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Programme run by **Europa Nostra**,  
the Voice of Cultural Heritage in Europe,  
in partnership with the **European Investment Bank Institute**

### **Prinkipo Greek Orphanage Turkey**

### **Technical Report**

#### **Table of Contents**

##### **Summary**

1. Purpose and location
2. Context and history
3. Current situation
4. Immediate intervention
5. Description of the project
6. Implementation
7. Environmental and social impacts
8. Investment costs
9. Operation and maintenance
10. Business Plan
11. Funding possibilities
12. Conclusions: Proposed actions and recommendations

##### **Annexes**

- A. Location and pictures
- B. Initiative lead by Europa Nostra for safeguarding the Prinkipo Greek Orphanage
- C. Environmental context
- D. Mission details and documents consulted

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July 2019

## Summary

The Greek Orphanage complex is located in Büyükkada (Prinkipo), one of Princes' Islands in the Marmara Sea, forming part of Greater Istanbul. There are on-going efforts to nominate the Princes' Islands (Adalar) site for their inscription on the UNESCO World Heritage List

The complex consists of the main Orphanage and the Secondary School buildings, with more than 15 000 m<sup>2</sup> of total floor space (the Site). The main building is thought to be the largest wooden construction in Europe and the second largest in the world. Designed and built at the end of 19<sup>th</sup> century as a luxury hotel and casino (which never worked) the Site was donated to the Ecumenical Patriarchate of Constantinople in 1903 with the condition that it would be operated as an orphanage. It was so used until it was closed in 1964 and abandoned thereafter. Since then, bad weather agents, a fire in 1980, the earthquake Turkey suffered in 1999 and the lack of maintenance have extensively damaged the buildings, leading to its current state of extensive disrepair and serious risk of collapse. In 2012, the Site was included in the World Monuments Watch list and is currently classified as "Rescue Needed" by the Global Heritage Network.

After long legal disputes, in 2010 the European Court of Human Rights ruled the deeds of the Site belonged to the Ecumenical Patriarch of Constantinople, who wants to initiate the re-utilization of the Site, basically converting it into an International Centre for Environmental Protection and for hosting continuous Interreligious Dialogue activities. Notwithstanding, in order to implement and to manage the project, it seems to be necessary to create a specific new legal structure, which would own the Site as its main, and probably sole, asset.

It is evident at first sight that the buildings are in an immediate risk of collapse unless urgent actions to support and protect the structures from falling down are quickly put in place. Therefore, an "immediate intervention" to put the buildings under safe condition, with an estimated cost of around two million euro, is absolutely necessary. After these urgent repairs, the primary objective of this project is to give the Site a new life, offering the possibility of combining several different permanent and temporary uses. The basic intention is not to restore it completely back to its original status but to adapt it to new attractive uses, leaving visible the degradation it has suffered over recent years.

A Management Unit should be set up and a comprehensive Business Plan should be developed in order to assess the extent to which the final product would be sustainable in the future. Forming part of this plan, several technical studies should need to be carried out to identify and design the final solution to be adopted, as well as to forecast

the cost for construction, operation and maintenance of the entire Site. A detailed risk analysis, together with a project implementation plan and a strategy for procuring the works, should also be prepared. In total, a period of 4-5 years would be reasonably necessary for completing the project works.

Due to the exceptional character and location of the project, a comprehensive but not necessarily formal environmental impact assessment should be carried out. Elements to be developed would include the preparation of impact/mitigation studies in particular during construction and an open consultation with main stakeholders on the future uses of the Site.

At present, it is extremely difficult to have a precise figure about the investment costs necessary to complete the project. There are many caveats and uncertainties making impossible to provide a reasonable and fair estimate of the full project costs. However, on the basis on the opinions expressed by of several external experts, it is reasonable to expect the project to require a total investment of at least € 40 million (a figure that, depending on many factors, could be much higher), which would generate a considerable employment during construction (likely within the range of 250-300 persons per year).

The owner would have the responsibility of ensuring the proper maintenance and operation of the Site and of allocating a budget to ensure it is done correctly (indicatively 5-10% of the investment cost would be reasonable). These activities may be delegated to a private operator having extensive experience in the management of such a complex building, both from the technical and administrative standpoints. Depending on the final usages, between 20 and 40 persons would be needed to ensure the correct operation and maintenance of the Site.

Due to the numerous project uncertainties, it is not possible to currently identify the precise sources capable of mobilizing the necessary investment funds. It would therefore be a prime challenge for the owner to explore different possibilities worldwide (including donations, grants, loans and other financial instruments) to ensure the bankability of the project in the long term.

**In summary: a very challenging project dealing with the recovery of a masterpiece of architecture, with evident European interest due to its historic significance, its peculiar characteristics and its numerous potential attractive uses.**

## **1. Purpose and location**

The Greek Orphanage complex (the Site) is located on top of Hristo Hill on Büyükada (Prinkipo), the largest of the Princes' Islands (Adalar), a group of islands in the Sea of Marmara forming part of Greater Istanbul. The complex consists of the main orphanage and the secondary school buildings and porticoes with about 15 000 m<sup>2</sup> of total floor space. It is situated on a plot of land of about 26 000 m<sup>2</sup>. The main building is thought to be the largest wooden construction in Europe and the second largest in the world, which makes it unique.

Designed by the prominent architect, Alexandre Vallaury, the Site was delivered in 1899 as a luxury hotel and casino for the Compagnie Internationale des Wagons-Lits. However, it was sold in 1903 when Sultan Abdul Hamid II did not issue the permit for its operation. It was subsequently bought by the philanthropist wife of a prominent Greek banker, who thereafter donated it to the Ecumenical Patriarchate of Constantinople, based in Istanbul, with the condition of operating it as an orphanage. It was so used as such until it was closed in 1964.

The buildings have been in a state of disuse since 1964 and currently there is no human habitation, with the exception of a concierge. Bad weather agents, in particular during the winter (i.e. heavy rains and strong northern winds), a fire in 1980, the earthquake Turkey suffered in 1999 and the lack of maintenance have extensively damaged the buildings, resulting in a state of extensive disrepair and serious risk of collapse. The land/garden surrounding the Site is also not cared for.

The primary purpose of this project is the recovery of the Site and putting the buildings in a safe condition. Afterwards, the Site would be given new life, offering the possibility of combining different permanent and temporary uses. The basic intention is not to restore it completely back to its original status but to adapt it to new attractive uses, also making the degradation it has suffered over recent years visible to the greatest possible extent. In parallel, a pertinent target of this project is to keep the Site out of political controversies.

