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[re]FUNCTIONING OF "THE CULTURE QUARTET"

re-activation of 4 distinguished buildings, part of the
Albanian architecture and historic heritage

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THE NATIONAL HISTORICAL MUSEUM



Introductory note

“A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment” (ICOM International Council of Museums). The definition explicates the objectives -research and development- the users -collectivity- the content -tangible and immaterial ones- actions related purposes -education and entertainment. The occasion for the renovation of the National Museum of History is assumed to rethink the dictates content in the definition and apply them in a contemporary scene that requires further consideration of the case. To paraphrase the terms proposed by ICOM we can draw some methodological issues. First, we can project the consideration on the historical heritage to look to the future, opening multidisciplinary connections. The deep specialization must match also an utility and an exchange between different knowledges. The museum is a public place: it spatializes social rituals and stimulates debate and it shares symbolic values. Today the definition of the public is as wide as ever: we can observe a great number of necessary and subsidiary functions and -especially in recent years- it is dematerialized in virtual communications and it goes away from the walls through multiple strategies. With regard to the collection, the UNESCO Convention of 2003 includes among the cultural heritage the *practices, representations, expressions, knowledges, know-how -as well as tools, objects, artefacts and cultural spaces*

associated themselves- that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. It is something established that nowadays we do not conceive museums for educational purposes only, but also as places for leisure and meeting, like other public buildings for culture. The project of a museum experiences a widening of the cultural implications, a strong specialization of the individual component parts and therefore must express a strong capacity of synthesis and of territorial connections. The most recent cases have already indicated new proportions between the surfaces of exhibition, conservation and sites intended for public use. New outfitting's are set up in order to transcend timelines and schedules by adopting analogies, and they propose a sort of paradox by creating an interaction of displayed objects with elements that are located at great distances from the museum. Finally we have to deal with to the complicated relationship between environmental protection and enhancement, between economic needs and the risk of spreading the Heritage. In reference to the period of great transformation that Albania has implemented, for the quantitative dimensions of the contents that the State has the ability to manage and for the results to which it can yearn for, the competition can not be interpreted to reflect only on the renovation of individual building but it must propose an extended action to the cultural system, which also includes the latest international thematic networks.

Short notes for a Chart of Tirana

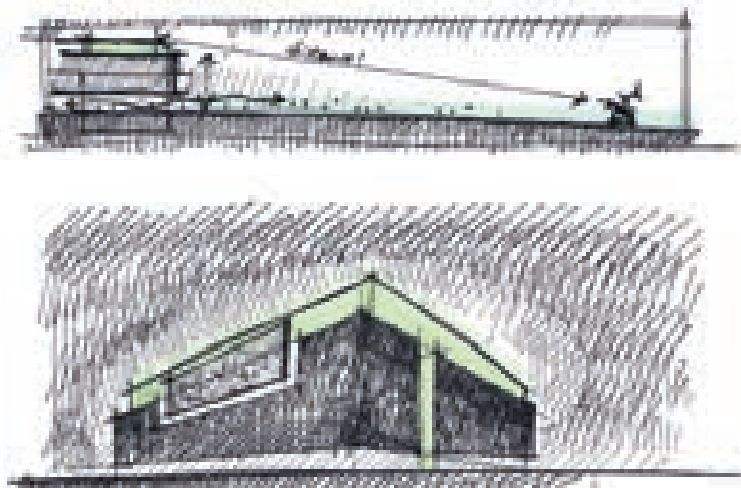
The purpose is not only the reorganization of the museum but to suggest the re-organisation of the albanian cultural artistic and environmental heritage. The new cultural program will be expression of identity, memory, heritage, innovation, experimentation, art and business. It will be supported by a synergic action of the public, research, business, citizen and environment areas. The consistence of population and goods make possible a project of rationalisation of the albanian cultural system. Public places, ways, squares, landscapes will be exploited cause are centres of meeting for the people, collectivity growing and meeting through diversity. Natural and antropological biodiversity will be protected and valorized because are guardians of the albanian genius loci. Places will know safeguard action and promotion through action of conservation, valorization and development. The objectives of the operation look for the sustainability guarantee of the heritage and the environment: for this reason will be promoted synergic actions between research, professional and enterprise. The diffusion of new expositive medias, the change of the expectations of the consumers the continuous development of discovery and materials availability, requires a deep afterthought of the conservation system, exposition and disclosure of everything that is connected to the cultural heritage. It will proceed to cataloging in stages both existing and new stock of movable, immovable and intangible assets , including works , objects , documents , portions of land , buildings , stories and characters. From the unique catalog will arise collections to be placed inside containers – museum, public places- or to be saved in its original places – landscape, village, buildings. The Unique Catalog will focus in a unique interactive virtual program- app- that will be a guide for all the collections, sites, places and goods that will be added in future. The app will have also the function of cultural disclosure and territorial promotion in fact it could interact with the net and different searching engines. In this way, every object of the collection and its virtual copy will be available both in its place and in the net. The final tool is the creation of the National Virtual Museum that- under the final tool of an app- is the unique catalogue of all the public albanian collections, equipped by multimedial contents. The user- citizen, tourist, researcher- everywhere in Albania both in open spaces both at the interior of the expositive places, through QR-code placed on special totem will link his smartphone to the National Virtual Museum, inside of which will find multimedia contents, insights, hypertextual links.



