

# ARCHITECTURE ON THE THRESHOLD OF THE POST-INDUSTRIALIST AGE<sup>1</sup>

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## Post-Industrial Age

Post-Industrial Age is a term – according to CH. JENCKS – originating from DAVID BELL, professor at the Harvard University. There is of course no such thing as post-industrial age. This expression is a hyperbola, but it is counterpart of other definitions formed with the prefix post-, such as post-modern.

The 'industrial age' is characterized by foundries, rolling mills, weaving mills, smog, soot, vapour, a forest of chimney stacks, blackened landscapes, miners' colonies. Man has subjugated raw forces of Nature, multiplying thereby his physical forces productivity. The 'post-industrial age' is represented by nuclear and bio-technique, and the most universally, by micro-electronics. With the abrupt acceleration of information flow, performances of human senses, nervous system and brain multiply. Switch rooms, assembly workshops of laboratory cleanness, quietly humming robots, housewives assembling miniature parts – this is post-industrial industry. There are few to produce, still less are doing physical work; the greatest part of the population – 60% in the U.S.A. – are taking, processing, forwarding information.

Productivity grows by orders of magnitude. Year by year, there are ever more chemicals produced, medicines taken, poisons slowly or never decomposing in the soil, water, air, and – of course – also in living organisms. Cities spread and coalesce into conurbations. Nature is forced into reservations. The unrestrained production increases results in – with

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a term borrowed from thermodynamics – entropy increase, conducive in the closed system of Earth and its atmosphere to loss of potency, lower concentration, decomposition, wasting, chaos. This is a unidirectional, irreversible change. With its abrupt acceleration, the activity of this age to destroy Nature tends to its limits, namely it threatens with annihilation of the biosphere.

On the effect of biological and medical achievements, with the generalization of hygiene, the number of mankind is exponentially increasing. But – as it is known – it is just the underdeveloped that are multiplying. Although conditions of a production suiting to supply everybody subsist, ever greater masses are starving, homeless.

But also physical and nervous potentials of those operating the highest technique tend to exhaustion. Is it possible to keep equilibrium of the human organism in a fully artificial environment? Constitutional instability of man operating superefficient systems statistically probabilizes occurrence of a defect. Someone consciously utilizing this supertechnique – for instance, a mad dictator – would put a full stop to our story.

This is the first instance for mankind to glimpse objective limits of development threatening fate, throughout his history.

On effect of the quoted problematics, and arising from the inner logic of spirits, arts history – mainly in ranges overcome by technique – general condition and feeling are changing. Unbroken optimism, euphoria of the first decades of this century, in the background of modern avant-garde mentality, changes to general anxiety, distress, and dread, emotional ground of post-modern approach and condition.

Modern avant-garde philosophy and general mentality rely on universal rationalism – rooting in Enlightenment, in belief in a unique, universally valid scientific explanation of the world, in the conviction that progression is continuous and eternal; that what comes later is higher developed and more valuable. Therefore what is old has to be assailed, devastated, while future realization of utopias has to be urged, since continuous development and accumulation doubtless provide remedies to any human-social distress.

All essential features of modern avant-garde derive from this attitude. Its intolerance results from the conviction of being in possession of absolutely valuable principles and of values deduced therefrom. Canonizing authorities – such as LE CORBUSIER in architecture – definitely enounce standards of judgement. Opponents are merciless excluded, regardless of the taste of ordinary man, or of market expectations. Even aristocratic isolation is taken on, rather than to loosen their dogmas.

Post-modern mentality is a condition of hangover after the disintegration of the naive illusion of uniform scientific world concept. World cannot be computed, let alone directed. Cognition has its absolute limits. World,

history have different interpretations. Post-modernism is attracted by the natural embarrass of variegatedness – ‘by both, rather than either-or’ (VENTURI), to the freedom of choice. It craves for polyphonic peace: sweet serenity or weightlessness, of instantaneity without obligations. There is not a single, royal road, neither outer standards, sentencing authorities. The creative mind is free to choose means of expression, style of his work, the connoisseur is free to interpret his experience. Post-modernism is the exact manifestation of the contemporary man’s consciousness of accidental-ity (Á. HELLER). In the age of post-industrialism, inhabitants of the Globe are united by telecommunication. Anything of importance happening anywhere may be known by anybody anywhere. Under such circumstances, pluralism is a necessity. The post-modern artist is forced to make a selection: cohabitation with a wide range of worlds and styles – historical and avant-garde — universal and local; means include talk-over, inverting, biassing, disproportioning, overplaying, etc.; may quote ironically, or with a respectful seriousness. He may afford it to live in any age and culture (CH. JENCKS).

Post-modernism looks after relations to the public, to customers. To this aim, it tries to apply a double code; a popular one for traditionalist masses, and irony deriding conventions for the elite.

### Short Historical Review

European architecture consisted in varying elements of some form orders developed in millennia, arranged into different styles. Nevertheless, in the age of industrial boom in the 19th century, historical clichés got in increasing antagonism to up-to-date requirements, structures, technologies. Their conventional, stately meaning was worn out by mass-wise, everyday uses. Innovative minds of the turn of the century replaced depleted clichés by lifelike, organic forms. Their innovations were, however, mostly superficial. On the other hand, revolutionaries of the modern avant-garde were more radical: abruptly interrupting the multi-millennial development process, they went back to fundamentals, elementary factors of architecture, launching thereby a new trend of development.

Modern avant-garde architecture emits clarity of human knowledge and mind striving to rule Nature, of pure logic, and of reasonability; it provides for the natural environment an abstract, geometric frame; creating thereby antithesis of landscape. It denies traditional forms of symbiosis between landscape and architecture. Impacts of Nature are counteracted by coarse technical means rather than by adaptation.

The relation between avant-garde and contemporary science and technique is characterized by absolute trust and enthusiasm. Paragons are up-to-date vehicles, analytic-scientific mentality, line production. These are the mentality and technique required also for architecture. They look after, and propagate possibilities of architecture complying with recent technique.

Avant-garde revolutionaries consider satisfaction of mass needs, easing of housing shortage to be their primary task. The first step towards a solution is to be scientific analysis. They reckon essentially with primary-material functions. But their horizon proves to be narrow, since almost exclusively quantifiable elementary functions are reckoned with; human material-mental, private and social entity are ignored.

