



-COMPETITION + RESEARCH
+URBAN DESIGN + ARCHITECTURE
+TEACHING

www.esmaselenaksoy.com

urban designer

Competition (Finalist)

Re-Taksim

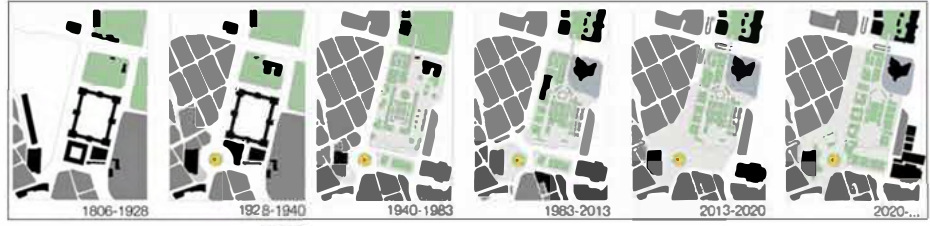
Esma Selen Aksoy, Rivka Geron Schild, Batu Kepekcioglu, Can Boyacioğlu

DEALING WITH THE SPATIAL PROBLEMS AND CHARACTERISTICS OF TAKSIM SQUARE

Taksim Square is the literal hub of the modernization of İstanbul. In rather rough terrain, the modernist expansion of İstanbul pursues the histo-topographical expansion route of İstanbul, "the roof-line" which spans from the historical central business district Sirkeci into the south to the primary modern central business district Maslak in the north. Taksim Square is the most important "plaque tournante", rotating plate of the route. The square bends the route to the Şişli-Büyükdere axis with the inter-connection of the İstiklal and Cumhuriyet Streets. At the present day, two major problems are observed in this interconnection which harm the urban experience: the lack of enclosure of the square and the disappearance of urban continuity within Cumhuriyet Street which cause spatial orientation and articulation problems in urban space.

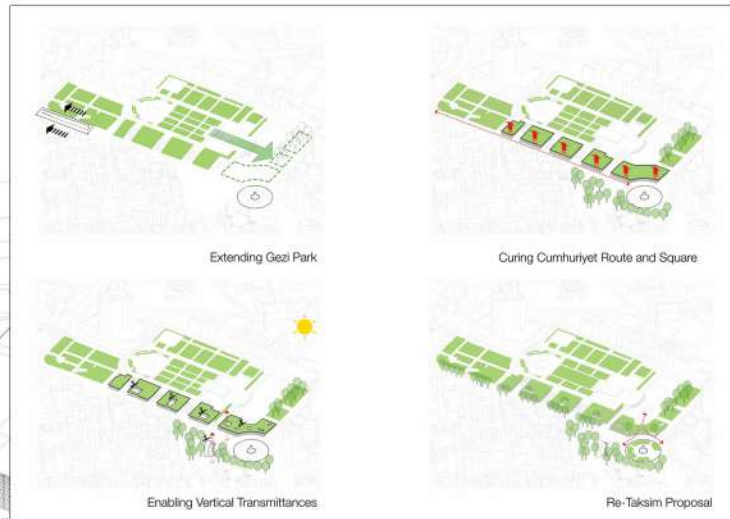
Curing Cumhuriyet Route

Taksim Square introduces the route with the Park No: 2 via Gezi Park and bends it towards the Büyükdere axis simultaneously. Therefore Cumhuriyet Street and Gezi Park are suitable to form the continuity of the urban space. Though especially after 2012 Pedestrianization Project, Cumhuriyet Street lost its connectedness with both İstiklal and Şişli axis. The proposal suggests a public interface between Cumhuriyet Street and Gezi Park which refunctoning axis as a hybrid urban space that contains urban green, cultural and retail functions programmatically and morphologically.. Cumhuriyet Street will be redesigned as a green and well-scaled pedestrian axis with restaurant and retail in Talimhane side; tourist center, art spaces and transportation infrastructures articulated in the Park's edge, and a central route which is designed as the urban meeting space surrounded by trees. For the purpose the entrance of the underground connection relocated.



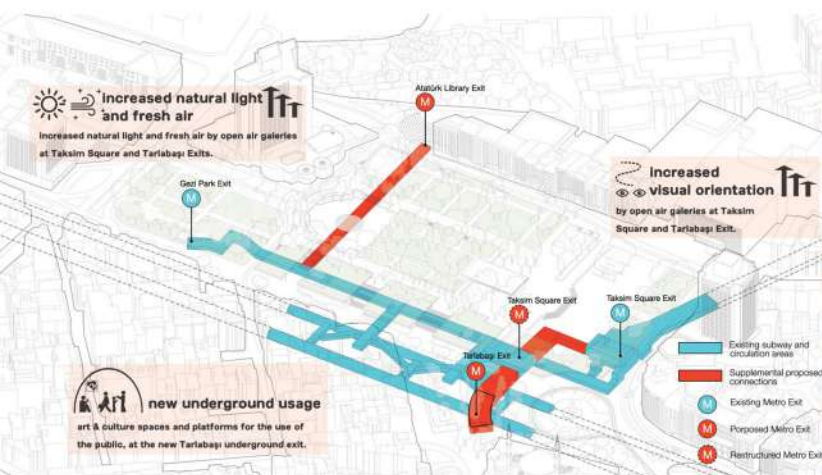
Competition (Finalist)

Re-Taksim



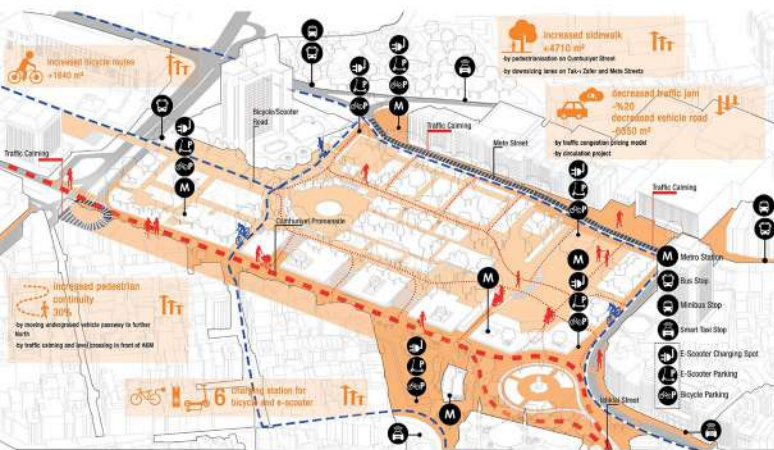
Vertical Urban Space: Landscape And Underground Orientation

Taksim Square is a central point and an intersection between contemporary economical development axis and the historical part of the city. On the other hand transportation infrastructure and current underground facilities are built without a proper visionary organization in time. To improve the spatial quality of transportation infrastructure of the square horizontally and vertically, proposal redesigns underground connection between Cumhuriyet Street Multi Tarlabası Avenue, subway and ground connections considering the natural light, fresh air accessibility with providing spatial awareness and hybrid design context. In these easy to access hybrid connections, people can experience the spatial connections as total spaces, those are simultaneously used as transportation circulation aisles and urban facilities such as art galleries and retail areas.



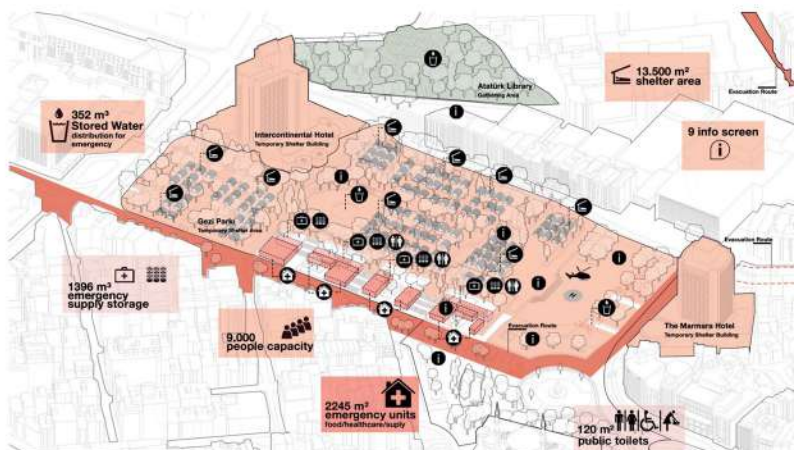
Competition (Finalist)

Re-Taksim



Micro-Mobility

Globally, transportation methods in metropolises are rapidly changing due to climate change prevention policies and the new urban lifestyle. Thus the design proposal suggests changing mobility philosophy of the area drastically. It limits car roads, built more accessible pedestrian walks, offers bicycle lanes and park zones linked with neighbor districts. It also installs bicycle, e-scooter and disabled-friendly micro-mobility vehicle hubs with shared use opportunities and wifi connections. Additionally they are integrated with metro stations and easily accessible from all public transportation. For the micro-mobility purposes and stronger connections with AKM, Mete Street redesigned as a one direction, low-speed road. The proposal constitutes a Congestion Charge Zone (CCZ) for Taksim Square and its surroundings. The zone will be free for local residents and suitable for retail transportation and projected to lower individual car usage of the area.

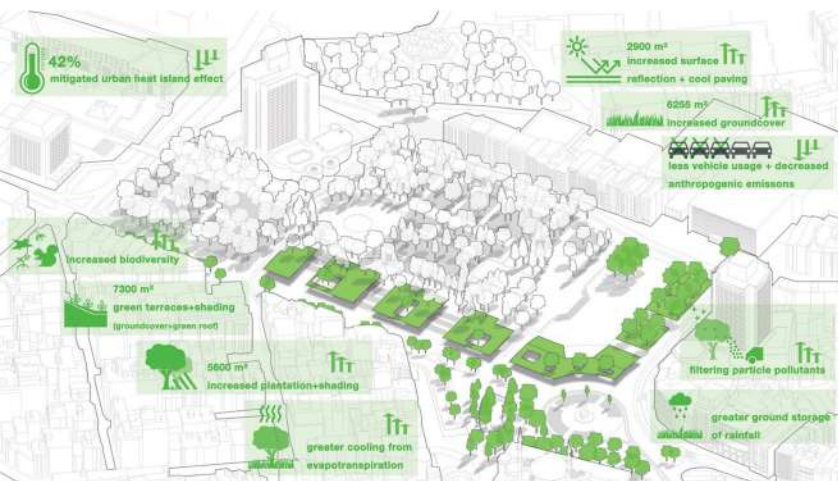


Emergency

The proposal aims to transform Taksim Square and Gezi Park as the keystone of the resiliency infrastructure of İstanbul. Gezi Park will become one of the most important entrances of the evacuation corridor. Transformable spaces are tailored to respond to natural disasters which include solar-powered emergency survival shelter, water and storage facilities enough for 9.000 persons in 72 hours after a disaster. It is planned to use surrounding building roofs for collecting rainwater and solar power. Undergrounds of Gezi Park's dry pool location, Atatürk Library zone and Gezi Square will be redesigned to be the storage tanks for the water supplies. Also emergency food supplies will be located under the green terraces. Additionally, there will be stored light-weight structures for emergency use in site.