Program

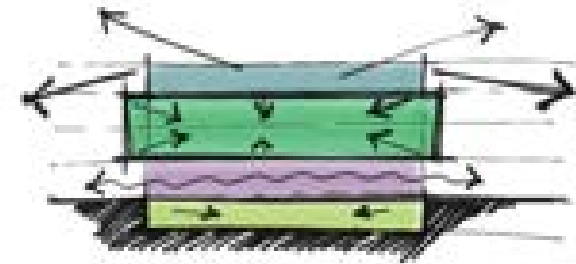
The National Museum of History is one of the venues of the national collection. The social and cultural changes lead to the identification of new users - in order of age, class affiliation, educational level, origin, ability - and then a new layouts depending on the curatorial project. The communicative apparatus uses the traditional exhibition in a new way - objects in space, wall, display cases - and articulates them with multimedia, interactive and immersive techniques available today, of the project of the Virtual National Museum and the Single Catalogue. A current definition of Heritage includes both historian content, and ethno-anthropological aspects, both the comparison with the artistic evolution and the environmental context. For this purpose it is proposed to unify the historical collection with that of Ethnoanthropology, as well as the use of a part of the collection of natural sciences and environmental factors and the inclusion of artistic works. This choice also meets widespread practices of reorganization of international museums. In addition to the curatorial project, the architectural intervention assumes the symbolic and formal indications of an artistic vision, able to manifest a unity between the museum and the system of public places in Tirana.





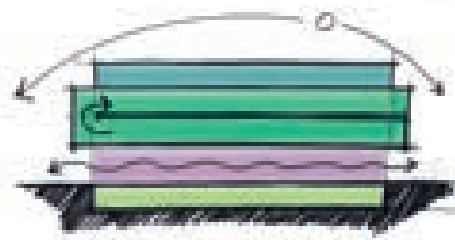
Architectural design

The project proposes a clear distribution of new functions and a clear separation of the main functions that make up the content. The functions are divided into: public spaces, storage, temporary exhibitions, permanent collection, commercial spaces and promotion. Each function corresponds to a floor of the building: this hierarchizes the flows of users and makes it flexible to use for parts. The project, in addition to the internal reorganization, assumes a comparison with close settlement of Scanderbeg Square by the spatial relationship between the planimetric dimensions and those of the elevations of the public buildings. For this purpose it is considered appropriate to insert a semi-transparent crown that at night acts as a lantern projected on the context, claiming that the symbolic function that culture must be shared in the life of civil society. The building has three distinct characteristics of relationship. *Permeability* to the public spaces of the ground floor: it enables contiguity between the city and the building on the ground floor functions as a covered square. *Introversion* of the exhibition spaces: it corresponds to the reflection of thought that needs isolation from outside interference. *Extroversion* is the necessary confrontation with the outside world for business functions and the space devoted to the promotion. There is deliberately a clear physical separation between the spaces for culture and those of contemporary historiography.



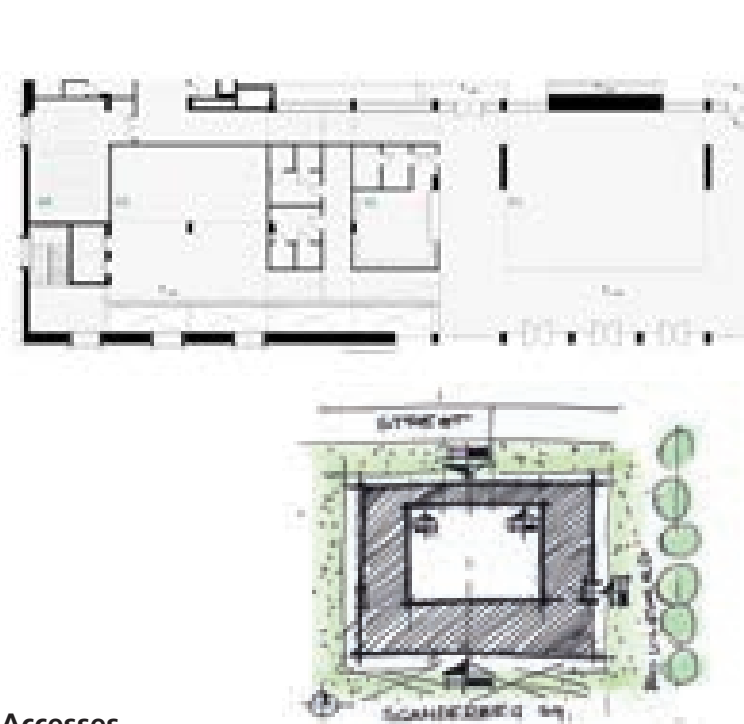
Choices of intervention

They are of two types seemingly antithetical but both used in surgical way. One of refunctionalization and the other of conservation. The first is necessary for the organization of the distribution destination, streams and plant adaptation. The second aims to continue with the flavor of the original project and the memory that the community has of the building. The project involves a total redistribution of vertical connections to ensure total accessibility environments by each user, as well as the safety of the building. It proposes a redesign of the void on the ground floor and the opening of a cut in the ground floor that gives quality and interest to the local exhibition space basement. There is a complete replacement of technological systems both mechanical and lighting, which will increase every aspect - conservatively, expositive and in terms of performance - safety, comfort, quality and lowering consumption. The conservative choice is to not intervene so evident on the facades –there will be a replacement of the old windows with more performance ones - to maintain as far as possible all the interior floors and walls, to enhance the spiral staircase that locates in the section paths of the permanent exhibition. Finally, it also proposes a third method in case of interventions on existing buildings: the addition. On the top, on the thread set back of the base, it is expected a perimeter wall on three sides, consisting of prefabricated perforated metal sheets, within the which we allocate the pavilion and restaurant hub - defined by a glass curtain wall and metallic cover - the roof garden and an area dedicated to new plants. Night lighting system RGB LED animate the characterizing as a virtual mosaic that communicates with the traditional one of the south. Finally it is likely remediation, consolidation and replacement aimed at episodes of deterioration and failure, not currently available.