## **2. Context and history**

In the early 1900s the Princes' Islands had become a preferred summer resort for Istanbul communities of different religious and ethnic origins, which created a microcosm reflecting the cosmopolitan character of the city. The European lifestyle was represented in the architectural styles of the opulent summer mansions built in wood and masonry. Still to this day, the Islands display an array of elegant examples of timber constructions peculiar to this period, mixed with the Ottoman style.

The archipelago of Princes' Islands as a whole is among the very few settlements of İstanbul that still somehow represents the lifestyle of a bygone era, Prinkipo being the largest island in close proximity to central İstanbul. The Ministry of Culture has listed these islands as an Urban and Natural Conservation Site since 1984 and the Orphanage was designated as a Historic Structure listed as Grade II by the same authority in 1988 and upgraded to Grade I in 2009.

The Orphanage offers a remarkable visual impression from both the island and the seaside. Aside from its unique artistic and aesthetic value, the structure is exemplary of the technical skills of construction and architectural design of the period in which it was built. The Orphanage is of significance to the mythology of the island and holds a special place in the shared memory of the local communities, especially in the minds of the Rum (Greek) community of İstanbul.

A summary of major events affecting the building since it was abandoned is as follows:

- While it was actively in use, the Orphanage sheltered some 5 700 orphans until it finally ceased to operate in 1964, when the authorities forced it to suspend its operation, citing the possibility of destruction of the whole island due to the risk of fire. It has to be noted that, due to its huge dimensions, the building was never used in its full capacity.
- In 1991, a Turkish businessman who was active in the tourism sector, expressed interest in converting the building into a hotel-casino and to exploit it for fifty years. For this purpose, a restoration-refurbishment plan was prepared by an architectural office. The Protection Board of Historic Buildings (forming part of the Ministry of Culture) demanded complementary information but a public campaign against this re-conversion, which also proposed the demolition of the building, was launched and the proposal was dismissed.
- A few years later, a legal dispute over the ownership of the site began. The building was designated as “illegally occupied” by the authorities and in 2005 the ownership was transferred to the Turkish General Directorate of Pious Foundations.
- Immediately after, the Patriarchate appealed to the European Court of Human Rights and, in June 2010 a final decision, consisting of the return of the title of deeds to the Patriarchate, was issued. Following this, the Ecumenical Patriarch HG Bartholomew stated their desire to initiate a plan to re-utilise the site. A master feasibility plan was prepared and the main recommendation was to convert the site into an International Centre for Environmental Protection where continuous Interreligious Dialogue could be hosted.
- Previously, in December 2009, and due to the already bad conditions of the building, the Turkish National Timber Association applied to the Protection Board

in order to implement preventive measures, such as placing a temporary cover over the roof. The proposal was initially approved but only three months later it was rebuked on the grounds that a full project should be prepared, instead of only carrying out temporary repairs. The project was again abandoned.

- In 2012, the site was included in the World Monuments Watch list, which brought the opportunity to attract attention to the situation, not only at local level but also, and more importantly, internationally. In 2019, a renewed nomination for the WMW 2020 list has been submitted and it is currently under evaluation. Additionally, the Orphanage is currently classified as "Rescue Needed" by the Global Heritage Network.
- There are on-going efforts by several local NGOs to nominate the Princes' Islands (Adalar) Site for their inscription on the UNESCO World Heritage List, which would require a Heritage Management Plan for the Site. This submission is likely to be considered by UNESCO in 2020.

### **3. Current situation**

The land where the buildings are located is a vast parkland with commanding views of sea and other islands. The Site is surrounded by dense woodland of pine trees that are representative of the indigenous island flora. The existing building structures are:

- The Secondary School building, which consists of two floor levels and a ground floor with a total surface of some 1 000 m<sup>2</sup>
- The main Orphanage building, which consists of four floor levels and a ground floor, with around 15 000 m<sup>2</sup> in total. It contains 206 large rooms, a magnificent hall, a library, a primary school and vocational workshops, a large dining room, spacious kitchens (still keeping some rare large-scale ancient equipment) and a remarkable theatre hall.

The Orphanage building was originally a timber-framed structure, clad externally with horizontal boards and it sits on masonry foundation walls. There were jack arches supporting the balcony on the south-eastern side. Internally, the walls are finished with lime plaster on laths. As with contemporary buildings, it may be assumed that the main frame was of oak and that the secondary studs securing the cladding boards are of pine. The ceilings were boarded. The timber roof with overhanging eaves was covered with terracotta roof tiles. The floors were built in wood except for the ground floor, where flagstones are used. Sash windows are found throughout. The northern end was occupied by a theatre hall which was decorated with elaborate wood columns. Brick-masonry turret-like structures had been added against both long elevations at a later period to accommodate services.

Since its closure half a century ago, the neglected building has deteriorated into a state of utter disrepair. Due to its location on the hilltop, the structures are exposed to extreme weather such as strong winds and heavy rain precipitation, as well as to a high content of moisture (however, no fungi nor termites seem to be present). Water ingress through the roof and windows has caused deterioration on the lower floors. Both wooden elements and stone masonry sections, like fireplaces, chimneys etc. and the walls on the ground level are adversely affected. There is a continuous crack, possibly structural, on the north face of the Orphanage that runs along the full height of the building, the corner posts on one of the projecting wings on the south face has also failed. The extent of discolouration of the weatherboarding and the deterioration of the exposed structural elements can be clearly seen in the photographs (Annex A).

In addition to that, the building was also severely damaged by a fire in 1980 and an earthquake in 1999 (non-documented but with evident effects). Today, it is continually exposed to weather impacts, as a result of which the structural elements have been damaged. Furthermore, the un-inhabited state of the site aggravates the dilapidation of the buildings. It is therefore clear that, after an urgent rehabilitation of the buildings to put them in a safe condition, a sound programme for the future utilisation of the entire site should be conceived and implemented.