Moderns having an undisturbable confidence in reason indulge in the illusion of close fulfilment of their utopias, such as: old towns subsist only temporarily, to be replaced by white prisms basking in sunshine. (LE CORBUSIER: *Plan Voisin*). Not even an idea of fitting, adaptation to the pre-existent arises (G. TH. RIETWELD's Schröder house in Utrecht ignores the row of abutting traditional, high-roofed, brick-walled houses). Some monuments of choice, reserved as museum exhibits, do not integrate their surroundings; are only wedging in as inclusions.

Masses, façades of the up-to-date house articulated in conformity with elementary functions freely unfold in space. The Bauhaus building in Dessau spreads in a way reminding of a Segner wheel, in no affinity to its surroundings. The multiplicity of self-determined buildings necessarily leads to anarchy, urban decomposition.

Form is no starting point but only a final result derived from elementary factors. According to MARCEL BREUER, elementary factors determine the outcome to 99%. Accordingly, a mere 1% of margin is left for intuition and fantasy.

The new architecture is no style but method (W.GROPIUS). It must not be left to stiffen into a tradition, a style. The form has to be recreated for every task. All these are absolute disruption with the history of architecture, borne by styles up to the advent of avant-garde.

Against any warning of initiators, however, a proper style of modern architecture develops, subject to the same strive for a form as in cubist, futurist, constructivist fine arts of the period, and a similar approach to space and to time — closer, to space-time — as formulated by up-to-date physics.

In spite of daring dreams of recent avant-garde, our everyday life is surrounded simply by a barren environment biasing, dulling avant-garde endeavours, formed exclusively according to economical-productional aspects. Inexpressive panel houses and schematic office buildings are symbols

hinting to the overwhelming power of bureaucracy and technology, and to our own impuissance.

Post-modernism is criticism to modern avant-garde endeavours. Nature, biosphere are in extreme danger. We are increasingly overcome by sentiments of agony, anxiety, nostalgia for an uninjured Nature. Rather than to subdue the Nature by hard means of technique, the post-modern architect uses soft energies, traditional insulation, shielding, etc. modes in his strive to adaptation, fitting, creating harmonic conditions.

This fact necessarily involves restriction of technique, bypassing the actual one, return to primitive handicraft and do-it-yourself. Revolt against technique and concomitant perfectionism – Miesian perfection and completion, intensive, overall organization – intermingled with various other feelings emerges in peculiar styles. In the U.S.A., natural architecture incorporates pop elements. Timber, stone are combined with industrial wastes (H. GREENE: *Prairie House*, CH. MOORE: *West Bank Cottages*) or all the building is patched from industrial wastes (J. JOHANESSEN, Mommers Theatre). FR. GEHRY transfers inaccomplished houses, saying: 'Men are able to drive some nails into the wall themselves...' In general, avoidance of peacockery, unpathetic simplicity, spontaneity, randomness, accidentalness become aesthetic categories. H. VENTURI points out ugly, grotesque, mean features of publicity, that are, however, '... inexhaustible sources of invention, irony, and humour'. In works by IMRE MAKOVECZ, post-modern emotions intermingling with feelings of nostalgia toward peasant architecture become a peculiar organic-natural-peasant style.

Post-modernism approximates the demands of society less by means of scientific analysis but rather by accepting demands, tastes of the public, the customer, the market.

The participation movement endeavours to realize its architectural aims with the participation of dwellers, customers, in continuous communication with them. (RALF ERSKINE: *The Byker Wall*, LUCIEN KROLL: *The Faculty of Medicine in Louvain*). The final outcome to be acceptable requires effective coordination activity of the architect, else it becomes the expression of accidentality, spontaneity, of anarchic rebellion.

Also in respect of the built environment, post-modernism strives to transition, adaptation. In the meaning of contextuality, a single building discloses its meaning only in its environment; looked at isolated, it is like a word out of context – ininterpretable. O. M. UNGERS, J. STIRLING and others – decomposing a unique, enormous block (container) of composite function, disturbing the environment scale – design instead architectural landscapes – so-called decompositions – of peculiar, minor buildings. CSABA BODONYI and his co-workers in Békés involve traditional provincial houses in this decomposition, creating an architectural landscape organi-

cally rising from the borough context. The highest credit and permanent instruction of post-modernism is revival of respect to built environment, recognition and assumption of adaptation.

It is with a similar sensitivity that post-modernism assumes historical precedences. Mankind cannot deny its past, be devoted to abstract utopia; his conscious identity relies on historicity. Post-modernism resumes the historical thread dropped by moderns. It wants to accost people using forms familiar to them, emotionally assimilated, where they recognize themselves, their world. Even new information is launched via forms associated with traditions.

Every one of creators and trends refer to history in its peculiar way. R. VENTURI and his followers apply unpathetic, displaced, out-of-scale inlays, a rather ironic joke provoking a smile, or quite a fun (CH. MOORE, Piazza d'Italia) rather than serious assumptions and furthering of cultural heredity. As against those above, PH. JOHNSON is a regular eclectic, selecting his forms arbitrarily from the world culture heredity (AT+T building, New York), and applying them with an academic perfectionism.

European rationalists, A. ROSSI and his followers — typically rejecting the adjective 'post-modern' — go back to the archetypes of architecture. As against the American irony, their works emit metaphysical seriousness, like desolate, timeless spaces by GIORGIO DE CHIRICO. Significant architectural works — monuments, public buildings — are bearers of collective consciousness gathered into classic, geometrical compositions. The mute geometry is, however, evolved into a drama rich in symbolic meanings. (A. ROSSI, symbols of uninhabited house and empty factory in the Modena cemetery.)

Post-moderns are disillusioned, tired creators of a subsided revolt, treading the path of human-professional autognosis. Their historical merit is to have architecture awakened to artistic self-consciousness, to recovery and refining of traditional means of expression. For them: form is not a deduced final result but an independent, active factor, applied consciously as a language, means of communication. The ideal of moderns is a contradiction-free, homogeneous building. In 'Complexity and Contradiction in Architecture', VENTURI points out, and demonstrates on the practice of history of architecture that form becomes expressive, representing tensions in life, via contradictions between itself and its surroundings. There may be a contradiction e. g., between autotelic interior and exterior; their drama peaks at the facade, at the entrance. There is necessarily a contradiction between an up-to-date structure and its elements representing historical continuity. A conscious post-modernist inserts similar contradictions into his works, to display thereby the process of history, bustle and infinite variegatedness of life.