Functional project

Storage and Atelier: conservation, restoration, study and catalog are arranged in traditional climatically stable rooms located at the basement and at the second floor, directly connected by elevators. It is a functional symbol of the inexhaustibility heritage and sharing process knowledge: to this end, the archive is partially exposed to the public, alongside the temporary exhibition in the path that leads to the visit of the bunker. Permanent exhibition: it returns an idea of history that includes, in addition to the historiographical facts, the aspects of ethnoanthropology and placement within a large environmental context. The purpose is to make a clear Albanian identity that is constituted by men, events, contexts. It is at the main floors of the building, through a linear path that provides access to the west side of the first level and an exit on the east side of the second floor. Temporary exhibition: it is a neutral space which denounces its past of local storage, but at the same time is enhanced by the opening of a cut of the ground floor slab. It is conceived as a place for international contemporary art exhibitions, deepening of the museum’s collection and performance. Public spaces: the ground floor is a square overlooked by other functions:, as well as the museum itineraries, an auditorium (completely renovated); a learning center with reference multimedia room, classrooms and workshops, kid lab (thematic space housing workshops for children) on the mezzanine to invite families to a children friendly attendance; the café bookshop; the courtyard, that becomes a page of a book that you pick up and it becomes a place of representation. Lounges are distributed at the upper floors, while the top floor is the restaurant and the roof garden that has a panoramic view of the city. Albany Hub: in the addition of the roof, so evidently separated from the permanent exhibition, it has been decided to dedicate a pavilion dedicated to the contemporary, for the promotion of the territory, the great transformations of past and future, to the enhancement of the business sector and innovation.



Accesses

The main public access is from Scanderbeg Square directly to the atrium. A second public access is on the east side connected to the boulevard: it allows the use of commercial functions and the auditorium even when the rest of the building is closed; This access is also marked by the walls that descends from the attic. A third access is that existing driveway on the north side, useful for operations of charge and plea for which the goods lift which connects all floors has been placed. On the same side it is also preserved access for administration.

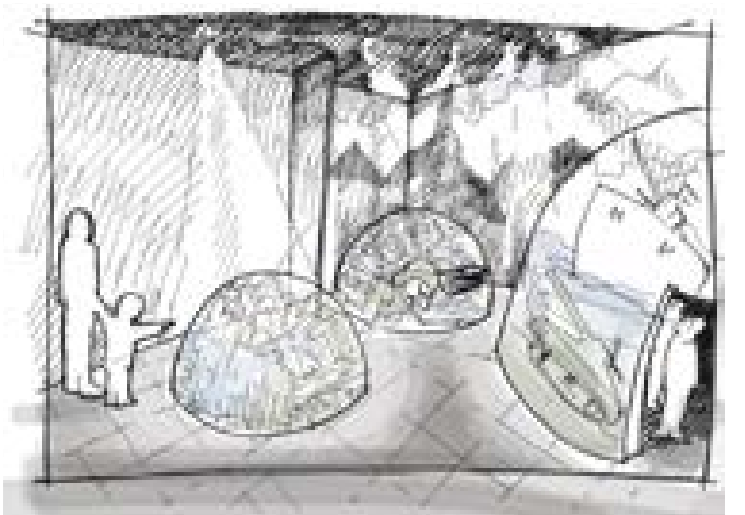
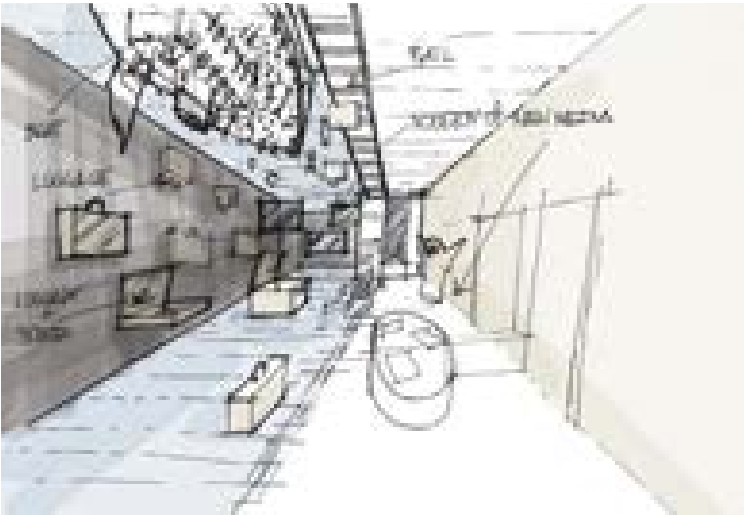


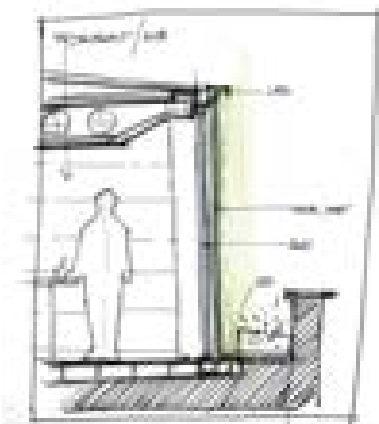
Exhibition design and distribution project