Urban Livability

The proposal committed to maintain the security, sense of safety and feeling of autonomy at the same time. It adds kiosks in the park and relocates security facilities to central but overlooked locations. It also suggests lighting design that smooths transitions between heavy and light, underground and surface, crowded and quiet urban spaces. It considered the vision and visibility of pedestrian areas and vertical urban spaces for the safe and vital day and nightlife. It also aims to minimize disturbance on flora with suitable light types and design.



Competition (Finalist)

Re-Taksim



The design proposal aims to re-organize the square according to the urban approaches and debates of the 21st century, in its context of urban life, problematics and threads. The proposal reorganizes Gezi Park as an active and joyful urban park for the innovative living and workstyle of the up-coming era. The new free and creative work methods allow people to spend more time in the places rich in terms of recreational and cultural facilities. Additionally, interdisciplinary post-climate-change-crisis projections suggest: smaller homes, greener and actively used urban infrastructures and proactively used urban recreational areas and squares. The proposal is well-aware how the inclusiveness of the square is important for each citizen no matter their socio-economical situation, age and disabilities. Project is mused by the citizens who spend time together and experience a very broad spectrum of urban activities. For the purpose the opening of the park to the proposed event square also designed as the open stage of the activities and contains the art and culture pavillion that periodically changed due to actual events in the city. Pavillion is also used as the start and the finish of the open-air city museum. Moreover current pool area redesigned as a dry pool mini-activity square that people can also refresh in hot temperatures. The very center of the park reorganized as the recreational green.



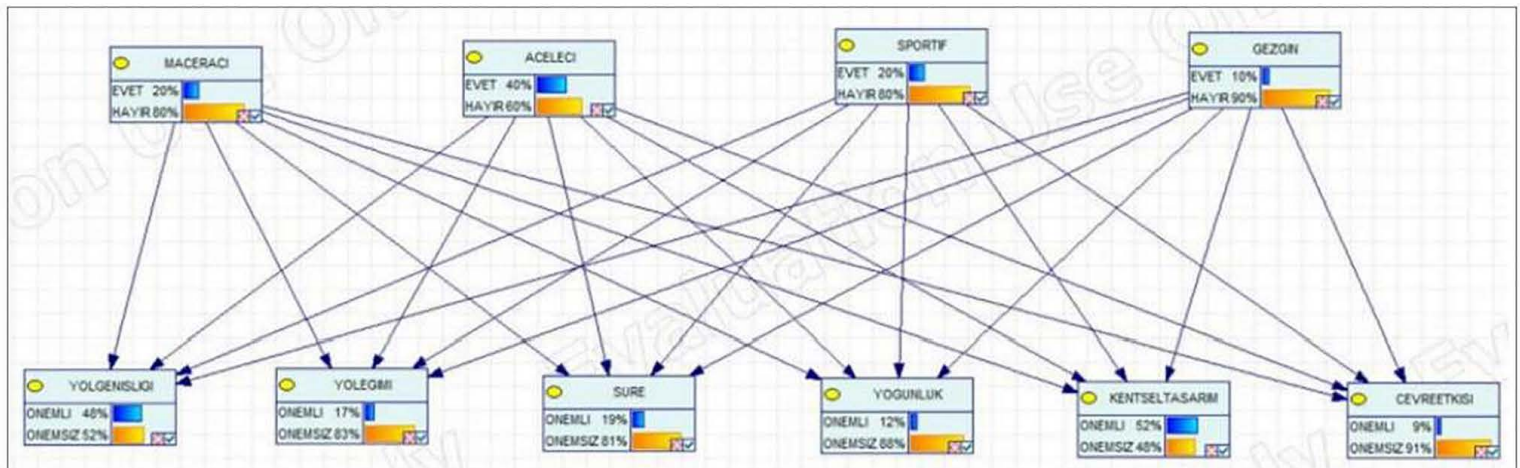
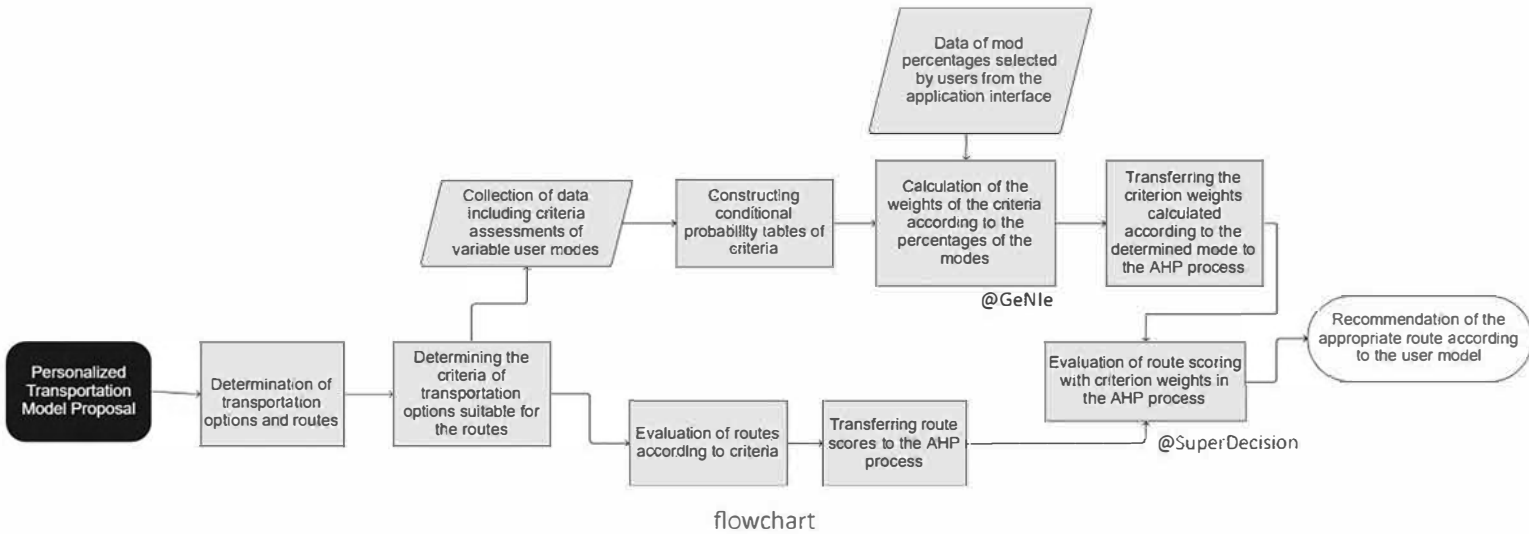
Research

Personalized Transportation Model Proposal to Support Micromobility Between Public Spaces

Esmaselen Aksoy, Dr. Şehnaz Cenani, Prof.Dr. Gülen Çağdaş

Public spaces are meeting points in the city, where different individuals meet and spend time together. Transportation options to these areas may not always be the same due to the changing demands of individuals. It is also very important that the preferences are not the same and not directed to the same option in order to ensure diversity in the use of public space. For this reason, in the study, a personalized transportation model between two public spaces is proposed, considering that public spaces are important points in the city. The aim of the study is to create a personalized transportation preference model that supports micromobility among public spaces.

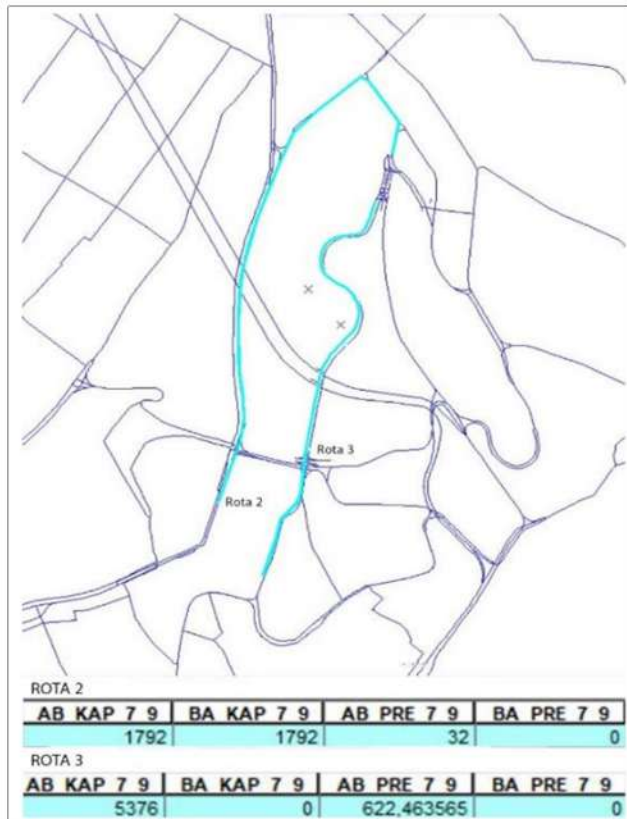
In this model, a decision support system will be presented to the user to select **environmentally friendly** and **user-oriented transportation routes** for individual use in the city.



Weight percent of criteria calculated according to percentages of variable modes in the GeNIe

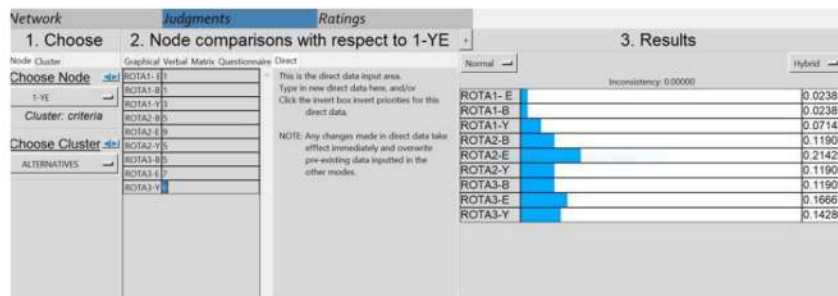
Research

Personalized Transportation Model Proposal to Support Micromobility Between Public Spaces



Average automobile density information of routes on GIS

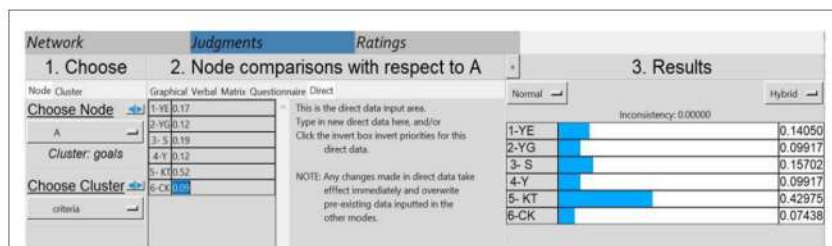
Analytical Hierarchy Process and Bayesian Networks are used as methods in the study. The transportation options that will be evaluated in the Analytical Hierarchy Process method are discussed within the scope of micromobility studies. Bayes Networks have been preferred in determining the importance of the criteria that are effective in selecting these routes, in order to increase the accuracy of the input data in the Analytical Hierarchy Process, to change the importance level of the criteria according to the variable mode of the users and to make the system more flexible. E-scooter, bicycle and walking options and routes suitable for these options were determined to support micromobility between two public spaces. Then, the criteria that affect the users in the process of deciding on one of the routes between the two selected areas were determined. These criteria are also evaluated by variable users in the Bayesian Network. In the study, three routes between two public spaces have been chosen to create an exemplary model.



