therefore he ordered that for every German killed ten criminals CO · munisti badogliilni will be shot. This order has already been run »..

Kappler was then also convicted to life imprisonment for av.er him shot 15 people more than the 320 required by retaliation, and with the aggravating circumstance that he acted with cruelty to the victims. Moreover · la retaliation was judged unlawful for the 'enormous disproportion of the condemned and the procedures adopted, contrary to every rule of warfare.

The resistance of the most active groups is manifest since mid-April with fire bombings and clashes; Then the armed activity in the city decreased as a result of numerous arrests among the most daring elements. I continue, however, the LOUA in the surrounding areas to the

capital of the "outer bands" that inflicted the Germans losses in great numbers of men and material: Heavy was, however, their toll in the nine months of struggle: 1046 Fallen (of which 427 shot), 74 missing and 326 wounded.

Until the liberation of the Nazi police continued to terrorize the Roman population with arrests, harassment and bullying; even after they left the capital the SS brought in tow 14 victims, chosen from among those arrested in Via Tasso, who were shot to retort on 4 June.

At 18:30 of June 4, the allied troops were greeted triumphantly to Porta S. Giovanni, while at the same time the German rearguard fell back from Ponte Milvio.

Neither! In 1944, shortly after the liberation of Rome Municipality of this city proclaiming a national competition for the Ardeatine Cave.

## COMPETITION

The competition, detailed and precise, invited competitors to respect the environment of the quarries and the internal galleries in which had occurred the slaughter of 335 martyrs, to solve in the form of a decent burial of corpses on the flat, a slightly higher proportion of the square, on the left of the same cave.

In the competition they were submitted twelve projects including the EO [rimissione giudicatrice]; He chose the following four deserving considering the prize:

Motto "To rise again": architects In April, Cino Calcaprina, Aldo Cardelli Mario Fiorentino • sculptor Francesco Coccia.

Motto "Uga": architect Giuseppe Perugini.

Motto "Do not dolet": architects Gaetano Minnucci, Nicola Cantore, Nello Ena, Constantine Forleo.

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Motto "Steps sunt": architect Giorgio Corvatta-Scazzocchio.

Among all the projects of these projects a contest of second degree with a new band was opened which limited the study to just the cemetery and fittings of; square in front of the cave, having the commission unanimously found the opportunity to not alter the character of galleries with works of architecture; in the executive phase the winners or the municipal

engineering office would have studied the works of consolidation to ensure the conservation of tunnels without altering their characteristics.

At the beginning of 1946 four projects they were presented and in the spring of the same year the authors, with an innovation that deserves to be remembered, were called upon to illustrate their projects in front of the jury.

The verdict of the commission, accrued moiti months of discussions and site inspections, was already made when the City of Rome no longer had the pressure to perform! 'It operates; this mandate had been taken upon itself by! Ministry of 'Post-Bellica assistance. Ultimately the Commission declares winners "ex aequo" of the authors of the project "To rise again contest" and "Uga".

For the second race Perugini architect was worth the collaboration of the sculptor Mirko Basaldella.

Neither! long period in which he played the competition (two years), various associations, groups of families of martyrs, and even groups of contestants eliminated from the competition of First Instance, took various initiatives, promoting the study of many different projects. The Ministry of 'Post-Nice service! Ica finl by reopening the supply to the Prime - from which he had been' first officiated the City of Rome

second degree Competition

· ë then that same Ministry -which seek new ways to reach that final settlement that all but hoped that, by contrast not always justified, "the various interested parties ended with the hamper. Finally looks after the house the Ministry of LL.PP . which is the undeniable merit of having framed the issue in more concrete terms. In the absence of a project that had the support of all the associations and organizations that considered themselves entitled to bring to bear their judgment in the matter, that sez1one prepares, also thanks to the PNA, a decree for the financing of the work and the port to approve a law st, anziava the sum of 70 million for the accommodation of the Ardeatine Cave.

At this point the ANFIM Association saw fit to consult the authors of the winning projects of the competition and set before them the desires fundamental dell families.

The architects April, Calcabrina, Cardelli, Fiorentino, Perugini and sculptors Coccia and Mirko and found the Āmparibilità of these requirements, which related mainly to the burial system of the bodies, · with the principles from them expressed in the competition projects of the second degree jointly they undertook the task of studying the plans for the accommodation of the area.

Without much deviate from the solutions of the projects submitted to the contest the authors, using practical experience through the projects of previous studies, further deepened the study of final settlement that impostarono on the following principles set out in their report:

1) Conservation, consolidation and inserting it! main route of

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two longitudinal tunnels which lead to the place dell'eccidio. Realization of consolidation works with simple elements of strengthening; excluding them from the barrage of side tunnels! path itself.

2) Connection without continuity of the burial place solution with the place of sacrifice so as to constitute a principal path.

3) burial of remains, above ground, in sarcophagi, with individual gravestones, grouped in a single environment.

4) Access to the tomb either! forecourt quarries, both by underground tunnels.

5) fence of the square in front of the cave accommodation and access road in order to denounce the monument .ai passersby on the street Ardeatina.

These are the essential points on which the designers restarooo firm after having had the approval from the groups surveyed.

"The organic solution, which responds in a satisfactory manner · to these principles, is realized with individually simple elements which are to constitute together a 'severe and complete atmosphere, taking advantage of the conservation of the natural elements.

The enclosure is made with a wall at irregular elements of stone outcrop, open, for a width of m. 5, in correspondence with the axis of one of the entrances of tunnels. : E: this is the main access that has to chiusura a large bronze gate mounted on drawstring, and is

backward, toward the via Ardeatina, five meters to denounce the sacred area and <lare vent to the flow visitororh

The large square paved with uneven cobblestones, is cleared of debris still on site greatly increases respire also for the rehabilitation of the second access, currently blocked from the outside.

The visitor, passing the entrance, located to its left which terminal element of the fence, a large sculptural group above the turf, which extends up to the tomb. From this square appears corne a single large headstone, clear in its lines and standing out among the green, against èielo.

The access to the tomb is indicated by a slightly recessed paved path it! soil, which develops parallel to the fence on the road and turns sharply to the right by entering it! place of burial. The entrance to the largest indoor environment, you can not determine an emotional state it! visitor, because the 335 coffins are grouped on a single plane with slight slope in a rectangular area of about m. 45 x 20.

The cover of the place where the great stone tombs form which ideally brings together in one tomb and all the martyrs who will be equally detectable from a distance and from above.

The element of this structure is of reinforced concrete, rigid system with cross-beams forming a large plate that poj! 8ia, only laterally, on eight pillars.

Among the plaque and the ground remains a long dSOla of light that is spread to a meter in height, corne continuous window on all four sides of the tomb, in m. 1.80 on the actual burial ground level revealing the visitor heaven and clumps of cypresses.

The floor of the passages, between the groups of coffins, is paved with irregular blocks in the identical manner of the outer square so corne all paths.

The sarcophagi grouped into nuclei of sixteen, they rise of about 60 cm above the floor. Each tomb is covered with an individual plaque in solid stone which is engraved with the name of the martyr and symbol of his religious faith.

Of against access of the path that starts from Via Ardeatina, opens l 'access to the gallery that with a short arcuate portion - existing in the current state, but in disuse - reaches the main trunk of the tunnel which leads to the site of the sacrifice. It has thus a continuity of petcorso that allows the visitor to then switch! square to the burial site and the scene of the

massacre or! square at the site of the massacre and the grave to return to the square, without in any case <lover retrace his steps. This is perhaps one of the major advantages of this new project for some Aitre its parts is an organic and improved processing of positive points that provided the winning projects of the competition.

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Fosse Ardeatine 1944-52

The dell'eccidio place is stored in the walls and in which the floor is currently and will be illuminated by a perpetual light. The consolidation da.lie ve.rrà galleries with works carried out in reinforced concrete · subtle elements that do not transform the dell'amqiente characteristics, while ensuring the preservation over time. The pits will be preserved with simple sometimes light coverings to cruise that will allow, through the side lunettes, the dosage of natural light to enter which is not violent fall in the galleries below.

The tree arrangement will have a predominant development in the area above the recesses and will be contained in the bushes of laurel and butterbush and dwarf cypresses; few groups of pi-antati ver.fQfIHO cypress behind the large grave in whose background the landscape of Roman countryside.

The sculptural group about 6 meters high will be visible, as well as da1 forecourt of the quarries, also from the street Ardeatina overtaking the enclosure wall.

The large gate is also visible in both the open and closed positions, ne! the first case will have for background esedra of quarries, in accordance with the enclosure wall.

COSL, three years from the beginning, you say pua close to being finalized the first national contest was handito free Italy. What it has led, albeit with many delays and attraver-so incredible diflîcoltà, to the assignment to the winners of the competition we are certainly bodes well for the institution of competitions. "

(By Metron no. 18 of 1946)

#### THE REALIZATION

"Among the works to Italy after the war, it is the arrangement of the Fosse Ardeatine in Rome the primacy of monumental architecture. We feel we can say with complete peace of mind that this work will remain in the history of Italian modern movement come a sure thing that no change of address and no new figurative fashion can alter.

It was designed by architects Calcaprina, Cardelli, April, Fiorentino and Perugm1, and built by the last three. The Metron readers will remember the story: the contest of 1944, the contest of second degree, the drafting of the final project was documented it! n. 18 of our magazine. Today, the monument is The on the way Ardeatina, magnilicamente modest, extraordinarily eloquent in its simplicity, the only one that befits the memory of a brutal massacre. No descriptions, no celebrations, no rhetoric if not. the statuary group: document that just occasionally agony of memories.

There is no work of art if there is an idea to its root, an idea that sets up the moral energy of those who conceived it. This idea was expressed ever since! first project with an almost programmatic clarity: the galleries <love came the 'massacre had to be preserved in full unless the necessary support works; the monument was to be erected in front of an immense stone prism placed on the graves that were located in sb dark environment, reflecting a sense of crushing, barely illuminated by a slot of light; between the place of burial and the dell'eccidio place there must be continuity with a pas aggio forced through the one or the other; the materials had to be simple, concrete preform at the tip to the tombstone, the perimeter walls, floor and walls of stone outcrop tomb, covered pillars of Trentino porphyry, granite burial treated at the tip. The fence of the square in front of the Cave had finally denounce the monument to passersby on the street Ardeatina not spectacular but calls attraendone attention.

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This program was the? Teramente made and the merit of the architects should first be identified in this initial idea adhesion conducted systematically rejecting any ambition of figurative enrichment. They fought because salrnerie burials were lower, getting close to the tombstones of a cemetery. of war; the desire of the families of martyrs has prevailed and, if that leads to the one-dimensional defect of the monument, but does not alter the substance.

You enter at the Fosse Ardeatine through a beautiful gate of the sculptor Mirko. A masterpiece of expressionism sedimented whose convoluted entanglement of the elements documenting a human horror transfigured figuratively, just raised from the psychological drama to be the work of poetry, but not so much detached from it to assume a memorialist character. Then the square perfettaniente studied with D\_I rock face, on which the Star of

David is drawn against the sky. The gallery of the slots has remained basically .com'era: those who have seen when the coffins were arranged along the walls, evidence now a similar feeling, although less labored. LI were slain heroes and ordinary men, poly · Tical leaders and people who did not even know why, old and young: everyone here meets a hypothetical themselves less fortunate, in the madness of war and Fascist persecution. The slits in the top illuminate the dark tunnels intermittently remember the posting of boulders, which, to shine mine, choked the last gasps: today I penetrate, in the silence, the sun's rays. The monument is the corne judgment that does not allow comments. But the architectural observation we could make, namely, that, to achieve a unitary COSL image, is required considerable maturity figurative species in prospective expedients used to not give al-1 'of 50 x 25 meters environment a perspective ecc ivamente wide. It is here that we see the craft's ability to realize the idea. The slits in the top illuminate the dark tunnels intermittently remember the posting of boulders, which, to shine mine, choked the last gasps: today I penetrate, in the silence, the sun's rays. The monument is the corne judgment that does not allow comments. But the architectural observation we could make, namely, that, to achieve a unitary COSL image, is required considerable maturity figurative species in prospective expedients used to not give al-1 'of 50 x 25 meters environment a perspective ecc ivamente wide. It is here that we see the craft's ability to realize the idea. The slits in the top illuminate the dark tunnels intermittently remember the posting of boulders, which, to shine mine, choked the last gasps: today I penetrate, in the silence, the sun's rays. The monument is the corne judgment that does not allow comments. But the architectural observation we could make, namely, that, to achieve a unitary COSL image, is required considerable maturity figurative species in prospective expedients used to not give al-1 'of 50 x 25 meters environment a perspective ecc ivamente wide. It is here that we see the craft's ability to realize the idea. The monument is the corne judgment that does not allow comments. But the architectural observation we could make, namely, that, to achieve a unitary COSL image, is required considerable maturity figurative species in prospective expedients used to not give al-1 'of 50 x 25 meters environment a perspective ecc ivamente wide. It is here that we see the craft's ability to realize the idea. The monument is the corne judgment that does not allow comments. But the architectural observation we could make, namely, that, to achieve a unitary COSL image, is required considerable maturity figurative species in prospective expedients used to not give al-1 'of 50

x 25 meters environment a perspective eccentricamente wide. It is here that we see the craft's ability to realize the idea.

One idea, falls should be remembered later - wrote to Oud against the partnership, it is the only force that allows the spirits to agree. This monument was designed by five architects early in their careers, they were united by the pressure of events, the severe grandeur of the theme, dall'impuls? the first architectural competition after the liberation of Rome. They created together a work that tells an inspiration alone. "

(By Metron no. 45 of 1952)

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#### DOCUMENT!

"The Fosse Ardeatine, dry museum is located behind the mausoleum. It was cleared up recently by! prof. Perugini.

We have collected documents, memorabilia and photographs that illustrate and summarize, in chronological order, the tragic days lived in aggression Capital tedesca 8 September 1943 to the release of June 4, 1944.

Three windows sqno particularly dedicated:

"The central inquisition and terror" (Via Tasso -Band Kock -Regina Coeli - Palazzo Braschi etc.) With a description, reminders and memories of some martyrs.

"The Martyrdom of the Fosse Ardeatine ', with the atrocious deed description and the names of the martyrs who have been awarded the Gold Medal of Valor

"The shootings Forte Bravetta" with the memory of Don Morosini and moving spiritual testament left by worker Tigrinya Sabatini: "Do not take advantage of the our death and do not forget P;! rche we're dead. "

In the window of the large central table they are collected specimens of the major newspapers printed and circulated clandestinely and are reminded of thè journalists have paid with their lives for their love of freedom.

On the walls above the windows, stand the great works created and donated by three artists in tribute to fallen friends and comrades during the Roman resistance.

Corrado Cagli: painting that represents terror Nazi-fascist oppression.

Renato Guttuso: Golden sculpture that evokes the creepy vision storage confused Martyrs of the Fosse Ardeatine aU'atto exhumation.

Carlo Levi painted 1spirato to the subject of the final release after nine. months of terror and oppression,

Appendix outside the museum is a place where they are housed status raccoltc the major publications dealing with the Fosse Ardeatine. On the walls are the projects and designs of the most significant works created it! complex of the Shrine of the Fosse Ardeatine by the down- · knew Perugini and sculptor i \ lirko Ba- saldella. "

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The Italian response to the reconstruction in 1946

In January 1946, a year after the war ended, the magazine "Metron" comes out with an article by Alvar Aalto from! entitled: "End of the machine à habiter" which sees the corne reconstruction antithesis of war and in the work that presides over the ricostru tion a series of innovative experimentation.

"These experiments are the · most interesting insights into the extent of human needs, in their complexity, speed of implementation, in the need to safeguard the elements of civilization."

The Italian reply is made up! Decree of 15 March 194 5: five ministries have a say in the process of reconstruction plans. The Ministry of Reconstruction that was supposed legacè the various decisions \ 'hyenas suppressed newborn. Abroad, the United Kingdom, France, Finland afirontano reconstruction with units of programs, conception of law.

Italians architects gathered nell'Istituto National Urban intervene vigorously.

L 'activism, the' efficiency, the rush, the need to build are the yardsticks of the moment, outside of this there is only chaos, confusion, ignorance.

Architects do not appear prepared to the tasks that await them, makes iede Bonelli a speech on the occasion of the reconstruction of Orvieto: "... the architects, engineers, contractors have esteem! Ato the City to discard any idea of the areas of pianifirnre railway station in relation to. . nio cen tro and to the region while the "proceed" even in vec- '1ie fondazior · 1elle constructed houses you caotinente before u. 'To war.

The architects and engineers of Orvieto were to carry out the social function of educators classes unprepared managers to the executive management have become complicit. "

Among the private initiatives of that period, it must be remembered that of the Politecnico di Milano who is holding a competition for the "reconstruction of the text," a sort of guide for the manufacturer.

Exit at the same time a book, the first book of the postwar planning "of Urban Elements" of Dodi. A book, perhaps too technical, it does not stimulate at all the roof arches to propose a teacher training propaganda and public opinion at a time when, Juvenal writes: "see" bitterly "that you start to pull up homes before come , senza no new building regulations, without any adequate provision of law. "

The magazines, most notably "L'Espresso", trying to shake the apathy of the Italian architects and amministrazioni publishing long articles illustranti of reconstruction methods implemented in other countries.

An article by Hans Scharoun on urban regional town Soviet Union says among other things:

"... After the October Revolution the Soviet planners, rejected the lure of the tradition, began the construction of new industrial areas on the model" garden city. " The first arose 100 km south of Moscow near the Shatura power station built on bogs.

In the land of private property he had ceased to exist. The municipalities could do. The free land in the interest of citizens. An urban center is always conceived as a function of the intense political and social life of the workers.

The five-year plan started it! 1928 provided for the creation of new institutions of Urban Planning in the various states and created "education discipline" in order to create for the new peripheral institutions autonomy <la few resident specialists in large cities.

At the same time the Commissaries of the People (corresponding to our Ministries) constitute particular specialized organizations in the planning of new town planning, in the expansion and reconstruction of the old.

The Comitati could use indifferently the two organizations .... "

These stimuli remained, unfortunately, ineffective and the only hope that could affect the structure was placed in the more or less public debates and in personal relationships with Ministers.

