DESIGNATION OF THE STATE OF THE

proposed Complex and Diploma PROGRAMS IN the SPRING SEMESTER 2020

Experimental Design Studio

Oil Platform-Ocean Cleanup Base///Mexiko – Seismological Centre and Research Institute///Szondi91 - designing in the block///Kisképző - Villa extension on Gellért Hill///Egypt-MARS Research Project - Agricultural Research Centre of the Desert

Zirc Studio TEAMWORK!

Museum and Research Institute of Natural Sciences///extension of the Reguly Antal Museum///Visitor Centre and Forest School of the Bakony/// Touristic Centre and the new main gate of the Arboretum///Collection of Agricultural Engineering Relics and Training Workshops///Municipal Library and Digital Archive

Middle East Design Studio TEAMWORK!

Cairo Project - Max Herz Research Institute///Aleppo Project - Post War Renewal///Beirut Project - Formal/Informal///Libanese Countryside - On a Cultural Landscape

REClaim Studio TEAMWORK!

Népsziget – Ship Factory//Érd – Brick Factory///Esztramos – Magic Mountain

Individual program proposal

SPECIAL FEATURES OF THE DIPLOMA AND COMPR. DESIGN IN 2020:

/WE ARE STRUCTURING THE PROPOSED AND PREPARED PROGAMS OF THE DEPARTMENT IN FOUR STUDIOS

/CHOOSING INDIVIDUAL SITES AND PROGRAMS IS STILL AN OPTION

/WE ARE STARTING THE SEMESTER WITH A SERIES OF LECTURES AND STUDY TRIPS (2-3 WEEKS), EXPERTS ARE GOING TO BE INVITED FOR ALL PROGRAMS, WE ARE VISITIN HUNGARIAN SITES TOGETHER

/EACH PROGRAM HAS THE POTENTIAL TO BE ELABORATED IN STRONG COLLABORATION WITH SPECIALIST DEPARTMENTS OR OTHER DISCIPLINES:

MEXICO/DEPT. OF MECHANICS, MATERIALS AND STRUCTURES

EGYPT/ENERGETICS+PLANT ENERGETICS

OCEAN CLEANUP/BUILDING CONSTRUCTIONS+ENVIRONMENTAL PROTECTION SZONDI91/CONSTRUCTION TECHNOLOGY AND MANAGEMENT

ZIRC STUDIO/ARCH, HISTORY AND TOURISM

MIDDLE EAST DESIGN STUDIO/CRISIS ARCHITECTURE+ARCH. HISTORY+URBANISM

RECLAIM STUDIO/MONUMENTS PROTECTION+B.C.+DEPT. OF MECHANICS+TOURISM

SPECIAL FEATURES OF THE DIPLOMA AND COMPR. DESIGN IN 2020:

/DURING THE SEMESTERS THE PREPARATION FOR PRESENTATIONS IS GOING TO BE CARRIED OUT IN TEAMWORK – COMPREHENSIVE DESIGN AND DIPLOMA STUDENTS ARE WORKING IN HUN-ENG MIXED TEAMS

WE PLAN TO HAVE SHARED CONSULTATIONS WITH AT LEAST THE FEATURED SPECIALIST DEPARTMENTS

/WE ARE PROVIDING THE NECESSARY DOCUMENTATION FOR THE PROPOSED PROGRAMS (MAPS, SURVEYS, BACKGROUND INFORMATION, ETC.)

/AZ EXPERIMENTAL DESIGN STUDIO OFFERS SPECIAL DESIGN PROGRAMS FOR STUDENTS LOOKING FOR CHALLENGE

/A ZIRC STUDIO OFFERS PRIMARILY TOURISTIC AND CULTURAL DEVELOPMENT DESIGN PROGRAMS OF A TOWN OF SPECIAL CHARACTER AND FEATURES

/IN THE MIDDLE EAST DESIGN STUDIO WE OFFER PROGRAMS RELATED TO AND BASED ON THE RESEARCHES OF THE DEPARTMENT

/THE RECLAIM STUDIO IS PART OF THE THEMATIC YEAR OF THE DEPARTMENTAL DESIGN, AND OFFERS LARGE-SCALE PROJECTS THAT ARE CHARACTERISTIC OF THE DEPARTMENT'S PROFILE





Plastic waste processing facility on open waters

In the past 30 years, more than a quarter of the oil used in the world has been extracted on offshore oil platforms, however, most of these platforms have exceeded their lifespan. Nowadays there are an estimated 10 000 abadnoned oil platforms in the ocean, thus the possible reuse of these artificial islands that have lost their function is a relevant question.

Plastics are the by-products of oil refinery. Most of waste produced in the world and left unprocessed is plastic, and often times ends up in one of the seas, creating enormous waste-islands, severely and soon irreversibly damaging the life of seas and oceans.

Task

The task combines these two by-products of oil refinery drifting on the seas into one program: we are designing waste management and waste processing centres using these platforms, which might be completed by a marine biology centre.

The facility must be adapted to the characteristics of the platform. Space needs to be created for the technology necessary for placetic waste recycling, the program needs to contain laboratories, apartments for workers, staff rooms, necessary technology rooms and storages, and the platform needs to be autonomous (in terms of electricity supply, water supply, etc.).