Transferring route scores according to the criteria to the SuperDecision program



The criterion and alternative decision model created in the example user's Super Decision



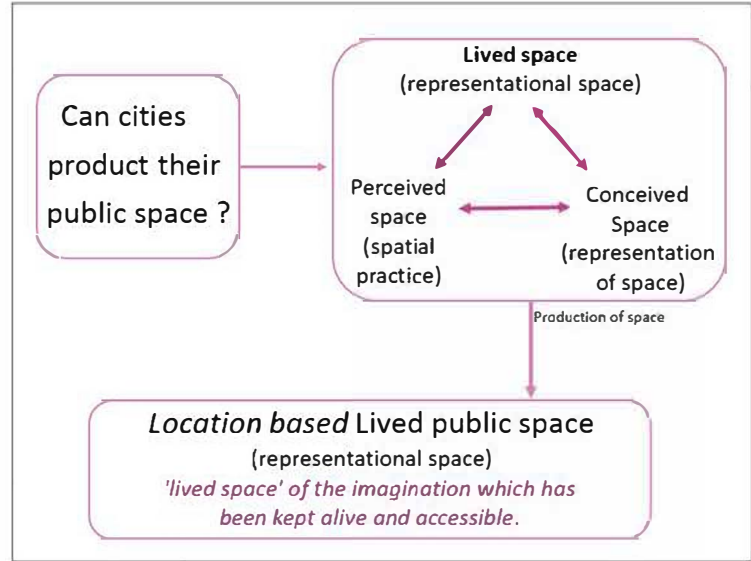
Decision percentages determined by the variable mode of the sample user

Research

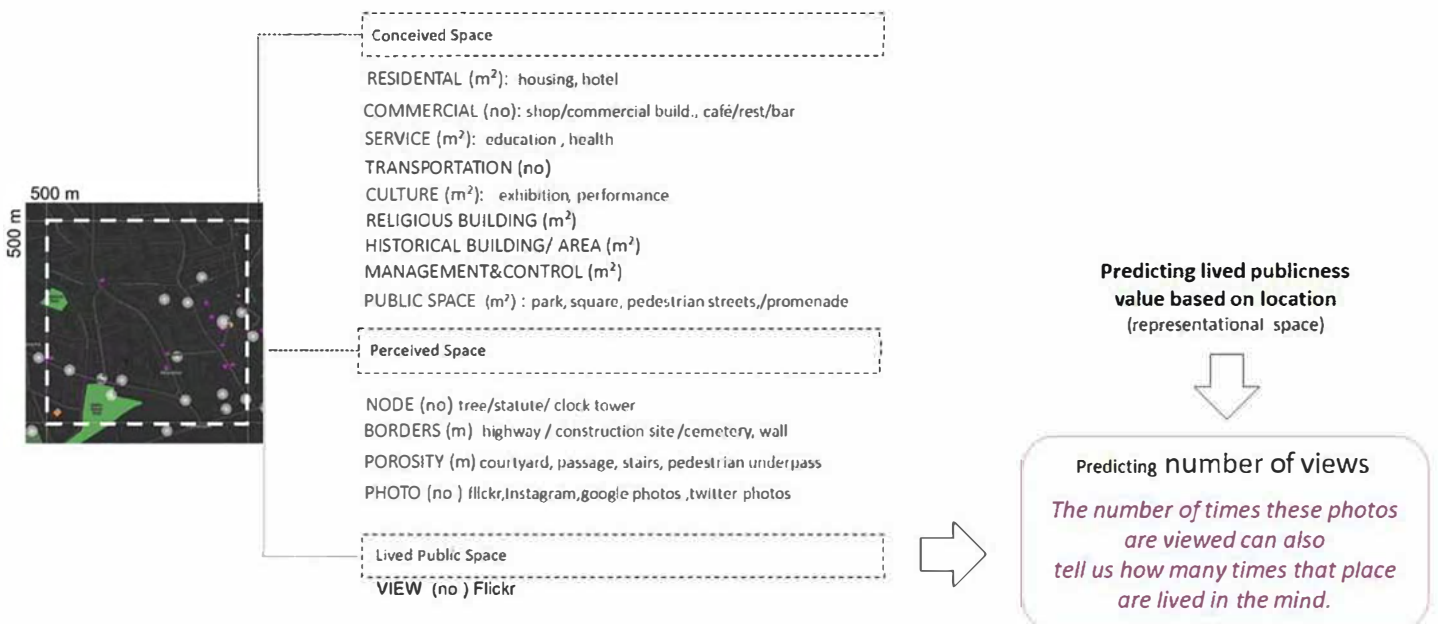
Lived Public Space

Esmaselen Aksoy, Dr. Ceyhun Burak Akgul, Dr. Ahu Sokmenoglu Sohtorik

The concept of public space has changed and transformed throughout history. In this study, it is accepted that the city produces its own publicity and the attributes of the city are determined through the space production trilogy of Henri Lefebvre. The publicity value produced by different locations in the city in daily life is combined with Henri Lefebvre's concept of lived space. And this value has been tried to be classified by the naive bayes method. The aim of the study is to reveal the rules created by the coexistence of the attributes of the city, to use these rules in urban research and to create a model that will produce publicity information on location in daily life.

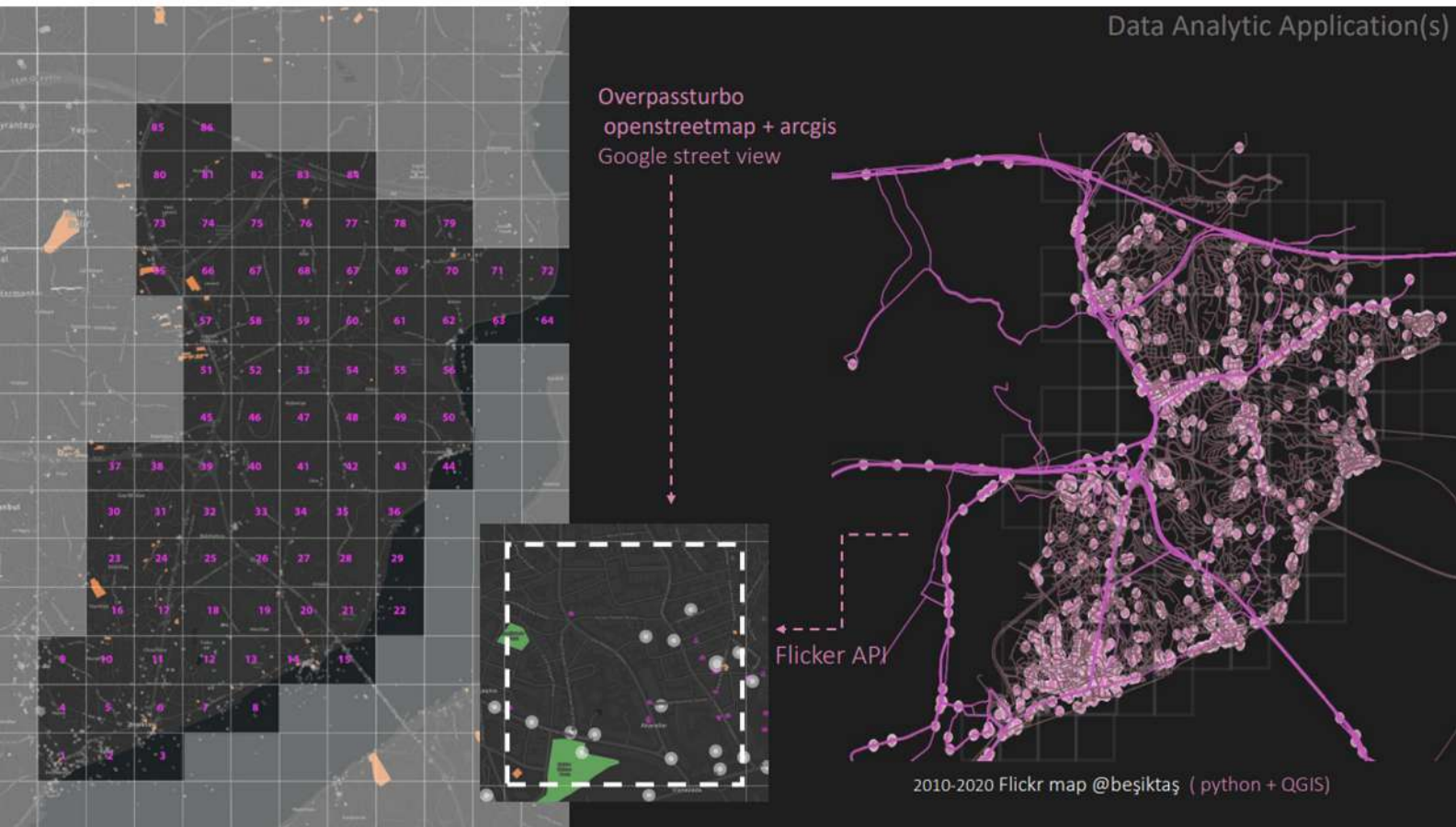


The questions of whether the spaces defined as public space are really public, to what extent are public and whether the city produces its own publicity has been the motivation of this study. The production of the city's own public space is possible with the different combinations of the attributes that make up the city and the unique relationships they create. While the city produces its own public space, this production process takes place not only on the real space, but through the representation of the space together with the location-based data generated by mobile technologies. When the production of public space or the production of publicity in an existing space is examined within the context of Henri Lefebvre's space production, each production (designed space) creates its own spaces (perceived space) and every experience produces new symbols and new images (living space). Users perceive the space through these representations. While the possibilities of different units to be together and the effect they create on the city part determine these representations, these representations can transform relationships between different units. In this case, how can an individual who is on the move in the city know the publicity of his location?



Research

Lived Public Space



Beşiktaş district was chosen as an exemplary area because it is a compact area where many public spaces, accommodation units are square and recreational use. The area is divided into 86 pixels from the district border starting point. The data belonging to this field was taken over openstreetmap, processed with overpassturbo and combined on ArcGis.

Outputs - Visualizations / Interpretation of the Results

RuleModel

```

if photos ≤ 51 then range1 (73 / 1 / 0 / 0 / 0 / 0)
if hotel (m²) ≤ 133.500 and housing (m²) > 11000 then range1 (4 / 0 / 0 / 0 / 0 / 0)
if photos ≤ 127.500 then range2 (0 / 3 / 0 / 0 / 0 / 0)
if exhibition (m²) > 72.500 then range4 (0 / 0 / 0 / 2 / 0 / 0)
if housing (m²) > 5000 then range5 (0 / 0 / 0 / 0 / 1 / 0)
else range6 (0 / 0 / 0 / 0 / 0 / 0)
    
```

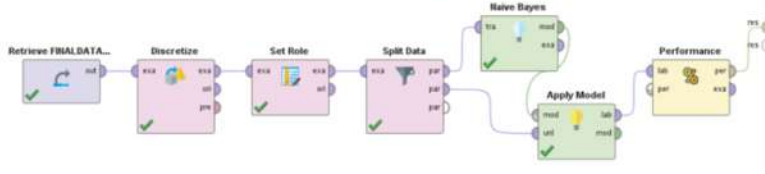
(meaningful rule indication occurred at 6 ranges)

correct: 83 out of 84 training examples.