A seat for the debates, the most active, was that APAO (Association for the, m-hitettura organic) founded by a small group of architects belonging to the post-war generation, including Perugini.

The relevant headquarters, the Institute of Urban Planning Nazionale, revealed his unpreparedness tactic proposing giustc mndificaziom of planning law but that does not Tenev: rn any account of the political climate of the moment.

Without Akuna global strategy proposals were falling one after the other for the diligent initiative of some liberal teachers who had better grip in mixed administrations that governed then both ne1 ministries in the Commons.

The APAO acted as hilling against the National Institute of Urban Planning, but he was also interested in professional issues; In fact, his first intention was to wipe out the fascist syndicate that had done everything: Technical control and cultural control activities.

The APAO first claimed that you had to unlock the 'cultural activities promoting the plurality of associations trend by giving the new Ordipe of Architects prerogatives only representative of the class.

In this desire to open the cultural Jibattito to all instances lives that interested the activity of .architerti opposes Decree Law 194 March 5 n. 154 on the reconstruction of srorici centers damaged by war:

".. .The municipalities included in the lists to be approved by the Ministry of Public Works will have it! period of three months from its notification to adopt a plan for reconstruction. ... The task was given to one or more professionals specifically trained for this task, whose qualifications and previous work done ... it! urban planning ... are evaluated by! Regional Superintendent and d & I Ministry, but taking into account the similar positions already assigned to the same professional, PCR avoid the accumulation of offices themselves. " Unless, of course, that the municipalities do not do so by means of their technical departments.

For assignments, the then Minister Cattani recommends that the choice is between professionals residing in the vicinity of the centers to rebuild and to give priority to veterans.

That order prevails m plus <concern lare work at all arc hi roofs but to stimulate a qualified product. In it appears no indication method in the span than at the same time, however the authorities do · proposals for reconstruction in France through the law 1 June 1943.

Among the most interesting points of this law it should be noticed the importance that is attributed to regional plans under the form of "urban clusters" COSL that are to constitute the substantial frame in which to trigger urban plans.

The law envisages the establishment of consortia of owners in order to arrive at the plot recomposition. Allows administrations expropriation prior to the approval of plans to eliminate speculation.

The advantage of the French law against the Italian one is that of a unified view of all the problems, coordinated in a logical and natural shape and structure: all necessary to provide bodies with specific expertise and administratively independent for the "law enforcement effect" organization around the vast technical work connected to it.

The General De Gaulle government establishing immediately after the victory the Ministry of Reconstruction and urbanism COSL made:

- 1 General -Commissariato for war damage;
- 2 -Directorate planning. Directorate-General of the work. Ufficio legislative and financial studies.

The Ministry gathered 16,000 technicians among 6,400 civil architects, all from the profession.

A branch of the Ministry is to Deila prefabrication (exhibition of prefabrication in Paris in 1945).

"... By adapting our cities to a way of life consonant with real joy and freedom perhaps reach a new" human scale of directives. "

The sixth congress of the CIAM (1946) on the reconstruction: "... we have to rebuild villages, towns, and entire regions. Our every mistake, every messy move on our part shall be discounted by future generations.

We have two "handicaps": the bureaucracy diseducated to our problems and -no sectoral strategic conception of the particular and not the whole, of reconstruction and not the great and synthetic urban organizations.

The first of the major steps for reconstruction is the period of action can not be delayed: the first urgent help or aid that goes by! provide food to provide any accommodation.

The second phase is the construction of houses.

The third phase: the development of urban centers, rural towns, regions and entire countries. These three phases must weave;

in fact, they form an inseparable unit.

So ensure that right from the first stage, the directive function should be affidata to "experts" urhfmisti.

The reconstruction plans net various countries will be the work of those same nations, without foreign interference. But it will necessana international collaboration in the field of materials at the level of exchange of experience.

CIAM is the venue for this with its congresses.

The Charter of Athens is of 1933. Now we have to formulate the "rules for the reconstruction. "'

The March 1, 1947 is promulgated the law on reconstruction plans, a law formulated in terms of impermanence that has instead had a character of certainty resulting, of course, moral and tecnich.e inequalities.

Regional planning is regulated by law August 17, 1942, consisting of only two articles.

The law forgets "landscape protection", the tourism development, protection of historical and artistic circles.

The plan provides for the regulation of private but forget that public bodies.

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The plan is drawn up without the cooperation of Municipalities and Pravinie.

It seems clear, then, the split between the architects who rightly claimed a critical setting of the reconstruction work and the political class harnessed enters the playing patterns.

Although APAO can wearily pursue its battagha ... "we must carry out a cultural activity, reorient the architectural pensiera, restore him prafondo a sense, a social function, trigger a broad consensus around it, creating an education popular in architecture ... "really is a lack of clear vision praponte group who was at-one 'origin!' Association.

So also the APAO "loses bite", group work becomes work among friends. Therefore the first marginalizations begin in the name of an indefinable commitment that finds its point of arrival in a sad design practice.

## PLAN

Neither! 1955 Ammirnstrazione Piedimonte S. Germano (Cassino) is the determination to draw up the plan of reconstruction of the upper part of town.

The surviving inhabitants had abandoned the ravine of the country perched on a! Ture and reduced to a shapeless accumulates debris and had rebuilt down in the valley, a new centers. They wished to return Pera, where they had their memories and memories lora.

The affection of all was inextricably linked to those of which traces of life, the only evidence, the structural lines that still remained were aflioravano (walls and foundations).

What could it mean, for them, therefore, the new construction of a totally different country? Or the tracing of old and dull reasons the architecture of that time?

Only by living it! country and trying to penetrate the problems of those men could be born the project that was to be the preservation of the extensive terracing of rubble, pointing out all the landmarks of the confused mass of stone.

'M light have been developed. perimeter of the islet, and highlight the old streets, squares, typical places. The maceric had first to make a solemn warning against war and destruction-tion; They were arranged corne public areas by creating pear green areas, play areas and meeting areas. They were made clean, tidy, essential.

On these was suspended trellis beams from! which stood out the standardized dwelling units. This drew system razionalizzandolo, the old urban layout of the village. The implementation plan is also based on the constitution of the owners apartment buildings of the old islet.

The individual living cells consisted of a prototype carefully designed and built in series in the workshop. "

"The church is built on the same dell'antico sacral building area completely destroyed during the bombing.

Unable to retrieve reliable evidence that would allow a reconstruction of a restoration level is made li.eccessario redesign it in full.

It is also a question of reconstituting an element able to fulfill the dual function of the church and shrine, which remembered the destruction of the country.

From the theoretical point of view, the modular mesh has already been adopted for the urban layout becomes more complex by the application of a precise geometric proportion. All the space, both inside and outside, is correlated so.

The site plan, the proportions of which result from the application of the golden section, enhances the urban space section, and is delimited by four walls on which rest two triangular prisms that shape the interior space resulting in a higher apparent dynamic tension.

From this contrast between the stereometria of the base and the dynamism of the space enclosed arises that psychological tension which places! Operates on the evocative monument plan.

To achieve this goal also help the lighting criteria; In fact, the light penetrates through inside of the cuts made in the perimeter walls.

From a technical point of view, the reinforced concrete structure knows a continuity of material with the interior, <love the polished concrete becomes a decorative element and also functional through the adoption of furniture consisting of crude paretine reinforced concrete.

The exterior, better adapted to environmental characteristics, is the local hard stone and the roof is made of terracotta tiles. "

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Giudiziaria City of Rome

"The" Palazzaccio ", the Palace of Giustizia capital of Rome, a few years after its inauguration in 1911, banks already washing his failure to perform the compitiche the Judicial Administration. Operating throughout the Lazio region, had been entrusted. The architect Calderini, winner of the competition organized in 1887 had done everything possible to create a building that materializes the idea of Justice with a capital G, Superior and Infallible Law, using all the formal and constructive elements that his time the olfriva, still, it! grandiloquent Palace, are concentrated Tribunal] Civil and Criminal, the Public Prosecutor and the Court of Appeals. Considering that, while the population of Rome has increased by about five times compared to 1900, men and three have come to depend on Roma also judicial districts of Viterbo, Rieti, Latina, Velletri and Cassino, the Palazzaccio has

always remained the same, you can easily guess come the idea of building a "Judicial City" Modern, functional, comprising also the Preture (allocated at the time in a former-barracks Viale Giulio Cesare), he was accepted with general enthusiasm. The idea is in 1951, but only it! 1957 gave a law office to the Ministry of Public Works to issue the! ' It works by allocating a sum of six billion. comprising also Preture (allocated at the time in a former-barracks Viale Giulio Cesare), was accepted with general enthusiasm. The idea is in 1951, but only it! 1957 gave a law office to the Ministry of Public Works to issue the! ' It works by allocating a sum of six billion. comprising also Preture (allocated at the time in a former-barracks Viale Giulio Cesare), was accepted with general enthusiasm. The idea is in 1951, but only it! 1957 gave a law office to the Ministry of Public Works to issue the! ' It works by allocating a sum of six billion.

It was launched a national contest, which was defined as the area <love would rise complex, namely the demania areas) the Piazzale Clodius, a competition that was won a tie by Perugini and Monteccluro architects presenting two equally valicli projects.

The first batch of works, contracted it! 1961 included, second signs of the announcement, the building of the Court of Appeal and the Courts. Second A lot was made up! Court and the Prosecutor's Office,

In tan to, you TURN <rise lia controversy over the destination of the new buildings and ciel Palazzaccio, while a new case was to propose even a radical change of plan.

Towards the beginning of 1964 had made the transfer of the Courts (allocated so far in the now crumbling buildings dei Banchi V ccchi and Via Giulia in the aforementioned former barracks of Viale Giulio Cesare, which was sold in order to be! Lvlinistero of Defense to the City ).

The facto suggerl to the Bar the idea of bringing in this new zone, all Utlîci Judicial, providing slaughter of barracks and a new draft Judicial City. Even the Attorney General of the Court of Appeal declared itself in favor of the new proposal, while the Ministry of Justice was left on the original positions.

You may perhaps wonder that ,, just as s1 was blocked, the situation regarding the work to Piazzale Clodio, Prospect taxes soluzio e an alternative by organizations and authorities such representative; but this project was properly motivated. Fifteen years later, after bureaucratic delays and those due to difficoltà tÇ'.niche, which we will mention later, it seemed that the original purpose of bringing together Piazzale Clodius all judicial offices

could not be realized for the 'failure capacity of the projected buildings, and the unhappy corn urban location • plexus resulted now evident to everyone. Neither the Master Plan drawn up by! CET it! 1957 nor the Plan approved by! Municipal Coun son it! In fact they predicted in 1959 .yuella settlements in the area of public service character;

The City, meanwhile, co'ntinuava to issue building permits that determined the crowding of horrible buildings around aile are demaniali (once of Railways), where they were now rising net volumes parallelepipeds of the first nucleus of the Judicial City.

Despite the obstacles and drawbacks described above, the Ministry had in fact decided to pursue the first plan.

The destinations of the first batch buildings were finally concerted: Civil and Criminal District Court and Criminal Court. The second phase prev-ede the -eostruzi <me of the Civil Court, the Prosecutor and the Court of AppeHo, but has not yet presented its funding bill.

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Judicial City of Rome

To better understand the camnuno design of Architects, however, should be examined, in the first instance, the entire judicial complex. The difficoltà of the planning problem resolution · was given by the need to simultaneously create a difficult road junction, which broke the area into two distinct areas, and the continuity of the "Judicial City". Two antithetical propositions that it was necessary to compose: the spatial unit was found in a plate-bridge, beneath which run the streets and open the entrances to the Judicial City, while on its surface are provided for parking areas and services.

The road system ê designed so that, with fluidity, it is determined the junction between the planned scroll roads to Monte Mario, the foothills and the Olympic, that all transit or depart from Piazzale Clodio.

On this side and beyond the plate, which constitutes the hinge of the organism, they are.

GLA places the two nuclei mentioned, the first of which (the Courts and Criminal Court) can be said completed in its masonry.

It is <lunque premature to attempt an analysis from the point • technological, functional and formal, and try to read in unfinished buildings · the message of the architects.

It must first reiterate what else would be the visual effect of the completed whole, if this is not literally choked incumbentr buildings; - Very different was the thought of the designers,

who imagined the volumes silhouetted it! green, dry slopes of Monte Mario. But, beyond this primary consideration when it comes into direct contact with the buildings, we forget the heavy urban situation, to learn a good lesson in architecture. The first building that presents itself to observation to those who enter the construction site is that of Pretura Civile, a basic rectangular 147 x 27 m., Which rises to four storeys above ground, and that immediately affects the particular treatment external surfaces. The cement, in the various structural and figurative meanings, comes highlights the main protagonist of the game composition of this corner of the other two buildings of the complex. In fact, the facades are entirely modulated with thick concrete slabs 15 cm., In different sizes, obtained with corrugated metal formwork, to have formed dense and continuous vertical grooves: The rigid effect that would be demarcated was then in a sense attenuated by treatment with a sledgehammer performed after the setting of the concrete.

The surfaces remain in this way all vibrate and sensitive to a subtle play of light, which sometimes makes one think of the grooves of the Doric columns. The volume carefully treated is then interrupted by the continuous 'chains' of slots which, in the longitudinal direction, chase all over the body of the building. The feeling of chain is clear, to be the fixtures, in the part that constantly recurs of them, cantilevered on the facade. The frame-type is in fact constituted, in its maximum extension, five sectors, of which the central one is always present, and is cantilevered, and the rest; the other four, depending on the necessity of amplitude of the window, are, or all, or part, accepted or rejected.

The invention of this fixture in a modular and flexible time. and that of facade panels, while uniquely characterize the architecture on the formal level, are the famous "third way research effort" between the construction of traditional and the most advanced type of industrialized building.

The surface treatment is therefore the same for all the volumes that make up the complex. Thus the tapes not interrupted horizontal openings invite gaze to spend the building of Civil Pretura in that, parallel to it and only slightly to the rear, intended to Criminal Court, which constitutes, with the first, a single front towards Piazzale Clodio. Of almost similar size planimetric, it grows in height with a plane more than the Pretura. Exactly flanked this, and equally oriented, it is then up the block, along 87 m., The Criminal District Court, so that the two heads are on the same elevation line. All three buildings are divided into a series of low buildings: they denote or special destinations or courtrooms. In particular, the

volumes allocated, dry classrooms for criminal hearings form, come the base onto which the Criminal District Court, the same advanced Criminal Court. On the opposite side to this is the low enudea Aula Magna block. Even by the Civil District Court comes off a low parallelepiped construction and which will be used as offices for the pagamemo fines.

It was said above come cement was the matrix of the whole composition. The structure for all buildings is in fact constituted by a cage made of reinforced concrete, with a wheelbase pillars, in the longitudinal direction, of ml. 9.60; the beams, arranged transversely, are all in slab thickness. Even the stairs are AC with independent struttura leaning against shelves stuck to the pillars.

The formal unity of the whole complex is therefore a consequence of the substantial structural units: and also the treatment of the interior is homogeneous in each building. The color of the ceiling is dark red, the walls are white, --ruvide, the floors of the areas intended for the public · cuneiform are paved with porphyry blocks, reminiscent of Roman cobblestones streets. It emerges clearly the intention of archit.etti to recreate, within the Administration for palaces of justice, the environment of outer space not so much of the capital, because of some towns of southern Italy, which is not lost the true value of humanity, handed down from fathers. Will justice serving the citizen, towards the city, and not a giustlZla authoritarian and imposing,

Of the 360,000 cubic meters of this first core half it was used for corridors and irigressi, ie public1 spaces: corridors come streets, squares inputs come; the city continues inside the courthouses.

At this point, come not remember the Italian pavilion at Expo '58 in Brussels, designed by Perugini as a team, and that, with intelligence proposing the theme of urban space you say about improbable and rhetorical pavilions from every nation. "

(As of Manufacturers News Romans n.9-12 1967)

First the area: total 55,000

square meters, fifteen of which were taken now, the two new Courts and from! Criminal Court. "Miserable area - says architect -from! the standpoint of the Master Plan. Just thinking about it is located frà the slopes of Monte Mario and a busy road come the Olympic. To achieve this there is a direction perpendicular to traffico heavy and intense that

we must therefore cross. And here's a first idea: build a derivation dell'Olimpica behind the buildings, to the slopes of Monte Mario, in order to make access to the "City Giudi easier cial".

Then there is the idea of the bridge plate, a conception quite happy. It will allow -with the aid, in fact, a great plate set before the buildings -a double traffic above and below said plate. The purpose of this arrangement is clear when you consider that the local traffico (ie the one directed toward the courthouses) s'infilerà in this large 't' "1L1 dt compartment gender and s1 will find at the first floor the entrance floor to the public.

A further negative aspect of the chosen place for these constructions ( "and certainly not by us," adds the architect) is given by the outbreak of the buildings that surround the upper surface of which will be used in the area and that, in large part, hide the green Monte Mario. To avoid that judges and lawyers work under the eyes of dirimpettai, a solution has been sought through a particular type of "cantilever" window that prevents glances to penetrate right into the judges' offices.

At this point it should be added that this type of cantilever window has been framed in a vertiginous sequence chain; Simply put, it is a auténtica belt of windows that runs around dasumo of the five floors of each -Building. The three constructions acquire COSL a horizontal trend, an elongated projection.

Another absolutely original characteristic of the complex is given by the material of the external walls and the internal walls moite. It is concrete not covered by any kind of coatings, in its raw state, "moved" only by a vertical rifling. It is this series of "rows" vertical obtained <: a special molds, which gives the outer wall of buildings, raw concrete that composes it, a "color" undoubtedly particular because the light will draw the light and shade of truly striking effect. With what the project's authors obtained a "pictorial movement" and a considerable cost-savings for the future. It is, in fact, a structure that does not need any maintenance.

The series of original solutions are certainly not stop there. The massive form of buildings, lightweight - no doubt - the "belts" of windows running all around it, required the designers at least one attempt: what is understood to be connected, in some way, breathtaking perspectives of the large complex, with the air lightness of the hill which is located behind it, away from the presence of several buildings of which has been said. How - on another level

- "carry" the green Monte Mario to come out in front, dry parched sand-colored structures that make up the monumental ensemble of palaces?