Offshore oil platform

Zentech Modular Offshore Platforms:

https://www.youtube.com/watch?time_continue=2&v=xHQBg74fWnE&feature=emb_logo

Tekla software:

https://www.youtube.com/watch?time_continue=182&v=KyO-6jsG2Zk&feature=emb_logo

 $\underline{https://www.youtube.com/watch?v=l26hC7Kta3s}$

Offshore platform design types:

 $\underline{https://www.slideshare.net/rahulranakoti/offshore-platformdesign}$

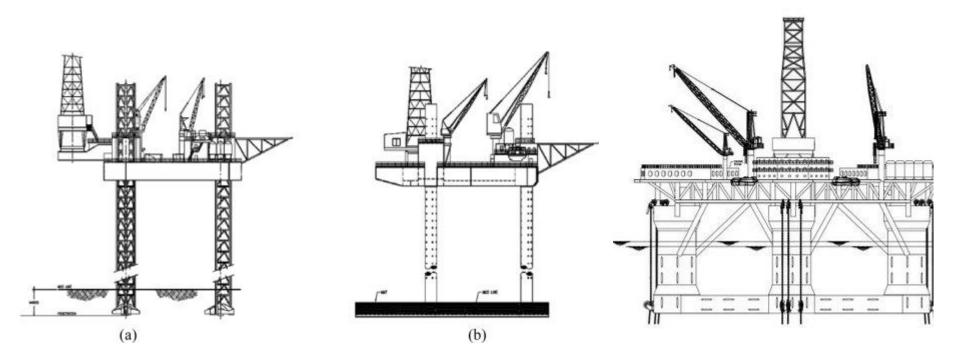
Offshore platform catalogue:

https://issuu.com/drillmec/docs/o6_drillmec_offshore_solutions

https://www.youtube.com/watch?v=zwlvRAozfLI

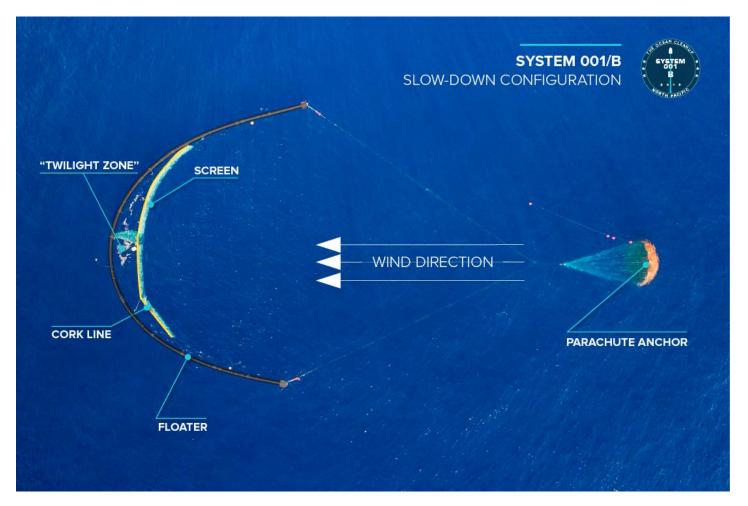






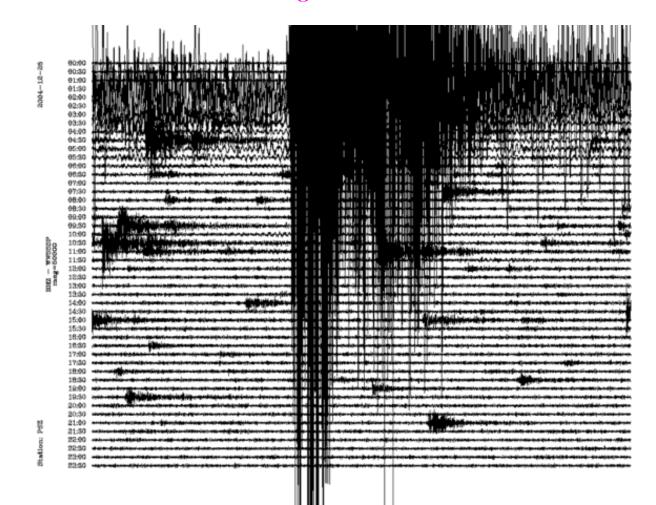












Seismological Centre and Research Institute

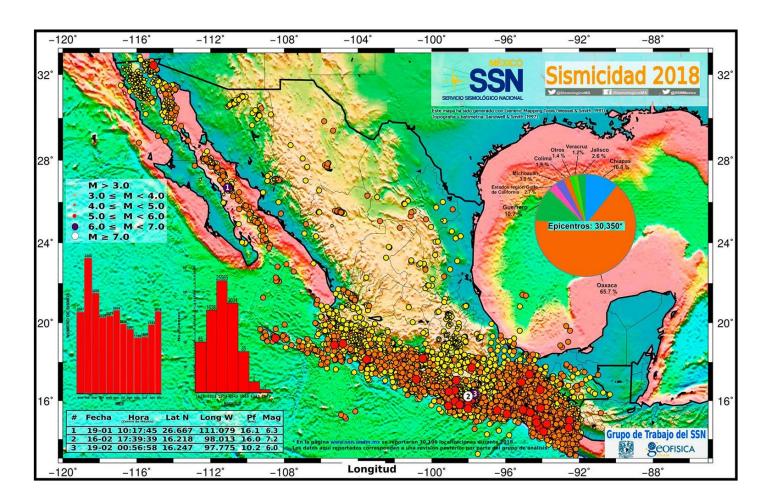
Mexico is located in one of the most seismic zones in the world. Earthquakes happen not only daily, in a more active period there might be one every hour in different spots of the country. In order to ensure the safety of the cca. 130 million people living un the country, it is necessary to constantly observe and forecast seismic activity with the most modern methods available in circumstances that satisfy all needs.