The exhibition for the temporary and permanent exhibitions, past the ticket office and cloakroom, begins with a dark room that serves as a general index multimedia content and psychologically prepares the viewer to visit. The elevators leading from the basement to the upper floors. Temporary exhibitions are arranged in the lower level in a large open space, with lighting systems and wiring multimedia on all surfaces, deliberately exposed concrete, evoking the origins of storage place. In the basement is also possible to visit the archive, the heart of museum culture, and the air-raid shelter place alongside. For the permanent exhibition, the project proposes an indication of the method and some suggestions having no reliable data on the quantities and types of items in the collection. The visit is divided into two main sections: the period from prehistory to the nineteenth century it unfolds in a circular route along the first floor; the whole period of the twentieth century is developed in three parts of the second floor. For each body of the building corresponds to a section historiography: Prehistory, Antiquity, Middle Ages, Ottoman Period, National Revival, Second World War, Communism, New Frontiers. Each section is divided into three levels of content: historiography, environmental and ethno-anthropological, taking care to return a structured information, stratified and geographically placed of the Albanian culture. The course is designed for a wide audience interested in both the scientific aspect of education -as scholars, students, tourists caught, and both citizens- aspect of popular entertainment - as families with children. In the path there are spaced exposure of objects,

artifacts, interactive exhibits and intuitive, screening rooms, reconstructions of environments, panoramic wallpapers and lounge areas looking at the city. To the original pieces and philological reconstruction are added out of scale elements - sometimes of contemporary art - likely to cause cultural and experiential solicitation. Upon receipt of the available collections, even after the latest findings and the opening of archives, the contents of the sections will be rebalanced. The settings, in all of today's variants ranging from paper to immersive room, provide a neutralization of natural light sources. In addition to the replacement of windows with new ones equipped with solar filters slab, it must be provided for darkening and filtering systems interior interacting with the artificial lighting system. The lights – all equipped with led technology - will come from three main sources: diffuse light, ceiling light spot on the ceiling or wall, inside the display cases, and will produce variable amounts of light as a function of the narrative proposal, environments, ranging from situations of daylight in rooms almost dark lit by the reflection of objects. The workshops on the ground floor and a children laboratory on the ground mezzanine complete this proposed informative offer, using experimental methods better defined by the slogan "forbidden not to touch". It mentions that the sections of the project will feature a color that will serve as silent indicator functions and narrative situations. The path ends near the vertical links places on the body east, through which you can get on the floor covering. This is designed as a roof garden which overlooks a pavilion housing the Albany Hub and a rooftop restaurant. In Albany Hub you

can propose temporary exhibitions for cultural content-large urban or territorial projects, exhibitions, information center - or centers -promotion of local products, companies that share promotional costs and create marketing synergies: stands as a space similar to a pavilion in the exhibition expo and a biennial of architecture or art. Next to it is located a restaurant offering to the public a view of the city from both the windows from the roof garden. With the same vertical connections you can get off the ground floor in the cafeteria bookshop that became a cultural lively, open to the city, interacting with citizens, the viewers of the exhibition, users of events in the courtyard and the activities of the auditorium. This is accessible from the east and from the atrium that is redesigned to get a more comfortable room. On the opposite side there is the learning center, a library and media specialist. Next to these are the classrooms for workshops, teaching and laboratory activities. The body north to the second level contains the administration and the ateliers of the study, restoration and cataloging. The central court expresses the close relationship that exists between culture, art and the public. Septum central atrium corresponds to the central part of the courtyard, both designed as pages of a book symbolizing the story. The page of the courtyard, like a gust of wind or because peeled from the curiosity of people, raises and shows a new production of a mirror of water, and is transformed into an outdoor theater for events and art happenings. The contemporary dialogue with the archaeological works that are only restored without changing its position.





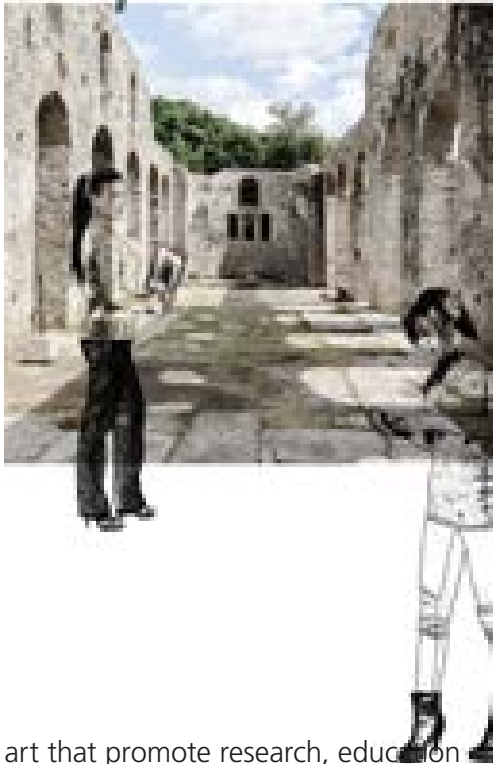
Materials

In the facades coating materials are maintained and restored, as well as for the floors of the main rooms. The inner side of the walls of housing is insulated and finished with plasterboard painted. The existing ceilings are removed and replaced with new ones that may be in plaster fiber or aluminum sheet, according to the functions, the needs of construction and facilities. The floor of the court uses stones that play with two colors of the facades. The intent is to propose an increase in the technological comfort while preserving the memory of the building as possible. The top floor is built using prefabricated dry bearing metal structure infilled with slabs of expanded metal and flat roof with insulated panels and equipped with technical ceiling. The pavilion coupled a glass curtain wall to the inner sheet. The rest of the roof is a roof garden made by specific stratigraphy that provide growth of grass and shrubs can improve the comfort microclimate.



Sustainability

Two actions related to the concept of sustainability. Environment through equipment replacement, the interventions of internal insulation casing, replacement of windows, the implementation of the cultural project, the use of green roof useful slaughter of the phenomenon of "heat islands" in the summer months and keep a healthy urban environment for the inhabitants. Economic sustainability because promotional spaces are flanked to the rationalization where to start partnerships with private investors and especially because it amplifies the audience it addresses and realizable assets. Moreover, the new program and the new exhibition space with uses for the public will attract a large audience.