"Hath taken advantage - <lice architect

two gates located at the extreme sides of the complex. These gaps between the houses' at verso · i • .q, hich overlooks the green hills. In the direction of these si gates. They are constructed subsequent increases, almost giant steps in the direction of the hill. On hikes we will be planted flowers and lawns. Who will enter the courthouses will have the distinct impression that <lai both sides of the court district will depart two grassy ramps up to reach the slopes of the hill ": a rare example of happy" scene "made of bold innovation methods." In addition to having "entered" among the great palaces of lush green hills, the architects claim to have introduced right into the complex the city itself, with its multiple and fast life, with his blood faster. The statement is considered relevant pua: under the buildings goes indeed a real road, which will take advantage of local traffic, directed precisely at the courthouses.

The architectural features inside the buildings are undoubtedly amazing. Roads semi-open sky where overlook the offices for the general public, lastrü: ate with stones similar to the cobblestones, dizzying wells <lai as the light rain, functional classrooms where the judges come by means of a personal elevator that will transport you directly from ! Their uflicio, pila-. stri raw concrete that ventilate certain Roman monuments, and a run of stairs, ramps, under ceilings painted in red with snow-white or gray walls or brick color. Everywhere an air of c open functionality.

We climb the stairs or go down to the ground floor, we stop it! Palace of the Civil District Court (147 x 27 meters) of the Criminal District Court (87 meters long} or of the Court and we always have this impression does.

chile connection, quick comunicabiliù which suggests, in fact, a new justice, faster, more direct and easy.

It will be easier, no doubt, in these buildings the amministmzione justice: Abandoned old dusty classrooms, perhaps a new era opens and, with it, a fitting model of the elements of the façade easier path for all - magistrates, lawyers and the general public - with the help of new technical means in an environment built on the basis of new concepts adapted to modern times and to the mentality of contemporary generations. "

The discovery of artificial radioactivity arouses great interest among physicists and not only in France.

As soon as the news comes in Italy, the young physicist Enrico Fermi decided to try him as well, to produce artificial radioactivity. He thinks that if he used corne bullets neutrons instead of alpha particles, might have induced radioactivity not only in lighter elements but also heavier ones.

The reason is simple. Alpha particles have a positive charge and when they pass through matter, their motion is disturbed in two ways: on the one hand the negatively charged electrons, which revolve around the core, attracting alpha particles and slow down so quickly that soon stop them altogether. Alpha particles are a short route and have little chance of meeting a nucleus. On the other hand, if an alpha particle is able to come into contact with a core, it is rejected by the positive charge of the nucleus of protons, it loses energy and pua not hit the core with sufficient force to break it. Instead neutrons have no electric charge, it is therefore neither attracted nor repelled by the electrons <la nuclei: their path is much longer than that of alpha particles and are greater than their fast ty and energy; so ensure Fermi think that they could be more likely to hit the nuclei and break them.

Pera unlike neutrons alpha particles are not emitted spontaneously by radioactive substances. We must produce neutrons by bombarding an element corne beryllium with alpha particles.

Fermi was all'Univeristà Rome <love there were no adequate facilities. Use then the Radon, which is the radioactive gas that is formed from the radio when this is disint gra, and mixes Radon and beryllium powder in a tube of verto. This tube was the "shotgun" that had to shoot neutrons.

Pera elements were needed to be bombed. He made a list over to his friend Segre, physical corne him. Segre ANDA around with shopping bag: He goes to all the shops that sold chemicals until trovù all substances that Fermi had listed.

... Quickly spread the news that Fermi in Rome and his fellow Franco Rossetti, Emilio Segre, Edoardo Amaldi, bombarding uranium had found a mysterious substance that did not exist in nature and that they suspected to be the '93 element.

Scientists around the world were put in turmoil.

Neither! 1938 nazis persecution pl · ta with the German scientists who were forced to leave Europe.

Hahn and Strassman they discovered that some of uranium atoms bombarded had separated into two almost equal parts; one of these was made up! Barium: this phenomenon named it "fission." It was Lise Heitner imagine this subdivision come as the division into two of the living cell (from "fission"). She thinks that when the uranium became divided in almost equal parts you had to release an enormous amount of energy and that the two pieces were separated and run away at a very high speed.

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Meanwhile, the lack of freedom and of the Fermi pushed suoi companions to leave Italy. Fermi's arrival in New York only two weeks before Bohr (heir of the discovery became a professor at Columbia University in New York; Bohr reached Princeton.

Here Fermi realized that the famous item 93 was nothing more than the product of "fission." If all the atoms in a gram of uranium were to break them in two sprigionerebbero energy sufficiente to keep lit a thousand common bulbs for about ten days.

But the most disturbing aspect is the "chain reaction" that could be achieved by slowing down the speed of neutrons on some other substance.

The Nizio the construction of the famous Pila Fermi. Dopo Pearl Harbor Fermi and his colleagues moved to Chicago. On the morning of December 2, 1942 the battery was ready. It had been four years! day when Fermi had come to America.

For half an hour the battery produced atomic energy. The chain reaction had come true and was kept under control. It was the victory. Fermi had produced the chain reaction.

On December 2, 1942 marks the birth of the atomic age.

The stack of Chicago was a great scientific victory proved that man could at will release the energy contained in the atom and that this energy could be kept under control.

COSL by! small workshop in Via Panisperna in Rome to shed Chicago loop was closed.

the cycle was closed.

In 1956 it was announced the competition for the creation of a complex in Chicago re cordasse 's work and the thought of Enrico Fermi. The announcement marked the place: an open square surrounded by skyscrapers on the river, vacated by! traffic that was conveyed

by overlapping subterranean arteries; richiedçva is an exhibit hall and a Saietta for musical auditions.

When we redesigned the Memorial Fermi recalled the gray eyes of my professor (students of architecture, then, taking specific lessons in the various faculties and those of physics were held by Fermi) at the end of the course said to Cune things which meaning was: ...the life is movement, imbalance, if one day you reach the balance that day life has ceased to express themselves.

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Memorial Fermi

## THE PROJECT

The project submitted to the competition stems from the belief that the Memorial should express and disseminate the profound lesson of the physical, his conception of matter come energy. The spatial concept is expressed through a stereometric shape closed and enigmatic, animated by its own dynamic tension. One object undetectable in its functional experience.

The secret animation of the material that had been the torment and the victory of the scientific research of Enrico Fermi was such ail press' outside from the perimeter walls through the incision of the isostatic lines.

The mystery of cosmic energy, it! informing principle of the project, he was to express themselves through music wave emanating from the matter.

Through a series of invisible openings, the music of the hearing room (concerts and electronic music recording) must at all hours of the day or mats spread ail 'outside thus making perceptible ammaz10ne the secret of matter. This <loveva Pear be functional and not artificial magic.

The "enigmatic box" had a precise instrumentality and usability.

A monument in fact has a significato penetrates only if the requirements of the language with the demands of functionality and sociability.

From the subterranean lanes trafftco .snodate in parking areas you enter the room used shows. At the four corners of the same room they are located stairs and elevators that carry

visitors into the interior of the suspended prism. Stairs and elevators are made within four octagons poured and reinforced glass to strong bleu very dark thick. In this way, seamless, one passes from the shows Auditorium room so as to weaken the sense of space and of external reality.

The Auditorium, circular shape, is located at the center of the room and is enclosed within a transparent casing (crystal) which allows through special equipment c0rreggere and blend the sounds.

This work is the most recent element of architectural Perugini; in fact it is to come together, maybe even amplifying, the results of the experience of previous projects. There are in fact highlighted all those valences, come for example, the predisposition to abstraction or the strict geometric transposition of "meanings", which allow it to reproduce in an unprecedented way motifs characteristic of its architecture.

Moreover, given the particular position in the vicinity of the archaeological area of Coliseum, as well as the fact of <lover submit to. constraints imposed that the conservation of volume, it was necessary to fully repeat all the characteristics of an existing project by providing an innovative pear expressive charge, capable to urge and support the "dialogue" with "our" environment.

As regards the function, the complex is a hotel-residence, but, come all the works of Perugini, openly rejects the organicism and functionalism referring back instead to a atipologica matrix. The issue of independence of the functions of the form is in fact already defined departing from storage, to which we have already mentioned, in the context of previous characterizations of the realized project. In this way, the seniority

It does not arise come a binding element, but it becomes a matter of principal theme: · Now, this "architectural object", fitting it! talk about the types and the presence of the city, propane strong linguistic and symbolic. Perugini, with Guesta work aflida critical to a new document that reaffirms its concept of the city: "... a number of prestigious signs and symbols including the man finds the meaning of his community dimension."

In 1910, for the Brussels Exhibition, the Ministry of Foreign Affairs invited a number of architects of various Italian cities to present a project for the Italian pavilion. The choice would be then carried out.

The architects believed not appropriate to open a debate on the issue, in order to establish the principles to be considered as an ideal meeting place so that individual projects would come to mean the same program. The project arose through genuine collaboration. Our was above all a precise outlet position against those forms of gigantism and to constructivism. Vengeance usual in all aspects. On the other hand we did not mean that the pavilion tended to express symbolically, and then perhaps rhetorically, the various aspects of civilization and culture of our country. On the contrary it was decided that it was supposed to be the only functional representations of concrete casing.

The casing, bounded by walls plastered, covered by a wooden structure and traced according to a modular scheme, was divided into two parts by a road segments connected to each other by wider spaces. At the end of this itinerary, in green area it varies from altimetry, stood a building representation, dry and cultural activities. Inside, the multiple appearances of the national civilization were documented by a full range of evidence according to a suitably speech punctuated by objects, artifacts, works of art, technical, industrial products. Strictly they came excluding artificial and customary diaphragms its fair stand.

On the one hand, therefore, the clean wrap geometry, such as to emphasize without overpowering the "objects"; the other a further organization of objects, able to create, themselves, their spaces and then speak with their authentic language.

The architecture, in this way, reducing the rigorous and essential, has managed to talk things, to transform itself, in space and things.

"Faced with the technicality of an exhibitionist pavilions those of the United States of the USSR, France or Germany, Italian architects react with more or less conscious intention, but still clearly identifiable in the work done, to offer a dialectic pole representative, however, of particular social and economic situation of our country. "

## THE FIRST PROJECT

(From "Architecture Chronicles")

"The buildings of the Italian Pavilion in Brnxelles, with a square plan, were prev1st1 in two dimensions-type: M side. 11,25 and m side. 7.50. At first, for their cover we had been prepared the draft presented here; it was replaced during the execution from a flat roof made of wood.

The structure of the original design, shown in this page and in the drawing at the top of the next page, consists of eupole pyramidal reinforced brick, using the load-bearing capacity resulting from their same shape. Put on rubber plates in correspondence with the specific prismatic projections, they constitute externally isostatic structures, and therefore no\_n transmit thrust to underlying walls (in a brick masonry) with regard to both its own weight and live loads, both the thermal expansion .. Transmit to only vertical loads supports.

The domes, free of secondary structures. · such as beams or trusses, exploiting the remarkable stiffness that derives aile flaps, despite the small thickness, the same shape in the pavilion. The upper ribs, along the edges, are easy local stiffeners, against the dangers of instability. The adoption of the isolates supports allows you to combine between their different level contract domes keeping the load on the load-bearing walls; in order to comb a particular shape to the edge of the lower dome it has been conferred. Along the lines of maximum slope of the pitches are arranged rravetti prefabricated reinforced brick, that allow to limit the formwork aile sun concrete parts (edges and curbs) and are capable of withstanding the casting of the upper solettina requiring only a shoring aile ends. Apart from a rompitratta for lengths exceeding m. 3, no shoring is required. Then joists in work is a square grid of grooves, where arises the armor of small diameter rods. The next concrete casting, in addition to realize the higher solettina, creates a network of more joists, in solidarity with the brick elements, thanks to the penetration of the concrete in the heads, laid cut in chamfer. Then joists in work is a square grid of grooves, where arises the armor of small diameter rods. The next concrete casting, in addition to realize the higher solettina, creates a network of more joists, in solidarity with the brick elements, thanks to the penetration of the concrete in the heads, laid cut in chamfer. Then joists in work is a square grid of grooves, where arises the armor of small diameter rods. The next concrete casting, in addition to realize the higher solettina, creates a network of more joists, in solidarity with the brick elements, thanks to the penetration of the concrete in the heads, laid cut in chamfer.

Nearest to membranali diagrams for the behavior of the whole, the structure also offers a local resistance aile bending stresses from loads. The crisscross reinforcement, arranged in the two orthogonal series of joists conglomerate resulting from the mesh clay, resulting from the use and from 'high static regime. The special bricks have bevels at the ends, but allow the prefabrication of joists at the foot 'of work by means of clay plugs, which reconstitute the continuity in the corresponding tract.

Some construction details of the executed cover, which was replaced in the original, illustrated above, for reasons of time and money economy, as well as for ease of assembly presented.

The final cover consists of a wooden warping with main and secondary beams, folded interlocking with iron brackets, and consist of glued boards; the main beams rest on the perimeter walls and pillars inside. The structure, made in the Netherlands, can be recovered »

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## THE SOLUTION MADE

(From "Architecture Chronicles")

"Judgment on the Italian Pavilion was not, in general, positive. The consensus statements or solidarity can be counted: an article by Cesare Zappulli on a tourist magazine, a Hugues Vehenne reportage on "Le Soir" in Brussels, an article entitled "Success last minute," u "L'Espresso "June 1. Contra these three exceptions, a flood of criticism at times even gross and silly, which is not even worth to respond.

The pavilion, however, raises a number of problems. In their official report, the authors say that "the general conception of Section lialiana stems from a controversy will against formalistic structuralism", but the polemic attitude Could be a stimulus, but it is not a guarantee of art. Let us add that, with "consistent discipline", have given to every part of the composition "without esagitazione lyricism, character without exhibitionism and modernity without deference to fashion and especially q4ella pretentious technical balancing acts"; · But this is a testimony of a state of mind, who do not yet entered it! about. "While of course refusing folklore traditions and all other outward appearance, we wanted to continue the ' ) And too vague for technicians. So ensure, corne we announced, we asked the authors to answer a series of detailed questions. ) And too vague for technicians. So

ensure, come we announced, we asked the authors to answer a series of detailed questions.

The response of the architects can be summarized in one signed by BPR:

"The original idea of the work is not very far from that which informs! Operates this: ever since! Aflidare principle wanted the virtue set to suoi intrinsic values rather than an extroverted form, grandiloquent, reclamistica. But we were hoping to have more money that we believed to be able to use for the use of more expensive technical means (and in part even better significant) and for a more raffinata execution of particular: from one refolding, we "certificates" on the present position who in! Overall, we meet, and we sign with our names in full consciousness. "

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There did not seem justified criticism of those foreigners who call themselves "provincial" or "folk" or "reactionary" and even less those of Italian newspapers (which, before they can even consider the job finished, they panned). We believe that the provincial appellations, folklore, reactionary are the result of a critical formalistic, which limits the judgment to some figurations acquired architecture and is not able to disregard them to grasp more deeply the values of modernity.

in constant relationship with the human measure. This will of concreteness, in this statement of modesty, we believed to represent Italy (valid in one aspect of its nascent democratic spirit) in an international competition.

Our \_Padiglione does not have the quality of perfect execution of the Norwegian Pavilion or the Finnish nor the elegant structure of the Spanish Pavilion, but s1 distinguished by the acrobatics of the French and Belgian experiences moite. It brings a new word in the development of the technique, which also would have tried it if, without sacrificing the essential reasons of content we wanted to say, we could have the time and money to invent a suitable prefabrication system. Our constructive means are the normal, but logical in the context of the possibilities that we have · been granted; They are justified in itself " themselves ,. come 1 pro econo: me re • & J;? ver malleable

bili among the few who could choose to express a work of poetry. "

OTHER ANSWERS

We always thought, from the beginning of the design, that our work, it is an exhibition hall, had come essential purpose clearer and better presentation of "contenuto" to which it was intended. It was therefore to create a certain "ambiente architectural" done to "contain" a series of episodes connected in a logical discourse. The work would have obeyed only to the laws of architecture, lasciando aside any suggestion symbolist and easy advertising striking appearances. We also wanted to focus on the solution that had come essential reason the abandonment of "misunderstanding structuralist", ie LLNA architectural expression subservient only to the structural construction laws.

.....

.....

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"It's not every day that the Bandu a competition, when involving the preservation of monumental or environmental existing structures, contains a real monographic ordering information on these pre-existing structures. That took place in Florence, thanks to the auctioneer -! 'Ente International Exhibition of Crafts - and by the superintendent for monuments, professor Guido Morozzi. So the participants could benefit from an adequate historical knowledge of architecture in which dov'erano in turn to design, accompanied by a very useful graphic documentation (à planimetric autograph from the study of the same Antonio da Sangallo the Younger, architect of the Fortezza da Basso, then through plans and aerial views, please fill in the following centuries,

I do not think I err feeling this happy condition of departure the premise of the success of the competition, not only confirmed the allocation of all prizes available (five), but the fact - in some ways even more significant - though all projects not directly rewarded (those presented were a total of twelve) were reported (ie getting with the partial reimbursement of expenses).

The decision was made in the belief that everyone deserved projects such recognition, despite the sometimes very different conceptual and methodological approach, and in some cases, even in the deepening inequalities of the proposed solution is not that the Selection Board fosse in largheggiare vein: ( but, being a competition of ideas, this situation is almost normal). In particular, the seven projects not awarded, four have obtained a special

mention: proof of precision almost fussy - besides prolonged, even beyond expectation - with which hath proceeded in the judgment.