#### **4. Immediate intervention**

It is not necessary to be an expert to realise at first sight that there is an immediate danger and risk of collapse with a total loss of the structures unless urgent measures to support and protect the buildings are put in place. As a result, the opinion of a recognised expert in wooden structures was sought by Europa Nostra. The conclusion of his report reads: “The building is considered to be dangerous and in a very vulnerable condition. The loss of large sections of the roof and the numerous penetrations of the elevations, including the windows, is allowing moisture unhindered access to large parts of the structure. There are a number of areas of displaced and hanging structure at high level that may fall without notice. The structure requires immediate stabilisation, protection, repair and conservation if the damage and loss of historic fabric is not to become irretrievable”. In summary, the expert recommends to carry out the following urgent safe-warding actions:

##### Preparatory and urgent works

- Carefully remove all trees and vegetation growing on or in contact with the structure and remove all debris from the ground around the structure to give a 15m clear zone and safe and unimpeded access and egress.
- Carefully remove dislocated and hanging structure at high level.

- Erect a self-supporting permanent scaffold enclosure for the whole structure. It must be capable of resisting the winds loads appropriate to the location.
- Commencing in the under-croft and working up and on one floor at a time carefully remove all rubbish and debris and install temporary propping as required.
- Check/dismiss the presence of latent defects and dangerous agents (fungi, termites).
- Investigate the nature and status of underground foundations, as well as assessing their structural capacity.

### Structural repair and reinforcement works

With the building under elementary safe condition, it is necessary to carry out a detailed analysis of the structure, to prepare repair details and to implement them as appropriate. This is likely to include the following:

- Careful recording and removal of the external boarding to give access to structural repairs.
- Replacement/repair of the major part of the roof structure and reconstruction of parts of the fifth and sixth floors to support the roof.
- Repair of external structure as required including the replacement of decayed and missing members.
- Overhaul of nailed joints and replacement of defective and decayed nails.
- Replacement of missing and decayed jetty props and plates to lower level.
- Repair/ replacement of defective internal beams and posts.
- Repair/ replacement of defective or missing internal joists and floor boards.
- Repair and re-glazing of windows.
- Re-fix external boards and replace missing boards. Consider reviewing existing detail to introduce a moisture membrane.
- Review external cladding corner detail to try and prevent previous premature failure.
- Repair masonry structures as appropriate.
- Reconstruct fallen flue.

During the appraisal mission for preparing this report (ref. Annex D), a productive exchange of views took place with members of the Protection Board (office of the Ministry of Culture and Tourism of the Republic of Turkey) who recognised the urgency of the situation and undertook to deal with a request for permission to carry out temporary stabilisation and protection of the building both expeditiously and flexibly. They offered to give immediate advice on how best to make an application for the necessary permissions within the confines of the Turkish law.

An estimation of the costs the above works would entail (including both preparatory and urgent repair activities, but undertaking the core structure is still in good



condition). has been prepared by an external expert and checked by a local architect with long experience in wooden buildings. The final figure, including non-strictly construction works (e.g. permissions, taxes, supervision and contingencies of different nature) gives a figure around € 2 million. Generating the required resources for this purpose is a challenging task in itself, but international recognition of the situation of the heritage site would be helpful.

## **5. Description of the project**

The basic objective of the final project is the recovery/revitalization of the Orphanage and the rest of the Site. The intention is not to bring everything back to its previous condition/use but to adapt it to new uses. In general, the approach should be pragmatic, maintaining the spirit of the original concept while allowing modernisation to current standards and expectations.

The Greek Orthodox Patriarchate now has the challenge and opportunity of conserving and converting this very large and important historic building into new public uses for which it is admirably suited. The idea of creating a Centre of Environmental Studies/Protection and an Interreligious Dialogue Forum, as conceived by the Patriarchate, should be the core of the future utilization of the buildings. Such activities would address the needs to safeguard and sustain all of the essential qualities of the Islands, namely the natural environment, built heritage and the culture of a cosmopolitan life where different communities live together. It might also become a new relevant asset in Greater Istanbul, attracting high quality visitors.

It is clear that the resources necessary to properly maintain and operate the site will not be negligible and therefore it is also necessary to identify other complementary uses that are capable of generating enough resources for this purpose. In practice, this means that, from an operational standpoint, the buildings might be divided into diverse but compatible usage areas, such as administration offices, studies and classrooms, a library, laboratories, accommodation facilities, conference/concert hall, restaurants, etc.

The Patriarchate, understanding this challenge, is ready to launch an open reflection/discussion with the main stakeholders in order to arrive to a wide consensus on those optimal uses. Once this process is completed, the final decision will democratically be taken by a Synod composed by 12 Orthodox Archbishops, under the presidency of the Patriarch.

The challenge of conserving the largest historic timber building in Europe would provide the opportunity to engage a qualified professional team during the construction phase. It could also provoke the interest and enthusiasm of a wide community in the conservation of not just this single building but, in general, the

heritage of timber edifices in Istanbul. Against this background, the definitive restoration project can be divided into the following main phases:

- First of all, an unrestricted consultation would result in the development of a definitive design concept for the future uses of the Site, through open and transparent discussions with stakeholders. Giving the Orphanage and the School a combination of multiple complementary usages, free from political agenda, would allow people to unite around the idea that historical and cultural heritage sites can be preserved through creative approaches.
- In parallel, a comprehensive Business Plan should be developed in order to assess to what extent the final product would be sustainable in the future (the basic contents of this Business Plan are detailed in paragraph 10). Several technical studies need to be carried out in order to identify and design the plan to be adopted, as well as to forecast the cost for construction, operation and maintenance of the entire Site. A detailed risk analysis, together with a project implementation plan and a strategy for procuring the works, should also be prepared.
- It has to be noted that, although the intention is to keep the essential fabric of an historic “wooden building”, in particular the façades and most significant interiors, several more efficient and safe modern materials and technologies should necessarily be used in the works to safeguard the original building fabric. New solutions not contemplated in the original design (such as non-inflammatory materials, safe electricity elements, global sanitation installations, efficient heating/air conditioning system, modern cooking facilities, fire-fighting equipment, noise isolation) should have to be incorporated in the building. The final design must identify which combination would be the best and acceptable solution in terms of conservation and sustainability.
- An aspect also to be considered is to what extent part of the building would be secured but kept in its current status, in order to create a sort of “historic memory” of the Site.
- Particular attention must be given to the large half-basement area of the Orphanage, currently having an inadequate compacted-earth floor and an apparently non-existing proper drainage system. The status of the underground foundations should also be investigated in order to ensure the stability of the building and to minimise seismic risk in the future.
- It is to be noted that even after preliminary studies, this project should expect the unexpected at any time (thus, quick identification and minimization of latent defects is a must). It is likely that new challenges arise as the work begins and as more of the structure is revealed. This needs to be clearly acknowledged in the

control and management arrangements. Therefore, technical checks on existing materials quality and stability should be carried out continuously, rather than waiting until works are in progress.