Predicting number of views

housing (m²)	hotel (m²)	shop (no)	business center	café/res t/bar (no)	education (m²)	health (m²)	government property (m²)	religious build. (m²)	historical build. area (m²)	exhibition (m²)	library	performance (m²)	park (m²)	promenade/pedestrian street (m)	square (m²)	transportation (no)	node*	border	courtyard/passag e	photos	view
0	61.144	20	0	1	0	0	0	7344	0	55.668	0	46.584	17960	500	0	2	10	0	307	90141	
0	252	0	0	0	0	0	0	0	110000	19300	0	0	0	290	0	0	0	290	0	126	27332
0	2682	50	0	0	0	0	0	0	0	7092	0	0	0	0	0	3	1	0	0	54	24528
37000	939	10	0	8	17234	0	0	0	7889	145	0	0	84320	0	0	0	1	0	0	203	76813
72000	0	110	0	60	300	100	0	0	0	0	0	0	12000	700	350	0	2	0	4700	124	16314
80000	175000	150	0	42	100	0	0	4550	2000	0	0	0	0	0	4600	8	0	0	250	59	30748
40000	38000	0	0	0	4500	0	2900	606	0	0	350	0	30000	500	0	4	0	500	600	35	6638
0	0	0	0	0	9600	0	0	2000	0	0	0	0	0	0	0	2	0	300	0	12	3571
10000	0	0	0	0	0	0	0	5792	0	0	0	0	0	0	0	1	1	0	0	189	10335
12000	0	0	0	0	20000	0	0	0	0	0	0	0	6800	0	0	2	0	0	0	61	8004
80000	25000	60	0	20	0	0	0	0	0	0	0	0	45000	0	0	0	0	0	0	7	0
21800	0	6	0	4	0	0	0	0	0	0	0	0	190000	0	0	0	0	0	0	33	7127
0	0	0	0	0	19052	0	0	0	0	0	0	0	121000	0	0	2	0	348	0	9	618
0	1800	200	0	120	0	0	0	3558	5100	0	0	0	0	0	0	0	3	0	0	129	14601
0	0	2	0	1	3000	0	0	7000	0	0	0	0	0	0	0	0	1	300	0	40	10043
68200	0	0	0	0	6010	0	0	0	24727	0	0	0	16574	0	0	0	0	0	0	13	1488

The number of views divided into 6 ranges 0-131.412



accuracy: 76.0%

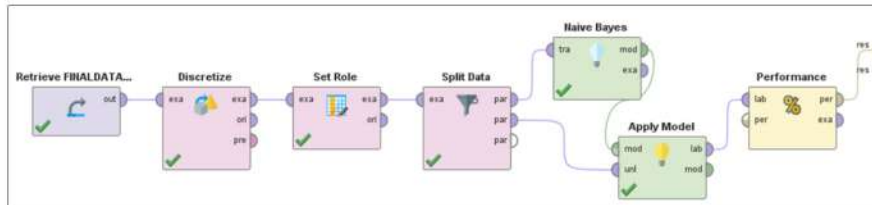
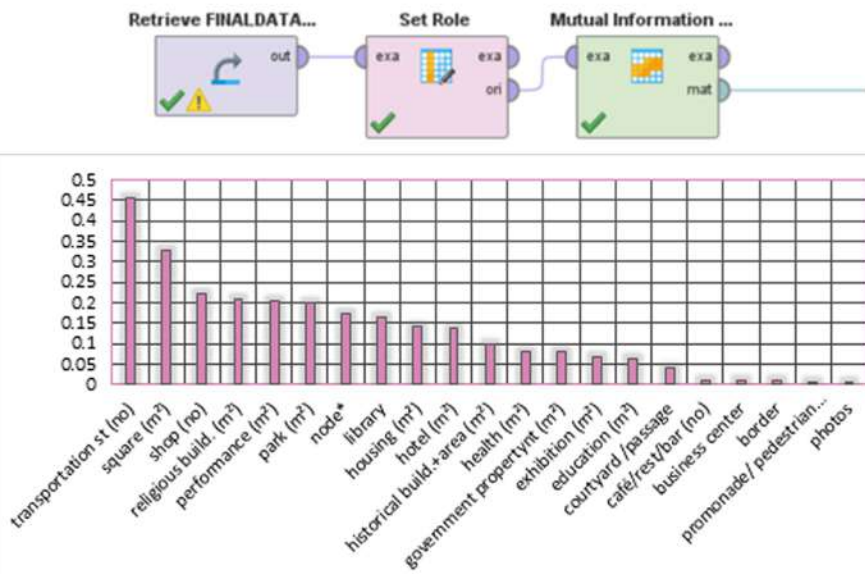
	true range1	true range2	true range3	true range4	true range5	true range6	class precision
pred range1	19	1	0	1	0	0	91.48%
pred range2	4	0	0	0	0	0	0.00%
pred range3	3	0	0	0	0	0	0.00%
pred range4	3	0	0	0	0	0	0.00%
pred range5	0	0	0	0	0	0	0.00%
pred range6	0	0	0	0	0	0	0.00%
class recall	82.81%	0.00%	0.00%	0.00%	0.00%	0.00%	

accuracy: 76%

Research

Lived Public Space

In this study, rapid miner software was used for data mining process. The prepared data table was loaded into the program and the naive bayes algorithm was used to estimate the number of views of flickr photos, an attribute representing the value of the lived public space. Data table has 22 attribute and 86 instance. Firstly, mutual information process, which compares the relationship of the tagged attribute with other attributes, is used in the study. In the research, firstly, the mutual information process that compares the relationship of the tagged attribute with the other attributes is used. As a result of this process, it is revealed that the relation of transportation points with the number of views is the highest. The number of views and the number of photos has the least relationship. Although the number of photographs is a prerequisite for the number of views, which is a representative of the public space value experienced, it is not the most important factor in determining the value of the lived public space. Naive Bayes classification model was used for predictive model in the study because it requires a small amount of training data to classify and calculate the variance of the variable. It takes on the independent functions or properties of the Naive Bayes dataset.

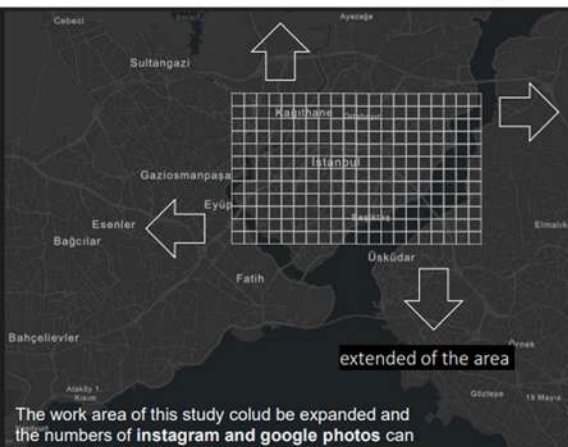


Naive Bayes accuracy table in Rapidminer

accuracy: 76.00%							
	true range1	true range2	true range3	true range4	true range5	true range6	class precision
pred. range1	19	1	0	1	0	0	90.48%
pred. range2	4	0	0	0	0	0	0.00%
pred. range3	0	0	0	0	0	0	0.00%
pred. range4	0	0	0	0	0	0	0.00%
pred. range5	0	0	0	0	0	0	0.00%
pred. range6	0	0	0	0	0	0	0.00%
class recall	82.61%	0.00%	0.00%	0.00%	0.00%	0.00%	

Naive Bayes accuracy table in Rapidminer

Future Directions

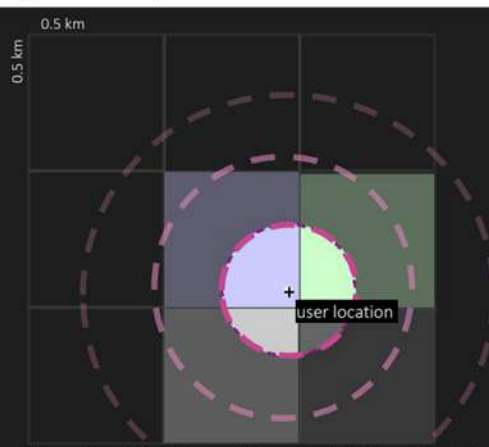


The work area of this study could be expanded and the numbers of Instagram and google photos can be added to the number of viewed photos.



Photographs can be classified among themselves and relate to attributes.

New attributes that will guide the perception in the city can be discovered from the most viewed photos.



This work could turn into a mobile application that we can see the value of lived public space while walking around cities.



Different routes can be created and overlapped with the number of views from different social media sources.

Research

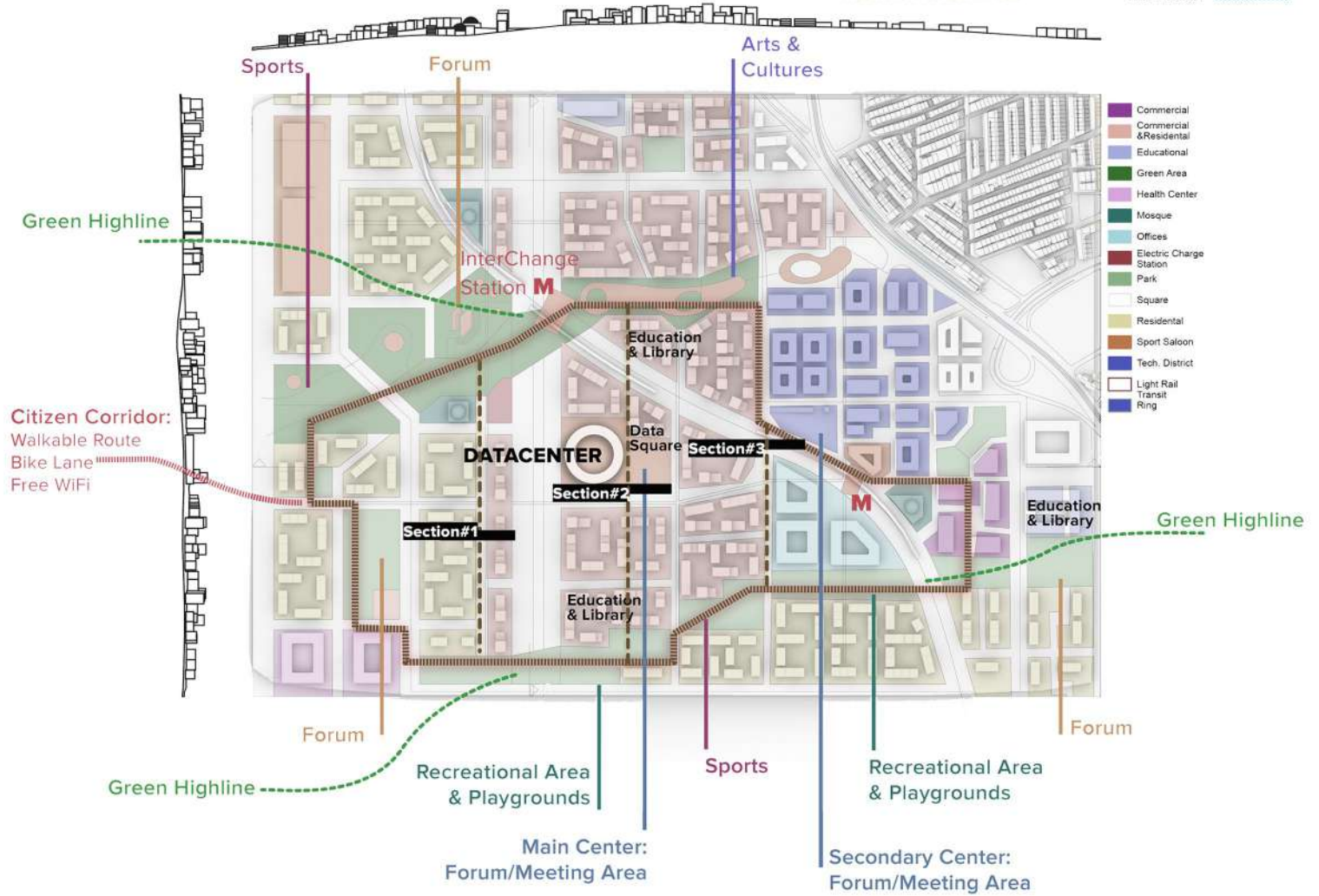
Esenler Governance and Public Space Strategies