Conclusions

The aim is to enhance the cultural and environmental heritage of Albania, inspired by the need to reorganize the Museum of National History. The goal is the foreshadowing of a framework in which typical aspects of the concept of memory, identity, heritage and other innovation, experimentation, art and business excel. The origin and purpose of the past are the preservation and revitalization of a cultural landscape, where you can discover, recognize, discover traces of human actions that are layered in history, in order to form the fertile substrate that today serves as nourishment to the initiatives of the new generations, as well as serve as a container for all those symbolic elements in which people identify themselves as a community. A culture that will be translated into physical spaces such as buildings and places is therefore a priority as said: it is unthinkable a development without culture, meaning the development as an enhancement of knowledge and of making business and meaning the culture as fields of science and

art that promote research, education and disclosure. Young people will be trained in a culture of merit, to be custodians of the heritage and history, to be critical Active, grow creative and participate in the fate of their country. This strong sense of belonging can only rise from the centrality of culture and knowledge both as the historical heritage of technological innovation that pushes toward the future. These are all areas that require development of participatory models between public and private, supported by legislative and fiscal actions that govern intangible actions, such as investment, and concrete actions, such as interventions on buildings proposed in the call. The project is ambitious. But the ambition for culture is ambition for freedom. The same ambition and the same freedoms that have always characterized the Albanian people in the past now have to animate the citizens to take up peaceful weapons of knowledge, integration, sharing, and innovation.

Annex

Annual Cultural Project for the National History Museum

1. Skënderbe, The Myth and the Man
(Scientific conference / exhibition)
Time: January 17th
Extent: January 17th / February 17th 2016
On the anniversary of the national hero Gjergj Kastriot Skanderbeg’s death , National History Museum organizes the scientific conference and an exhibition with documents of the hero’s activity time .
All national and international researchers, who work on his image, are invited to attend. The conference will conclude with the inauguration of the exhibition carried out with the original documents of that time.

2. Anniversary of the Covenant of Lezha
(Scientific conference / exhibition)
Time: March 4th
Extent : March 4th / March 24th 2016
On the occasion of the Covenant of Lezha’s anniversary, the National History Museum organizes a scientific conference and an exhibition with documents of that time.
All national and international researchers, who work on this important historical event, are invited to attend. The conference will conclude with the inauguration of the exhibition created with all the original documents of that time.

3. Summer Day / Albanians between Christianity and Paganism
(Scientific conference)
Time: March 14th
Extent : March 14th 2016
On the occasion of “Summer Day”, the National History Museum organizes the international scientific conference on the topic: Albanians between Christianity and Paganism ; a scientific research on the phenomenon of pagan heritage

influence, over the cultural and spiritual heritage among Albanians.
All national and international researchers, who work on this important historical phenomenon, are invited to attend.

4. Resistance to Fascism Day
(Scientific conference / exhibitions, documentaries)
Time: April 7th
Extent: April 7th / April 27th 2016
On the anniversary of the fascist invasion, the National History Museum organizes a scientific conference and an exhibition with documents of that period of time.
All national and international researchers, who work on this important historical event, are invited to attend. The conference will conclude with the inauguration of an exhibition carried out with the original documentaries of that time, provided by the Luce Institute.

5. Martyrs’ Day / Illegal antifascist movement
(Scientific conference / exhibitions, documentaries)
Time: May 5th
Extent: May 5th / May 25th 2016
On the Martyrs’ Day, the National History Museum organizes a scientific conference and an exhibition with documents of that period of time.
All national and international researchers, who work on this important historical event, are invited to attend. The conference will conclude with the inauguration of the exhibition carried out with the original documentaries of that time.

6. Europe day / Albania between Orient an Occident
(Scientific conference / exhibitions, documentaries)
Time: May 9th
Extent: May 9th 2016

On the occasion of Europe Day , the National History Museum organizes a scientific conference, in collaboration with the Centre of Albanological Studies .
All national and international researchers, who work on this important historical phenomenon, are invited to attend. The conference will conclude with the inauguration of the exhibition carried out with the original documentaries of that time.

7. Kutelian Day / Remembering Mitrush
(Scientific conference / exhibition of author’s original manuscripts)
Time: October 13th
Extent: October 13th
On the Kutelian Day , National History Museum organizes a scientific conference themed “Remembering Mitrush”, dedicated to the figure of the writer Mitrush Kuteli, and exhibitions of documents on this remarkable figure of the Albanian literature.
All national and international researchers, who work on this writer, are invited to attend. The conference will conclude with the inauguration of the exhibition carried out with the original documentaries of that time.

8. Mother Theresa Beatification Day / Gonxhë Bojaxhiu and the Nobel Prize
(Scientific conference / exhibitions, documentaries)
Time: October 19th
Extent: October 19th / October 29th 2016
On the Mother Theresa Beatification Day, the National History Museum organizes the scientific conference themed “Gonxhë Bojaxhiu , and the Nobel Peace Prize”, and exhibitions of documents of that period of time on this outstanding figure of the Albanian nation.

All national and international researchers, who work on this important historical phenomenon, are invited to attend. The conference will conclude with the inauguration of the exhibition carried out with the original documentaries of that time.

9. Independence day / The Importance and the Historical Development
(Scientific conference / exhibitions, documentaries)
Time: November 28th
Extent: November 28th / December 18th 2016
On the Independence Day, the National History Museum organizes a scientific conference in memory of the days of raising the flag. The conference will be accompanied by an exhibition of documents of that period of time, with the most prominent figures, signatory of Independence . All national and international researchers who work on this historically important day, are invited to attend.