In general, the approach should be pragmatic and should maintain the spirit of the original concept while acknowledging the fact that modern operational and technological methods allowing the building to be used safely are likely necessary.

## **6. Implementation**

The duty for implementing the project falls under the responsibility of the Patriarchate. However, it has to be noted that the Patriarchate does not have a legal status and therefore it cannot become the legal owner of the site. In Turkey, every Orthodox church/property, including the central Patriarchate facilities, belongs to a local individual foundation. Therefore, in order to implement and to manage the project, it appears that the creation of a specific new foundation (or alternative legal structure), which would own the Site as its main and probably sole asset, is a need the Patriarchate must rapidly solve in order to have a legitimate interlocutor with external participants in the project (e.g. authorities, donors, financial institutions, construction companies, suppliers, stakeholders in general) would likely last several months before being successfully completed.

This is a challenging project that would require adequate time and considerable specialist international expertise. To make use of previous experience and to enhance the future prospects, a conference of all stakeholders (such as technical experts, the conservation community, local and international NGOs, public and private actors who could potentially be involved and maybe Europa Nostra) should be convened to search for the best creative ways of safeguarding and sustaining the Site in the future. Several NGOs have already expressed that, because of its former use, the orphanage has strong emotional and other intangible heritage values. It is thus reasonable to conclude that a few possible uses should be ruled out (e.g. a conventional hotel) while, at the same time, it should be recognised that the size of the building means that a likely outcome would be a mix of compatible uses.

In parallel, the permissions to implement the project have to be issued by the Protection Board of the Turkish Ministry of Culture and Tourism. Therefore, the final design needs to follow all the rules and requirements established by this entity for such a singular building. It is worth noting that (as mentioned in Point 4) the attitude of the Board in relation to the project is positive and they would be happy to help the Patriarchate to obtain the permissions in a reasonable period of time.

On top of that, some opposition to the project is likely to become visible and a strong communication campaign on the benefits of the project at many levels would need to be carefully prepared and widely implemented.

Under these circumstances and due to the high number of issues that need to be solved, it is not yet realistic to establish a detailed plan for completing the project. Notwithstanding, an approximate schedule for completing the project may look as follows:

<b>Task</b>	<b>Timeframe</b>
Technical assessment of the current status and implementation of urgent measures	6-8 months
Stakeholder discussions to define final uses	6 months
Preparation of Feasibility study	8-12 months
Preparation of Business Plan	8-12 months (in parallel)
Technical design of the architectural solution	12-16 months
Fundraising	12-18 months
Permissions and other administrative processes	3-4 months
Implementation of works	24-36 months (subject to weather conditions and unexpected contingencies)

In total, a period of 4-5 years would be reasonably necessary for completing the project works.

## **7. Environmental and social impacts**

The attractive qualities of the Prince's Islands, as a charming representative of a bygone era, make them popular among tourists. To protect the environment, conventional cars on the island are forbidden for (only small electric vehicles and horse-drawn chariots are allowed). However, the continuous pressure of the uncontrolled influx of daily tourism has reached overwhelming levels that pose a threat to the safeguarding of this rich environment, which includes numerous ancient buildings (most of them wooden) and nicely preserved, clean open-air areas (ref. Annex C).

### Environmental Context

Prinkipo has a special character and its island-scape formation constitutes a prominent example of natural, economic, socio-cultural and architectural qualities. The social and economic environment is especially strong and balanced between the size of the local population and the resources available on the island.

According to the Technical University of Istanbul (ref. Annex D) “the island satisfies the selection criteria set by UNESCO and ICOMOS for nomination as a cultural landscape due to the essential qualities of its natural and historic areas. The island is an outstanding ensemble that integrates vernacular architecture with pine woods as an artistic whole within an island-scape and represents the harmonious interaction between people and nature to create a cultural landscape of exceptional scenic quality”.

It is worth mentioning that one of the proposed future uses of the building is to house an environmental sustainability centre. Some of its most relevant activities could entail basic research/training e.g. in relation to the contamination of the Marmara Sea, the observation of bird and fish populations, conservation of flora and fauna, biotechnology and the effects and mitigation of Climate Change in the area.

### Social impacts

As one of the best-preserved old neighbourhoods of Istanbul, Prinkipo has a very active local community consisting of generations of inhabitants working hard to protect and preserve the architectural and natural heritage of the island. They oversee as closely as possible all new local initiatives and are happy to participate in positive actions taken by different institutions, as well as contesting unsuitable projects.

Singular locations such as the Orphanage, which would organise educational, artistic and cultural activities in the future, stand to benefit from the engaged participation and creative vision of the local population. Cultural historical conservation activities/events provide the local population (as well as visitors) with opportunities to openly discuss ways to enrich community life. A positive option would be establishing programmes to interpret the site's history, which would reflect and celebrate an iconic illustration of local hospitality, history, craftsmanship and architecture. The goal would be to deliver a distinctive program demonstrating the cultural values of the landscape, as well as its integration and connection with the rest of the Princes' Islands, the Greater İstanbul area and, ultimately, with the whole country.

### Environmental impact assessment

From the administrative standpoint, due to the exceptional character and location of the project, a comprehensive but not necessarily formal environmental impact assessment should be carried out. Elements to be developed would include the preparation of impact studies (in particular during construction) and an open public consultation with stakeholders. The recommendations generated by this process (including the identification of sound mitigation and compensations measures) should be put in action under the responsibility of the project manager and under the supervision of the corresponding authority.

Against this background, although the Urban Master Plan is still under preparation, the Municipality of Prinkipo (forming part of Greater Istanbul), considers the building as a cultural heritage good and thus, on the one hand, some regulations should be applied (e.g. construction works are not permitted during summer) and, on the other, it is ready to help the promoter in reaching successful results (to the extent of their capabilities).

During construction (both during the urgent interventions and main works) the most relevant negative impacts requiring mitigation/compensation measures are likely to be: waste management and recycling, noise and dust generation, and the prevention of leakage. During the operation period it should be necessary to develop a waste/sewage management strategy, as well as the provision of an efficient hydrant system to stop a possible fire in the building. On the occasion of mass attended events, it would be required to put in place severe measures to minimize negative environmental impacts and to adopt some compensation measures in the natural surroundings and access. Obviously, in any case the municipal regulations on construction and operation of singular buildings, as well as a strict respect of the master plan of the Island, have to always to be met.