The Mexican National Seismological Service (Servicio Sismológico Nacional - SSN) provides up-to date and archive data as well on the registered earthquakes of the country:

http://www.ssn.unam.mx/sismicidad/ultimos/

Task

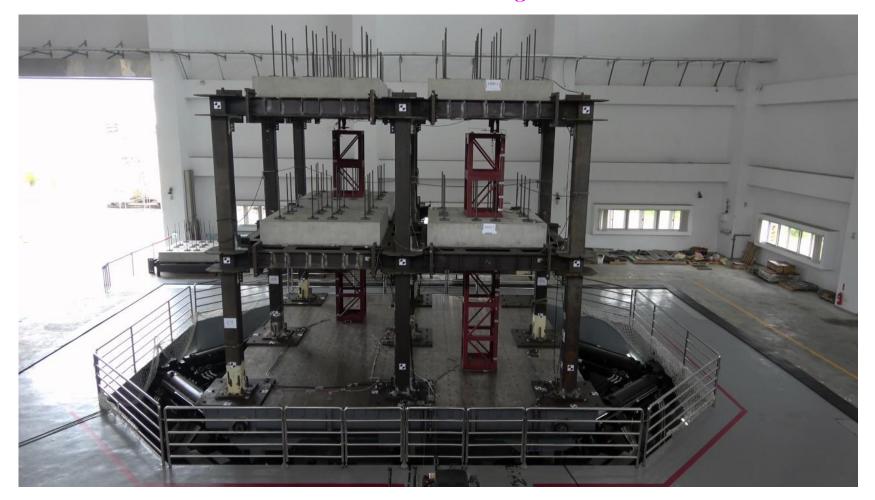
The task is to design a seismological centre and research institute for SSN, which includes a measuring station, research centre, that carries out the management and analysis of all data arriving from the country and the region, and an education centre where special educational and informative workshops can be organised for researchers and laics, too. As part and one of the most important function of the centre, an earthquake-simulation room and a material exmaination test laboratory is to be created, to enable the research and development of innovative, earthquake-resistant structures.







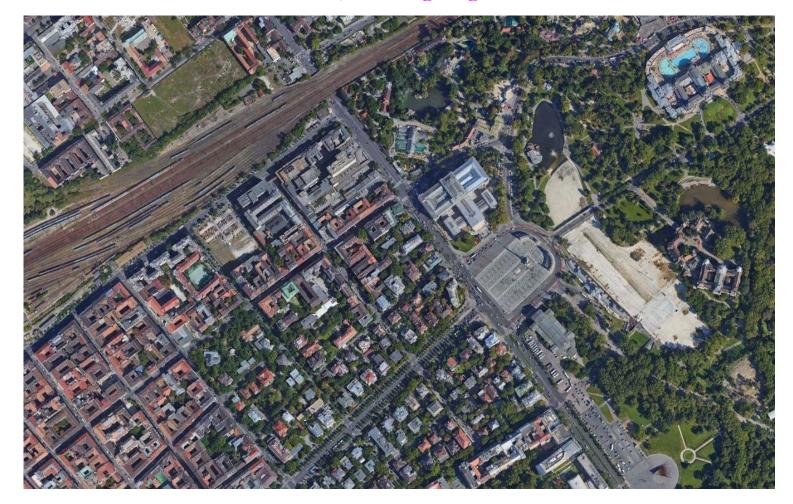








EXPERIMENTAL DESIGN STUDIO///Szondi91 – designing in the block



EXPERIMENTAL DESIGN STUDIO///Szondi91 – designing in the block



EXPERIMENTAL DESIGN STUDIO///Szondi91 – designing in the block

Inside the block

The periphery of Terézváros (alongside with the "Chicago" of Erzsébetváros) in the most dense urban fabric of Budapest of the XIXth century. However, towards the end of Andrássy str. the dense fabric lightens up, becomes az airy, green villa district, creating a unique, extraordinary environment in the city centre. 91 Szondi street lies on the border of these two, distinct worlds: the dense, classic city centre-like situation facing the street swithes to the atmosphere of the green villa distrinct in the inside of the block. The plot is accessible from two directions: the gap of 91 Szondi str. and a barely noticable service road from Dózsa György str. There is a kindergarten in the green, protected inside of the block.

Task

The project needs to find its place in this two-faced urban situation, which by character has plenty of hidden reserves. It has to react to the special features of the plot and the urban structure, the function needs to consider the development projects of the District. The result can thus be a hybrid building regarding both context and function.