A post-modern architect is an eclectic, in two meanings of the word: in that he chooses the style according to comprehensibility, habits, traditions of the social (semiotic) group he builds for; besides, selecting freely the style, the form, by being informed on everything thanks to be connected to the world-wide telecommunication. Combined application of different elements lends tension to the building, makes it animated, lifelike, raising imagination, transmitting fictitious meanings.

### Conclusions

Built environment is a kind of buffer between man and Nature. Its original function is to act as a protective belt around man against adversary impacts of Nature. Meeting this obligation, it also takes a position in the antagonism — typical of this age — of man and natural environment to science and technique affecting environment, pointing out essential alternatives of a preferable solution.

Challenges by the post-industrial age are reacted by architecture in two different ways differing both in spirit and emotionally:

- by a worry, by fearing-preserving attitudes arising upon the sight of endangered human integrity, natural environment, traditional cultural values, by resistance to environment destruction, in the way of post-moderns; or
- by flight in advance; relying on a humane and environmentalist technique higher developed than actually it is, such as neomoderns-neo-constructivists do it.

Let us drop some words on these latter: neomoderns — neoconstructivists are not the same as the productivists exclusively concerned with aspects of economical construction, maximum profits, with outputs unfortunately determinant also for the post-industrial environment. But also fans of technique live and create in this age, revitalizing common progeny of poesy and technique, fabulous utopias (Archigram group in England). Mute and inhuman technicism of mass production is confronted by technical visions of symbolic meaning. Also for them, form is an idiom animating fantasy. But words are taken from the vocabulary of technique. Therefore they are considered post-modern by H. KLOTZ. World view, transferred public feeling are, however, diametrically opposed to those of post-moderns.

The 'New York Five' and others draw from the heroic age of *avant-garde* as a historical source. R. MEIER floats on LE CORBUSIER's 'white ship'; P. EISENMANN is inspired, in addition to LE CORBUSIER, by the neat geometry of G. TERRAGNI, but there are some starting from MIES

VAN DER ROHE, or from the Soviet constructivists of the '20s. Reaching back is, however, no identification. There is quite a different atmosphere. Genuine faith, puritan simplicity of the moderns is far away. Neo-moderns have anything too conscious, deliberate, over-specified. Geometries by HEJDUK and EISENMANN are increasingly hermetic. Theoretical start is converted to irrationality. Of course, modern in manierist overplay is post-modern itself.

Mythic constructivism applies technique as an artistic way of expression, with a magic impact on senses, rather than a practical tool. For the building of the Institute of Experimental Hydraulics in Berlin, L. LEO designed a mild pink pipe system, confusing by virtue of its absurd dimensions, suggestive of some important scientific-technical function, while it is, in fact, unjustified and inexplicable.

Austrian experimentalists use technical means sceptically, ironically, for warning to risks of human lives (Hans-Rucker Co., Gelbes Herz, Grüne Lunge, Coop-Himmelblau, Villa Rosa).

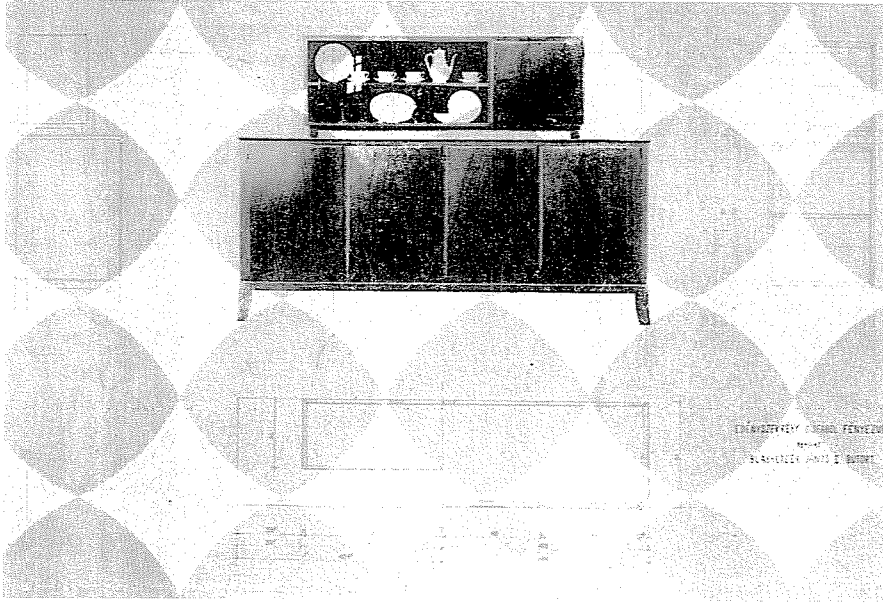
Among those in command of developed technique, High-Tech architecture prevails, aimed at 'presenting an aesthetically acting form expressed by technique as a means, rather than the superior technique for itself' (R. ROGERS, Centre Pompidou; seat of the Lloyd Insurance Co.).

Also deconstructivists have to be mentioned, although they reject both modernism and fossilized post-modern Classicism, and like Dadaism, they draw form directly from subconscious. Accidentally, easily, using components crafted together, they create confused, perplex, disequibrated works, even, works disturbing space sensation permitting free roving of fancy. All these are meant to reflect this our age, and view of world.

At last, let me ask the question:

What has the future in store for us? Of course, I don't know. But I am confident that the architectural spirit awakened from the dizziness of extreme experiments will find its way to a synthesis consciously applying achievements of moderns and post-moderns.





*Fig. 1.* Cupboard made of walnut, polished. Student's design, 1941–42. Furniture design. National Hungarian Royal School of Applied Arts Prof. Gyula Kaesz.