Esma Selen Aksoy, Ayse Dede, Cemal Koray Bingöl, Dr. Imdat As

Vision Statement

The governance vision of Esenler is aiming for the convergence of physical and digital public spaces for the future. The district of Esenler is designed to be the municipality where the boundary between governance and civic gets blurry and the citizen engagement gets essential. The increase in the use of smartphones and smart governance systems enables Esenler to be one of the most participatory governance models. The evolution of interactions through digital interfaces causes lack of physical interactions, therefore the sense of belonging with the built environment and countryman is on the decreases. North Esenler is anticipated to organise a built environment for public spaces that entwines the new interfaces of information and communication technologies to a physical environment by augmenting the city squares to additional virtual forum platforms where the regulations, social events, city services and financial matters regarding Esenler will be participated and contributed by the active citizens and residents.

The traditional distinction of governance and civic transforms into an integrated interaction of citizens through open and transparent digital platform enabling civic participation. The transformation of physical participation also has reflections on the interactions and the operations of the municipal building. Esenler is planned to have a datacenter as a municipal facility of future to provide a public space to residents for physical interaction and their city services. "The Datacenter" is placed in the middle of North Esenler as a central node of the green and social streets network, which connects the public nodes of educational, residential and commercial districts with forums, green zones and activity areas.



Research

Esenler Governance and Public Space Strategies

Participatory governance in Esenler aimed to create an interface between the municipality and citizens to interchange ideas and opinions on a specific matter about Esenler. The interface of interaction is planned to be thought of as a smartphone app and a web app that enables Esenler residents to see what municipal actions are on-play or will be, so the public opinions can be reflected.

Walkable Green and Commercial Streets Network

WGCSN is an urban scale design decision that enables the residents to travel on foot or cycle through an interconnected route around North Esenler. The routes are generated regarding the shortest paths between green belts of the district. Also this walking path is a continuous citizens corridor with the addition of green high lines, and it is used as a free wifi line. The connection streets in-between the green belts planned to be car-free zones on specific days of the year by turn to increase the commercial and social interaction on the ground level. Also it is suggested that the units on the facades of the buildings facing these streets have semi-public functions, thus these streets will have more active use.

Public Datacenter Municipality

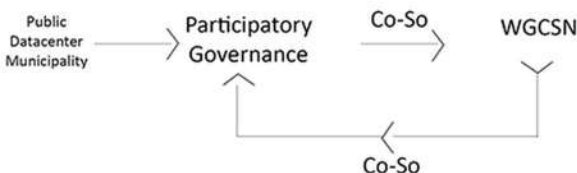
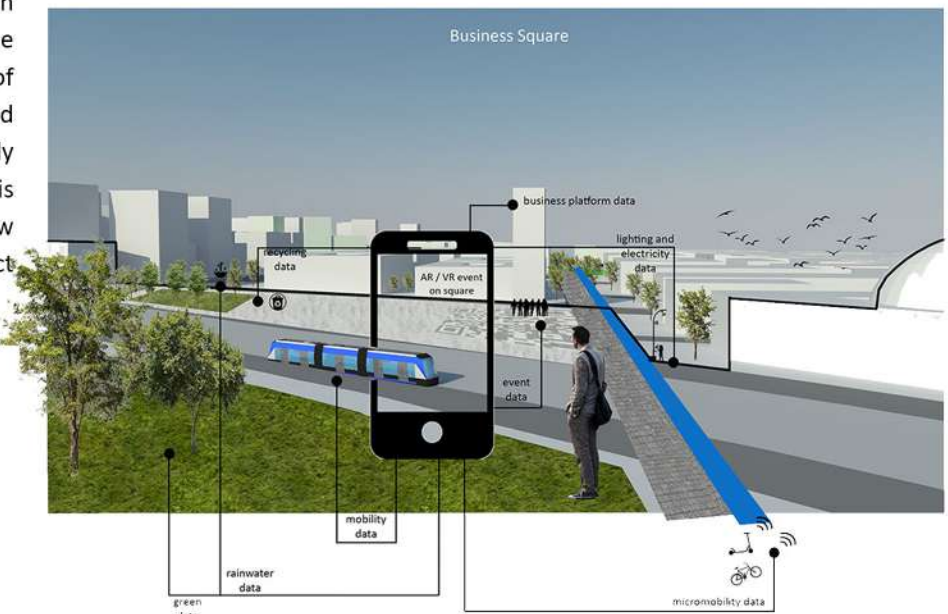
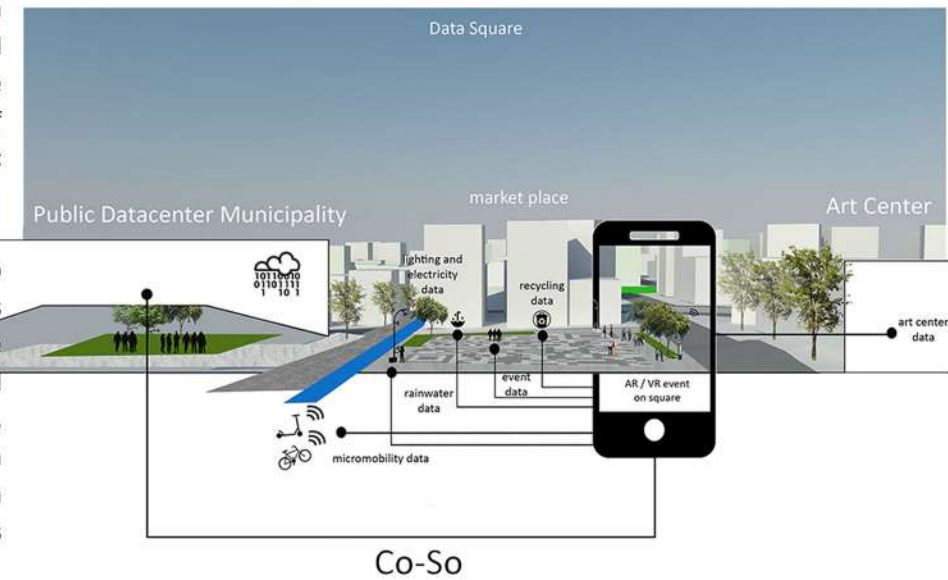
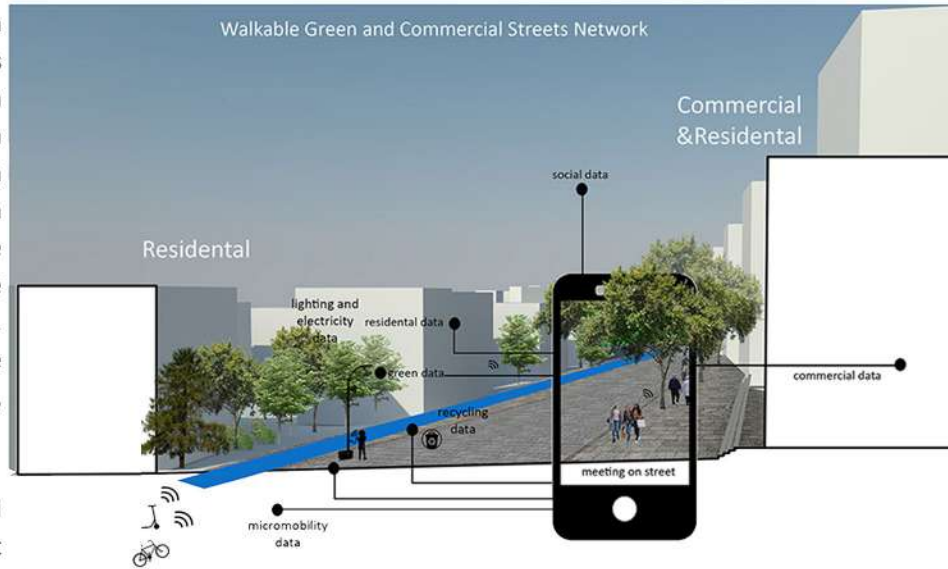
For the future scenarios, Esenler is planned to be a digital municipality without a physical municipality building, but an open municipal datacenter where the city services can be applied or received through kiosks that are connected to an open, transparent and secure datacenter. The datacenter is a public information center to keep track of the individual records and public square for democratic participation system of the municipality.

Co-Socializing Platform

The Co-So platform aims to engage residents to do activities by inviting their neighbours to the public spaces provided by the municipality. The platform helps the citizens to be aware of the events in certain spots around the district and encourages them to organize meetings, forums and social activities by booking the spots with an app. For this purpose, potential activity areas have been determined in the green area, parks and squares. Co-So is

Adjectional and Implemented Amenities

Educational amenities are added to the district plan regarding the residents and business schools for the professionals to adapt to the evolving new economics of the world. A library and co-working spaces are embedded in the district plan to create a spatial diversity for study and working spaces. The Datacenter's centrality is highlighted with a Data Square, Market Place and a New Media Arts Center regarding the WGCSN that connect every part of the district with safe, walkable streets.