EXPERIMENTAL DESIGN STUDIO/// Szondi91 – designing in the block

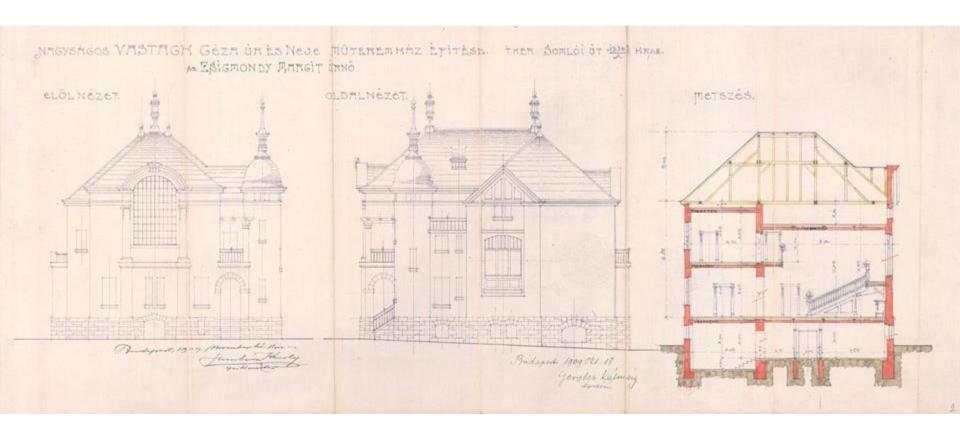




EXPERIMENTAL DESIGN STUDIO/// Szondi91 – designing in the block







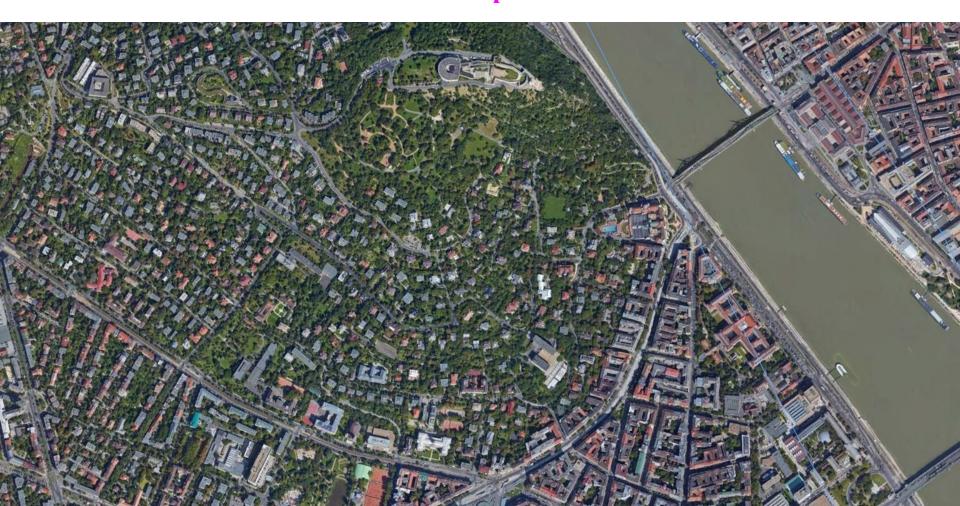
Villa on Gellért Hill

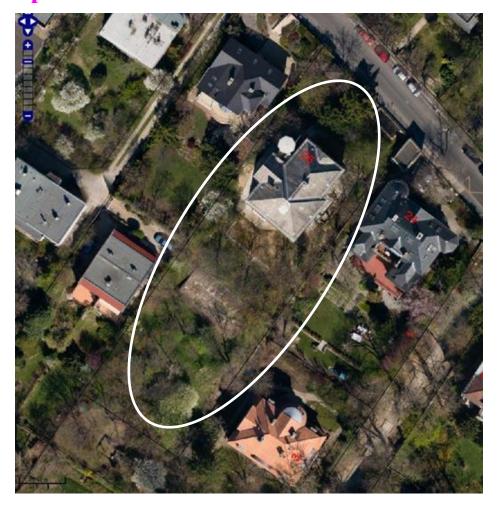
The "Kisképző" (Secondary School of Visual Arts) is one of the oldest artist educating secondary schools not only in Hungary, but in Europe as well. The school has its main building in Lónyay street, and possesses two more villas from the XXth century on Gellért hill which they use as dormitories and to place other educational units that couldn't fit into the small building downtown. The turmoils of the past 100 years and the use considerably different from their original function have left their marks on these buildings, where the original architecture is barely recognisable.

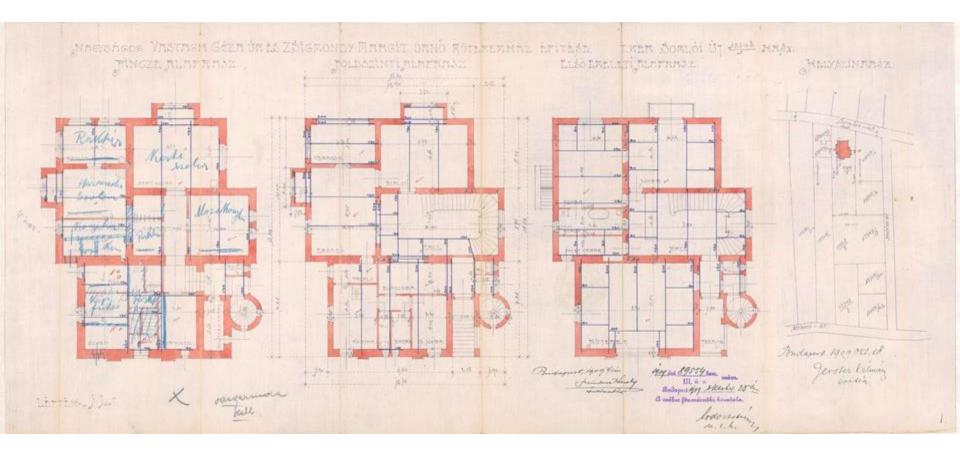
The villa which houses the girls' dorm and was originally built as a residential house and an atelier, still has enough left of the original character. Thus, with a careful intervention, we can upgrade it in a progressive way, while respecting the original house. The huge garden has great unused potential, too.

Task

The task is to design the new home of the Motion Picture department of the school. The function requires workshops, studios, classrooms, dormitory rooms, and community space. These rooms need to fit into the old building, respecting its past, values and strong character, while design must not lack the progressive approach and strong contemporary architecture either that necessarily comes with the modern function. Fortunately the original drawings of the building are available, and the design process can be aided with interesting information from several archive photoes and aerial photoes of the area.













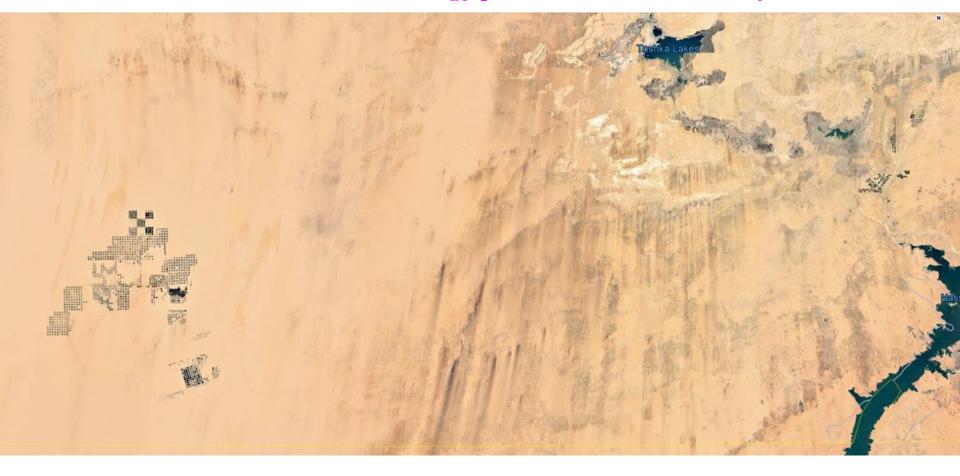
Agricultural Research Centre of the Desert