But it should be added immediately that he does it. vourable starting platform could not akun so by itself alone or fix or only positively start the outcome of the competition, if on it competitors had not firmly set their works, brought in most cases far beyond the inherent limits in a contest of ideas, moreover, already validated by the demands of the notice rules, but talun competitor pushed its own initiative further. At the sign to lead the Contracting Authority to establish a true exhibition of the projects (in two subsequent editions), divided into many individual exhibitions, quant were the projects; to allow the jury a thorough examination of the documents, such as an individual by individual members, as a collective. The judgment, of course, has been formulated according to each aspect of the problem to be solved (and there were moiti, most of which are considerably complex), proceeding - instrumentally - to the single screen of each of them in various projects, waves pursue their possession to the full and thorough as possible, in order that none of them could make or influence the judgment of overall merit, which in turn together understood them and with time transcending them (COSL corne is the case in the very process of 'act of design, which is primarily work of creative synthesis, which comprises as such and together prevails both the objective data from which it moves, as the functional order service that is called to accomplish).

However, the singular contingency of an architecture to be thought of as part of the space, formulated by another architecture, with the demanding as stimulating dif! Icoltà to establish an essential relates - however you want to put conceptually design point and resolve --- -: between the two, I think merits special attention: once in reference to the case primary (main civic importance) that the contest has attracted, and for the general implications it entails returning it, with exceptional weight and · significance, in the very current and controversial, but far from resolved, the problem anticonuovo relationship. One concern, this, among the largest, and feel typical of our times; which - if we're in the mood for honest confessions - we can say hiding under a declared what convinced awareness of this problem (I worry much less, at that level at least, in previous times) · awareness, let's say the discomfort, not to having even known how to solve, much less on the theoretical level (corne especially would like to succeed today). In practice, therefore, in spite of

P.artenza platform above praised the competitors, when proceeding, could not resort to any legislation that would guarantee them to move in a direction I not tell exact, but at least a little tranquilizer. That does not, of course, that of their intuition, their insight, maybe even their ability to dare. much less on the theoretical level (come especially we would like to succeed today). In practice, therefore, in spite of P.artenza platform above praised the competitors, when proceeding, could not resort to any legislation that would guarantee them to move in a direction I not tell exact, but at least a little tranquilizer. That does not, of course, that of their intuition, their insight, maybe even their ability to dare. much less on the theoretical level (come especially we would like to succeed today). In practice, therefore, in spite of P.artenza platform above praised the competitors, when proceeding, could not resort to any legislation that would guarantee them to move in a direction I not tell exact, but at least a little tranquilizer. That does not, of course, that of their intuition, their insight, maybe even their ability to dare.

Despite, for obvious reasons, he could not follow any of the designers in what he does, I guess just that constituted, at least for most of them, the more cargo appearance pe ; piessità, perhaps authentic torments: both the thickening of enervating incettezze, precisely in the absence of any guide - do not say alternate aile responsibility of the individual, but useful for the purpose of a possible reference chin - that could offer a minimum guarantee both the individual or group to designing all ' inside of their work; It is, no doubt even more embarrassing, in order to imagine the probable yardsticks in this particular way, that would Adot tato, in retrospect, the judging committee. It goes without saying that such discomfort had to be heard and charged with varying severity by competitors,

The identification of such a position of individual projects allows them grouped. pamento, useful at least for exhibition purposes, but perhaps also to grasp symptomatically trends currently underway, probably valid even beyond the fact principal which the competition relates, and bear in mind I think - in future augurabili attempts of a less precarious even if the temporary accommodation is still lacking or malcerte ideas circulating about the possible solution of the old-new relationship. However, not being this opportunity best suited to make such an attempt, the rest of dubious success, I believe I'm consentitci to have you mentioned, being a thinking shortage, but to keep me - from now on - in the specific case.

But I give me - before entering it! about the solutions and their possible grouping - make a consideration again, that it is useful and especially close relevance.

The type of the fortress, come as what you know • similarly strong (at least until this second term refers to anything

sufficiently analogous to how much *forte* indicates, more widespread use and acceptable, to

order to suggest a type (architettonico as precise as possible) is distinct from that of the castle; a little less so from that of the military fortress (especially for this occasion that affect the writer): due types, the latter will prevail, respectively! Two-fourteenth the first, depending on the fifteenth. While for some sort of interesting application, the kind of fortitude is quite close to the castle enclosure, which is rather prevalent type - in Italy, and apart from antiquity - from the century IX (in conjunction with the barbarian raids, especially the Hungarians) until the thirteenth inclusive; so much so that some castles-fences, especially when expanded substantially and fitted, they are sometimes also called definitely forts (at least in common usage).

Particularly, the fortress (or strong), in the Renaissance, was born to the end of the sixteenth century; rightly therefore also defines the work of Ostia (1483-86, Baccio Pontelli and then Giuliano da Sangallo il Vecchio, and followed by Giodi Civita Castellana (from 1494-95, Antonio da Sangallo the Elder, and followed by the Young) : places, both Lazio (as well as Neptune, late fifteenth century or early sixteenth, Antonio da Sangallo the Elder), and determining names for becoming of fortifying the Italian architecture of the century.

But it is our case even essential, such as precise - earlier and almost identical our monument: Fortezza da Basso (COSL called *pe\_r* distinguish it from the other Florentine Forte Belvedere, located upstream) was built in 1533, designed by Antonio da Sangallo the Younger. These founded his own experience on the example left by two members of the same family in Lazio, whether he had gone the same - under the guidance of Antonio the Elder - essentially thirty years earlier, in 1503, perhaps at first working with his uncle, but then taking over from him in Civita Castellana works; fortress - while accusing his greater age - it proves, already in plan, which quite similar experience to the most advanced Florentine example, nearly one his announcement. but then taking over from him in Civita Castellana works; fortress - while accusing his greater age - it proves, already in plan, which quite similar experience to the most advanced Florentine example, nearly one

his announcement. but then taking over from him in Civita Castellana works; fortress - while accusing his greater age - it proves, already in plan, which quite similar experience to the most advanced Florentine example, nearly one his announcement.

However, a feature common to medieval fortresses castellirecinti and ail sixteenth is to possess neither the internal spaces (if not lower, or minimum), or real courtyards (while the castles possessed in general or to one or the other, or both). If anything, there arose real buildings. fixed or temporary, however not very large mole (come precisely happened in Florence, where - by the way - the notice of competition foresaw their partial conservation). In short, while the type of the generated interior castle, covered or uncovered they were (and only or mainly rock - mind the latter), which had little to do - for the exact same intent of those who built them - with space exterior, - the type of the fortress instead (come already that of the castle-fence), very differently, the dividing unit - but not fully self-configuring - a portion of outer space; and we should say the general space, how much at this point is no longer justified nor can a true dichotomy between outer space and inner space. I can not know or even imagine how much - and how much consciously - this concept was present to individual competitors; but I believe that at least some people find it was.

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From an ideal point of view, it would have been so well for conservation not only merely material - not to erect any edifice within the fortress, Aitre to those already said, lower - exist; for contra the band required a display surface, and therefore uria eu batura rather conspicuous. The conflict that arose was evident, with the danger of becoming dramatic: unless born what s1 <lice "a gimmick." There are at least three projects aimed exactly what, pushing anz1

at worst, in a house at the paradox: erecting

a skyscraper (motta Agora), with the undeniable advantage of leaving free the entire surface not covered by the same; or infossando all (Underground), and giungendc with cio to entirely free surface.

practically eliminating - at least for purposes of perception - the relates, old-new; or even setting up an architecture sculpture (Uga) similar to rattigura;;: Consolidated ion of a bomb blast (will seize the analogy

- alr: .ieno - allegory of order - with the theme

the same, fortress).

Pragetti Of those three, only the first development had requested! notice, the al, ri du; - justify this on the ripetizio

any of the same modular components, - no, but both were; in lora ruthlessness, certainly the most interesting of grattacie! or. "

(From Casabella, n. 336, 1969)

"The story of the fortress' competition

da Basso is certainly destined to place in the history of architecture with a unique cliché of contradictions and cultural concerns. Not so much for the result

absolute of individual proposals architettoni 1 that, because some of them are also of remarkable quality, since in order to certain general premises \_dell'operazione, in certain inconsistency of the band and, above all, the outcome yielded and sortoscritto from giudicatrice commission, which is not missed torment and tear of the resignation of the representative of .vli-. nistero of Public Works architego Juvenal, later replaced by! It connects the 'Ministry, Sonzogni architect.

But we try to see the distinctive elements of the story, where will miss voluntarily placing some interfering interventions "Italia Nostra" and gruppo "aperra Fortress", that do not specifically affect · themes of our discussion.

Neither! January · 196 7! 'Ente J \ lostra The Business!' Arrigianato announces the "ational the competition of ideas for the arrangement and planning · restores the Fortezza da Low Florence destined to National Center of Crafts".

Incidentally, we note that it! Master Plan for the City of Florence, the entire area of the Fortress is set to "zone for equipment and services in kind ', even apparendovi the prescrizione\_e of a primary school and a eliporro, a recreational centers and exhibitions; and again. Article 3 of the implementing rules expressly said that "the Fortezza da Bassa is destined to centers -for exhibitions and congresses and public park." Peraltra, the attribution to "place" congress was, in fact, overcome by an unexpected event, such as the creation of "centers congresses" in the park of Villa Vittoria, by the Florentine Tourism Company.

The Mostra, depending on the assumption of sub president, intended to fit it! 'Framework of praspettive urbani tiche the city of Florence, pramuio,, Endo study of functional

programs and monumental enhancement, having as their object the Fortezza da Basso ", seeking to stimulate the interest of the best resources on a national, urban and architectural. It would not even certain component-patriotic demagogy, where he advocated that "the living forces and today, heirs of the continuity of the great tradition of Italian art, will be solicited, by this act, to interpret all the competing needs in the theme ...."

Meanwhile, we note some "counterpoints":

a) it! notice the provision of public park for the fortress has disappeared and more moderately replaced with an indication, for which 'area not covered will be provided avenues (sic) with a continuous and systematic path, gardens, fountains, etc. »;

, B) .. meatre the notice refers literally to a "urban and architectural restores the Fortezza da Basso" (Article 1), it should be noted also that "falls outside the designs tion mopumentale the restoration of the complex of the Fortress "(Article 7): not the skiing understand the conceptual differentiation standing behind the lexical identity;

c) in a contest of ideas, perhaps as never right in its specification (Article 1), echoed the detailed clarification of the various and square meters relating to the Secretariat ( "a space for Office General Secretariat with contiguous to the Secretariat rooms and lounge") or the keepers of accommodation ie indications from the executive project;

d) annexed to the notice is a timely and appropriate historical note supervisor architect Morozzi, as a precondition to the plan of arrangement; Instead missing,Paradoxically (but perhaps for stimulus to research competitors) a note about the culture and suifa current structure of artisan phenomenon, which sarehbe been an essential information to the setting of moita the bottom part of the complex. "

(From Necropolis, n. 1, 1969!

## THE PROJECT

The Fortezza da Basso has a definitive and objective aspect: "it is a prototype of functionality and formal quality" and not a container to be filled with other objects.

Starting from this objective vision of reality, the project focuses on an anti-object solution or rather on visualization. z1one of the formative process of the object itself.

The urban planning takes into account the fact that the new node of interest could aggravate the situation existing up to now if the recovery of large free spaces to be used for parking

were not implemented and if they were not decongested, with a traffic pattern. extremely simplified. the current outflowing and affluent lines of the area.

The project proposes not to modify the current situation and not to load it with sliding superstructures; applying instead a directional discipline using the very favorable network of roads leading to the area.

The organizations, which are accepted, are located within the body of the fortress.

Both on the inside and on the outside, the current levels of the floors have been respected, leaving the interventions that will try to bring to light the parts currently buried to the future restoration work.

The current access gates to the fortress are reserved for transit and visits on ordinary days and constitute the traditional connection to the city.

For mass demonstrations, however, a new regimen of aphfluence is expected.

The currents of visitors are sucked through three arteries in a large square, a hall, created in the body of the fortress, open to the top and divided into canals that direct the public to the various sections.

Thus one enters the interior of the fortress from! center c from below and it radiates to the periphery and the top.

The gradability required by the call is the central point of the realization and commitment of the designer.

The idea is part of a precise cultural orientation: an open conception of space and the repudiation of every finished solution. Each part of the solution must express the potential of a growing complex.

This is not about building by staggered sectors. time, pending a planned conclusion that only then provides a finished product, but excluding the idca of the accomplished; always consider finished work c never finished at any time of realization.

Therefore the sectors are not isolated in space but designed in an node to make it possible to hook them in any position with new elements.

Thus a flowing space is born which radiates in all directions and allows a continuous modification of the exhibition spaces according to the various needs.

These joint structures in the inner-outer space permit the use of vast spaces covered at ground level.

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The sense of the fair stand and of the overused shed has also been eliminated, adhering to the very diversified needs of an exhibition of craftsmanship and furnishings, we wanted to create three-dimensional spaces suitably located and variously combinable in order to provide a wide range of exhibition possibilities.

The connection with the overlooking Palazzo dei Congressi will take place via an equipped underground gallery.

These elements which respond to various space requirements are solicited by an electronic program. Technically the same elements are equipped with sliding and overturning devices operated by electromagnetic currents.

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## PROJECT

The gallery was designed to be built in an urban center.

The plant is based on four roads that cross the building allowing, through the use of transparent parts in the points where they come into contact with the structure, the indirect vision of the exposed material.

In this way, even the occasional visitor is encouraged to participate in the artistic events of the city.

The work consists of a steel casing completely isolated from the outside world, suspended and articulated, accessible and visible inside, only from the four streets.

Structurally the gallery is composed of modulated elements that can be aggregated variously according to the display needs thus allowing maximum internal flexibility.

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### Intervention in an earthquake zone

The project, in addition to solving the problems of the rebuilding of the building sector, intends to provide some general indications on the urban construction organization of that central area of the city most affected by! earthquake.

Ques!: and indications are intended to direct the reconstruction towards a unitary solution that contains technical elements with extreme flexibility and intercommunicability.

Obviously our proposal aims to advise against the traditional method of parcelling which allows interventions isolated from the general context, and of it! at the same time it excludes a design at the level of megastructures which would ultimately result in a series of isolated interventions, bound by a planivolumetric design.

The method suggested by us, in addition to allowing the conservation of works of pre-eminent historical and environmental value, coordinates and disciplines the individual interventions by introducing an original innovative carca into the old fabric.

In the general proposal the p & dcolare project solution must be framed, but this does not detract from the autonomy of the project itself! if you want to implement a parcel procedure for independent sectors.

The real estate property - building sector - is located in Ancona in Piazza della Repubblica and is bordered by Corso Mazzini, Corso Garibaldi and the property «Banco di Napoli».

In this sector some buildings have been identified with a "presence" value as they are the only examples left of a building characteristic of the old port district. However, these are not environmental values since the whole environment has been completely tampered with for subsequent interventions, above all remains of the sector is made up of newly built building units, strongly promoted by! earthquake, for which their demolition is carried out.

As far as the resulting area is concerned, the method adopted for the reconstruction does not provide for the conservation of volurni but does not even exclude it.

It is believed that the monolithic structure must be turned upside down in favor of a more vibrated volurnetric setting that activates the space concerned. This is a fundamental requirement that deserves a very careful evaluation in light of the static and closed atrnosphere which keeps the whole area ritualrnente.

The construction system is based on a construction type: steel cube10 whose side measures m. 3.30.

The tarpning of the visible faces can be of any material (glass, stone, metal, plastic ...).

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The cubic forms can be combined with one another in a range of infinite space is there! horizontal plane and vertically in what has been predicted that the vertical and diagonal rods can be removed or connected to each other.

The floors, which are also modulated obviously, not making body with the structure can be removed in work places or removed. The vertical supporting rods are connected to their position and the overlying weight.

It is expected that the people who occupied apartments and offices and shops ran before the earthquake are the only ones entitled to the new user.

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First prize INARCH-FINSIDER 1967

Whenever you want to give the material prominence in the study of the attributes of the architectural form, it is not necessary to involve the whole architectural process in general; the important thing is to understand the new dimensions that the given material entails in structuring the work.

Steel can above all give this indication: possibility of making the construction mobile, that is, transforming it into an object of use that can be easily transferred anywhere. Obviously, at this point, the problem of the relationship between construction and nature, between home and environment arises, a problem that can only be solved either with the formula of products as varied as possible or with the study of a set of elements. base capable, in their multiple aggregation, of adapting the construction to the characteristics of the environment itself.

This second solution forces the designer to scrupulously examine the possibilities the basic element can provide; and this is what has been attempted with this project. However, the problem of foundations still remains, the only handicap to the aspiration of a home-object.

This issue was also addressed on the basis of the possibilities offered by the same material.

As far as the variability of the products is concerned, this solution was proposed: construction of a "space frame" consisting of two horizontal and two vertical elements suitably connected to each other. The thickness of this frame is cm. 60. The height is variable but contained within the standard dimensions of m. 2.40, m. 3, m. 4.80. By interchanging these elements and placing them in different positions, a wide range of combinations is obtained both on the horizontal and on the vertical plane which allows to configure the internal and external space according to multiple functional perspectives. This element - which will be built in the workshop - will be complete with systems, fixtures, finishes so that, after assembly of several elements, the house is complete in all its aspects. With this solution, it seems to have come to allow the mass production not of prefabricated houses, but of pieces whose assembly gives way to produce an open industrialization, linked to the thousand needs of a user very rich in experience and sensitivity

As for foundations:

being rigid frames, they can be supported with a system of joints to the cubes of foundation constituted by three walls welded to ring in which around per se a concrete mix with a hooking stalk to the ground, or, hovered in space, can be incurred with cables hooked to independent structures; or still set at modulated special prefabricated beams that are supplied together with the vertical elements by the organization of production.

The composition of these "space frames" is extremely simple and] gold mounting Could be performed in a short time.

The frames depends do not require the use of specialized labor during assembly and subdivide certain areas of the house: living room, bedroom, bathroom, terraces.

As has been said these frames, in their dimensional variety, offer many possibilities for the interior space organization. · You can build COSL habitable spaces on the same plane, on two floors, or even mixed and predict their combination in large dwelling units.

The external and internal fixtures are designed tati corne a single stamped sheet metal piece which already contains the compartments for passers-openable doors. Outside of this great wall will be glued a sheet of transparent plastic, so that they appear corne a plastic structure under a crystal plate.