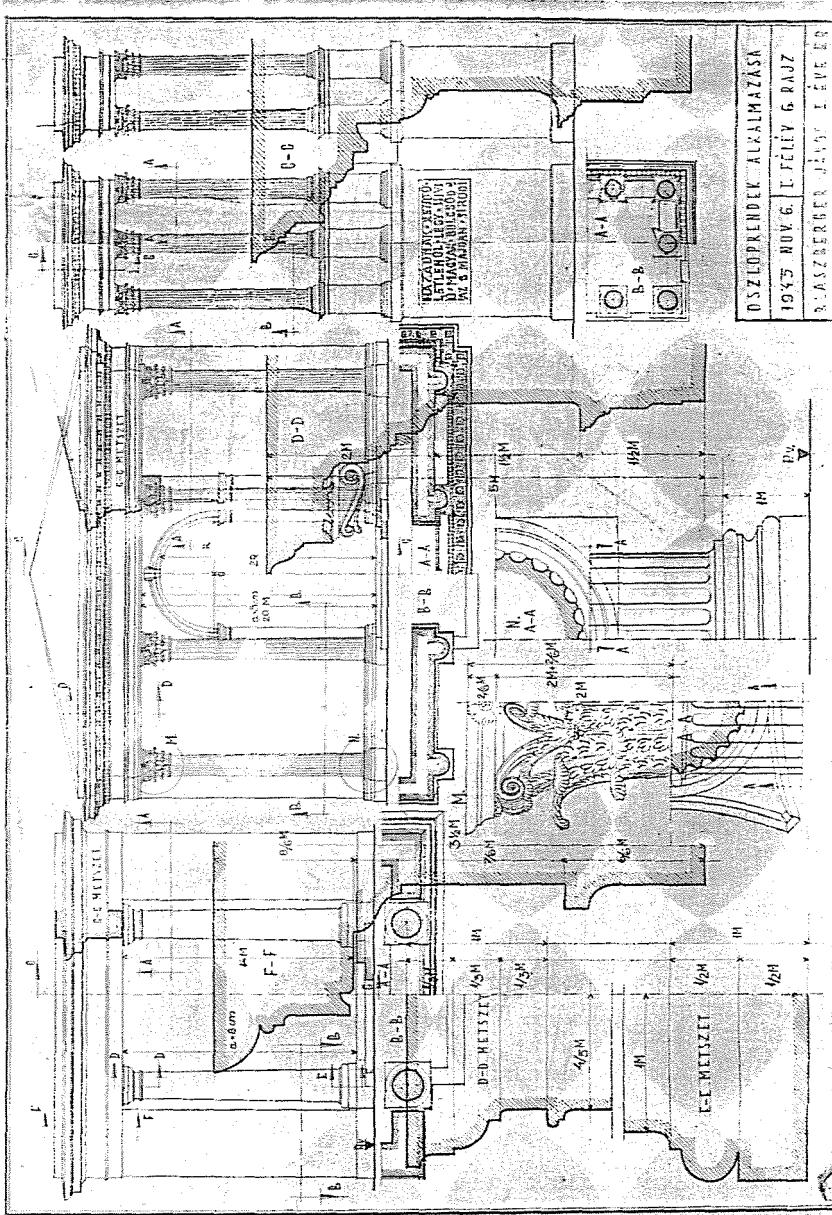
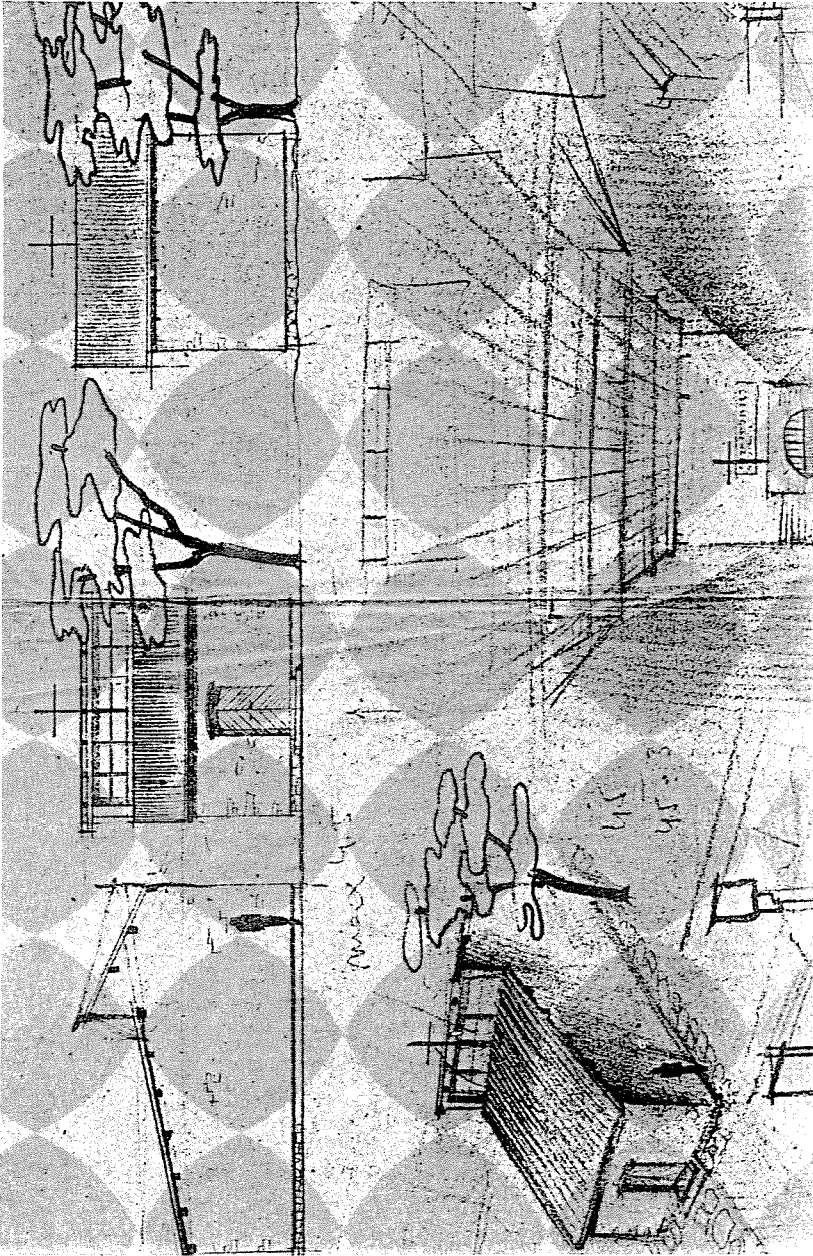


Fig. 2. Acient architectural compositions Student's drawing, 1945. Acient architecture Hungarian Royal Palatine Joseph Technical and Economical University. Prof. Lóránd Friedrich



*Fig. 3. Plan of rural chapel, sketches Student's design, 1946. Design Hungarian design*