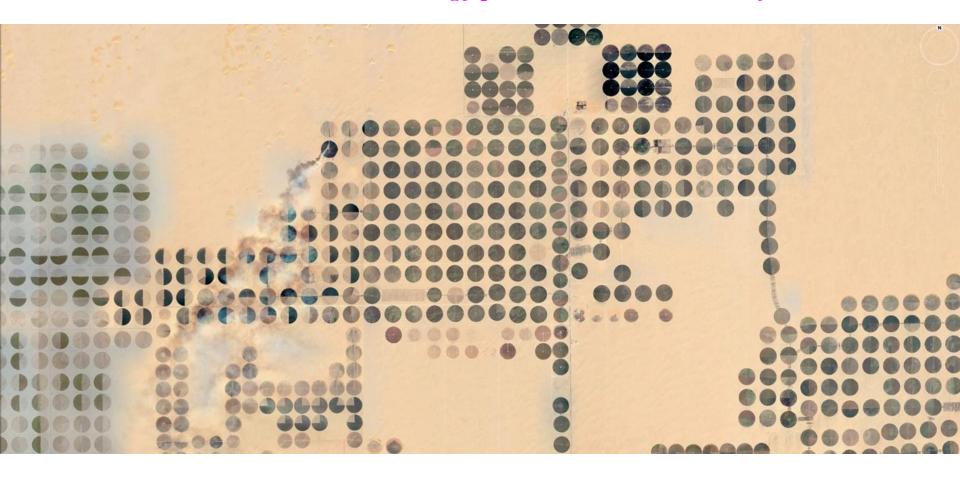
One of the effects of the climate catastrophy threatening the entire globe is the constant and gradual warming of Earth, and as a consequence, large-scale desertification. Since a considerable percentage of the population lives in areas heavily affected by this phenomenon, it is essential to look for solutions to avoid unimaginable consequences.

One of the most affected countries is Egypt, which has a population already exceeding 100 million and constantly growing, trying to survive on a habitable land of 40 000 km², the equivalent of the size of Transdanubia. The rest of the vast country is desert. Is it possible to carry out efficient agricultural production in the desert? There is a great number of projects and researches aiming to answer that question.

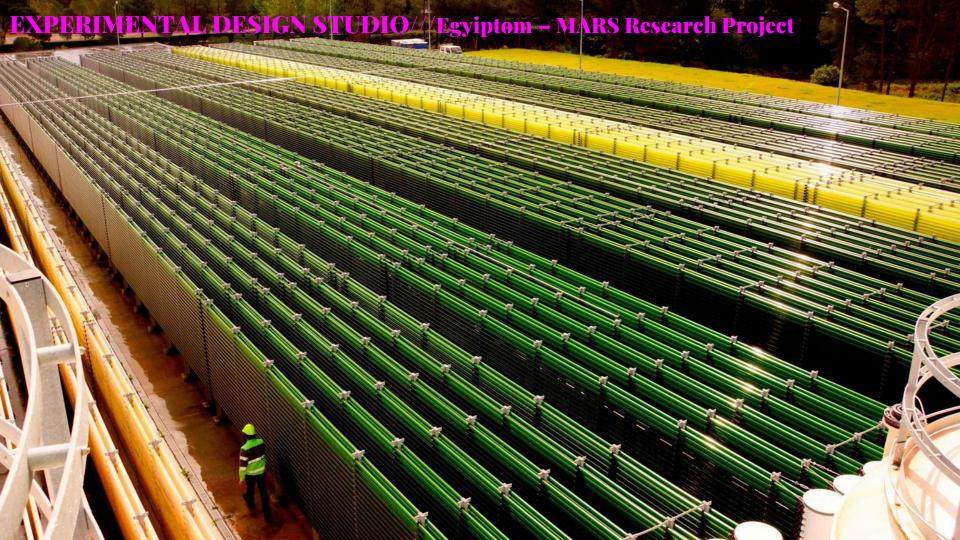
Task

The task is to design an agricultural model estate in the area of the New Valley province, deep in dreary and bare landscape of the western desert. The model estate needs to provide area for testing multiple extreme and innovative agricultural production methods (algae farm, desert glasshouse, etc.). Moreover, needs to contain a laboratory, apartments for the personnel of the farm, staff rooms, rooms and strorages necessary for the function, and it has to autonomous regaring utilities (elecricity, water supply, etc.). The project proposal is connected to the conceptualization of the first Martian colonies in the far (?) future in collaboration with other institutes, sice the desert environment – not considering the components of air – is highly similar to the conditions on Mars.

















The Mars Society's Mars Desert Research Station (MDRS) in Utah.





Task

Zirc, in terms of its structure, situation and problems is a typical example of Hugarian settlements with the rank of a municipality but of a rather village-like character. However, it has much more potential than other such small towns. The abbey and the arboretum are popular destinations in the country, and it has an unused reserve of opportunities in cultural activities.

The semester is going to be divided in two parts. In the first part groups of students work on a set of programs on a larger, nearly urban scale; in the second part, everyone elaborates one building individually from the "package" of the group. Our aim is to deliver design proposals that can be interpreted as a larger-scale development concept of the town, which later could be used as a preliminary study and basis for a real development plan.

Proposed programs

Museum and Research Institute of Natural Sciences//extension of the Reguly Antal Museum//Visitor Centre and Forest School of the Bakony//the new main gate of the Touristic Centre and Arboretum//Collection of Agricultural Engineering Relics and Training Workshops//Municipal Library and Digital Archive

The new building of the Museum of Natural Sciences

The Bakony branch of the Budapest parent institution currently functions in the buildings of the abbey. This inconvenient situation could be resolved by providing the institution a dedicated plac in the centre of the settlement.