The general construction scheme proposed is defined to "frame modulated», partly sectional, completely made of sheet steel, molded part and shaped part (cold always). The basic elementary units are assembled in the workshop with welding seams for the elements of the supporting structure and the electric arc points for the closure panels.

In this way you get rre ele-based comprehensive minds, namely:

- t) the vertical element; •
- b) the horizontal element;
- c) the vertical spacer element. These are mounted by means of high strength bolts (type 10 K).

a) the vertical element of the framework provides a double sheet section of 3 mm AQ42 COSL shaped; ABCD is element of strength; DD is a closure element reported.

On AB elettropuntate welds are used in double alignment referred to in D to a single alignment.

ABCD h = 3 mm; DD = 2 mm. The compartment is CDDC coibenato entirely. At the end and beginning of aU-tlange corne m uprights dotted allow mounting to overlap with union by means of bolts 10 K.

b) the horizontal element: one represented is required for the floor; the one required for the ceiling has higher carrier shaped tub for the channeling and the removal of water and the flange on E instead of D. These end flanges are fixed on the element head plate di forza by builonatura to aira resistance to be executed in the pipeline, for which the nut is of the type known as the 'head' or stiffening brackets plate. The whole cabinet door inside the electrical ducts, water and telephone ending in floor panels.

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c) l 'element J1:, vertical ta11Liatore is constituted by an element of strength A terminating aile two ends with two trapezoidal plates. Its function is to space the "frames" m height. Its height pua be cm. 60 - 120 - 180 - to 240.

The side function of the elements is obtained by bolted coupling prior. approach and deposizion of a Gussolith film.

It is recommended for each element of a hot-dip galvanizing treatment and subsequent coating with a passage in the oven.

It should be noted that, if the elements are assembled on site, all bolting will be replaced with appropriate welds.

The summary indications of CU1 above are used to determine one Some- scheme ';;, 1. (a clear proposal on the type of bone.

This scheme draws game by the rules on the stamped sheet metal structures and the versatility of couplings with high strength bolts conforming aile requirements of DIN standards.

However it is to notan important details and proporzionamenti can only arise during the design for construction, currently exceeding the headquarters of interest here.

Other reinforcement pieces integrated in an appropriate ne! frame allow, together with gluing and bolting, to create even lenient cantilever.

«The IN / ARCH-FINSIDER Competition is flanked by the IN / ARCH National and Regional Awards, and the IN / ARCI - 1-Domestic Award for an architectural idea. It concerns metal construction projects related to, as the call sounds, "both new structural forms and new applications of products already in production ... any project or idea relating to metal construction, at any level of processing .... from the scale of urban infrastructures to those of the building industry, the interior construction, and the respective components ». Structural creativity is undoubtedly an essential factor, especially in the specific field chosen, of contemporary architecture: provided that it is integrated into it. For this reason the Jury - made up of Tomaso Liberati, Ivo Potenza and Franco Recchi for Finsider, Antonio Manzone and Lucio Passarelli for IN / ARCH, and Bruno Zevi for this magazine did not intend to simply designate the best "technical solutions" that, but" placed under inalienable conditions! "[: static-constructive tendency and virtual practical applicability at convenient cost, the choice fell on those projects that propose solutions also formally connected to the compositional principles of modern architecture". The first prize for the "construction in the workshop of steel building types through the design of a living cell intended as a matrix of growing organisms", stands out, observed the Jury, for originality, overcomes dogmatic monolithism and recovers particular functions allowing their free modularity.

The non-monolithic stems from the construction of elementary units deriving from the sum of simple elements, understood also come possibility of insertion of the construction process in the assembly line; and the ease of assembly is based on combinability, through a standard system, of the elements themselves, whose fastening apparatus are also prepared in officina. As for the foundations, the project presents a hypothesis of "uncoupling, as far as possible, the structures from! land constraint, by overturning the traditional static system "; and the form that results from these premises finds its raison d'etre in the actual realization of the operating process, becoming promoters, the architects observe, of suitable work organizations. The fundamental reason for the award is in the integration between structural and organizational proposals on the one hand, and "multiple" formal results <on the other. The project wants to "remedy the spatial static nature that each finished product entails".

The casing is sectioned into sectors of 60 cm width, module 10, finished in every detail: their reconstruction can take place in the workshop or on the construction site; the frames are self-sufficient, in four standard sizes, and constitute the parts of certain spaces of the house: living room, bed, bathroom, terraces. The result of multiple figurative availability that results is controlled according to its own compositional freedom, guaranteeing more than one form a matrix of forms.

It is believed to adopt! Astre -plastiche of materials that lend themselves to structural and sometimes with multiple functions uses.

Precisely in these characteristics of extreme workability and formalities resides the most interest for these materials.

It can, in essence, be coupled to its lightness, transparency, high degree of insulation, a great dimensional freedom. "

(From L 'Architecture Chronicles of December 1967)

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Experimental House

The house Fregene has provided the pretext for a series of elaborate experiments on the theoretical level.

- Experimentation of the unfinished: through a series of models is determined and a structural design that retains its inorganicità and allows growth in all directions, ad infinitum.

- Abstraction of the architectural void: the architectural void is only evacuated through the surfaces, or by the beams independent of them. The voids (interspaces) have been determined so that the architectural void itself is never perceptibly determined as a volume.

- The psychological effects (overturning of static sensations into dynamic sensations) have been experienced through the determination of a horizontal symmetry plane so that the structure "overturns" in a mirror sense.

The sky is evoked by its reflection on a body of water placed under the structure.

The functions and services are attached to the structure in an absolutely autonomous way, even formally.

The closure of the vertical livable spaces occurs through demoted containers and movable windows according to a preventive study of the positions that takes into account the perspective continuity. The suggestion of the architectural void is accentuated by mirroring walls placed in particular conditions.

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The element to seemingly independent frame by! rest of the structure reaffirms the sense of not finished, evoking a possible further continuity.

The structure is deliberately symmetric in a horizontal direction; its stereometria is opposed to monolithic dell'elemento sphere.

The fact of having to place all-1 'external structure allows the maximum flexibility of the usable space, namely the space between the plates.

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The fully modulated reinforced concrete structure consists of a series of frames which, by supporting or suspended some modulated plates, thus create a usable space. This solution allows to completely release the choice of the material used for the walls with structural motifs. Neither! the house in question made a choice: the walls consist of the aggregation of standard elements equipped in order to recreate all the elements that commonly make up the interior furnishings.

From a precise position of the designer, cond: to characterize this experiment with the maximum freedom of choice by the user of the elements that are necessary, no environmental hierarchization was carried out, the service elements are in fact hung on the structure in the necessary points. Thus, all the components of this experimental building have been designed for

achieve this triple freedom of choice: dimensional, equipment and services. The sphere element, with its monolithic mass, contrasts with the linearity of the structure, even if it recalls the elements of services<sup>0</sup> and in turn constitutes a characteristic experiment. It consists in fact of two independent half-caps in reinforced concrete connected by a double circle that allows the continuity of the separation. The cut, intentionally inclined, serves to psychologically accentuate the tensional state.

S1 is a unitary living cell since within its internal space (5 meters in diameter) all the elements necessary to characterize its functionality can be positioned.

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The first half-cap of the sphere is placed in place and then we proceed to circling.

The sphere is obtained by a system similar to that of the potters. or exploiting the sandy bottom: you dig and rotate a metal rib to obtain a plaster counter-shape, then place the metal reinforcement and, continuing the rotary movement, proceed with the casting.

Once consolidated, the half-shell is extracted from! land and site. The casting operations are then repeated and the spherical shape is completed. We must note the speed of execution of a construction of this type.

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This, repetita between the design documents, denounces the intention of using the structure come strong qualifying picture element.

Il horizontal plane of symmetry and the offset of the floors accentuate the tension, since they allow simultaneous viewing of the entire structural system, and ne! both offer the ability to "build" an architecture that is acquired globally from all points.

The plates suspended and supported determine, through the aforementioned horizontal symmetry, · a clear feeling of tipping.

Hospital Project

«Starting from some considerations and reflections that are now exposed in ur. interesting booklet and are accompanied by all the necessary graphic indications, three years ago, a team of architects directed by Giuseppe Perugini, cornincià to think of some architectural structures whose organization and shape were determined by computers, \_ and of course such that they gave up aile " old traditions to welcome, one would say in transparency, the informing and organizing principle of the machine. They began, as has been said, for the competition of hospitals in Pietralata; the investigation was then continued in the competition works for a multi-purpose building in Vienna; to these studies we add hours that for the structuring of a city, but not already of a hypothetical "city of the future", such that it remains in the limbo of the mere experimental hypothesis, but of a city that realizes, precisely through its architectural structures, the face of a new "democratic" civilization. So what are the fundamental principles of this new architecture? They start from an intuition of Victor Glushkov, Lenin's prernio for his works on computers: on the principle, that is, that a single large machine, even if it is far from information devices, can solve different problems for many companies and scientific institutions of different cities. Already the cyberneticians of Kiev partially managed to realize this dream on some models of calculators, the "mir-2"; it is therefore a matter of deepening these experiences and avoiding, as is still done today, that electronic calculators are not used individually. Because the most suggestive hypothesis of the Perugini team is precisely this: of the need for the future, when ever more complex problems will have to be solved (for example, those relating to the economic and economic management of a country), of joining the calculators by mounting them on a block electronic, automating the process of constant and reciprocal information and thus solving the problems hitherto considered unsolvable. It is certainly not the case here to go into those technical details that the booklet explains clearly; instead we would like to underline the ethko-political principle that animates the difficult research: the principle that these studies on new urban forms and organizations that take into account the new technological discoveries are by no means abstractly utopian or merely wishful thinking. Instead, they respond to the need to exploit new scientific developments and in this sense, highlighting the political and social inconsistencies of a civilization, deeply innovative and polernically revolutionary.

(From Paese Sera)

«It is enough to scroll through the editorial sheets, published in these recent times, to realize the interest aroused by the encounter between science and architecture even if a prudent caution shines through from the position taken by some architects still evidently tied to old design mockery. This ambiguity is, in a certain sense, more nodva than disinterest in that it denotes an adherence of convenience and an inadequate technical and ideological knowledge of the problem. The most obvious misconception is that created by those who propose the transposition of the new science into architecture as a substitute for the "mental process" or as an aid to the quantitative verification of the mechanics of forms.

What is certain is that today there is a deep distrust of the tools and current forms of architecture. The awareness of the crisis of teaching in the University and at the same time the confidence that we can also clarify the ambiguity of our "free society", that we can structure a system in it! that there is no fear that technology will diminish the individual or that it will pervert the democratic process thanks to its overflowing power, well! these and other analogues are the reasons that led me to direct my research in the field of the use of cybernetics in architecture.

I agree with my students when they refuse a teaching that has the only essential function of preparing them for integration into a system whose law is profit, and where the "imminent and coercive" law is production for production and in this case the University is essentially responsible for supplying cadres to industry. Nobody disputes the necessity and fruitfulness of a link between science, research and production, but it must be emphasized that monopolies do not conceive this link in a similar way to ours. We must recognize that the tectonic arch composition is now reduced to a sterile technical-formal exercise which is only functional to the conservation of production relations, separate from the human sciences and abstract from the real development of the country. «Entering it! alive of the debate  
On the matured "architecture-science" connection, we can affirm that the organization of space is a network of energy and communication and the highest corporate organization when it is connected more closely by communication than energy. Furthermore, this spatial organization itself contains the system of growth and change. It is a fundamental theme of today's urban design to think about the organization of the space in terms of a network of energy and communication and of a living body that has the opportunity to grow and transform. This is the process that I call "structuring of architectural and urban design". I would like to summarize my way of thinking outlined above in the following way: architecture and urban space have a spatial organization containing elements of v: Hi types. And it is the second point of view that each element is considered in its well-identified function and which could be called the functional resolution criterion

This stealth has bases that are not comlmi from the analytical point of view, it is an abstract way of thinking, and is often lacking in it! seeing things as concrete existence. Then it becomes necessary to see these elements in their reciprocal space-time relationship. This criterion could be called a tourist system. Space is the field destined for the functioning of man or of man's physical activities, and ne! at the same time, space is the field for the structuring of man, in three words for the communication of man. But the most important aspect is that space is the field of man's formation. In this sense, space has its own metaphysical meaning. Space is not only the space for functioning and structuring but the way of meaning. How will the architectural and urban space be able to ensure "human meaning and human value to humanity"? I dare say that we need a symbolic criterion towards the architectural and urban space in order to ensure a "human meaning or human value to humanity" in architecture and urban space.

As we have already mentioned, the architectural and urbanistic criterion imply both the process of <creating a function and that of <building a structure to space.

When we give a typed form to a specific function, that function is immediately apparent to the eye and has its own identity. If we follow this concept even further, we observe that through form we can not only express a physical function of space, but and a metaphysical function.

At this stage, when a space gives an expression to its function, we have already entered it! process of a symbolic criterion of approach to the problem. In fact, the symbolic reign of thinking can also be found in it! structuring process. Making a symbolic meaning of the

spatial structure itself is useful for drawing up the design and making it understandable to the people. The architect, the urban designer, is a man who has the responsibility of identifying the communication channel between the physical environment and the metaphysical world, of connecting technology and humanity with a bridge, and of restoring meaning human in the environment in which man lives and acts "(1).

"There are two concl: usages that can be drawn from these considerations: the first, • as I have had the opportunity to demonstrate in my volume " Structures - new dimension "of 1969, is that the relationships between function and space have been up to now interpret static and deterministic criteria and that it is right to refer to the claims of Norber Wien, the creator of cybernetics, that an organization does not. it is so tightly connected that it is impossible to change an aspect of it without destroying the specific characteristics of all aspects, nor in such a detached way that anything can occur without any relation to the animals.

The second concl: usury is what the use that can be made of computers in particular · and cybernetics in general in architecture without those human values that it seems everyone wants to safeguard are overwhelmed.

I do not want to return to the purely social and political values that the use of cybernetics entails because I have talked about it for a long time (2), but I am interested in pointing out the reflection that this interest has on my research.

There are two accusations that are brought against me: to stop at the preparatory analysis of design and to believe in models. Well! the problem is unique: it is necessary to establish what is meant by both knowledge and model. «Knowledge is by its nature a reflection, ne! · Sense that it is a reality that does not come from us, and at the same time for its method it is a construction ». (3)

The model must be understood in the strictly scientific sense that cyberneticians assign it, that is, that of an artificial system which entails certain analogies with the given system and which has the purpose of highlighting other analogies. The creative act, specifically human, in all fields, whether it be the work of art, scientific discovery or the revolutionary initiative, is the construction of models. The dialectic of the genesis of these models, of their refusal in relation to a denial of experience and practice, of substitution with other models, of gold development and their new negations are reasons for study in architecture. And architecture is a privileged field for studying the construction of models because through this creative moment man exercises a sort of right, of revenge on his own alienation.

What we have said frames our cultural commitment and therefore the contribution we intend to bring to the problem of architecture-science which for us has the sense of overcoming the rationalism of function through a design that uses the computer to manage the relationship between things, ne! their movement, ne! their change, in their life, in their mutual action.

It is therefore a matter of adopting the computer in its function of "ordinateur" or of a machine to put order, and of

to recover the material part of computer science as a science of automatic information processing in order to satisfy the search for relationships, the hundreds, the hundreds of thousands of relationships that unite all objects together to form coherent sets.

Hence the need to group the elements into families, also reducing them to their ultimate elementary expressions, to "atomize" them bearing in mind that the principle of the calculator is simple, but complicated is the application process. I believe that the systems of infinite relationships that must be fulfilled in the context of urban and architectural structures indicate which design upheaval is necessary if you want to consistently insert the requests for an inevitable renewal.

I also believe that only ne! problem of relationships the help of the computer can be, for now,

a solution - always in! IT field - relevant and urgent through the insertion of the structural production and reproduction process, on the basis of the programming criteria, ne! field of retroactive and self-regulating systems " .

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"Cities with a" human dimension ": a characteristic which is attributed to our historical centers and medieval towns; it is now synonymous with a happy but unrepeatable model that characterizes the result of a slow process of overlapping and intersection of services and residences. It is to demonstrate the imposition of a hierarchy of urban values and signs; shows the ability of architecture to perceive and re-propose, making it plausible, a clear interdependence between the class vision of society and a social characterization of the urban fabric; not only justifies but organizes the commodification of the sign and the architectural character.

There is no doubt that urban planning research is in crisis and that this crisis is attributable to the difficulty of freeing oneself from the characteristics and signs of the hierarchical city and the lack of courage to limit and specify its function in a wider movement of skills. and participations.

Perhaps one should first of all recognize economics, history and social philosophy studies for their sterility towards the specific theme and the inability to penetrate indirect investigation. In fact, the need to leave libraries, conferences and conventions to return to direct observation with the conviction of participating in the life and work of communities is felt more and more strongly: on the other hand, he accuses himself. the danger of a detachment from knowledge. However, there is an urgent need to broaden the debate on our cities, meaning by "life" the set of citizens' needs and wills. As a first reason for further study, we choose what, in our opinion, even if brutally removes us, for a moment, from the specific urban-architectural, understood in the traditional sense as the program and design of the city, and proposes the introduction of a self-regulation model .

Although systems of ideas and systems of symbols play a critical role in human society, we will deal here with social systems, real entities composed in continuous self-regulated relationship with their environment (or their environments). Social systems encompass every level of complexity, from the primary family or work group through formal large-scale organizations to the nation state or even the entire u race (llana conceived as an interacting human community).

The primary groups and ultimately all the groups are ultimately composed of self-regulating people. Large social systems usually consist of functional groups which form their subsystems.

Integrated activity <the large social groupings is the product of efficient communication and willingness by those who make decisions within the component social subsystems (and ultimately by individuals) to respond in a predictable way and programmed to a definitive range of "perceptual inputs".

In essence, a self-regulation model requires a functional distinction between perception, decision and action. This can normally be achieved by distinguishing structurally between receptive elements, decision-making elements and actuator elements of the system. As the complexity and size of social systems grows, these functions, and the related communication functions, tend to be concretized into component social subsystems.