Research

Shape Emphasis In Facade Perception

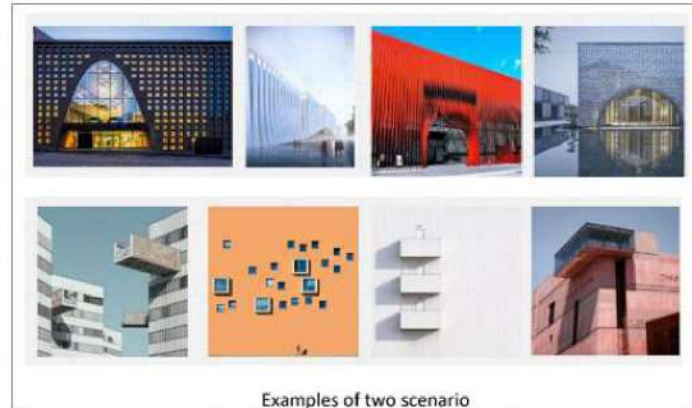
Esma Selen Aksoy, Dr. Asli Cekmis

While perceiving a city and a building, we unconsciously calculate many parameters in our minds. Stiny talks about it that seeing is calculating. In this study, it has been studied to define the shape emphasis on the facade while perceiving a building . Shape emphasis is very important in the perception of an image. Even perceiving a color depends on boundaries and shapes. As John Berger mentioned, the hue of a blue square and a blue circle is not the same. Boundaries and forms also affect our perception of the facade and the relationship we will establish with that facade. Considering that these relations will be important in the evaluation, two scenarios were used. The inputs that determine the shape in the scenarios are examined under 3 different headings. The aim of the study is to create scenarios that define the shape emphasis and to create models for these scenarios.

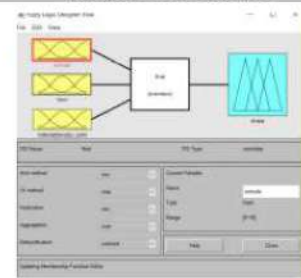
In order to evaluate the shape emphasis on the building facades, 3 inputs that create the shape emphasis have been determined. These are classified as form, color and extrude. These 3 inputs were studied in two different scenarios. While form input is very important for shape perception, color and extrude are secondary inputs that strengthen this perception. The structures that can be classified in these two scenarios have been determined. These examples can be diversified. The first scenario is associated with the shell on the front, and the second scenario with the regular units on the fronts. In the second scenario, form relations focus on the differentiation of regular facade elements such as balconies and windows that make up the building mass.

Understanding shapes is a useful way to understand what is possible in design.

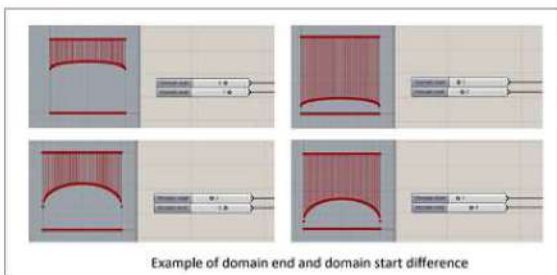
George Stiny



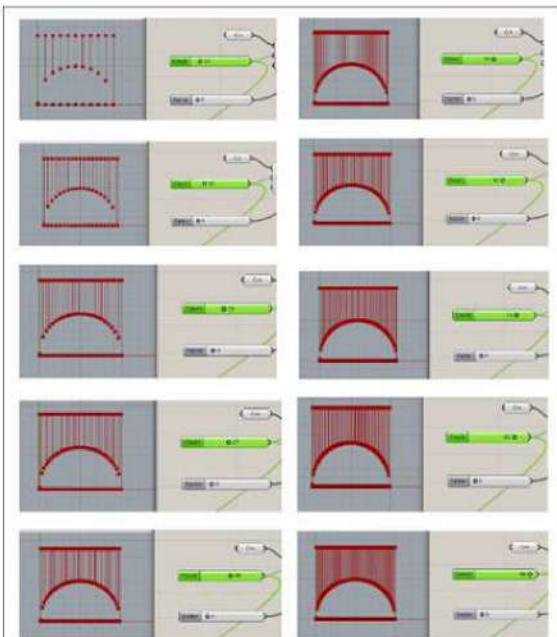
Examples of two scenario



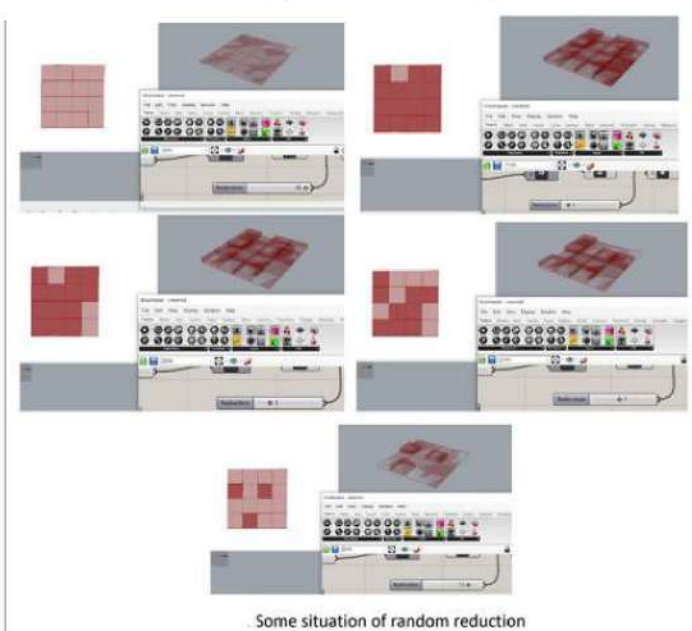
Matlab Fuzzy logic interface including inputs



Example of domain end and domain start difference



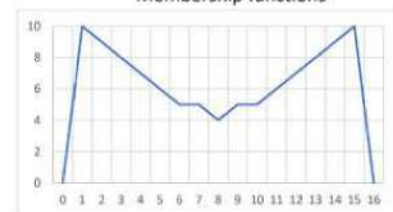
- 0 < count < 10 = shape emphasis 1
- 10 < count < 20 = shape emphasis 2
- 20 < count < 30 = shape emphasis 3
- 30 < count < 40 = shape emphasis 4
- 40 < count < 50 = shape emphasis 5
- 50 < count < 60 = shape emphasis 6
- 60 < count < 70 = shape emphasis 7
- 70 < count < 80 = shape emphasis 8
- 80 < count < 90 = shape emphasis 9
- 90 < count < 10 = shape emphasis 10



Some situation of random reduction



Membership functions



The change of shape emphasis was made with random reduction method on a matrix system facade

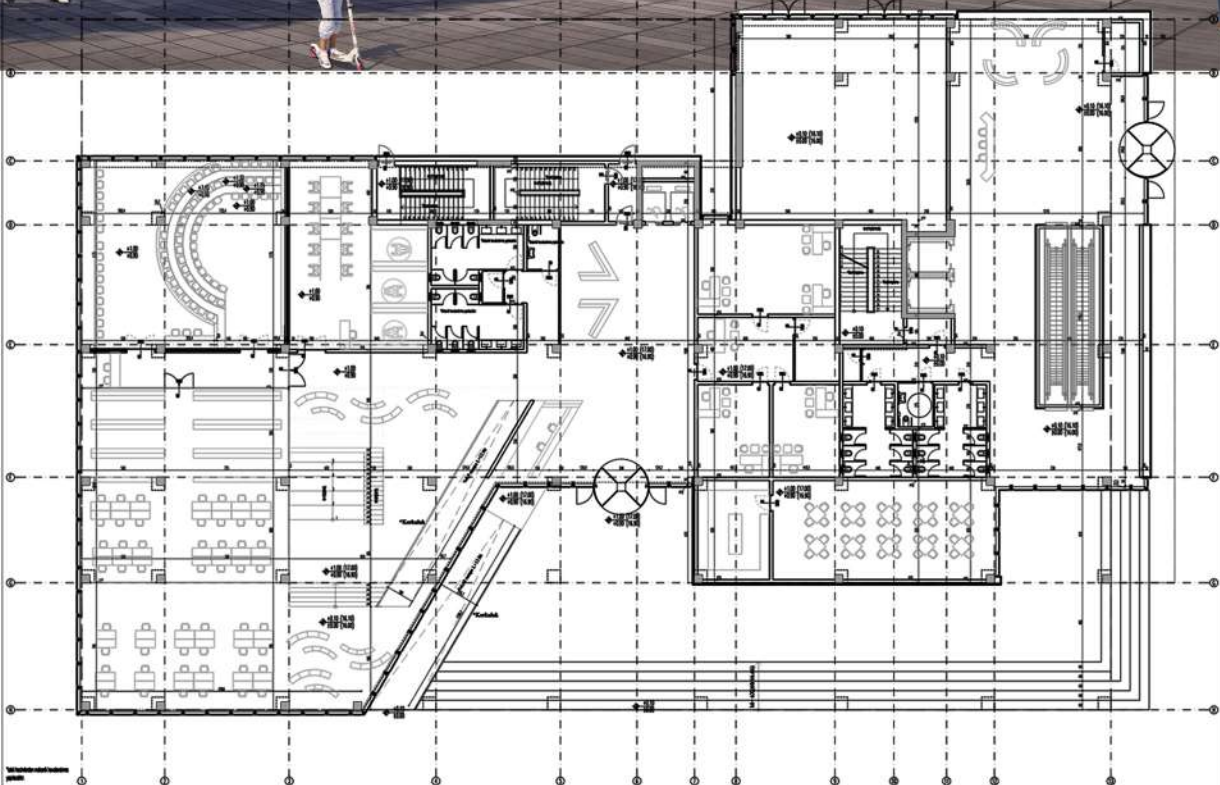
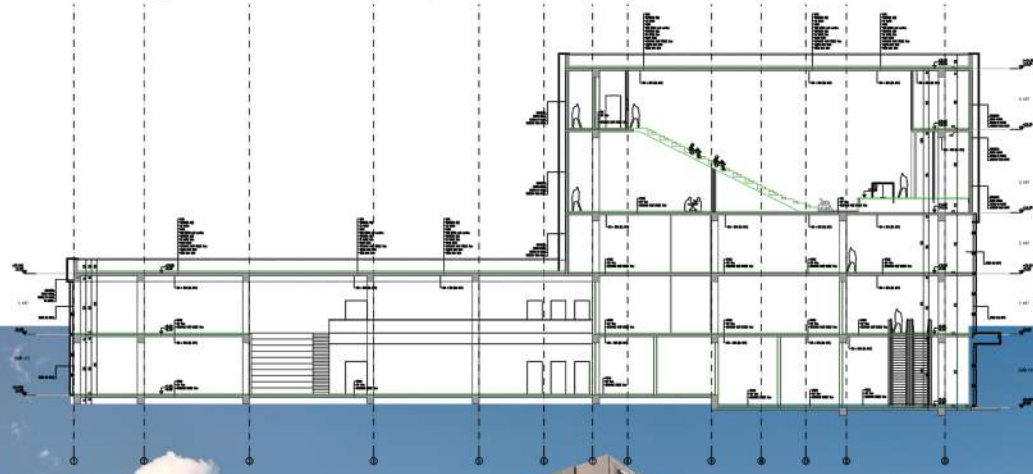
Architecture and Urban Design

Mersin Culture Square

Esmaselen Aksoy (Concept Designer and Architectural Design Leader @Next Planning and Architecture)

Library and City Museum 6000 m²

Project includes library halls, conference hall and classes for workshops.