Site: the plots next to the southern side of the Abbey. The plot could be created by merging the plots registered under numbers: 214/2 and 218/1, in the city centre area between the Major's Office and the Abbey.

Extension of the Reguly Antal Museum, by building on a part of the inner courtyard

The museum is being constantly renewed, it is one of the main motors of the taown's cultural life, and an active participant is social affairs. The proposed program connects to the planned development affecting both the outside and the content of the museum. The task is to design accommodation, service rooms and community space for a class of students, connected to the side-wing where the handcraft workshops are organised.

Site: the courtyard of the Museum, replacing the now existing buildings there. Plot registry number: 1125.

Visitor Centre and Forest School of the Bakony

Zirc is the "capital" of Bakony, the origin of the hiking trails leading to the mountains. In the past decades, several visitor centres have been established in the country for introducing specific regions, but the region of Bakony was somehow missed out. There is no more suitable settlement than Zirc for hosting this function.

The visitor centre could very well be completed with a Forest School, that includes accommodation, community and service rooms.

Possible locations:

- on the northern side of the road numbered 0186, at the entrance of the park forest of Pintérhegy (marked with "P", along the national Blue Tour hiking trail)
- The village of Akli, in the direction of Bakonybél, at the car park on the northern part of the main road, which is a natural environment
- Reusing and extending the buildings of the Manor of Akli

Touristic Centre and the new main entrance of the Arboretum

Zirc has significant cultural value. Thus there is need for a local touristic centre in the city centre to apprpriately welcome and inform the tourists arriving to the town. We think the best location for this function would be the southern border of the city centre, by the main road, in the area of the entrance of the famous Arboretum. The proportionate and clever re-designing of the area, placing the given function and creating a dignified new main entrance for the Arboretum is a beautiful architectural challenge.

Site: the southern borted of the city centre, the area of the main entrance of the Arboretum / the plots combined registered under nr. 256/2 and 256/1 (the latter has a brick building, keeping is is suggested!)

Collection of Agricultural Engineering Relics and Training Workshops

The significant collection of the machines and other devices of the agricultural industry has a past of 40 years. Since its foundation, it has belonged to the technical training school, but it is located quite far from it, on a northern industrial site together with the school's training workshops. There is a railway and a main road between the main building of the school and the site of the museum / workshops, which a verty infavourable condition. Thus it would be beneficial to relocate the Collection and the workshops on a site adjacent to the school's main building.

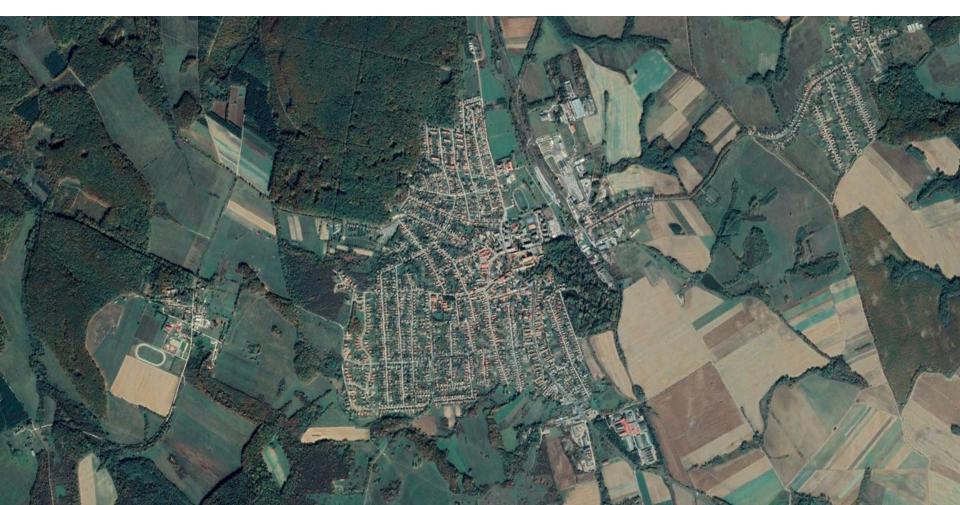
Site: (suggested): plot registry number: 1893/1, next to the school building, in Alkotmány street. Other site might be chosen, too, but is should be in direct connection with the school.

Municipal Library and Digital Archive, event hall for 200 people

An old, unresolved issue of the settlement is the library. It is now situated on the corner plot newt to Rákóczi square, in an excellent position, however, the building is unable to fulfill contemporary functional requirements. Thus, the task is to design the new Municipal Library for the settlement on another site, according to the principles of contemporary library design.

In the design project, the current site of the library is enlarged by attaching the adjacent plot. Thus there is space for adding an auxiliary function to the library, which is a place for the media institutions of the town, with a event hall of 200 people and other community spaces. Thus the library can transform into a real community hub.

Site: combined site of the plots registered under numbers: 1048, 1049 and 1028 / the area defined by the intersections of Reguly Antal street and József Attila street and Petőfi Sándor street.









MIDDLE EAST DESIGN STUDIO



MIDDLE EAST DESIGN STUDIO

Middle East Design Studio

Our Department has paid special attention to the extraordinary architectural challenges of areas struck by catasrophies, war and other global problems (climate catasrtophy, overpopulation, social inequality etc.).

One of the closest areas where quite a few of these crisis situations are present is the Middle East, which has been the site of more researches, design and survey projects, post-war reconstruction projects and other fieldworks carried out by the instructors and students of the Department. Thus, proposing projects in the Middle Eastern area for the design courses and other university projects is becoming a tradition.