We apply these basic concepts to the political sphere, they help us systematize the basic relationships that form the traditional topic of political science: the constitution and division of power. A constitution is a program that defines the nature (activities) and interrelationships of formal gathering points of political power. The inputs in. Political system are laws that can

be applied and enforced, which define the interrelationships of people and groups as society enters. Requests to the political system are communicated by petition, through representatives of organized groups, publicists and others. Legislative decisions are made in the form of laws and resolutions. The executive makes the laws work and the judiciary performs the control function, comparing specific individual actions with the law that programs these actions. Up to this point, within an urban space or a hypothetical extension, everything seems easy to program with the only aid of computers and according to the principle of self-government. The problem becomes time and predictability.

But each entity of which we have experience, be it physical object or person or social group exists in time and enters into a relationship with the other in time. temporal order, which accepiamo what is the current status of a particular something come system <la its antecedent states, the future states of its rooms and to sis. terni self-regulating, by their actions in the present moment. To the extent that the self-regulating system can learn, not only on its current state and the state of its environment, but can be projected and "know" alternative trajectories that are possible come of the future achievements, then the future may be, in this sense , an input of the decision-making process.

"In recognizing and trying to predict future states of fundamental variables over which there is no effective control, individual and social planning essentially consists of them! project alternative trajectories as functions of the direct action of the system and of the indirect effects of the action of the system of its environment, and in the see the set of actions which, on the. on the basis of past experience or probability it will achieve a future state perceived as desirable ».

IS . It is perfectly clear that actions taken to achieve a future state of the system can considerably determine that future state. The action of the environment is regulated by a continuous process of perception. which external reality participates and is confronted with a final state to be achieved. Now it is clear that, in this process, we deal with focused perceptions: that is, a set of sensory inputs on which attention is given, if separated from the innumerable alternative sets on which the person or group could. to focus.

From all this arises the belief that it is possible to organize a political-cybernetic structure capable of democratically managing an environment at any level: wing. We think it is no longer possible to sustain the survival of the organic city concert; that is, of the city commensurate with the functional potential of its services. We have also highlighted that every form of organization presupposes a "cybernetic" vision of the relationships between quantities and that their clash determines an infinite range of effects, however groupable and possible of repeatability in different places and times. Furthermore, introducing the concept of precarious object whose destruction is programmable over time and that of the chaotic distribution of the city's objects, eliminating the interdependencies between residences and services, their static location in the territory, the preconditions for the implementation of the planned city. Already today we can see that while on the one hand the current city is not made indifferent to the presence of the object in the architectural space (and here, drawn into

the critical orbit of the theories of the figurative arts, the temptation to develop unilateral analyzes resurfaces simply by moving the observation to the urban scale) from the other all the cultural horizons, the external frontiers of technology, the environmental configurations and above all the research parameter scientific, cross and determine urban research in an interdisciplinary intertwining. Already Patrick Geddes in his "Cities in evolution" noted how we began to analyze "the repercussions which, from all sides, through the means of mass communication are reflected on the city (and on theoretical speculation) by proposing to an extension of the gradation of aesthetic experience also an inextricable tangle of true or false problems of reasons of dimensions ».

It is natural that instead of the traditional functional dependencies between static objects ne! together they had to perform an action in order to introduce a non-specific element capable of organizing and progressing this function: ne! our case movement.

«The metropolitan space is irrelevant to the telephone, the telegraph and the radio-television. What city planners call the "human ladder" ne! discuss exemplary urban spaces and yet without relationship you get electrical forms. The electrical extensions of our people simply go beyond space and time and create problems of human participation and organization that are unprecedented ... ».

Thus, the city must first of all recover its value as an "object of use", that is to say, there is a machine that performs the task of facilitating community life through its equipment. And that's a traditional aspect. Furthermore, human relationships must be understood in their fullness through a continuous, infinite network of exchanges which, at the limit, cancels the residency concert. The concept of self-management fits into this vision of the problem. That is, the establishment of a reservoir of coordinated requests that anyone can draw upon by demanding an egalitarian response.

Therefore, a self-managed programmed city, a proposal motivated by a rational, urbanistic and libertarian vision. The most advanced science and technology for the reconquest of man's natural values! refusal of any static and authoritarian structure.

Evolutionary dynamics of functions and logistical locations; spaces definable in ever new entities and dimensions. The city as a free federation of functions.

It is natural that the functioning of a city so conceived should use the help of science through the adoption of computers.

«The value of this adoption consists mainly of it! fact that we are all committed to separating real values from vague sensations since only if the programs are clear and consequential to reality does the machine allow the rapid execution of long and detailed logical operations beyond the capabilities of the human brain ».

The city no longer exists, except as cultural phantoms, the instantaneous diffusion of news and the possibility of communicating from a distance makes the shape of the city meaningless and without function. Cities were once linked to the reality of production and intercommun (cations. Now no longer.

The machine compares an exceptional number of alternative decisions to find an optimum. The operations that the city must carry out are mechanical and the mechanical rules require one or more calculators.

. It is, however, necessary to de-establish the "human values" which must be guaranteed by the cybernetics which constitutes the "ethical" commitment more "of this generation".

"Does Ct want to give more specification on how to use computers in architecture"?

"This question seems to hypothesize the insertion of new electronic techniques" within the "architecture, understood in the traditional sense, and only as an enrichment of the current design and implementation tools. Inserting this" non-specific "in our discipline means instead provide the architecture of an unusual, effective, dynamic charge that expresses itself in terms of space-time.

Ever since architects, albeit with limited reservations, have allowed science to enter it! world of architecture above the traditional technological and technological contribution, various attitudes have come to light which refer to the way of using the computer on the compositional level and in that of the concrete realization.

For example, one is the one in which the electronic processor has the task of providing data for the optimal solution of urban and compositional problems or, through "variable quantities", that of verifying certain final results.

The use of the computer in architecture A second way is to make the computer manage the assembly mechanics of units determined in advance.

Yet another is that which only promises to have the computer mechanically manage the modification of technologically advanced spaces according to a precise range of functional possibilities.

However, there is still a way in which the electronic e-laboratory enters architecture as an instrument for managing rational rationality between elements constituting a vast and complex multifunctional structure - which is the theme of today -.

It is easy to imagine that in this case the ancient architectural "order" that is replaced by the "ordinateur" - machine for putting in order - is questioned and it is created<sup>1</sup>, and to produce a shocking phenomenon in the context of the organization of any structure livable.

Except in this latest use, all the atria propose the use of the computer as an instrument of facilitation, of "procedures" of research or verification, not to mention the use that engineering studies make of it in the field of determining optimal structures.

We also know that electronic techniques, due to their cybernetic matrix, tend to extreme simplification of data. Therefore the traditional typology of architecture and urban planning must be revised and perhaps abandoned if one wishes to make a non-formalistic and unrealistic use of science. At the limit, architects and town planners must modify their mentality as, perhaps, a simple adjustment is not possible and precisely because of that innovative role that will derive from the presence of such an upsetting parameter in the design process ».

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«The automatism and mechanization affect, no ne! creative thinking? "

«As for the use of automatism and mechanization in relation to the environments and contents of creative thinking which is the head of your question, I must tell you that the creative process is not in question if it is not« fear of · losing a hegemonia "on things and, as any fear that is not solicited by scientifically proven data, - is restraining and deleterious towards technical and social achievements,

Furthermore, the creative process is in the things that are created and is inseparable in the results: it is not a magical signal that "providence" has gracefully deposited in the brain of a privileged category but belongs to man and is revealed through all the works of transformation and of building nature.

The fear that the computer will take away from the architect the "privilege" of the invention is quite bleak unless this attitude represents coverage of particular interests or the symptoms of an inability to adapt.

Politically · the technical problem does not arise - it is a question of management and use and therefore also of choice, in all fields, including that of architecture and urban planning ».

«What formal consequences will the introduction of electronic techniques in architecture bring? ».

"When asked what consequences the introduction will bring in the formal process, ne! so specified by me, of the techniques related to the use of the electronic calculator I answer: they will be, and as far as the experiments conducted by us are concerned - see the hospital of Pietralata, the multifunctional building in Vienna, the project for Plateau Beaubourg in Paris - they are radical.

The specific space is replaced by a new complex spatiality which is expressed in terms of estere: na simplicity. From the results of our research it is clear that the current spatial discourse will abandon, will have to abandon, the field of three-dimensionality to express itself through a richer and more verifiable two-dimensionality.

They will oppose the imitation of nature! field of architecture, the forces of ingenuity, which will undoubtedly propose new, less classical and intellectual means of communication, ultimately more comprehensible to the masses.

The disintegration of the organism intended in its spatial complexity is unavoidable in quanto the dynamism inherent in the electronic techniques, even if, as I have already said, one does not want to use it as mere straining instruments of verification, presupposes a cybernetic approach and therefore the introduction of the space-tempo parametro which in terms of reality is movimento - see the project for Plateau Beaubourg - and which refers to the coordination of the functions and the planned use of new architectural structures ».

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The functional structure of the hospital complex is essentially constituted by two superimposed plates: the lower one contains ne! Inside -thickness, a network of electromagnetic conductors which suitably biased to impart a number of rotors (motoelevatori) lying on it, a dynamic charge and therefore a direction of movement. The motoelevatori contain hospital services that can reach through scheduled courses every point della plate. Services are atomized into aggregated units in order to build the insierni high degree of variability. The services are: transportation of visitors and staff of 'hospital disinfection rooms, dressing, food transportation, operating pressure housings, services of operating theaters, etc.

On the top plate are arranged the patient rooms and control environments grouped into hospital divisions, which are also equipped with high mobility so that they can organize themselves quantitatively depending on the necessity. Their position on the plate is random since it does not exist, among them, any functional relationship. The plate contains holes

corresponding to the nodes of the underlying electromagnetic network that also correspond within each, single hospital unit. Through these holes, the lifter. It penetrates the rotors within each unit reconstituting the communication relationships and functions that are entrusted to the electronic programmer.

It is clear that such organization must be structured through a radical design review as the services with their mobility subvert the organic unity of the ancient architectural works. The procedure adopted entrusts the recovery of the functions to the computer programmer but affords to a careful technological experimentation recur the task in an original way the compositional problem.

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The distribution of the various standard elements and their grouping according to the needs required by! competition band. This a priori choice of a possible organization does not affect! guiding principle of the project or on the complete availability of positioning of the standards. This randomness constitutes the validity of the proposal which, even if in the specific case it is applied to an organism autonomously identified, and for this reason limited, in reality there is a much wider possibility of application: even at city or territorial scale. The project, carried out in collaboration with the electronic and hospital technicians, is also easily achievable with current technological means.

Second and third floor hospital rooms

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The electromagnetic sensitization system of the plates on which the mobile structures slide (lift trucks) is currently in use at those organizations that need a coordinated arrangement of objects at predetermined points. In our case, the problem is undoubtedly more complex, but the systems it uses have already been tested and therefore certainly feasible.

The "rotor" or "motor-diverter" re-proposes the soliciting electromagnetic circuit, creating a symbiosis which allows it to follow the path assigned to it.

The operating room is made up of a standard element equipped with the usual equipment and the contact with the service units provides it with the necessary equipment for each specific case. Both the operating room and the service units are equipped with electromagnetic rotors connected to the computer which coordinates all sectors of the hospital organization and establishes aggregation needs. This possibility of movement follows the informative concept of the project: it is in fact the services that "go to meet the patient" and not vice versa as happens in common hospital structures.

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An example of a hospital sector consisting of unitary elements assembled according to one of the possible needs required by! competition band.

The circular openings concentric with the standard elements (patient rooms) allow the lift trucks to penetrate directly into them.

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The ligurative suggestion is evident and expresses the flexibility and volubility potential of the system. The standards are assembled according to contingent needs, thus creating a continuity of images which constitute a sequence that has always been renewed over time.

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Multi-purpose building project

THE HEADQUARTERS OF THE UNIDO IN VIENNA

The building cosl. as it is determined, the competition band is extremely complex, a complexity that derives from the necessary cooperation of several interdependent functions and the different weight they assume in the various services requested. There are two degrees of effective cooperation: a collective, general, which is expressed through a dense network of relationships between all departments, an autonomous one that moves within the individual. Stretch marks exist in the interdependence grid and future extensions of the van sectors of the building should be located here. Complexity of communication and production relationships, need for modification and expansion are essential parameters of the design.

Even if a traditional, predetermined organism can surely solve the problem, by assembling, of the different functional casings and also foresee future extensions, even if the construction process based on the functional typologies has the possibility to solve the problem, why not seek an improvement conditions? Why not simplify, make relationships more elementary within a structure that appears extremely burdened precisely by the complexity of the relationships?

Furthermore, if it is true that productivity is linked to efficiency, there is no doubt that the time factor in carrying out an action has its economic and productivistic importance, therefore, by decreasing the time of the routes, i.e. of the movements, and by regulating them automatically, these paths are obtained physically and the relational times are reduced by entrusting them no longer to an architectural specific but to a scientific organization that is headed by the computer. This means replacing traditional functional structures with mobility and speed. The government of traditional architecture is essentially entrusted to statics; in history the dialectical contrasts and the experiments for overcoming this condition constitute the matrix of the operations but the results are listed dramatically in a page full of purposes but sterile with concrete and often mystifying results. If architecture stopped at the artistic elaboration of the acquiescent material due to static reasons, the results could probably appear gaudy and architecture would have solved its task to the extent that it expressed and described the vicissitudes of the reality in which it fell. But today architecture can still bind itself to phenomena of continuity without changing its conditions, without adhering to the impulses that come from it! outside?

The rational is reason and as such is adjustment, it is action in an infinite and directed succession of conscious acts and therefore it is freedom. Every pre-established structure obliges compromise and revisionism. "We are for an idea and an ideology within which only

functional choices can be made. The apparatus is therefore ideological and communitarian. All the services requested are organized on the table that serves as a function tank. This procedure is roughly approaching the storage of a magnetic tape. The location of the services in the table is entirely occasional. The computer will determine the connections between them according to the request received. This connection takes place through a fast series of intermediate steps and never directly. Suppose we need to link together the services of a small organic unit. From the graph we can understand how the communication between two services can only take place through a place of confluence, which in our case is the center of the circumference.

Suppose, in this case, that two single services of two organic units must communicate with each other.

You will have four steps: the first from service to circle 1 in circumference 1; the second from the center of this to the center of confluence of the two circumferences (1-2); the third passaggio from this to the center of the circumference: a 2; the fourth from this center to the second service.

From these graphic schemes one can understand how in a multifunctional building, the relationships between the services become extremely complex and their individual passages inter-ecano between them in a tangle gradually more impenetrable.

, Multifunctional building project

The operating schemes have mainly a demonstration value but they also provide the actual data for the computer program. To each center of the circumferences correspond in fact certain livable spaces, isolated or coordinated; the lines which connect the various centers together indicate the coordination vectors that determine the positional clicks or the stations. In this context, the computer identifies the free paths necessary for two or more spaces

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For each organizational system that has to perform a function, a prior assessment of the quantitative weight of the operations that the system itself requires to fully achieve its efficiency is necessary. The graphic procedure adopted derives from a series of specific considerations that provides indications on what will be the furious project work for architects who want to take an interest in the problems of architecture-science. Now, the proposed methodology does not intend to limit the traditional work of the architect but aims to introduce new parameters that broaden the field of action.

When the traditional archirerronic work takes the form of large and complex multi-purpose organisms, functional difficulties that cannot be resolved, if not incompletely, with the common means available to the architect, are created and the contribution of sertes is therefore necessary of activities not specific to architecture.

The computer replacing the ancient "paths" of traditional architectural structures with movement and simultaneity it can automatically regulate relationships and correlations obtaining exceptional efficiency values.

This research has given vira to numerous projects: from the Pierralata hospital in Rome, to

the U.N.I.D.O. in Vienna, at the terrory bridge over the Straits of Messina, at the Plteau Beaubourg complex in Paris. Such projects, which utilize the computer's porative computer to control their kinetic possibilities will demonstrate how science could be applicable! field of architectural specification. Indeed, without limiting "the fantasy and rigor of architectural work", science provides the tools to systematically solve all the problems that, if contemplated in them! limited area of our current business, often appear insoluble. These four progerri, who have aroused controversy and contrasts but also recognition for their innovative potential, should be placed in the context of the operational research in guanro even if they have apparently complex construction parameters are instead real and concrete projects.

Rhetorical procedure

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The placement of standards is random; in fact, according to the previous schemes, their functional interdependence is entrusted to the computer. They are also distributed according to homogeneous groups, in order to determine, through their chromatic characterization, a quantitative image of the different categories thus providing a particular representation of a new urban landscape.

Plan of the first floor of the services · Organization of the same services on the structural lattice

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In this case we are in the presence of large standards that contain meeting rooms, conferences and meetings at an international level. According to the needs, the same blocks of services are added to them.

Plan of the second floor of the services - Organization of the same services on the structural truss

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The square mesh network is made up of steel cables<sup>10</sup>. The standard element (offices, meeting rooms, conference rooms etc.) is inserted in it occupying a number of spaces proportional to its size (a space for simple elements; nine, twenty five, etc. for complex ones) and is therefore fixed to the knot plates. The standards have multiple openings, but always in correspondence with the underlying squares, which allow the penetration into the interior of the same of the motor elevators that run on the underlying electromagnetic plane.

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The superimposed planes, the steel support network and the variously sized envelopes, denouncing the different functions with their colors, constitute a suggestive image that anticipates the unprecedented figurative possibilities of architecture-science. The choice of the formal matrix of the enclosures is suggested by the theme itself while the

aggregation criteria are, also in the case of this multifunctional building, determined by the actual, and changing, functional needs.

From the contemporary fusion of these variables, therefore, a multiplicity of images is created which broaden the traditional field by forming new and richer languages.

Drawing

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Plateau Beaubourg

The Plateau Beaubourg competition provided the working group with the opportunity to experiment with an international collaboration and to verify some experiences already conducted on the introduction of electronic techniques in architecture. In particular, the Perugini studio has for years oriented research towards a substantial modification of the traditional design practice and has to its credit interesting projects in which the functional management of complex architectural structures is entrusted to 1 computers.

The project is divided into four vertical paths that start from! underground where the influx of visitors from metropolitan lines, roads and parking lots is organized and oriented.