## **8. Investment cost**

At present, it is extremely difficult to have a precise figure about the investment costs necessary to complete the project. Elements/aspects that definitively will have a fundamental influence on the final figure are, at least:

- Preparation costs, including investigations on the actual status of the buildings, identification of the final use, final architectural and engineering designs, permissions
- Project management, surveillance and quality control
- Preparatory works, including access to utilities
- Construction costs, which not only depend on the final usage of the building but also on the materials to be used
- Rendering, landscaping and other complementary works
- Technical and financial contingencies to reduce risks

Additionally, it must be taken into account that the local unitary costs may be considerably affected by the fact that the project is located on an island and by the macro-economic situation of the country while works are being carried out. In summary, there are so many caveats and uncertainties that, at this point in time, it is impossible to provide a reasonable fair estimate of the final project costs. In any case, on the basis on the opinions expressed by some external experts and other projects appraised by the European Investment Bank, it is reasonable to expect that the project should require a total investment of at least € 40 million (a figure that, depending on

many factors, could be much higher). This would generate considerable employment during construction (likely within the range of 250-300 persons per year), including some very specialised workers.

## **9. Operation and maintenance**

The operation and management of the project will be the responsibility of the owner, who needs to be aware of the universally accepted scientific conservation principles and standards and, therefore, should benefit from the advice of a scientific committee to ensure high level inputs by architects and other relevant experts. The challenge consists of designing and implementing a conservation scheme for a truly enormous timber building, the size and technical characteristics of which generate considerable conservation costs. The owner should therefore prepare a comprehensive O&M programme and allocate a budget to ensure it is done correctly throughout the operational life of the buildings. Indicatively 5-10% of the investment cost may be required annually for maintenance.

The scope of operations must cover the permanent activities as well as the organization and/or the supervision of occasional events, both externally and inside the building. Ensuring successful results would require considerable promotional and technical inputs that would need special marketing studies. A special unit may need to be established for this particular purpose. Otherwise, these activities may be delegated to a private operator having extensive experience in the management of such a complex building, both from the technical and administrative standpoints. It is currently estimated that, depending on the final usages, between 20 and 40 persons would be necessary to ensure the correct operation and maintenance of the building, including administrative personnel. All in all, the future management of the Site is to be developed by means of a Heritage Management Plane, which must be integrated with the Heritage Management Plan of the Princes' Islands as a whole.

## **10. Business Plan**

After creating the foundation (or alternative legal structure) which would own the Site, it is necessary to set up a Management Unit in charge of the definition and implementation of the project, which seems very interesting from historical, environmental, social and architectural standpoints. However, in order to verify the sustainability of the project, it is necessary to prepare a sound and comprehensive Business Plan, which should incorporate the participation of diverse international experts and should cover, at least, the following two elements:

## Feasibility and Technical studies

After arriving at an agreement on the future uses of the Site and, in order to understand the current problems, challenges to be faced and solutions to be adopted, it will be necessary to carry out the Feasibility study, including the full design of the main works to be carried out and a risk assessment with the identification of major measures to mitigate them. Its main components are as follows:

- Identification of the manager (Management Unit) of the project and his/their relationships with main stakeholders
- Clear identification of the final potential uses of the buildings and their insertion into the general plan for the surrounding environment
- Clearance of the ownership of the project and his legal and technical capacity to properly manage the project
- Basic design criteria/characteristics and detailed design of the final architectural/technical solutions for the buildings (most likely to be carried out in two steps)
- Technical studies on the status of the Orphanage and identification of technical solutions to be adopted for its recovery
- Final design of the adopted technical solution
- Preparation of an environmental impact analysis, including mitigation measures during construction and best practice actions during operation
- Social impact of the project, including enhancement of skills of local population (as related to tourism, socio-cultural and research activities for example)
- Process for granting all necessary permissions
- Strategy for carrying out the procurement of the works
- Strategy for implementation of the project, following the specifications of the final design and the environmental impact conditions
- Assessment of the necessary investment costs for the construction of the project
- Assessment of the annual costs for the operation and maintenance of the Site, including the identification of all required personnel
- Technical risks assessment, both during the preparation and construction phases of the project, in order to minimize cost overruns and unexpected delays; and including the identification of major eventual mitigation and rectification measures
- Preparation of a marketing study, including:
  - Analysis of potential demand, including tourist, scientists and local visitors
  - Definition of tariffs and identification of potential subsidies
  - Characterisation of main types of both recreational and training events to be organised
  - Preparation of dissemination materials using different physical or digital/electronic support, and media
  - Inclusion of the Orphanage in national and international cultural databases and networks



- Operational programme after construction, including the responsibilities of different parties and considering the possibility of outsourcing this task to the private sector
- Employment generated both during construction and operation over the entire life of the assets
- Identification of potential sources for financing the project (fundraising), including the participation of both the public and private sectors in the different elements of the project during the construction and operational periods through different financial instruments
- Dissemination of the project and operational marketing campaign

### Economic and Financial analysis

In order to assess the economic/financial viability of the project, it will be necessary to carry out an economic and financial analysis, which should result in the preparation of a cash-flow model covering at least 25 years (5 for preparation and implementation; 20 for operation). The main costs to be considered (per each year) in the economic cost/benefit analysis are:

- Preparation and supervision costs (project design, management and quality control)
- Investment costs related to urgent intervention
- Investment costs for the main works (the core of the project)
- Operation and maintenance costs
- Major repairs, renewals and/or improvements over the asset's life

While the main economic (intangible) benefits are basically related to: (i) the generation of employment (both during construction and during operation), (ii) environmental scientific and conservation benefits, (iii) visitors attraction to the Site (either tourists, researchers or scientists) and creation of indirect new business, (iv) inter-faith constructive dialog, and (v) visibility of the importance of the Orphanage and its surrounding environment.

The costs to be considered for the financial analysis should include all those forming part of the economic analysis, plus the reimbursement of loans and other financial products (i.e. interest and capital; guarantees; insurances and taxes). In terms of this financial analysis, the tangible benefits the project would generate are: (i) revenues from tariffs paid by visitors and other users, (ii) incomes generated by the organization of special events, (iii) revenues produced by other directly related activities (e.g. exhibitions, seminars, merchandising), and (iv) subsidies and grants.