Proposed programs:

Cairo Project – Max Herz Research Institute

Aleppo Project - Post War Renewal

Beirut Project – Formal/Informal

Libanese Countryside – On a Cultural Landscape

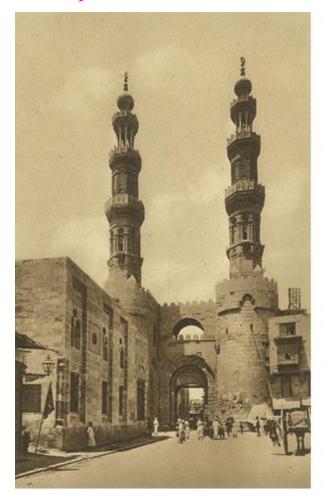


CAIRO PROJECT - MAX HERZ RESEARCH INSTITUTE

MAX HERZ RESEARCH INSTITUTE

The program is dedicated to the memory of an extraordinary architect of Hungarian origin, highly respected in the arabic world. Miksa Herz, that is Pasha Max Herz Pasha was mainly involved in restoration of islamic monuments. Perhaps one of his most important restoration works is the Sultan Hassan Mosque in Cairo. The design task is a research centre for training restorers with an exhibition of the architect's life-work on a neighbouring vacant plot.

CAIRO PROJECT - MAX HERZ RESEARCH INSTITUTE



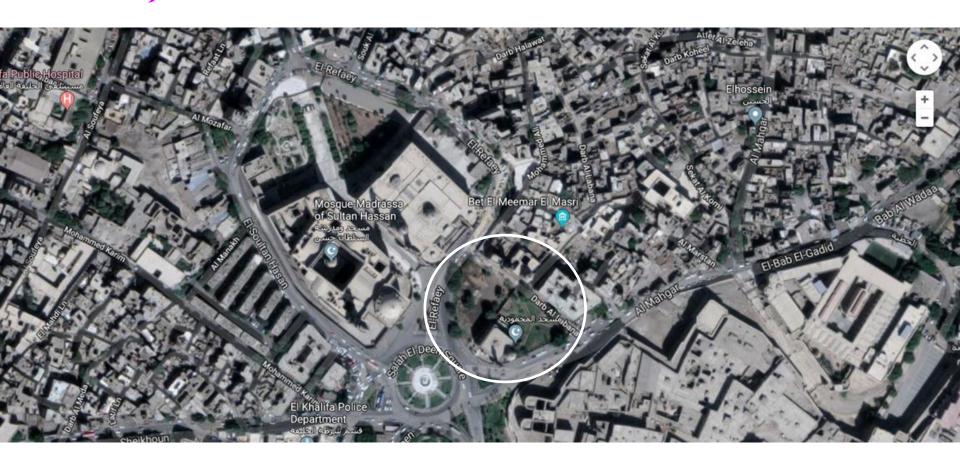




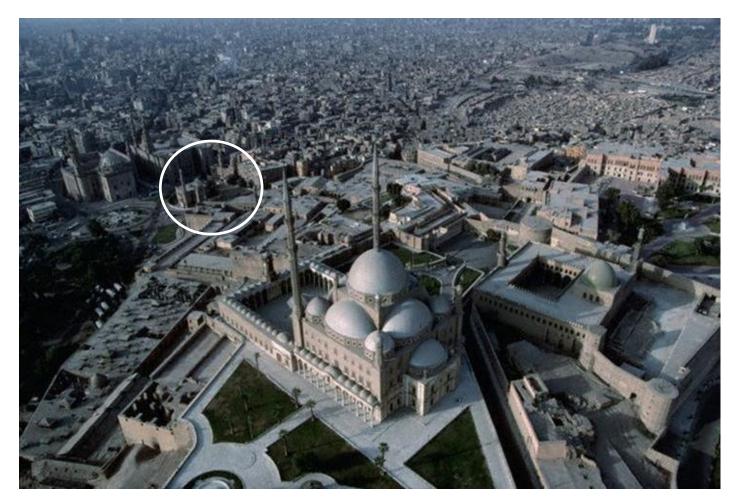
CAIRO PROJECT – MAX HERZ RESEARCH INSTITUTE



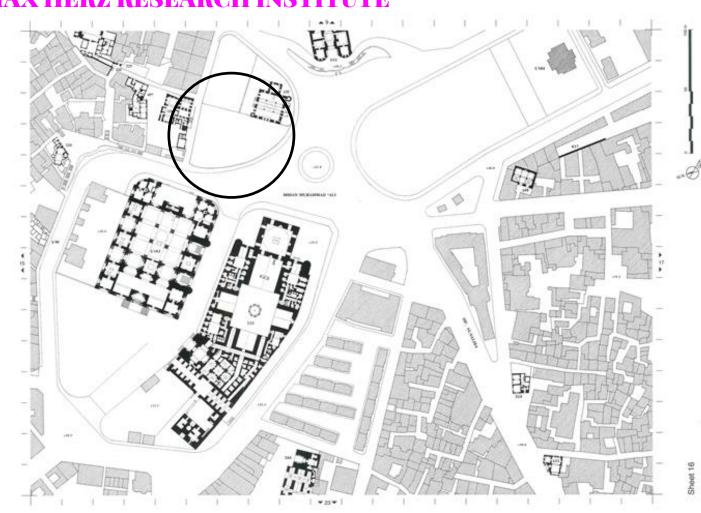
CAIRO PROJECT – MAX HERZ RESEARCH INSTITUTE



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ALEPPO PROJECT

POST WAR RENEWAL

In consultation with the experts of DGAM (Directorate General of Antiquities and Museums, Syria), we were invited to participate on the conference on the post-war reconstruction in Aleppo in January and October, 2019. The presentations focused on the strategic questions of restoring the World Heritage sites.

In previous semesters, we have already analysed some of these sites, there were a few comprehensive design and diploma projects here. Considering the active participation of Hungarian researchers in the area, and the great importance of the topic, we plan to continue this project.

This semester, the focus is not on the restoration of the destroyed monuments, we are examining the possibilities of contemporary architecture on sites of completely destroyed buildings, which are not considered for reconstruction. The proposed programs are based on professional considerations and the recommendations of DGAM, the sites are in the area of the Citadel, which is a World Heritage Site.