Annex

Economic aspects

The lack of public funding and spending limits imposed by the Stability Pact have been directing the policies of the major European countries towards more careful management of available resources. In this context, the valorization of public properties in disuse or underused, particularly those characterized by cultural values, is assuming a strategic role. The European Framework Program for Research and Innovation (Horizon 2020) points out the positive effects that may result from the valorization of the public buildings of cultural heritage, as a synthesis of the traditional passive protection of these assets - that is proved unfit as well as financially unsustainable for the Public Administration - and their productive use, through modalities compatible with their nature and vocation. The direct valorization seems to be promising since it includes several modalities of re-use according to which the Public Administration retains the ownership of the public property: for example, the recovery of a public property directly managed by the Public Administration, or the concession of use to a private operator, in order to produce goods and/or services of collective interest. As public properties to be enhanced are cultural buildings in disuse, whose potentialities collide with their preservation constraints, it's crucial to find a compromise solution between the public usability and the instances of preservation. Within this context, Public-Private Partnerships answers to the need to find new ways of financing and introduce specialized skills in the operations of efficient development and management of these properties. On the basis of this premise, the project for the National Historical Museum has been defined according to the principle of highest and best use, i.e. the use capable of maximizing the intrinsic profitability of the property with effects on the urban structure that can constitute a stimulus to the processes of economic and social development of the territory,

without neglecting its public vocation and its cultural value. Considering the works to be done for the re-functioning intervention, it's possible to forecast a parametric unit cost of 1.100 €/mq of Gross Floor Area. This cost has been estimated according to comparable renewal interventions of existing buildings, with similar geometrical variables (size, shape, number of floors, circulation spaces, number of floors, ...). In order to achieve a satisfying balance among the instances of enhancement of cultural values and economic sustainability, the re-functioning intervention of the Museum has been defined on the basis of the criteria/goals: 1) minimization of the construction cost; 2) functional mix and 3) flexibility. Regarding the first criterion, the intervention is conservative except for the vertical connections, the technological equipments and the windows, whose replacement entails extra-costs that save money during the operating phases. The coexistence of public functions, that are considered "cold" infrastructures, and commercial ones, should ensure the achievement of a positive Net Present Value according to a broad and varying demand, ranging from families and schools to tourists, researchers, exhibitions' visitors, leisure services' clients. This varying demand should enlarge the hours a day and the periods of use of the Museum, generating a positive impact on cash flows. The magnitude of the economic impact depends on the cultural activities and events programmed. The analysis of the balance sheets of comparable cultural production centers shows that they have been able to generate positive cash flows despite the general economic crisis and the on-going decrease of public funds. Moreover, the presence of profitable functions are going to balance the low income ones.

About environmental sustainability

Air pollution is defined as a modification of the normal chemical and physical composition of the atmosphere, due to the presence of one or more substances in quantities and with characteristics that affect normal environmental conditions. Densely built urban areas are affected by high levels of pollution, whose causes arise from vehicle traffic, which represents the main source of emission into the atmosphere, but also from combustion processes of buildings' heating, not always performing concerning the containment of energy dispersion. Smog and fine particles are responsible for health problems such as asthma, inflammatory diseases and cardio-respiratory system's cancer, especially for weak population (elderly and children groups). The green, in all its forms, but especially plants, is able to absorb these toxic substances, or capture up to 80% of the pollution (every single tree is able to absorb, depending on the size, 7 to 12 kg of CO2 emissions per year) by filtering polluted air, releasing oxygen into the atmosphere and eventually reducing acoustic pollution. The presence of the green so helps keep a healthy urban environment for the inhabitants, resulting in growing demand and attention for the construction of green areas such as parks, flowerbeds and tree lined streets in the metropolitan areas. However, due to the high population density of the contemporary city, it is very difficult to ensure the green area necessary for reducing pollutants and to improve the health of the population. There are many international experiences, which proposes the creation of green roofs as a possible solution to the problem and as an opportunity to increase green areas in urban contexts. The cities of Chicago, Toronto and Seattle have recently realized significant redevelopment projects at urban scale, based on the increase of green roofs to improve the quality of life and for reducing urban heat

island. Building "Green roofs" means realize green surfaces on the roofs of buildings, preferably flat but also on those inclined, designing few interventions of adjustment that utilize technologies and materials that allow light green structures from the point of view of loads charged on the building, with varying types of green both intensive (shrubs and small trees) and / or extensive (musk, sedum and grasses). In addition to psychological and perceptive benefits, with positive influences on housing quality and life of the population, it should be considered the benefits of environmental sustainability, such as reducing noise pollution, the absorption of electro-smog, mitigation microclimate and fixing fine particles. Considering a large scale urban redevelopment project, green roof are finally relevant to economic benefits, such as reducing of water flow's peaks and saving of energy costs, since green roofs provide good heat insulation performances in winter and cooling in summer, allowing significant savings in the costs of heating and cooling of buildings.

Annex

Methodological notes on Lighting design

The illumination system of the museum integrates the natural light and artificial light in relation to the locations of the environments and the quality of the type of light required. The intensity of daylight and artificial light are managed through an intelligent control system. The scattered light natural -in the evenings and in the stands where it is request- is simulated with planned management of the devices able to cancel or adjust the desired shade. The choice of LED spot or possibly optical fiber allows the light source closer to the objects and lay greater emphasis on details and accents so far not exploited, as well as eliminating degradation linked to IR and UV radiation. The lighting technology aspect is therefore an integrated project that combines the experience of immersion in the narrative exposition. Another factor is the cost reduction desirable well over 50% with a top quality performance through the integration of light sources including natural light filtered or screen, wide-beam equipment and commercial and management can dim each unit according preset scenarios.