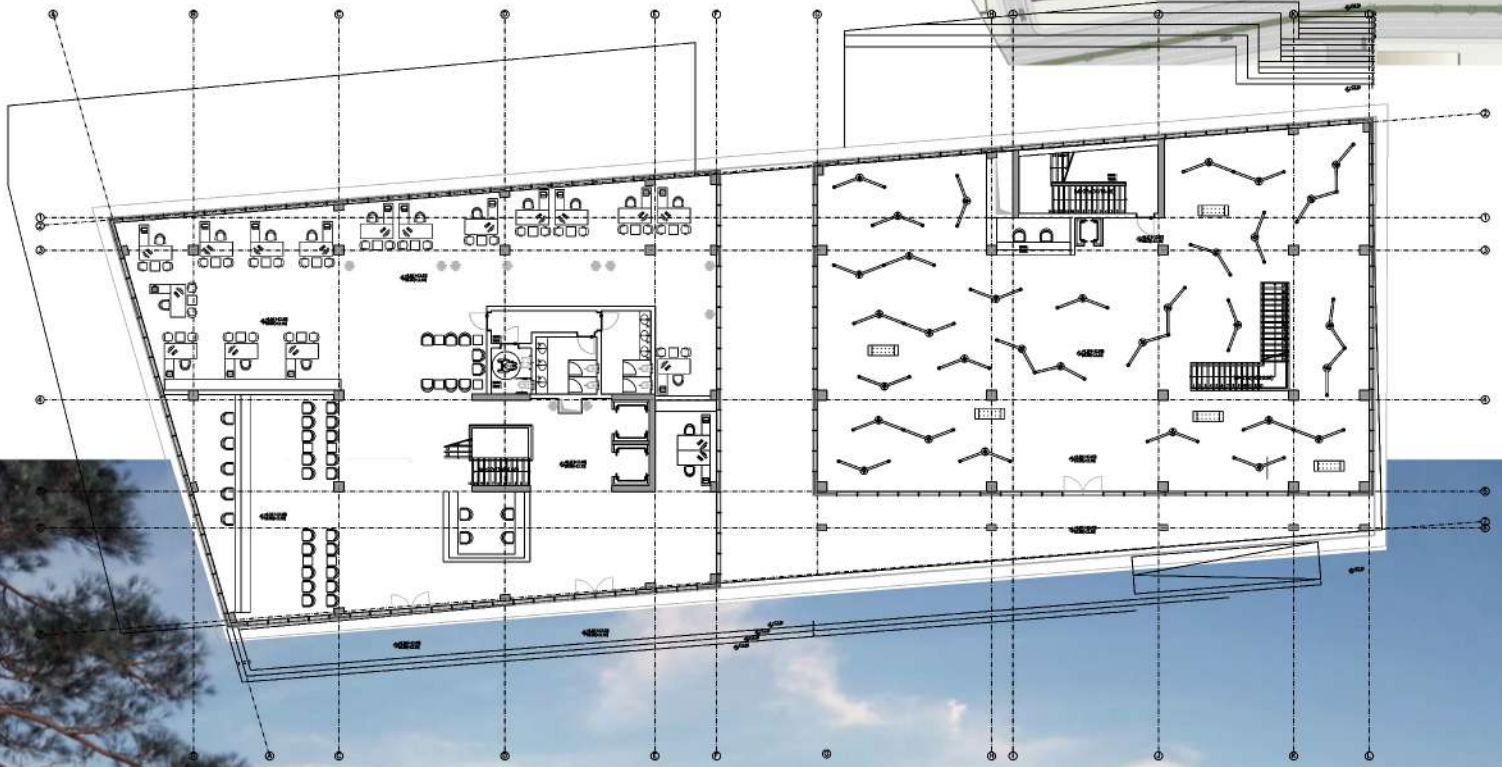
Architecture and Urban Design

Mersin Culture Square

Esma Selen Aksoy (Concept Designer and Architectural Design Leader @Next Planning and Architecture)

Municipality Service Building and Art Center 1900 m2

The square was created as a meeting point for the library, museum, park, cafes, bookstore, municipal service building and art center. Municipality building and art center. The municipal service building and the art gallery welcome the users from the main street and have an encompassing passage. The building has two separate functions on the lower level and there are offices for the municipality service on the upper level. The stairs next to the building help the user to reach the square level.



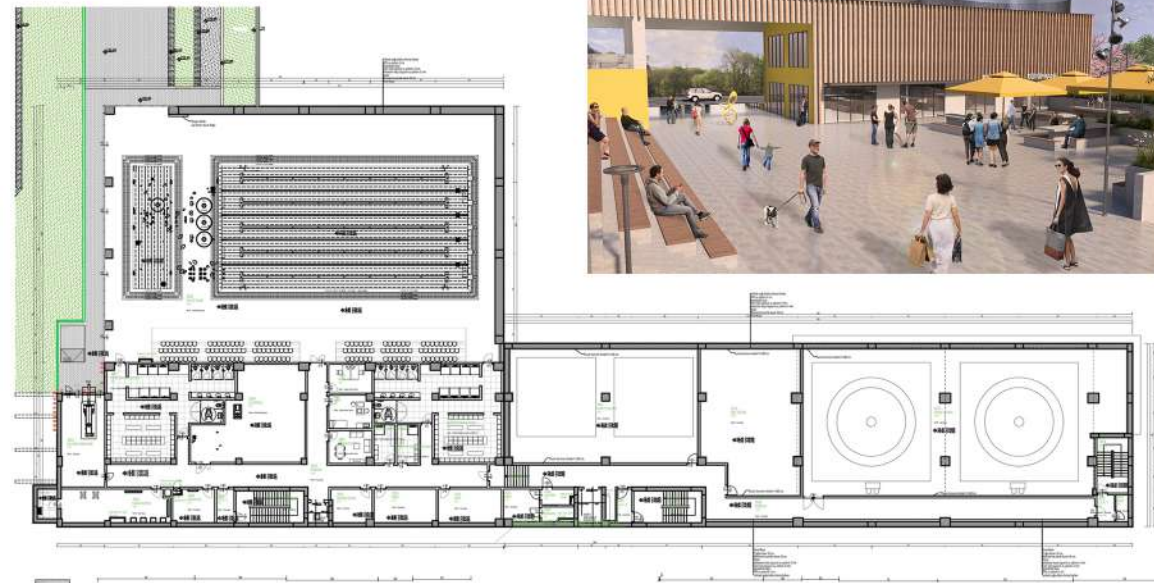
Architecture and Urban Design

Aliaga Youth Center

Esmaselen Aksoy (Concept Designer and Architectural Design Leader @Next Planning and Architecture)



Aliaga Youth Center project is a sport campus and recreation area in İzmir, Aliaga. This project has a total usage area of 10,000 square meters. There are many music and art workshops area, dance and sports training classes in the building. The Olympic pool was placed on the lower level by taking advantage of the elevation difference on the land where the project is located, and an upper square was created by placing the top of the pool on the street entrance level. In the landscape of the project area, there are football field, basketball court, activity amphitheater and green recreation areas.



Architecture and Urban Design

Aliğa Stadium

Esmaselen Aksoy (Concept Designer and Architectural Design Leader @Next Planning and Architecture), Prof.Dr. Tan Gürer (consultant)

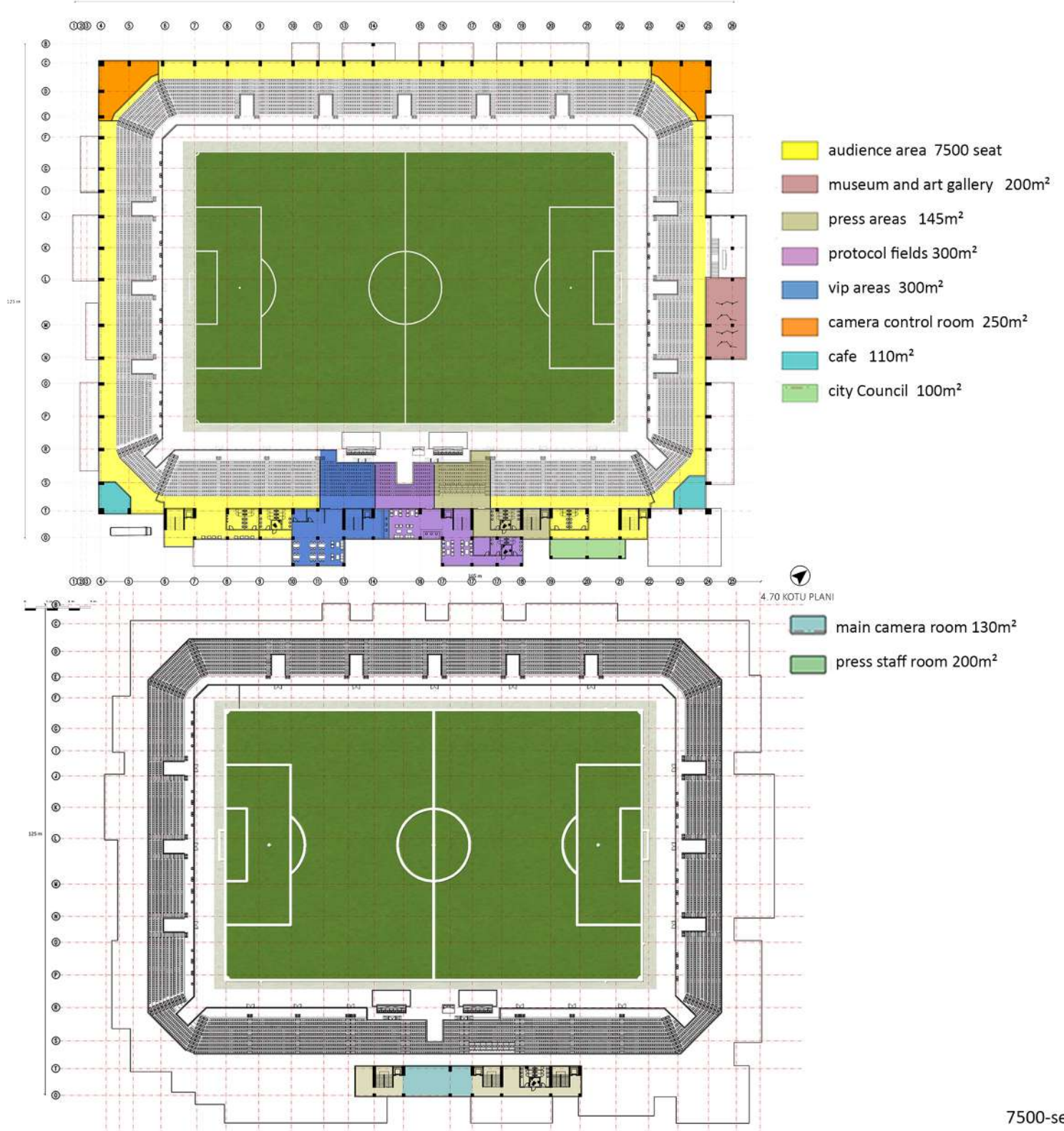


Aliğa Stadium was designed with the concept of **living stadium** in the city. Additional units have been added around the stadium to connect the stadium with the city. There is a sports museum in the entrance square. The stadium, which has athlete, press, vip and protocol entrances on the west side, has been designed in accordance with UEFA Standards on its own scale.