## 11. Funding possibilities

The funding for the urgent intervention might be assured by the Patriarchate as soon as possible, eventually with the support of the Government from its own budget (under an emergency remedy initiative, if feasible).

Since the Orphanage has been transferred to the Orthodox Church, the Patriarchate must solve the legal issue of creating a foundation (or alternative structure) capable, both from the legal and managerial standpoints, to take on the responsibility of preparing and implementing the project and, later on, ensuring its efficient maintenance and operation. This foundation should also be responsible for raising the necessary funds for financing the main construction works. At this point in time and due to the numerous current uncertainties, it is not possible to identify precise sources capable of mobilising the necessary funds. However, a preliminary list of potential financial mechanisms is as follows:

- Donations. The Patriarchate seems to have good relationships with the Greek diaspora worldwide, which would likely be willing to mobilize some funds for the project, in particular for the urgent intervention. In parallel, the willingness of other international donors should be explored.
- Grants. The European Commission, through its External Action (under the remit of the EEAS), could consider the possibility of giving some grants, either for the preparation or for the implementation of the project. Indeed, during the mission, the EU Ambassador to Turkey stressed the importance of the project, not only within Greater Istanbul but to the whole of Europe. The eligibility criteria would be justified as contributing to regional development, the promotion of cultural tourism, environmental protection and research, inter-cultural dialogue and rural development in deprived areas.
- Loans. Due to the high number of undefined features and characteristics (risks) the project currently embodies, a large loan by International Financial Institutions (e.g. EIB, ADB, EBRD) would probably be difficult. Nevertheless, some blending of finance with an EU or other grant might be appropriate. A detailed sound Business Plan demonstrating the financial viability of the project in the long term should be necessary (ref. Point 10).
- Private investors. It seems very unlikely that the private sector would be willing to take over the full responsibility of the project financing. A mixed solution would probably be suitable, in particular opening the participation of the private sector during the maintenance and operation phase. Indeed, due to the complexity of the Site and the various expected activities to take place, it would be reasonable and desirable that O&M are managed in a very professional and experienced way.

A lot of uncertainties are still to be cleared but, due to the enormous interest of the project, it is not unthinkable that a workable/bankable, and most likely, combined solution may be found in the near future.

## **12. Conclusion: Proposed actions and recommendations**

This would be an iconic project in a key location having national and European significance but it presents a challenging agenda for a worthwhile objective. Under these circumstances, several proposals for its preservation and future utilisation arise as follows:

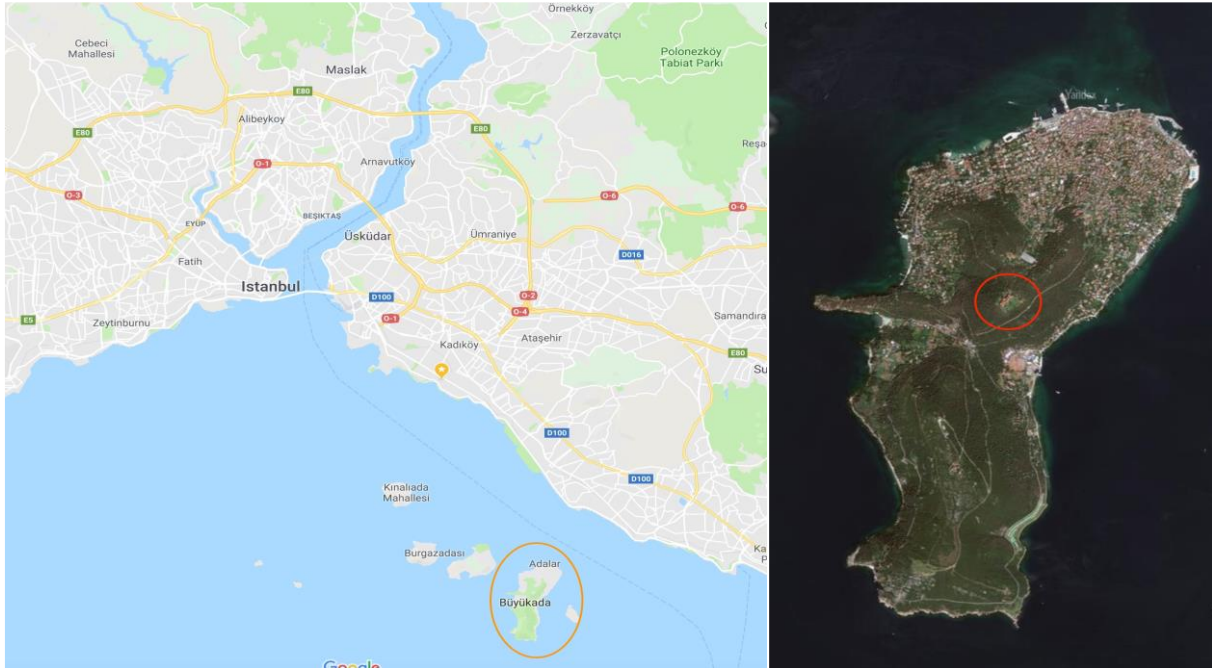
- As far as the Site is currently abandoned to decay, an immediate preliminary intervention should be quickly designed, planned and implemented to protect the buildings from further deterioration. This action, with an estimated cost nearing two million euro, could probably be taken and funded by the Patriarchate with the support of external donors, if feasible.
- The first activity of the recovery project would consist of the development of a definitive concept about the future use of the Site. The basic primary idea is to convert the Site into an Environmental and Inter-faith Dialogue Centre, free from any political agenda. However, other compatible uses would also be considered, and indeed be needed, to generate some revenue to ensure the viability of the project. The participation of stakeholders in this process is crucial.
- Before putting in place any rehabilitation intervention, a Management Unit should be set up and a comprehensive Business Plan carried out in order to assess to what extent the final product would be sustainable in the future. It should basically consist of the identification and design of the final plan to be adopted, as well as the estimation of the investment costs required for the construction, operation and maintenance of the Site. Particular attention should be given to the safety of the building in the future, in particular in relation to fire and seismic risks.
- Studies related to risk analysis, the identification of the works' procurement strategy and a project implementation plan should also be prepared. The participation of international experts, entailing a multidisciplinary team, would be an important requirement.
- Due to the particular environment in which the Orphanage is located and the special characteristics of the building, it is recommended that, although not legally required, an informal Environmental Impact Assessment following the standard procedures established at international level, be carried out, in particular dealing with the construction phase.
- The operation and management of the project would be the responsibility of the owner. Nevertheless, these activities may be delegated to a private operator having extensive experience in the management of such a complex building, both from the technical and administrative standpoints.