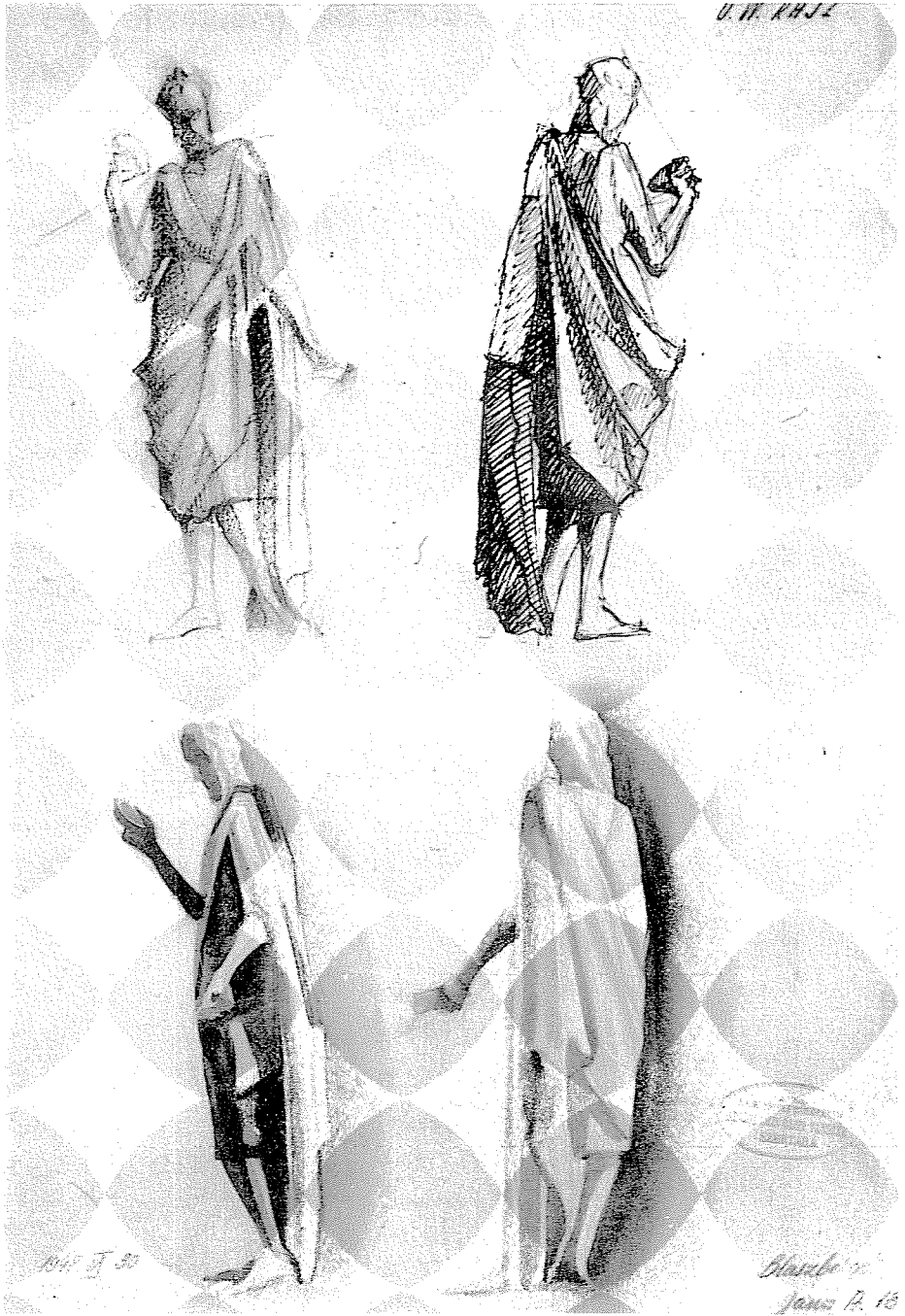
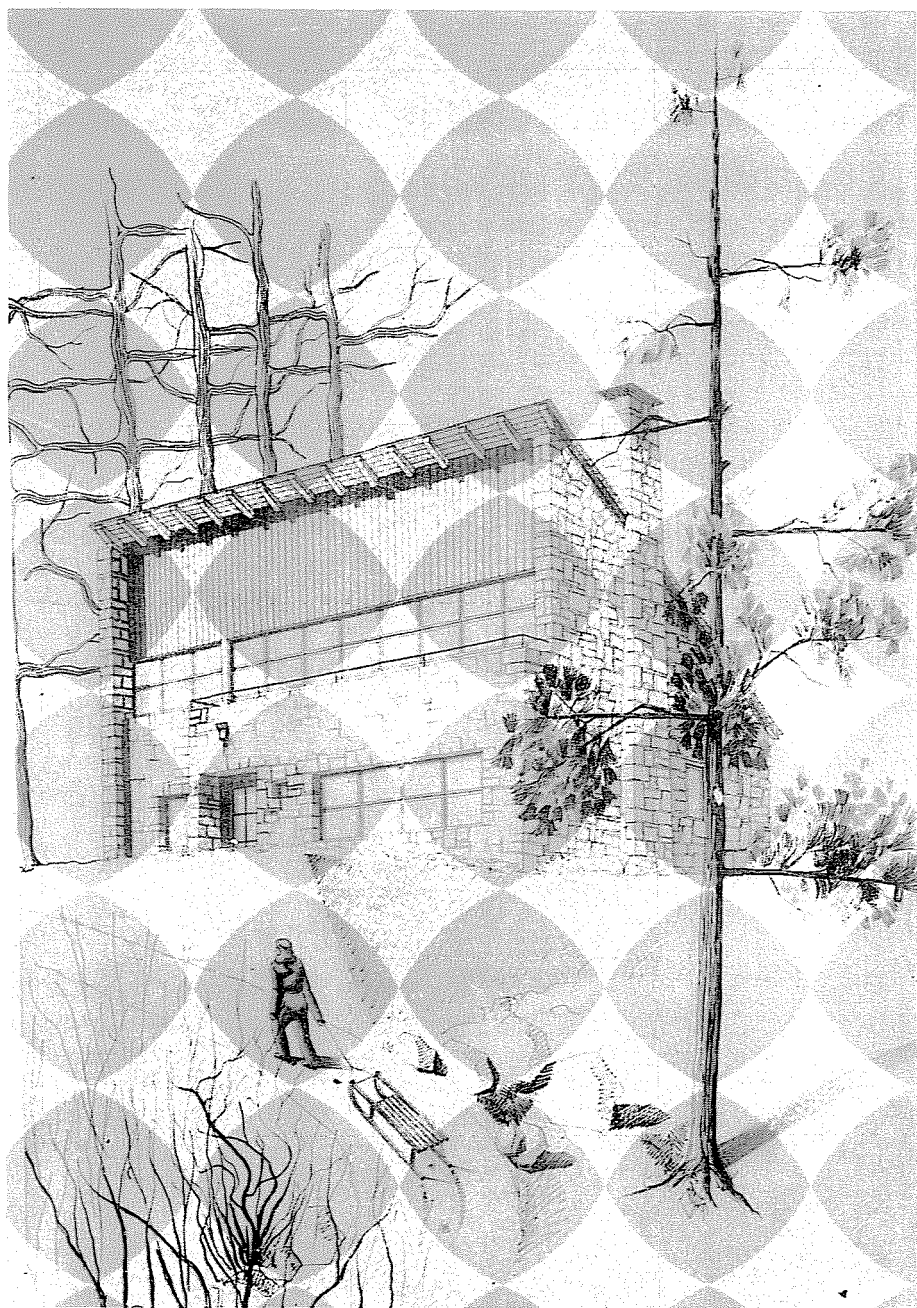