We are going to involve the Syrian colleagues who are completing their doctoral studies in Hungary, who have a deep knowledge of the site, and are active participants in the post-war reconstruction works.











FORMAL/INFORMAL

Beirut has become a real metropolis in the past decades in spite of the vast destructions of the civil war, and the subequent, mismanaged real estate development projects which – according to many – have caused irreparable damages. Nevertheless, one of the vibrant cities of the late Poenicia is still arguably the most important commercial centre of the Middle East.

Lebanon is still struggling with a number of problems, besides the millions of refugees in the country we witness a political crisis of internal affairs these days, which is well represented by the demonstrations that have been going on for months.

The economic conditions of the country are very well represented in the architecture: right next to the vast poor areas there are the luxury districts of star architects.

We are planning to give more lectures on the culture and history of the city, and Lebanese architects are going to be involved in the consultation during the semester.

The proposed sites for the project are going to be on the borderline of the well-developed and infrastructurally supplied city centre and the informal districts. The controversial situation poses an interesting architectural and urban design challenge. The design programs meets the needs of the area regarding community spaces, and/or commerce-services.







LEBANESE COUNTRYSIDE

ON A CULTURAL LANDSCAPE

The landscape of Lebanon embodies incredible contrasts. The mountains, some of which are covered in snow all year, are crashing down to the sea with steep slopes, and create a narrow coastal strip, where the majority of the cities are located. The coastal cities are very dense, the busy roads are ripping the urban fabric. The mountainous countryside has a drasticly different image, the architecture evokes that of the Alps at times. Some calmer, less dense settlements of the coastal area offer a better way of life, too.

The country is the point of infelction of the Middle East both in cultural and geographic sense. The ancient civilizations have been followed by many others on this landscape, and almos all of them have left their architectural marks and handprints in the landscape. Lebanon, besides the ruins of ancient cultures, is home to Persian, Phoenitian, Roman, Byzantine, Arabic and crusader, Mamluk and Ottoman and colonial memories, alongside the cosmopolitan world of the XXIst century. All this is made complete with a fascinatin seashore and special natural environment.

For the design task, more locations and programs are offered from the really rural mountainous milieu to the smaller settlements of the coast. We plan to have more lectures on the history and culture of the country, and Lebanese architects are going to be involved in the design consultations.









RECLAIM STUDIO

RE—PROCESSES → REBUILD, REDIS-TRIBUTE, REFORM, REFURBISH, RE-INSTATE, REINVENT, REMAKE, RENO-VATE, REORGANISE, REPAIR, RESTORE, KKX

2020 / IPARTANSZÉK / BME

RECLAIM STUDIO

RECLAIM

The design topic in this thematic year (Departmental Design Studios, Comprehensive Design Studios and Diploma) is the revitalisation, rethinking of abandoned, underused areas. Slowly, the buildings of the industrial heritage disappear, there are hardly any examples that could be revitalised, reclaimed from complete decay. The suggested sites imply large-scale projects for groups.

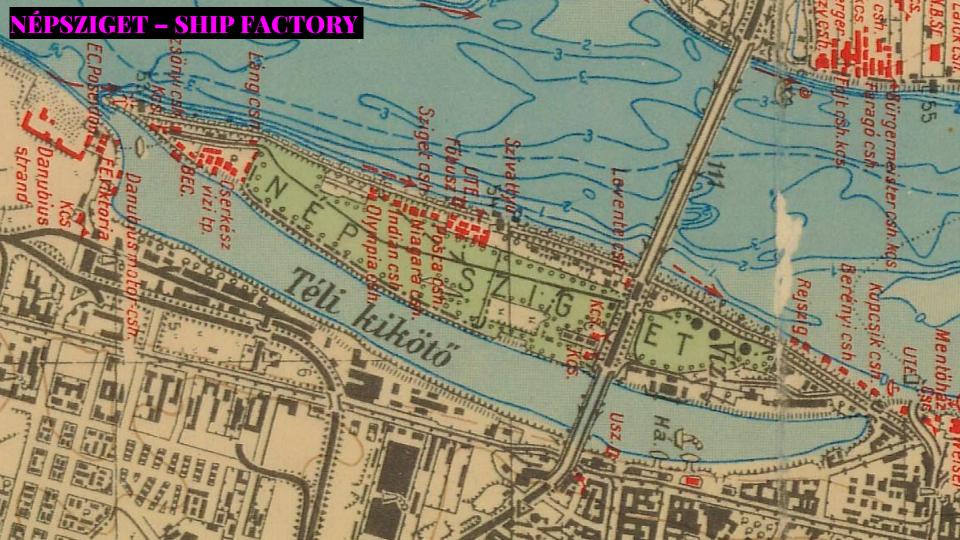
Proposed programs

Népsziget – Ship Service///Érd – Brick Factory///Esztramos – Magic Mountain

The late Ganz ship factory / ship maintenance workshop of the Népsziget is a real rarity, and is in the development plans of the district. The area is of a comprehensive scale, we suggest a generous, fresh, contemporary attitude towards the intervention in the buildings, and the study of the relevant references.

The brick factory of Érd has a big potential in the closeness of the capital and the Danube. Multiple proposals have been elaborated for this area. Analysing these projects is part of the teamwork, and setting up a progressive strategy based on the conclusions.

The Estramos Mountain is a real curiosity for geology and caving history. There is an comprehensible context of the remains of the late mine, and the caves in the mountain mean further potential. Touristic functions, caving training school are possible functions.



















ESZTRAMOS - MAGIC MOUNTAIN















proposed Complex and Diploma PROGRAMS IN the SPRING SEMESTER 2020

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Népsziget – Ship Factory//Érd – Brick Factory//Esztramos – Magic Mountain

Individual program proposal

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