Along the four vertical paths, shaped like a helix · for functional reasons, some star-shaped containers in which the display structures are housed translate. The same containers during the ascending and descending movement rotate around their axis under the stress of the helical turns.

In the space included other cylindrical containers containing meeting rooms, meeting places, etc. slide.

The movement is very slow and imperceptible. During their movement, stellar and cylindrical containers combine and communicate with each other giving rise to a wide range of distances and interdependencies. By coordinating the translation and rotation times of all the containers, you can program them! time any path. The visitor will not have to do anything but small movements to pass, ne! moment of the meeting, from one container to another.

Thus space-time enters architecture as a new reality. The building meets the user by reversing the traditional man-space-building relationship.

The traditional static structure is here replaced by masses that move in space destroying and building multiple spatial images that are always strictly functional. The functions are coordinated by the computer.

and descending seamlessly. These containers are shaped so that in their path, as they also rotate on themselves, they meet each other in particular conditions, creating direct and effective communication.

The use of the space-time parameter that allows the computer to manage and schedule the meetings appears evident here. Since there will be n meeting opportunities, there will also be n possibilities of use of the entire organization in a specified time also because the meetings take place, obviously, between all the containers.

The propeller supports also contain a fast path and include other cylindrical containers

which, synchronized, allow, through suitable mechanisms, to be used in the context of the complex organization.

a) plan of the underground structures. The four vertical structures containing the at this level, libraries. Visitors from metropolitan lines and parking lots come to the square.

Communication with the urban space above is ensured by ramps and escalators. Once the route has been programmed, the visitor can enter any of the cylindrical containers and start the visit.

The container in its upward movement will combine with the other containers according to the scheme of the chosen program.

b) plan of vertical structures at urban space level. The size of the square is relative in that, the star containers they stop at six meters high. In the drawing the possibility of connection between the four structures through the temporary hooking of the arms of the same stellar containers.

c) elevation and section. The sections show the internal organization of the containers and spirals. These contain tracks for fast routes and for the provision of services

d) organization of the route plans. The vertical translation times of the are shown on the ordinates containers, on the abscissas the stopping times during contact. ' Circled numbers represent points and moments of contact, obviously related to the rotation times of the containers themselves.

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## Beaubourg

«The disagreement existing between non-operative criticism and the result of an autonomous design elaboration appears evident also here.

All the talk about the projects presented in the competition for the arrangement of the Plateau Beaubourg area hinges on the form, on the final result and the speaker drawing with provocative enthusiasm the "silhouettes" of the various solutions on a piece of paper has been shown to follow in the ! his examination of the most retrospective schemes of formalistic criticism.

I hope that this will serve as a tin tool for the speaker to condemn the glorifying prerequisites of the competition to burn the Pompidou initiative. If this were not the case, let me express my doubts about the validity of the critical analysis and about the opportunity, at this particular moment, to undermine the institution of the competition. A critic, that is, the one who should collect the contributions of a job and verify it against the current historical moment, cannot, in my opinion, escape his responsibility which is that of an adequate deepening of the advanced theses by downloading! the positive and negative contributions are real with the sole purpose of providing useful evidence.

What did our speaker provide us instead? An angry examination of the external forms and what I can affirm in how much while mentioning the form of our project, nothing has said of the underlying scientific research from which the form consistently sprang.

That is, he neglected the only proponent charge of the project discourse and this shows that the speaker has not "read" the projects and that my impression is legitimate.

Allow me now to move the discussion to another pertinent aspect which has now emerged and which always emerges how much external criticism and constructed or designed object collide.

Neither! post-war renewal atmosphere we were the promoters of a meeting between architects and critics in order to verify if, in the light of previous negative experience, a lively and effective collaboration was possible during the design process.

It was evident that at the base there should be an ideological convergence on the problems not only of architecture but on the methods to be followed to identify the instruments of political struggle that favored a certainly committed disproof.

It was a requirement of our generation that went through an educational activity emptied of meaning and that was therefore in the best conditions to receive those suggestions that would have allowed us to im-. post your work critically and historically.

What was the critics' response? the absence and perseverance of it! place yourself outside the creative process!

Except Bruno Zevi, who then hoped for this meeting and who today managed, at least in the didactic field, to make it happen, the others did nothing.

And it is for this reason and because of the inability of the criteria to abandon their elitist position that we are given the opportunity to witness yet another useless process.

At this point I allow myself to renew the invitation to critics to actively enter our studies, to work together on the same work table so that criticism and design finally give life to that critical operational process so that it gives! individualistic climate in which we move true values emerge unambiguously ».

(Speaking at the meeting all'INARCH)

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4586/5000

Character limit: 5000

Territory bridge on the Strettu of Messina

«... This is the function of the Perugia project, it is not limited to the solution of the bridge but it studies in depth the arrangement of the territory of the two banks and tries to create a work that is not only the continuation of the highways or the railway line but something more lively, because the work embodies the elements to ensure that in the large suspended circle there is room for commercial activities of various appeal: public places, hotels, etc.

let us try to take a look that detaches itself from the often very limited views of a present, which conditions us, and we look once more!

Messina, most of the times, has even struggled to keep up with the times, especially in recent decades; in fact, the city of the past managed to obtain certain structures and certain elements that qualified it and placed it in the right historical moment, also giving it a valid economic presence, see Messina di Juvara and Palazzata. We are now a fairly delicate and important moment for the history of this city and it is perhaps more for men than ever, for the truest people from Messina, to be able to see now what the future that is being prepared will be. It is not only necessary to think that what is currently a simple need of connection between two

territories also becomes the solution to the negative facts that take place within them: a serious analysis must be done, an analysis that keeps in mind the pros and cons that are the basis of this or that choice. You have to notice the economic significance that Messina and its province have. Today Messina bases its economy on the principle of self-sufficiency: the entire social apparatus thrives on trade, "service" and bureaucratic structure. The few industries in the area. municipal have a very limited employment index and their market runs out in the same provincial or even municipal area. The same goes for tourism: the Lido di Mortella and the two lakes of Faro and Ganzirri serve as an outlet and a reference only in the municipal area. The industrial reflection of some centers of the province and of the industrial center of Catania is affected only to a small extent also because of the precarious conditions of the current road system. The only activity that has a certain employment index and which almost gives the city its face is the ferry with those few infrastructures connected to it ».

"What is the beauty of Messina is a fact that comes from what it was since it was chosen by the Greeks precisely for its enchanting position for the wonder of its natural port that stretches safely to embrace the sea of the Strait, unique for the changeability of its coasts, splendid for the spectacle of the whole.

After the completion of the motorway network, the greater speed of travel of the vehicles will reduce the distances between the most emerging poles in the territory, favoring the great industries of the North in selling their products to the detriment of the emerging Sicilian initiatives. In a nutshell the bridge would function as a buffer between the industrialized poles of Sicily and the northern industries: Messina and Reggio would also lose their appearance as "doors" and sorting yards.

The bridge is nothing more than a design element in the field of transport; but transport is only an aspect of urban planning.

If you want to create an effective and non-univocal connection between Sicily and the continent, a connection that is within a Messina-Reggio Calabria conurbation and tourist attraction center: unercial, you must create a complex and complete structure on the Strait; this structure must act as a reference, not a reference for a record obtained with an engineering technique, it is well known that the records precisely because they are fragile because they can be beaten, but a reference due to the activity of the structure that we are proposing. The realization of such a work must then have upstream a planning basis at an urban level in clear connection with the intrinsic activities of the structure, a structure capable of acting as an archetype of a territorial reunification process and as an "equipped axis" with capacity to fulfill and at the same time overcome the concept of connection, to recover the essential values of this great enterprise and to satisfy all levels of need; perhaps even to propose new meeting points ».

## NEWS

«From a seismic point of view, the area of the Strait, at least in depth, is extremely complex: a large sismic fault starts roughly from the Aeolian Islands, crosses the mirror in depth and continues towards the Ionian. There is a continuous presence of bradyseisms (vibrations more or less accentuated according to the geophysical phenomena).

From a water point of view, given the enormous • variety and speed of the currents, vortices are generated also due to the transfer of water from the Tyrrhenian to the Ionian Sea, which, rising from depths that are around 150-200 meters, exceeding the saddle on 90 meters, they rush to the other side with accentuated speed.

The speed of the currents reaches about 2.6 meters per second. These currents, which are

also found in depth, reverse direction every six hours or so causing upheavals, refoli and cuts.

The wind creates abnormal and complex conditions. Measuring the wind, on the Strait of Messina, is very difficult because the mass of air has within itself equally unpredictable layers of pressure and depression.

The geological investigation has allowed to find on both the Sicilian and Calabrian sides, recent floods overlying tertiary formations in stratified form with altered granite below. On the Calabrian shore, the crystalline basement is located at a lower depth, 100-150 meters, while on the Sicilian shore the sedimentary soils have a considerably greater thickness - 300 meters.

Neither! center of the Strait, the crystalline basement is located about 300-600 meters below sea level.

The time limits of the passage in the strait (3 km), the two hours needed, are equivalent to about 200 km of highway.

The last decade has seen three major bridges suspended in Europe.

For the first time, these bridges were built outside the United States of America.

The first was the "Forth Road Bridge" near Edinburgh in Scotland, completed in! 1964; they followed the Tagus Bridge in Lisbon, opened in ne! 1966 and the bridge across the Severan linking England to Wales built in! 1966. All these bridges have arches of about 1000 meters. The 1074 m high bridge is currently under construction! Bosphorus which will connect Europe with Asia.

A suspension bridge of m. 1400 will be built on the Humber estuary near the town of Hull. Arches of 3000 meters and more are possible and economically viable · in certain circumstances ».

#### URBAN PROBLEMS

«How can we hypothesize and predict a type of system upheaval caused by the bridge? Messina has no hinterland, has the mountain behind it, has no possibility of development except in distant areas. Reggio has chances, It's about making Messina burden on! "continent".

The metropolis of the Strait has the following characteristics:

high concentration of urban settlement (which means effectiveness of services, efficiency); possibility of starting to distinguish residences from services; precisely in organizing this future city of the Strait, because while the residence is attached to a series of traditional interests (which are the family and all the contacts of the individual in its primary and primitive nucleus) the services are instead aimed towards a type of future that needs its special places and its special places ".

4564/5000

Character limit: 5000

#### THE PROJECT

We do not think that, in a situation such as today, to connect Sicily to Calabria a bridge intended in the traditional sense is sufficient, but we believe in a bridge that, by creating a territorial continuum, will maintain an information and interest potential such as not to risking to exhaust in a short time, with the advancement of technological conquests, all the

semantic and symbolic potential that by now, even in the meanings of modern architecture, has acquired more value than the old formalist technological parameter.

From these reflections the idea of the ring was born, of a fully equipped circular bridge suspended over the Strait, a real "hinge". A structure which from a technical point of view does not differ excessively from that of a linear bridge (the ring works statically as a supported beam) but which lends itself more to the construction of a "territorial bridge". That is, a bridge that must have its own urban spatiality and contain meeting rooms, auditoriums, hotels, restaurants, shops, administrative buildings, etc ... all those structures that characterize a real city.

You don't want a sliding bridge, you want the bridge to become a living structure, a complex service, something that invites people to stop, that it is a destination and not just a means. Technically, as we have already said, it is a single-span suspension bridge. It uses only two support bases, one in Calabria and one in Sicily, especially equipped as residences for the workers and technicians involved in maintenance and executive management as well as to contain the two computers that must coordinate the operation of the internal activities of the bridge, as well as automated mobile routes that connect them. The central core of these bases (the real support of the bridge) can be imagined as a hollow cylinder in reinforced concrete. about two hundred meters in diameter, surrounded by a wall connected to it and also bearing, spaced about forty meters.

In the intersection, pedestrian and car access ramps coming from already existing urban areas are added, in order to connect them directly to the bridge without going through the highways.

The bearing system is welded to these cylindrical walls, consisting of three large beams of considerable size which, axially crossing the central nucleus, project overhanging the sea and the hinterland for about three hundred meters.

These large beams contain in them internal roads and automated service guides, independent of those of the bridge, which lead to the highways above and which, thanks to the synchronization of the computer, allow you to enter the ring system.

Furthermore, being suspended at an altitude of about forty meters, they allow to safeguard the current territorial structure of the adjacent urban areas that would not see their autonomous activities damaged, but rather enhanced.

These shelves constitute, with their residential equipment, real "flying" cities, in direct correlation with the bridge of which they are an integral part, and which, as we have said, do not exert any negative influence on the underlying urban aggregations.

On the rear of the cantilever shelves on the Strait there is a hollow semicircular section structure, approximately 1700 meters long, in which electronically controlled "shock absorbers" are placed on which the bridge rests.

The role of shock absorbers is very important: by automatically registering, they allow to prevent any accidental deformation, earthquakes, sagging, or other stresses of various kinds.

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The actual bridge, the large ring suspended 80 meters from the surface of the water, has a stellar circular section of 70 meters in diameter.

The fixed railway and highway lanes run along the external and internal edges, which continuously connect the Autostrada del Sole to that for Messina. These lanes have the

possibility of interchange along the way, so as to allow the use of preferential routes also within the suspended structure and the possibility of reaching all points of the bridge in both directions. These are the only fixed structures.

However, it is the mobile structures that constitute the most interesting aspect of the problem and that within the bridge take on the value of particular urban structures.

4525/5000

Character limit: 5000

For this reason, we thought of a community structure, freed from traditional images and services, which subverts the usual organic setting of the city, eliminating the dependencies between residences and services and the consequent typologies.

The housing standards or "containers" are anchored and dependent on the technical structures of the bridge, which contain electromagnetic guides along which the internal means of transport flow, which can reach different speeds in an infinite series of paths and which touch each part of the bridge reaching every container.

The means of transport are controlled and controlled by the computer and allow you to automatically reach the chosen location through a programmed route. They can transport people, goods and various equipment from one point to another and supply the aforementioned standards.

The housing elements have been studied so as to allow their functional interchangeability, they are movable and configurable in various ways, even here any changes and movements are programmed by the computer.

This is a city of services with extreme mobility, whose standards are chaotically located without any organic reference.

The load-bearing element consists of a tubular steel ring with a diameter of m. 3,200 with discontinuous cross section. It is supported, only at two symmetrically arranged sections, by a ro. sectional reinforced concrete structure envelope:

semicircular hollow current on shelves also in reinforced concrete. The latter, which we have seen, protrude from the cylindrical bodies located on the opposite banks are destined to be the poles of all the activities connected with crossing the Strait.

#### TECHNICAL FEATURES

- theoretical calculation scheme of considerable simplicity (even isostatic for perimetric loads and for symmetric accidental loads);
- section of constant height (70 meters) also in correspondence with the supports (thus avoiding the considerable heights absolutely necessary in the piles of the suspended bridges for relaunching the cables).
- minimum surface exposed to wind actions and complete absence of those phenomena of aerodynamic instability typical of suspension bridges;
- almost total absence of stress states produced by thermal variations from shrinkage phenomena thanks to the particular system of "oscillating supports" provided between the steel structure 10 and the semicircular hollow reinforced concrete structure of the supports;
- ease of adaptation without consequences for any seismic shocks or waves which are always due to the "oscillating supports" mentioned above.

Given the clear preponderance of the permanent over the accidental, it seemed legitimate to consider a loading symmetry. The sections in correspondence of the center line of the ring are subjected, for this load condition, to the only bending moment which can be obtained from the simple equilibrium condition at the rotation of half the ring. The sections aligned with the

supports are subject to bending and cutting moment only; there is no twisting moment since the ring provided is simply supported along the perimeter of the constraints. The sections of maximum torque in the ring are at 45 degrees with respect to the joining of the center sections.

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Studies for service structures -on Tangenziale east of Milan

The opportunity offered by the Company for the Semivalle-Milan-Ponte Chiasso motorway to extend the consultancy from the technical highway structures to the urban-architectural organization of the entire area affected by the road junctions of the Milan Tangenziale Est, allowed us to link this project to that problematic that at the beginning of the sixties engaged international architectural culture in the search for instances of methodological and syntactic renewal that seemed to have in the hypothesized "new dimension". intervention concrete experimental tests that flourished around those years. But the lack of any methodological rigor preceding the unrealistic will of contemporary architects caused these fundamental problems to sink soon into generic and sterile slogans without operational consistency, in codified and sterilizing evasions that are the basis of the useless one ": the academy of utopia »which characterizes the current panorama of contemporary architecture.

With this project through a series of subsequent checks, which will lead to development of intermediate levels of design between the 'architecture and urbanism, strictly addressed and resolved, it intends to regain strength to be able to anticipate and give a new order to our city that, despite recent failed attempts on both the figurative level and on a legal and administrative, is still considered possible and, above all, mandatory.

Faced with a problem come to the Milan East Ring Road he existed first. place the need to operate the urban and architectural choices closely linked to a series of hypotheses.

The concept informant dd project proposed here assumes that the suddctta bypass acquires a special importance in regional planning clell'area Milan especially for the role that CSSA is to sJolgere in the various areas of the city he meets along the way and then ultimately, for its urban potential that identifies corne an essential intermediate gear element of continuous osmosis between the urban and regional scale.

The realization of this guiding idea has placed immediately in front of a number of major difficulties: first, the east of Milan realized in subsequent periods and with different intentions offers a bewildering construction style and a chaotic proliferation of functional elements, in lei ni of such as corn-: l 'Lina airport you c all the expansion introduco110 violentemcntc ncll'interno that area gigantism of chc urban dimension, if 11011 co11trollato

and finalized the process to put into effect "new dimensions" city crushes any urban value devaluing and parties together then the city itself can survive.

Hence the proposal, which supplements the directions of zoning, tending to create a protective strip along the entire perimeter of Tangenziale that allows, in a narrow dialectic between ample free and emerging facts spaces which will be those proposed in the nodal points of said bypass points, the realization of a high semantic value architectural landscape. Such a protective strip has been provided through the use of a system of pre-existing rural residences (farms) retrieved for their remarkable architectural value and landscape and utilized which locations of tertiary core activities - schools, cultural centers, recreational centers.