Fig. 4. Figure sketches Student's drawing, 1948 Hungarian drawing



*Fig. 5.* Mountain chalet living house, facade Student's design, 1948 Hungarian design Prof. Károly Weichinger

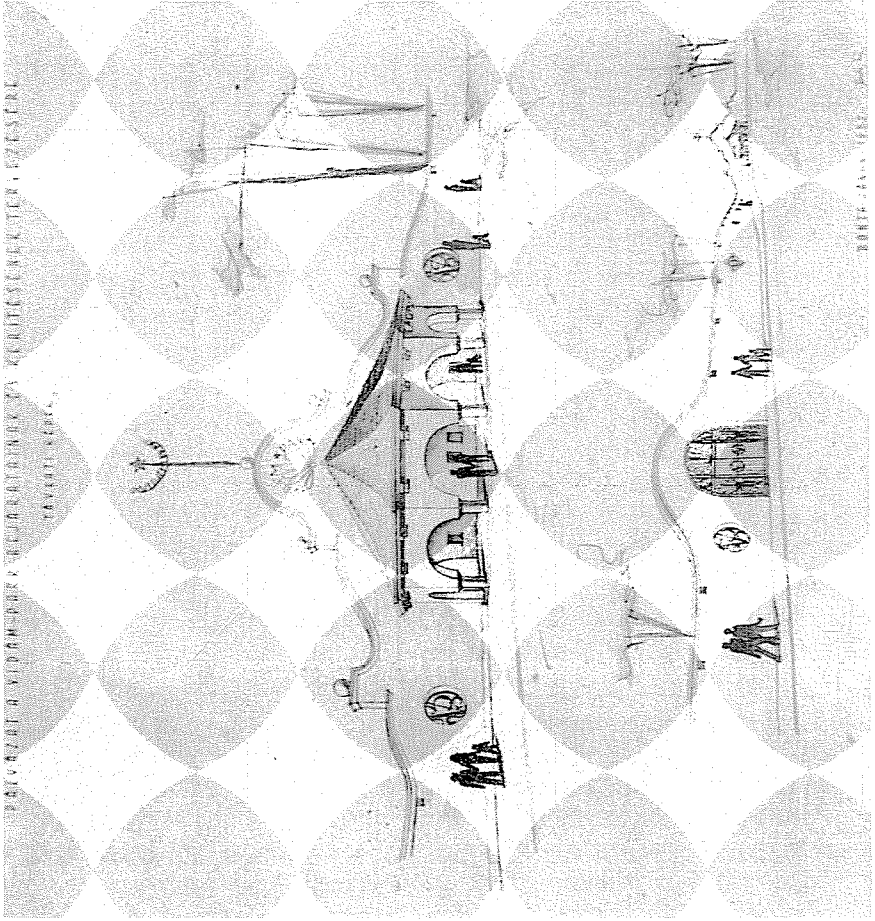


Fig. 6. 'Luna Park' entrance and fence Competition design, 2nd prize, 1952

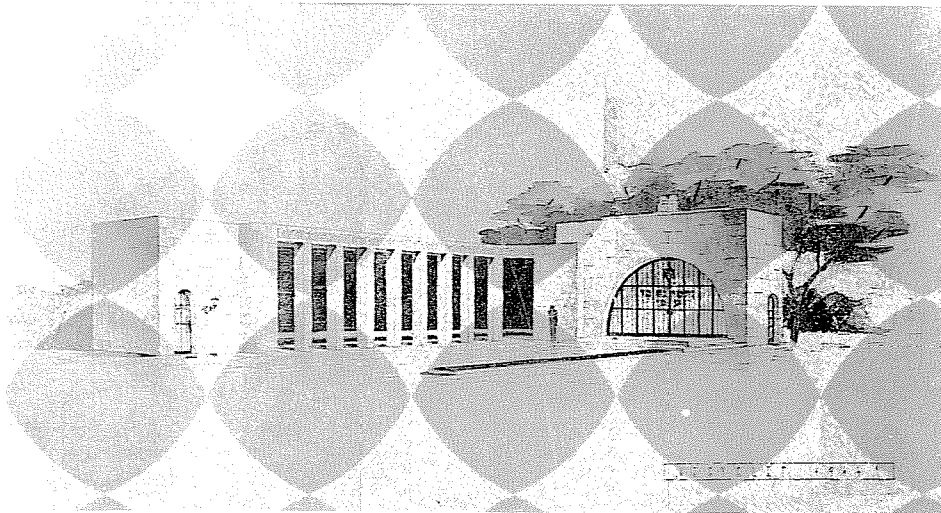
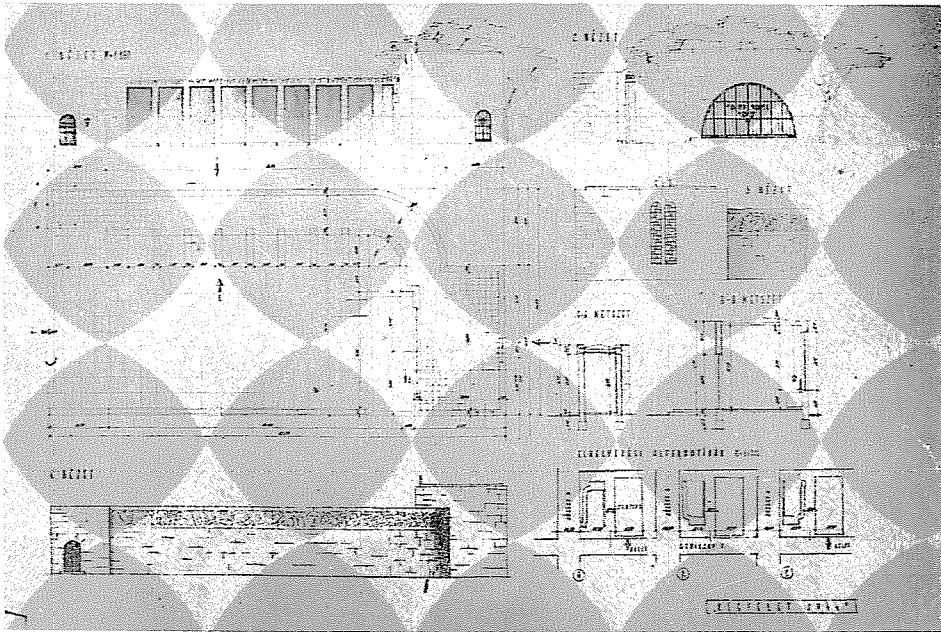