- The Patriarchate, through the final legal owner of the Site, would be responsible for raising the necessary funds for financing the main works and to carry out the implementation of the project. Several international potential sources of different nature must be explored.

**To summarise, a very stimulating project related to the revitalisation of an iconic building immersed in a singular environment, and offering great future opportunities from cultural, environmental, touristic and socio-economic points of view.**



## Location and Pictures



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### **Initiative lead by Europa Nostra for safeguarding the Prinkipo Greek Orphanage (prepared by EN Turkey)**

The 7 Most Endangered Programme draws attention to the risk of the extinction of valuable examples of Europe's cultural heritage which have not been repaired and maintained for a variety of reasons and pioneers the work on the protection and survival of these important assets. By providing technical advice to the parties responsible for the cultural property, the programme acts as a guide to formulate applicable action plans to save the endangered Site.

Within this context, the Prinkipo Greek Orphanage (the Site) was selected to be included on the 7 Most Endangered list of 2018. The building that for more than a century had silently existed on the Hristos Hill of Büyükada (Prinkipo Island) is today in a considerable endangered state.

The intervention project (basically consisting in recovering the Site for new uses) had been nominated for the programme by Europa Nostra Turkey, with the permission and approval of the Ecumenical Patriarchate of Constantinople which is the owner of the building by historical donation. The Turkish Timber Association, the Association for the Protection of Cultural Heritage and the Islands and the World Heritage are non-governmental organisations that have supported the application.

The main reason for the Orphanage being nominated for the 7 Most Endangered programme, and for its ultimate selection is that the Site is in immediate danger of collapse. Another important reason is that the Patriarchate, the organisation responsible for the Site, has declared their sincere dedication to its rescue and protection. The institutions that are the nominators and those responsible for the Site have, together, promised to fulfil the obligations of participating in the programme and therefore they are expected to meet these responsibilities by Europa Nostra.

There is a cultural dimension to the selection of the Orphanage, which is the unique and meaningful significance of the Site to European cultural heritage. It was built by an organisation of European origin, in a period when the interaction of the Ottoman world with European culture had considerably increased. Moreover, Alexandre Vallaury, one of the most important architects of Istanbul who designed the Site, had familial ties to Europe and had studied at Beaux-Arts. Thus, such connections give the Site a special meaning in our common cultural heritage with Europe. The fact that it is the largest wooden construction in Europe from the time it was built makes the Site unique in terms of European architectural heritage.



The Orphanage building was constructed as a hotel between the years 1898-90 and thus it is now 118 years old. It was used as an orphanage for 61 years from 1903 to 1964, meaning that witnesses of its active life are today unfortunately very rare. Since then, the Site has spent almost half of its life in an abandoned state. Today, the Orphanage is known as a devastated and derelict Site with a sad atmosphere. Readings of the Orphanage's past are however inevitably loaded with romance, bringing the risk of an overload of meaning that is in actual fact not strictly true to life. This is a rather fragile Site that barely stands physically but, at the same time, it is laden with memories and spiritual value.

Against an official request for the demolition of the Orphanage in 1964 (based upon risk hazards at the time of closure), the Supreme Council for Cultural Properties and Monuments ruled that it could not be demolished as it had been designed by Vallauri and holds relevant architectural heritage values. Instead, it should be kept and maintained, but unfortunately the latter did not happen.

The Orphanage is an enormous building in its physical dimension. Only the main building has a total indoor space of 15000 m<sup>2</sup> on the 26-acre land. Nevertheless, the building was never used to its full extent, not even in the times when the Site was very active. Repairs and maintenance could not be carried out after it was abandoned due to either unknown circumstances or the necessary permits could never be obtained.

In recent years, the unresolved problems regarding its ownership have made the Site difficult to manage, resulting in the failure of attempts to use the building and of the efforts to improve its condition. It seems it has always been difficult to deal with the Site. This difficulty mainly stems from the enormous size of the Site, which in parallel results in its uniqueness. The fact that there is no other example of a timber Site of such dimensions in Europe emphasises its value and its rarity in architectural heritage.

The Orphanage is a large-scale building although it was not envisioned as a symbolic site or a monument. It has always been a civilian site and originally it was built with purely commercial intentions. The fact that a hotel was built with the idea that it could be profitable, is an important indicator of the social and economic environment in Istanbul and the Prince Islands at the beginning of the 20<sup>th</sup>-century. Having never been used as a hotel, it was donated to the Patriarchate on the condition that it would only be used as an orphanage, which brings a social value to the history of the building, becoming a symbol of collective memory and culture for the people of Istanbul and Princes Islands. As a consequence, the building is now embraced by everyone through the efforts of various groups that had struggled for the solution of the problems related to ownership, usage and the safeguarding of the building.

To prevent the loss of the building, with all its material, social and spiritual values, it is necessary to act to preserve what remains, protecting what is left of the fabric and retaining its heritage values. Once conservation begins, the Orphanage will no longer be an abandoned ruin. Interventions to prevent the deterioration of the material alone would significantly transform the remains. Further architectural interventions, as expected, will be required to sustain the existence of the Site for it to reach an active life again.

Architectural conservation is an essential task for managing this change, which will have an effect on the structural elements as well as in its future use. It should be essential to protect the Orphanage without compromising the integrity of the original architectural fabric, as well as keeping the spirit on which it was built and the collective memory of the society. The support of Europa Nostra, in the framework of the 7 Most Endangered programme is essentially based on these principles.

**Environmental context**

The Princes' Islands are a chain of nine islands off the coast of Istanbul in the Sea of Marmara. These islands are Büyükada with an area of 5.36 km<sup>2</sup>, Heybeliada with an area of 2.4 km<sup>2</sup>, Burgazada with an area of 1.5 km<sup>2</sup>, Kınalıada with an area of 1.3 km<sup>2</sup>, Sedef Adası with an area of 0.157 km<sup>2</sup>, Yassıada with an area of 0.05km<sup>2</sup>, Sivriada with an area of 0.05km<sup>2</sup>, Kaşıkadası with an area of 0.006 km<sup>2</sup>, and Tavşanadası with an area of 0.004 km<sup>2</sup>.