These rural residences, made integral by means of a road connecting the system and some areas with additional functions such as sports fields, assembly rooms, kindergartens, libraries, etc., are the last appendices of that complex collective equipment that is the Freeway real-boned her guide.

It was at this point to identify the particular types of architecture that absolve the dual task to unequivocally determine the spatial structuring of the project and, in time, become interchange points continuous of the different speed of use of this urban structure so as to allow by their high degree of permeability of the reactivation of the neighboring pre-existing urban fabric.

It is therefore that is localized in the junctions of the East Tangential of polyfunctional unitary elements on a large scale, authentic vortices - Architectural closely related to the road system, to the point of being an extension; a sort of stradaedificio within which continue to unraveling the concatenating motorway lanes in turn self-propelled pedestrian paths usable by an automatic transport network which, by absorbing the population of the surrounding quarter, feeds it in this that comes to be a COSL; - trezzatura dual scale: town and country.

The emphasis and lyricism of the volumetric architectural uniqueness of the proposed nodes, macroscopic iron technologies of their structures vehemently opposed to the free spaces bound, dry and compact silhouettes of the outlying areas of Milan will offer a compelling futuristic image of the city and be able to establish, by means of the

introduction of the speed cone perceptual parameter, new principles of form of urban form based primarily on considerations of a psychological nature.

The beam path is realized by means of a monolithic steel structure and contains the traffic channels that both automotive pedestrian.

Its section in fact has four lanes of which a path slowed for self-service, a second faster traffic for programmed paths, and the remaining two are characterized by a local traffic to exchanges and limited stops. One lane "moving walkway that runs along the full structural section.

Despite the awareness of the difficulties of doing contemporary architecture as it sees personally committed professionals do! difficult attempt to regain the political and ethical significance that already characterized the very first vanguard of the modern movement is deemed unjustified and unjustifiable those contemporary theories that, in accepting the thesis of the end of ideology, say instead the late architect's social mandate and theorize the consequence "the death of architecture" cone ability to affect the structure of the present society.

It is thanks to this firm conviction that cone stated at the beginning, you challenge to contemporary architects evasion and "frigid dream" of their pseudo products.

However so cone refuses the architectural firm is equally vacuous refusal to contemporary poetics those who, inspired blindly sterile formal logic criteria do nothing but impose order in a complex situation and contradiction which is what today you are experiencing.

In an era of great social turmoil, continuous demystifications of traditional values and, ultimately, the crisis meant cone change, not pure not wary of orders imposed of any kind whatsoever, it was. even formal.

Cià that aims with the project instead is intended aesthetic expression cone proposed images that in their emblematic express an anthropological condition and adherence to collective ideological values.

The architectural structures are open, transparent, dynamic; the architecture is denied as such but decisively recovered cone vital and vitalizing element.

An architecture that is not only heritage of cultural elites, but that \ | integr | mente read it! its structural significance; stimulating a language for a collective participation in the work reality.

We accept no intellectualistic prejudices the nodes of image determination that the current reality offers us and its precise iconic baggage of reference, namely the technical, consumption, products, comic books, and, ultimately, the ambiguity.

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Nor has any fear of having tied the proposal to elements liable to a rapid obsolescence: this is a continuously rechargeable architecture as it is integral with the life itself: fashions will succeed more and more whirled, life will become increasingly hectic, the " nodes "will always come gigantic open community facilities available.

Thinking back to the formal matrix of the project and the denial that has become all verticality of composition, symbol of authoritarianism now gone, would like to conclude with a quote from a great contemporary thinker, "Is democracy represented by a series of concentric circles."

Planimetrically the main load-bearing structure of each junction has the shape of an 'eight' realized by means of two circular diameter elements differed significantly among them. Altimetrically the above structure runs with a constant slope starting from a certain height in correspondence of the two welding point circles and returning in the above point, after the course for the entire perimeter of the " eight ", at a sufficient altitude to permit the overpass of the two branches of the structure in correspondence of their intersection.

The starting height and the diameters of the two circles of the supporting structures vary for each junction.

Structurally the main carrier of each junction is constituted by a beam-body of an almost rectangular cross section, a perimeter mixtilinear one! inside which there develop, on two different planes, the roadway intended to be traversed with different scrolling speed.

The clear width of each of the roadways is m. 6.

At beneath the two carriageways and to the center of the section runs the path intended for pedestrian passes. The walls of the reticular structure are realized by means of currents, uprights and a double warping of the diagonal arms across under a 90 degree angle.

Due to the heavy loads involved and the high lights present in the static scheme of the beam in question, the structure was laid in steel to minimize the size of the resistant sections and,

consequently, the weight of the structure itself. The steel structure will be suitably protected with a heat thrown 111 operates.

Around the beam-tipping gravitate secondary supporting structures designed to support all the services inherent junction.

The planimetric distribution of said secondary structures, whose realization has been foreseen in steel and lightweight materials, it is of extreme importance in quanto has been studied so as to contribute to improving the static conditions of the main load-bearing structure.

## EXPERIMENT BUILDING

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P1ogetto experimental building

Before examining the various mom\_enti through which there is p.assata designer collaboration · this experiment, which is based on the essential premise of the reduction of the variety of products and the stabilization achieved through the systematic standardizzazione, LSI is useful to point out immediately that accept a "standard" does not mean supine acquiescence in an environment foreign to architect concezioni, but wants to be a possession architect same respect in the world d lla production and an achievement for a more orderly government of the same production area.

Unfortunately the current industrial production is often far removed from the perfection that you would attribute; is affected, that is, the presence of factors and negative elements that can be traced back to the absence of a potential integrating vision of the different production times, to vision that they can <lare only the architect or a figure very close to him.

A similar building conversion requires the latter to review the superintendent method of preparatory studies to the implementation of the work. They, in rnio opinion, apart from the "standard" dovrebbero unfold corne teamwork and should with • cludersi with the editors of papers to guide, being the natural and unique premise, the subsequent investigation of executive planning phases of construction.

The experience of design executed in collaboration with the "Center for research on residential construction issues" and with experts in the field of structures, systems, etc., Was the first practical manifestation of an orderly new design approach. After all, the members' who formed the group *lavoro* are almost the same that we find every day in the final phase of a construction work. But this time, it was a working group with a clear and consistent approach to each.

From the intense debate on unilateral visions of the same problem, examined according to different skills, was born an exchange of information that allowed the group to distribute individual experiences and to summarize them, harmoniously composed, in the final summary.

Apart from the purely architectural result of this work, it is undeniable that -J'estrema clarity in specifying content and position of all its elements can be considered an achievement on the construction plan.

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The building does not have its obvious architectural content in much the experiment must prescindere unpublished inventions but check the validity of a method in the light of the usual construction practice.

It therefore constitutes a logical support able to implement the processes and industrial techniques in place.

The method followed by the working group is indicated by the 'program' established in collaboration with the Ministry of Public Works and the NC Productivity during the organizational phase of the research.

With regard to the structural elements

the designer, professor Giangreco, extended

the criterion of standardization and facilitating cost-, and not only technically, their realization especially obtaining a considerable reduction of the times

of work. In this house it is necessary to realize an effective collaboration between technical and design time.

The experimental site set up and run by a team led by! Professor Ciribini provided the actual data that were reported .so it! volume "Experimental Project Building Code" c, finger by the Mini- Ministry of Public Works.

Although it has not arrived to an effective realization of the experiment results remain come effective documentation that retains its potential applicability.

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The experimental site has allowed the verification of work time as well \_ the objective clarification of the tolerances. The infusion constructed of sheet profiles requires only two steps: the placing of the hooking frame and the subsequent laying of the monobloc · · éostituito by the casing glass doors and the closing equipment (rollers, roller, belts, springs etc.).

The block already experienced in the workshop atriva in the pipeline, already painted, at the time of its installation. It appears so evident come succession of times relative to the other elements of the construction should -be strictly correlated.

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It is a technical design developed in the verification phase. In fact, the structural and dimensional setting of the building salai born simultaneously to the project. It qwindi a way to design them holding hand of all the specific skills dur nte the preparatory process thus avoiding proceed for watertight compartments and for later stages.

In the time of "architectural determination" the designer keeps singing of data from! teamwork.

Del remains, as we stand in the presence of an experiment in "productivity" the incidence of the architect's work is closely linked, dry specific needs of the experiment.

The floor type of accommodation was determined following the previous study on the "limit-free variety of lights for prefabricated joists in salat."

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The experiment serves to verify the processing times a1 purposes of organization of a global program that is to include, in this sense, the phases relating to all the operations necessary to complete the work.

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The unit-services in each experimental building accommodation comprises: kitchen, laundry room, loggia, bathroom, hallway. The elements that constitute it are: the equipped wall formed by a metal frame; by heating systems, gas, electric currents Forci and weak, as well as by the relative equipment; from painted sheet metal cladding panels in focus at the bottom and agglomerated wood in the upper part.

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"Before evaluating the architectural significance of the new development planned for the area of Tre Fontane is right to emphasize the procedure followed by the client. From moiti years the Italian technicians insist that is adopted for public works, the system of "integral design" which, using exact quotes, outright contracts and objective controls, eliminates supplementary valuations, reserves, variants, price revisions, that is why waste and incentives to corruption. Now this system is finally applied at the initiative of Ministerto Treasury.

The Directorate General of Institutes of Welfare Ministry decided in January

1963 of cœtreuire u · n residential area of about 9000 rooms on an area of 44 hectares adjacent to the Abbey of the Three Fountains, near the EUR. The work was af! Idato the Coordination Center Planning Integral directed by Ing. Giovanni De Rossi and the architect. Oreste Gargano. It was first conducted extensive market research to identify the needs of the possible af! Ittuari; then they were esperite geotechnical and morphological analysis, particularly delicate given the presence of a dense network of underground tunnels, cià which allowed to determine the costs of the foundations, which constitute the heaviest incognita and random procurement. Having completed this long and difficult preliminary work, we passà to sc Ita architects in people by Mario Fiorentino, Giuseppe Perugini, Giuseppe Vaccaro, Tommaso Valle over the same Gargano. The Austrian-American master Richard Neutra, recently graduated honoris causa at the Faculty of Architecture in Rome, he was appointed advisor of the work, while the coordination of the plan was given to Vaccaro.

It begins at this point the stage. architectural firm. How you could implement a fruitful collaboration between many architects? Vaccaro orchestra empirically, asking his young colleagues, to present proposals. They were born COSL three entries, very dissimilar to each other. The "comprehensive study 1\_" foresaw a game of towers and rectangular horizontal alignments of mediated by the central services and the sports field. The "comprehensive study 2", most obvious, repeated the INA-CASA schemes with bodies staggered factory. the "comprehensive study 3"

much better. although devoid of originality, ubicava housing in towers coupled along the edges of an open plate and continues destined to services.

Vaccaro, however, was not satisfied. These projects had some fundamental flaws: a) did not seem to adhere to the district markedly undulating and challenging under the looming landscape; b) frazionavano the distinct complex in nuclei, uncertain in size if not arbitrary; c) precluded an eloquent characterization. expressive in both volumes and spaces. They are the essential weaknesses of the settlements INA-CASA and Vaccaro vexed pet avoid them.

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One night, he had an idea, I draw some sketches, prepare immediately a plastic and submitted it to the judgment of the group: five buildings circus! Ari · of towards diameter installed at various levels, with huge open spaces inside and an outer fabric continuous, "inforfüale", on which to place the services. It was Uriah; eriC î '\: 01t1' position "in the classical and maybe even the academic sense of the term, which was imposed on Aitre proposals; the Neutra himself recognized the validity and advice to deepen it.

The scheme to rings was accepted corne base because it offered a common language parameter to all · designers. But, come to this phase of the operation, the group made the mistake of assigning · Jo. · study of individual units to its components. · Collaboration · • dfuase suspended in half, just when it seemed more urgent; every one I come home to draw its cylinder.

It is obvious that the idea of Vaccaro, brilliant as they led back the conversation on a single track, could not be interpreted literally. The cylinder creates a static volume and a closed space which is in stark contrast with dynamic and flowing environment that you wanted to achieve. · It was necessary to split the rings, to free them! purism stereometric, connect them in such a way that the plastic impetuosity acquire a modern voltage. They would

slowly gained other forms; in all likelihood, a serpentine slipping dialogue topographic profiles would keep the charge inherent in the matrix circles but sottintendola and making it almost unrecognizable.

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Instead, each designer has configured on its behalf entrusted to the ring: Mario Fiorentino has opened the oq; anismus at the civic centers, believing that a diameter of 170 meters (that of Esedra square is 125) would guarantee against any oppressive sense; Vaccaro and Valle were put in touch two circles forming a kind of eight; Gargano has been shifted two semicircles for the thickness of the body of the building; the only Perugini broke the system by means of two baffles freely interpenetrating arched. Each solution is logical and defensible in itself, but remains isolated from the contests.

The settlement keeps ia its validity. Vehicle traffic is peripheral and non-interference with pedestrians, thus freeing the people from the obsession of the Mac: chine. Height profiles are preserved and enhanced. The buildings forming the residential units of about 2000 inhabitants, right size compared to the services; Also they do not exceed 25 meters in height although the floors are entirely porch. Under the a- · it fell of the distribution of housing, tro · viamo a remarkable variety of reasons, from the sloping terraces of Vaccaro and Valle to the spaces hourglass Fiorentjno. The prefabrication system studied Perugini me- '• riterebbe then a separate note that it seeks to ensure that every resident pqssa choose accommodation & Seduction innest ndolo in the mesh structure of the building. These qualities are very positive. However, the district, to become also significant architecturally, es\_ige further meèitazione. Reached the partial solutions, it is necessary to reopen the conversation between the designers to model a spatial coherent speech and plastic ».

(Chronicles of Architecture)

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A dissenting article

"After the project for new Spinaceto district - recently passed by! City Council - the Commission of the City Planning will be taken soon, dry with another project for a second district to be realized, it! framework of the two-year program for economic and social housing, in the Tor de 'Cenci area. The planivolumetrico second floor of this district, the king has already been developed by designers and aspects to be examined by the relevant municipal departments by the Permanent Council Commission for town planning and 'private building. As the project also to Spinaceto Tor de 'Cenci will arouse a heated argument for the urban setting and new building types adopted which differ significantly from traditional ones.

The one and Aitre can, pear, constitute a valuable because, corne is obvious, there is no limit to the invention urban and architetoniea in a world that expresses today's needs are completely different from those expressed in the past also fairly recent. It is, rather, not completely surrender to the imagination unwittingly risking to slip it! corne field of science fiction seems to have happened to the designers of the new residential area to be built in the area of the Three Fountains, in .cura and expenses of the General Directorate of Pension Institutes Treasury. Let us, then, aside for a moment Spinaceto Tor de 'Cenci and we take a look, albeit fleeting, · to this new project which promises to eleven thousand Roman accommodation arranged in circular buildings, concentric most of the time, whose greatest value seems to be to offer within aberrant prospects of Dante's circle and immense Cavee circuses of ancient archaeological memory, and outside the monotonous view of cylindrical ossuaries scattered disorderly it! surrounding area.

The area chosen for the initiative of the Ministry of the Treasury is to just over 44 hectares located to the northeast of the EUR, including the area of the Three Fountains (with Laurentina on the right) and the planned connection axis equipped-via Cristoforo Colombo, bounded on the north by the current Fosso delle Tre Fontane, whose bed coincides with the planned Express highway towards the EUR. It is a slightly rough area, hunched here and there by small pads of little account, around which the designers have developed their concrete donuts that have COSL variously adapted to the different altitudes of the places. The rings or half-rings forming building many residential areas as there are humps of the ground and how many are the designers were five. Everyone, pear, Moreover, the idea of circular buildings of great proportions is neither new nor original. They've been examples, you pua say, in every age and there is no doubt that the team has

had the Three Fountains present moiti of these examples and perhaps especially that project that Ludovico Quaroni prepares it! 1960 for the competition of the new district to be built in Venice, in front of the lagoon, the salt marshes of San Giuliano. There pear to say, in favor of Quaroni, the urban landscape in which he dreamed to insert its four residential half rings, linearly conceived, and she has a very different value than the view of the Tre Fontane, the EUR and Aitre areas surrounding the area on which the Treasury ponders to realize its singular core housing.

There remained, therefore, be racking their brains to give "donuts" authentic architectural values and valid environmental reasons. We do not say that the attempt was not done: but the result is all the more questionable both in terms of the functionality of the individual buildings and on that of 'urban articulation of the complex to which a convoluted road system tries in vain to give a unit that does not has. The five epi odi remain disunited despite the relentlessly try variations on the theme of the circle and the wise distribution of services to the centers of the district.

Questionable also the location of the neighborhood church at the entrance of more mammoth residential ring - 220 meters in diameter - the inner surface of which the notes, happy or sad, of campai; and will not fail to bounce repeatedly second increasingly narrow angles creating a noise that does not come · corne music to the ears of two thousand persane and passes that will have the good fortune to take accommodation. We must not, in fact, forget that n i five rings will house about eleven thousand people with an average for each ring that exceeds two thousand units, how many, that is, it can hold a real residential center. The perplexing about the '

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(From "Il Messaggero", Rome)

More and more serious concerns regarding the structuring of the various groups of buildings, some of which are circular volumes concentric or stuck to an 'other give rise to prospects all the more haunting how much greater is the development of internal and external prospects have to face each other, as well as building types adopted only one of which some show compositional architectural merits. From a purely plastic point of view certain solutions to terraces and the concentricity of staggered outer walls to the various

dwelling plans can be considered valid, but we must not forget - come in some cases seems to have forgotten designers -:- that the houses are built for be inhabited and not to create orototipi of infernal machines do, at each protrusion corresponds l' housing an inanimate object which is useful to the whole. The task of the architect, said yesterday come Hans Scharoun, receiving his degree "honoris causa" of the University of Rome, it is to interpret life and not to depress her with absurd formality.

It is true that there can be no architectural limit the invention, however, we hope that the planning commission and building of the Municipality of Rome, who are looking in these days fantasfico the project of the Ministry of the Treasury, do not forget even for a moment that nevropatia is the disease of the century, and that the appropriate means to combat it are certainly not those suggested by the five respected professionals who have been commissioned to create the Tre Fontane district a modern socially valuable. "