Fig. 7. Holocaust monument, Ujpest Competition design. Ground plan and facades. Perspective image.

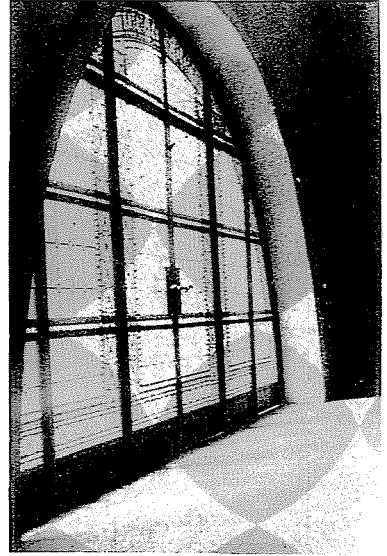
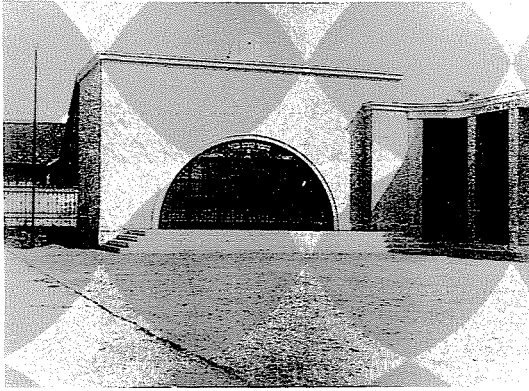
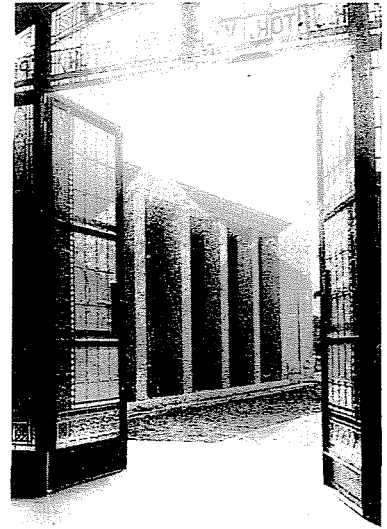
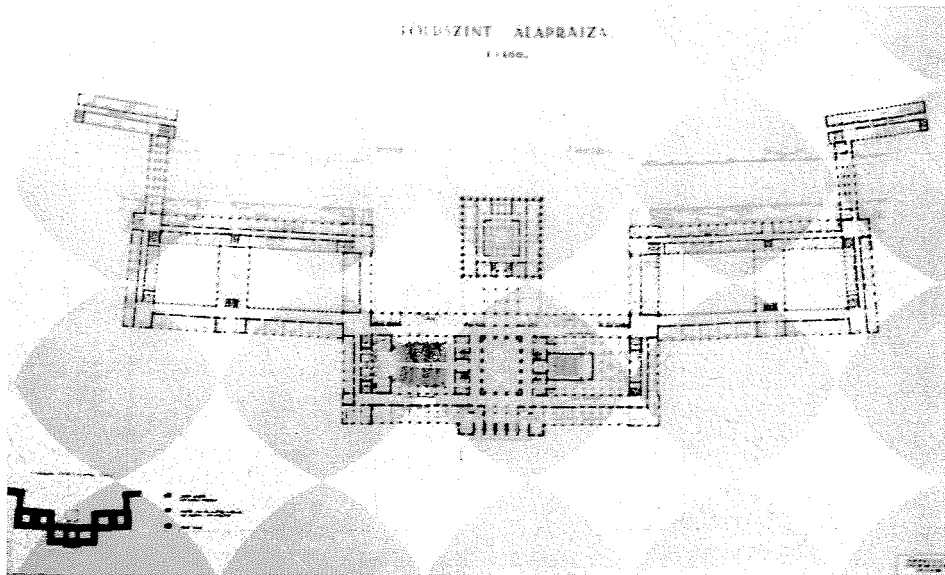
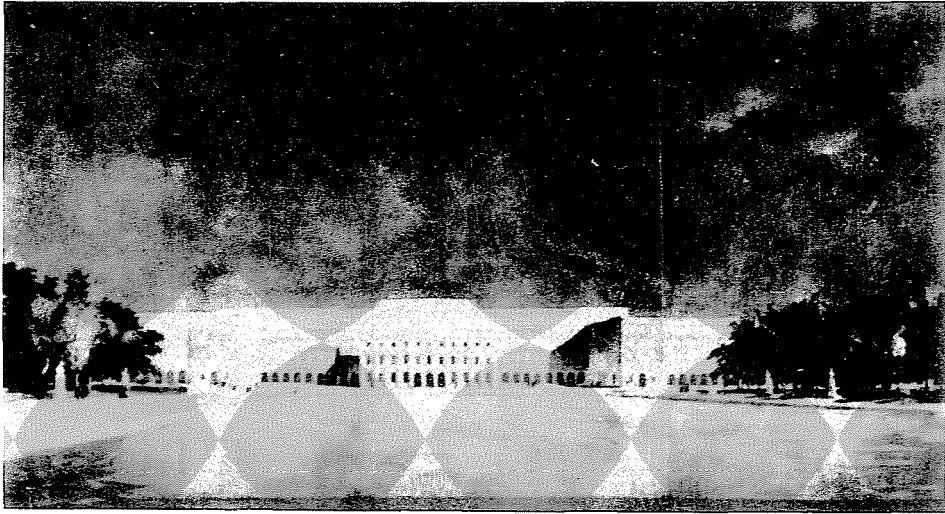
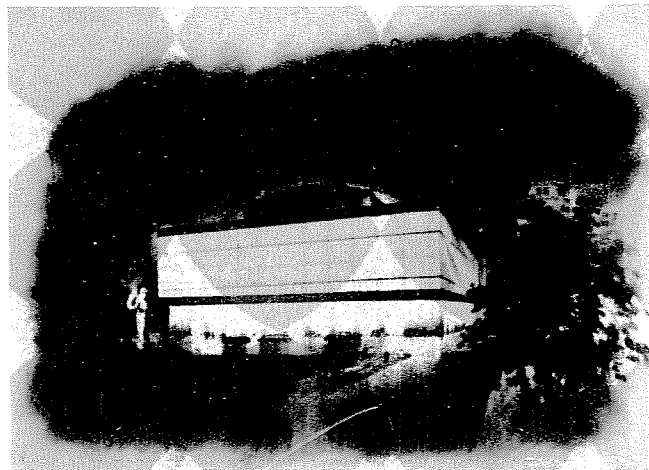
A large, dense list of names, likely victims of the Holocaust, arranged in columns. The names are printed in a small, uniform font, and the list is organized into several vertical columns. The names are mostly in uppercase letters, with some lowercase letters interspersed. The list is very long and covers most of the page area.