During the summer months, the Princes' Islands are popular destinations for day trips from Istanbul. As there is no traffic on the Islands, the only transport being horse and cart, they are incredibly peaceful compared with the city of Istanbul. They are just a short ferry ride from both the Asian (at Bostancı and also Kartal) and European sides (from Sirkeci/Eminönü, Kabataş and Yenikapı) of Istanbul. Most ferries call in turn at the four largest of the nine islands: Kınalıada, Burgazada, Heybeliada and finally Büyükada. Ferry services are provided by Istanbul Seabuses (İDO), a firm operated by the municipality of Istanbul. In spring and autumn, the islands are quieter and more pleasant, although the sea can be rough in late autumn and winter.

During the Byzantine period, the prince and other royalty were exiled on the islands, and later members of the Ottoman sultan's family were exiled there too, lending the islands their present name. During the 19th century the islands became a popular resort for Istanbul's wealthy, while cottages and houses from that time are still preserved on the largest of the Princes' islands.

The Princes' Islands have become more and more ethnically Turkish in character due to the influx of wealthy Turkish jetsetters, a process which began in the first days of the Turkish Republic when the British Yacht Club on Büyükada was appropriated as Anadolu Kulübü, for Turkish parliamentarians to enjoy Istanbul in the summer. However, the Greek, Armenian and Jewish communities still constitute a small part of the islands' population. The islands are an interesting anomaly because they allow us to have a rare and incomplete insight into a multicultural society in modern Turkey, possibly like the multicultural society that once existed during the Ottoman Empire in places such as nearby Istanbul/Constantinople.

**Tourism attraction of the Princes' Islands**

The influence of the tourism movement, started in the mid-XIX century in Europe, reached the Princes' Islands, which is very close to Istanbul, almost at the same time as it reached the rest of the world. Tourism and recreational activities in the Islands have become evident by the transformation of small-scale residential areas, which

were permanent residences and not yet associated with tourism before, into use for tourism. As tourism and recreational activities are linked with the sea, developmental changes are mostly visible on the coastline. Tourism in the Islands began to develop during the period when physical attractions were not influenced by special facilities. In this period, the most obvious reason for the increased tourism and recreational activities to the island is that the air of the islands was considered healthy and beneficial in fighting some diseases. As the Islands were visited by the most important statesmen of Turkey, they became popular among Turkish society and an increase in investments during this period. In the period extending from the 1980s to today, the tourism and recreational activities of the islands constantly developed.

## Mission details and documents consulted

The expert mission took place on 29-31 May.

Here below an overview of the main participants and stakeholders who took part in the site visit and various meetings

EN / EIB-Institute	<ul style="list-style-type: none"> <li>○ John Sell, Chair of the 7 Most Endangered Advisory Panel,</li> <li>○ EN Ambassador Alexander Philon, Advisor to Europa Nostra</li> <li>○ Mario Aymerich, Technical Advisor to the EIB Institute</li> </ul>
Europa Nostra Turkey	<ul style="list-style-type: none"> <li>○ Burcin Altinsay, Nominator and Chair of Europa Nostra Turkey</li> <li>○ Prof. Işık Aydemir, EN Turkey</li> <li>○ Prof Nuran Zeren Gülersoy, EN Turkey Board member and EN Council member</li> </ul>
Ecumenical Patriarchate of Constantinople, based in Istanbul	<ul style="list-style-type: none"> <li>○ His All Holiness, Bartholomew, Archbishop of Constantinople New Rome and Ecumenical Patriarch</li> <li>○ Mr Laki Vingas, Representative of the Ecumenical Patriarchate and manager of the project</li> <li>○ Dr. Apostol Poridis, architect, advisor to the Patriarchate</li> <li>○ Stella Karax, project officer</li> </ul>
Municipality	Mr Erdem Gül and other members of the Municipal Council
Ministry of Culture	<ul style="list-style-type: none"> <li>○ Ebru Akyol ZOR- Head of the General Office of Protection Boards in Ankara, working under the General Director of Museums and Cultural Heritage</li> <li>○ Habibe Yılmaz- Director of the İstanbul Regional Protection Board No5</li> <li>○ Ahmet Başıyigit- chair of the Protection Board No 5</li> <li>○ Barış Han, Architect member of Board No 5</li> <li>○ Enver Kaba, Architect member of Board No 5</li> </ul>
European Union	Mr Christian Berger, Ambassador to the EU in Turkey
NGOs	<ul style="list-style-type: none"> <li>○ UAB(National Wood Association)- Emine Erdoğan, Ahmet Demirel</li> <li>○ KMKD (Association for the Protection of Cultural Heritage)- Yavuz Özkaya, Barış Altan</li> <li>○ IREF (Greek/RUM Istanbulites Ecumenical Federation)- Alexandra Pepak</li> <li>○ WMW 2020 nominators- Annie Geelmuyden Pertan, Firuzan Melike Sümertaş; David Michelmores</li> </ul>

EN Turkey/BAD	<ul style="list-style-type: none"> <li>○ Selma Somer,</li> <li>○ Yüksel Dinçer</li> </ul>
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### Main documents consulted

- 7 Most Endangered nomination form, prepared and submitted by EN Turkey; Support letters to the project issued by the Ecumenical Patriarch, the Turkish Timber Association and the Turkish Association for the Protection of Cultural Heritage and submitted with the nomination form; the preliminary pre-mission questionnaire
- Prinkipos Center – Preliminary Archetypes & Feasibility phase. Steering Committee meeting on October 6, 2011. Patriarchate.
- Burçin Altınsay, “An Endangered Cultural Heritage: Safeguarding of Prinkipo Greek Orphanage”, 2019.
- Selin Karsan Ayanoglu and Yegan Kahya, “The Characteristics of Büyükada as a Cultural Landscape”, Department of Architecture, Istanbul Technical University, 2019.
- Gaye Ertin, “Development of tourism and recreational activities in Istanbul Islands”, European Journal of Educational & Social Sciences, volume 2, issue 2, 2017
- Structural report of Prinkipo Orphanage, Büyükada-maden Mahallesi, written by Clive Dawson in March 2019.
- 2020 WORLD MOMUMENT WATCH NOMINATION APPLICATION. On behalf of Mr. Rahmi M. Koç, Honorary Chairman and Member of the Board of Directors Koç Holding.
- Instrument for per-accession assistance (IPA II). Indicative strategy paper for Turkey (2014-2020), adopted on 26/08/2014.