Methodological notes on upgrading the energy efficiency

A.1) Criterion choices
The design choices will be made with particular reference to:
- Containment of maintenance costs of the equipment and systems in general
- Reduction of energy costs and consumption
- Flexibility of use and operation of plants
In particular, with regard to cost maintenance, it will pay particular attention to:
- Choice of components with limited maintenance,
- Choice of moving at low speed (fans, motors in general, pumps),
- Accessibility to facilities and equipment
Regarding the reduction of energy costs and consumption, it will pay particular attention to:
- Subdivisions of the plants by type of use, type of employment and diversity of timing employment
< this solution will reduce consumption because it will be kept in operation only the portions of the plant for only those premises occupied
- Use of high-performance equipment
< This solution will enable the reduction of consumption, through the use of high efficiency motors for pumps and fans, use of high-efficiency compressors
- Use of flow limiters for the taps of toilets
< this solution will reduce the consumption of drinking water supplied from taps
- Use of heat recovery systems for air handling units
< this settlement would involve the use of heat recovery units with very high efficiency, with efficiency up to 90%; relatively to the UTA equipped with cooling battery, the same UTA will be equipped with rotary recuperators in order to ensure the recovery of energy even in summer
- Use of solar thermal and photovoltaic (where there are no obstacles with the local regulations and / or architectural

constraints)
< the solution will allow the exploitation of solar energy
- Use of the supervisory and control system for the management of the installations in general and of air-conditioning
< this solution will maximize consumption with control of ignition, temperature, the Free-Cooling
- Use of heat pumps air / water with a high level of energy efficiency
- Use of modulating control valves in two-way to allow the use of variable speed pumps.
_ this solution will use variable speed pumps controlled by p
- Use of variable speed pumps.
< this solution will allow the reduction of consumption of electric energy
a.2) Technical solutions proposed
A.2.1) Central heating-cooling
The heating and cooling system will be formed by n. 2 hydronic heat pumps of type “polyvalent”, that is able to produce hot water and cold water simultaneously. This solution will allow the construction of installations in “4-pipe” and to be able to cool and heat the rooms according to the actual needs and overcrowding. They will thus receive benefits from the point of view of the environmental well-being, especially in spring and autumn. During the summer period the hot water circuit can be used to power the batteries the post-heating and maintain the level of relative humidity within acceptable values. Heat pumps air / water will avoid the use of fossil fuels such as natural gas or diesel fuel so the system can be defined as “low environmental impact”.
The choice of hydronic systems instead of “direct expansion” plant management ensures simple and avoids all problems related to the presence of large amounts of

refrigerants toxic / harmful inside the building.
It is, therefore, ensure the maximum safety from the standpoint of fire prevention and health.
The heating-cooling plant will be located on the roof of the building, in the area in the open air, which will be accessed via a stairwell of large and equipped with elevators, thereby facilitating the control operations and maintenance.
A.2.2) Heating / cooling
Heating and cooling systems for buildings will be through handling units to be installed in ceilings and distribution and return air through ducts of galvanized sheet metal suitably coated on the outside with sheets of elastomeric closed cell foam.
Air distribution will be through speakers square or linear aluminum / galvanized steel.
In order to maintain an adequate acoustic comfort inside the environments will be taken low air velocities and reduced number of revolutions of the engines.
They will also be provided silencers on supply and return air
A.2.3) Air exchange systems
The air change environments will be made through “heat recovery” high efficiency.
The fresh air filtered and neutral temperature will be sent to the various handling units and distributed to various rooms through ducts provided for heating / cooling
A.2.4) Water and sanitary system and drains
The water system / health will be fed from the aqueduct and the public will be properly filtered and softened.
The production of hot water will be carried out through water heater in the heat pump to be positioned in close proximity to each block of services.
The distribution of hot and cold water will be carried by pipeline of metal properly insulated.
Discharges of sewage will be carried by pipeline polypropylene soundproof with seamless glass.

Annex

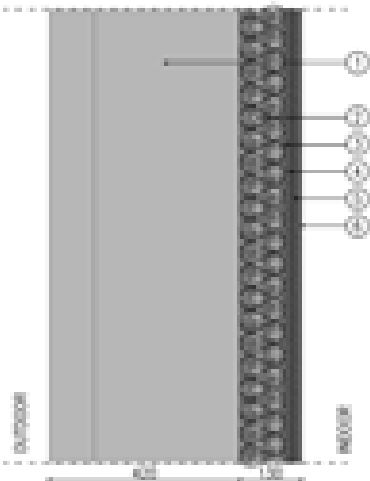
Vents exhaust systems will be made only over the roof of the building.

A.2.5) Plant fire hydrants

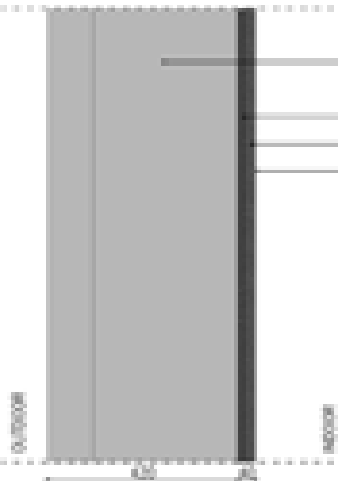
The entire building will be protected from fire by fire extinguisher with wall hydrants positioned so as to ensure effective coverage.

In general, the wall hydrants will be located near the exits, the stairwells and along the escape routes in case of emergency.