Fig. 8. Holocaust monument, Ujpest Built in 1948 Details

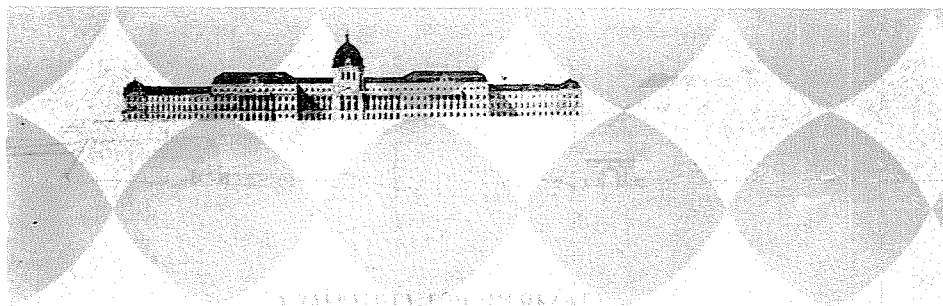




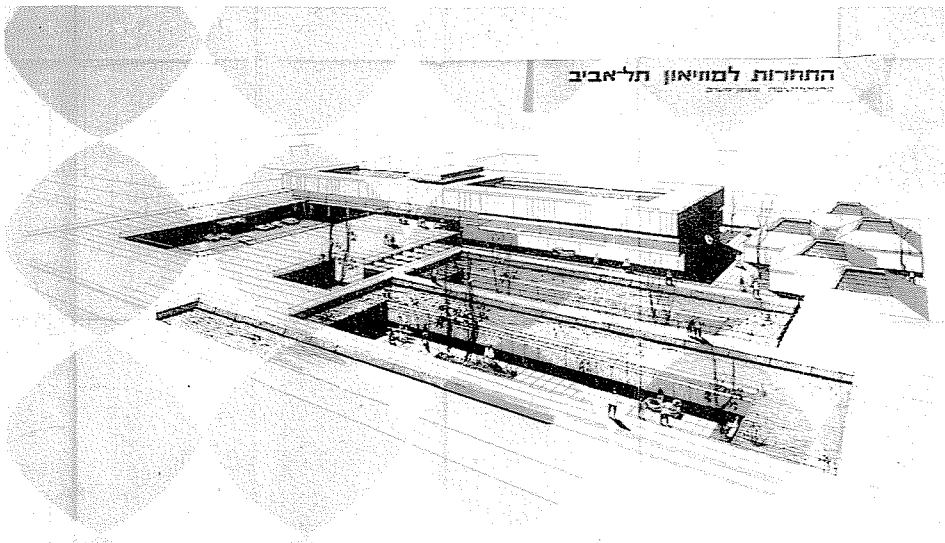
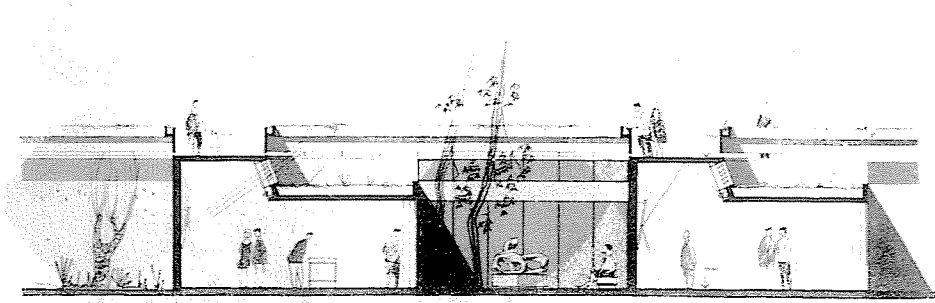
*Fig. 9.* Technical University of Building Competition design. Perspective image and ground floor plan 1953–54 (First prize). Designed by the staff of the Department of Public Buildings Design, Technical University of Building Leading architect: Prof. Károly Weichinger Consultant: Prof. Dr. Jenő Rados Co-designers: Károly Jurcsik, György Krizka, János Bonta, Zoltán Kamondy, János Rimner



*Fig. 10.* Redoute Concert Hall of Pest Competition design. Perspective image 1955. First prize Designers: Prof. Károly Weichinger, Károly Jurcsik, Csaba Virág, János Bonta



*Fig. 11.* Reconstruction of the dome of Buda Castle Competition design. Facade facing the Danube 1956 Leading architect: Prof. Károly Weichinger Consultant: Prof. Dr. Jenő Rados



*Fig. 12.* Museum of Fine Arts, Tel Aviv, Israel Competition design. Section, Perspective image 1963 Best and Eyal design bureau. Co-worker: János Bonta