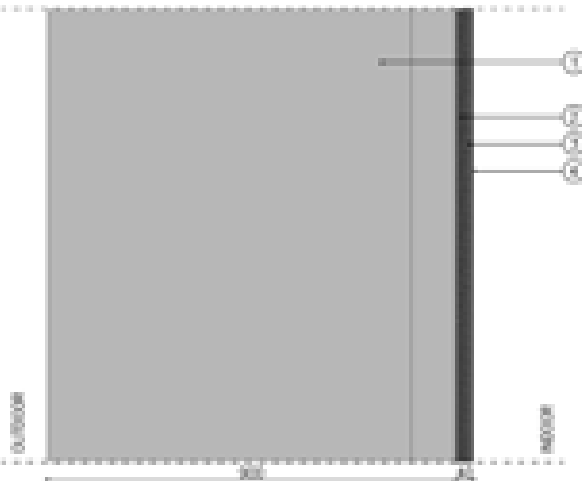
Hydrants will be equipped with flexible hose with a maximum length of 25 m. and launches multiple effect (jet - closed - fractional jet).



- 1. EXISTENT STRACOWATER
- 2. THERMAL INSULATION WINDPAK, WOOD, 10cm - Typo Redwood Frontback
- 3. VAPOR BARRIER
- 4. GYPSUM FIBER 12,5mm
- 5. GYPSUM PLASTERBOARD 12,5mm
- 6. PLASTER



- 1. EXISTENT STRACOWATER
- 2. DOUBLE GYPSUM PLASTERBOARD COMES WITH AEROGEL 20mm - Typo Aerogel
- 3. GYPSUM PLASTERBOARD 12,5mm
- 6. PLASTER



- 1. EXISTENT STRACOWATER
- 2. PANELS GARTONGETSOO ACCOMPANY WITH AEROGEL, sp.20mm - Typo Aerogel
- 3. GYPSUM PLASTERBOARD sp.12,5mm
- 6. PLASTER

Annex

Notes for the Carta of Tirane

The purpose is the re-organisation of the albanian cultural artistic and environmental heritage.

The albanian civilization is mark for the multicultural and interreligious integration and an opening to the international report.

The new cultural program will be expression of identity, memory, heritage, innovation, experimentation, art and business.

The new program will be supported by a synergic action of the public, research, business, citizen and environment areas.

The consistence of population and goods make possible a project of rationalisation of the albanian cultural system.

The disclosure of knowledge is understand as source of freedom and development everyone and civil cohabitation between different community.

Public places, ways, squares, landscapes will be exploited cause are centres of meeting for the people, collectivity growing and meeting through diversity.

Natural and antropological biodiversity will be protected and valorized because are guardians of the albanian genius loci.

Places will know safeguard action and promotion through action of conservation, valorization and development.

Means to promote a project able to express symbolic values of cohabitation and membership over the fulfillment of functionals: for these reason is necessary the role of the culture and art in the planning and executive process of territorial operations.

The objectives of the operation look for the sustainability guarantee of the heritage and the environment: for this reason will be promoted synergic actions between research, professional and enterprise.

The diffusion of new expositive medias, the change of the expectations of the consumers the continuous development

of discovery and materials availability, requires a deep afterthought of the conservation system, exposition and disclosure of everything that is connected to the cultural heritage.

It will proceed to cataloging in stages both existing and new stock of movable, immovable and intangible assets , including works , objects , documents , portions of land , buildings , stories and characters

From the unique catalog will arise collections to be placed inside containers – museum, public places- or to be saved in its original places – landscape, village, buildings.

The unique catalog will focus in a unique interactive virtual program- app- that will be a guide for all the collections, sites, places and goods that will be added in future. The app will have also the function of cultural disclosure and territorial promotion in fact it could interact with the net and different searching engines

In this way, every object of the collection and its virtual copy will be available both in its place and in the net.

The final tool is the creation of the National Virtual Museum that- under the final tool of an app- is the unique catalogue of all the public albanian collections, equipped by multimedial contents.

The user-citizen, tourist, researcher- everywhere in Albania both in open spaces both at the interior of the expositive places, through QR-code placed on special totem will link his smartphone to the National Virtual Museum, inside of which will find multimedia contents, insights, hypertextual links.

The program of the National Virtual Museum guarantees the following advantages:

Flexibility of implementation

Trasparency of the administration of the single opera

Traceability of the opera

Flexibility of the utilization since the contents are the same

both at the interior of the seats both in the single places

Reduction of the costs because its the only source, while supporting the terminal is the smartphone or tablet user

Flexibility of the multimedial and interactive supports

Provides interactivity and immersion of the collection in the virtual and real sediment in places

The same program and support is exploitable for the didactic in the school

Guarantees the international promotion of the territory

Increase the capacity for research and innovation

Increase the diffusion of knowledge , the cultural debate and the civic sense of belonging

Generate synergies of protection and promotion of the territory , environment and heritage

Generate an induced labor in the areas related to research, high technology and new media

Optimize production costs and management and reduces the carbon footprint for environmental sustainability

Declaration of Team Composition

Architect and Bidder Representative: Alessandro Massera from Gazza Massera Architetti

Architect: M&J Archi-Studio

Landscape Architect: A+C

Restoration Expert: EFA_studio di architettura e consulenza

Local Restoration Expert: Shpresa Prifti;

Artist and International Curator: Giorgio Milani;

Local Curator: Emir Oxha

Economic advisor: Alessandra Oppio

Cost estimator: Luan Murtaj

Indoor comfort: Stefano Capolongo

Assistants in Tirana: Jorida Hatibi for GMA, Flavia Trebicka for EFA;

Assistants in Parma: Gazza Daniela, Federico Rolli.

Local Historian: Andi Pinari