Aliaga Stadium

Esmaselen Aksoy (Concept Designer and Architectural Design Leader @Next Planning and Architecture), Prof.Dr. Tan Gürer (consultant)



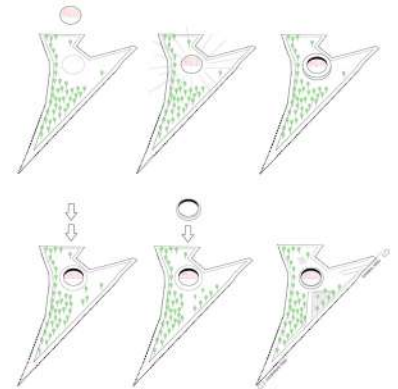
Competition

Luleburgaz

Esmaselen Aksoy, Batu Kepekcioglu



Mugunghwa

**Mugunghwa / The Garden of Eternity Flowers"**

The Korean War, which is the subject of the visitor center and commemoration area expected to be designed within the scope of the competition, has been interpreted as a MONUMENTAL PLACE to be used by two nations that share the same pain, even though they are foreign to each other's languages and cultures, to commemorate their losses together. This PLACE will now be about concepts such as sharing, eternity, friendship, dialogue, gratitude, loyalty, beyond the dichotomy of war and peace, death and life.

Taking its name from the 'mugunghwa / eternity flower', which is the national flower of South Korea, this garden will show the loyalty and gratitude of one nation to another, and will be a materialized symbol of friendship and cultural dialogue between the two nations, whose foundations were laid 70 years ago; A visitor center will be located around this monumental garden, which thematizes the memorial site.

Geometry and Layout:

A self-focusing circular form has been chosen for the GARDEN OF Eternity, which is located in the geometric center of the competition plot. This circular garden and the visitor center building surrounding it are positioned in the area created by the collapse of the topography for minimum settlement in line with an approach that focuses on the garden. Thus, it is both isolated from the visual and auditory elements in the environment and purified from the compositional elements other than the monumental garden.



Competition (Finalist)

Sinan Scapes

Esmaselen Aksoy, Batu Kepekcioglu, Erkan Akan

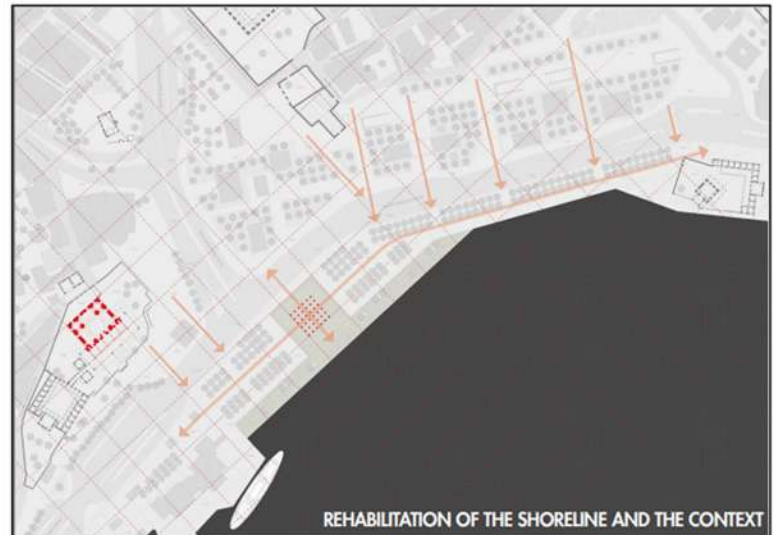
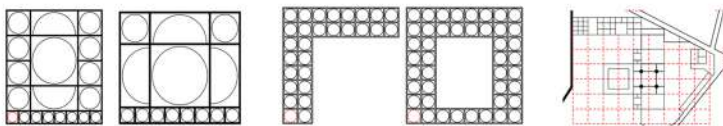
“Sinan-scapes” is a dynamic space for curating different sets of relative knowledge about Sinan; a re-configurable kine-plastic in-interface capable of representing various re-interpretations of Sinan by adapting hydraulic, electronic, and digital technologies to the space according to Ottoman urban fabric orders

“Sinan-scapes” is located by the seaside, on the excessive land fill between Şemsipaşa Mosque and Üsküdar Pier. Since this land fill presents opportunities compared to the landside of Üsküdar by keeping away from unnecessary design challenges such as overshadowing monumental buildings or being overshadowed by them or blasé attitude caused by the daily crowd of Üsküdar. Also being located at the waterfront promenade proposed commemoration space can easily be articulated to the the Harem-Üsküdar route enriching its experience.

In terms of planimetry, “Sinan-scapes” geomerty is aligned to the Mihrimah Sultan Mosque’s ruler-grid which consists of two perpendicular main axes that are tangent to the boundaries of the body walls of the Mihrimah Sultan Mosque and the portico of the last congregation. Geometry is referenced in the direction of the Qibla. In other words, its ruler is positioned aligned with an orthogonal grid, which is the Mihrimah Sultan Mosque. each other modularly forming a square plan geometry



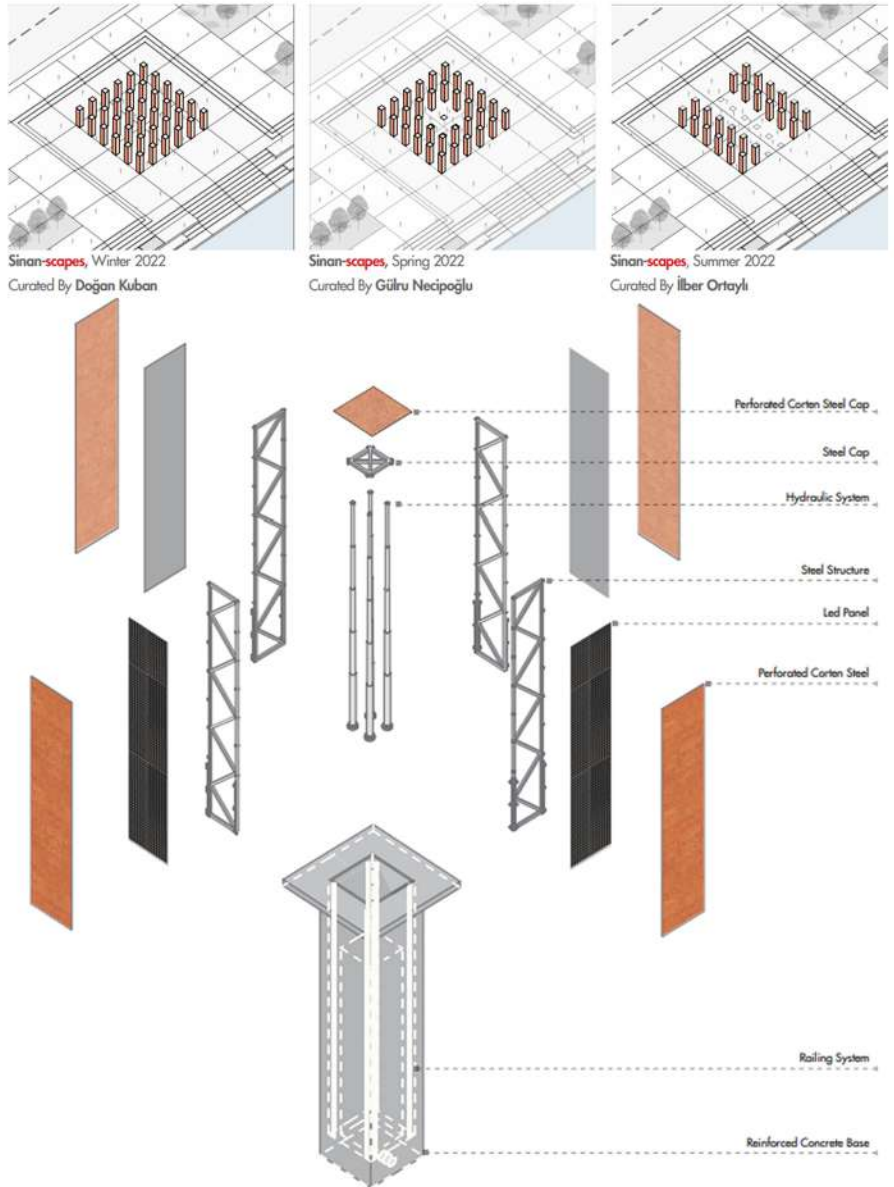
Proposal’s logical engagement with the Ottoman classical tradition of public space articulation begins with urban scale and continues at building level. Consisting of 36 pillars with 1mx 1m x 5m dimension each, Sinan-scapes’ planimetric configuration is also inspired by the plan geometries and generative logic of nearby Ottoman sultan mosque’s and kulliyes’ spatial grammar: pillars are aligned to the grid and arrayed in 2.5 meters distance from



Competition

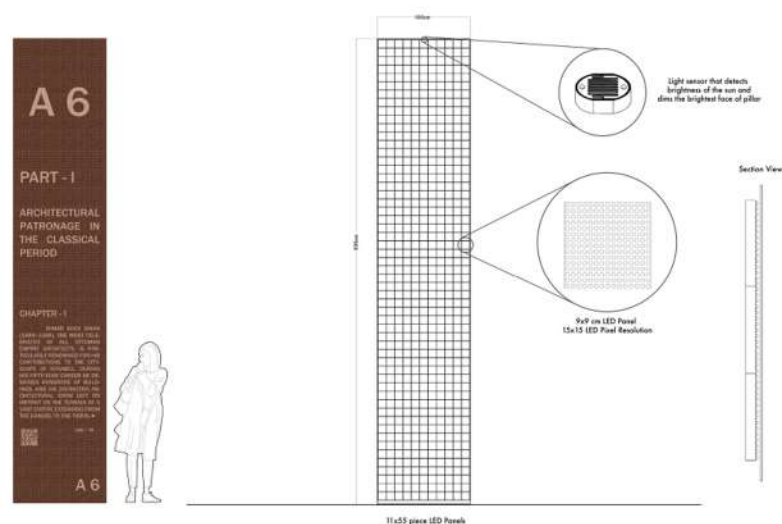
“Sinan-scapes” will not only act as a LAND-MARK for the brand new embankment emerged recently without any territorial identity and inspiring urban element to have any chance of leaving marks on the collective memory but more importantly will serve as a re-curatable kinetic topography, an interface between digital and physical, formed by interactive pillars for narrating various historiographies of Sinan by prominent historiographers such as Zeynep Ahunbay, Reha Günay, Doğan Kuban, Gülru Necipoğlu, Suphi Saatçi, Uğur Tanyeli and others

Interactive metal-led screen of the pillars 1 m x 1 m x 5 m, moving through z axis with the help of a hydraulic system; with ledlight dots overlapped precisely with each perforation on the metal surface of the pillars. Holes on the pillar surface are 4 mm diameter and 2 mm spacing between each other. Thickness of metal perforation is 2 mm and the material is weathering steel. Each pillar contains 9x9 cm LED panels which have 15x15 pixel resolution. Panels will be joined to each other with their own connection housing. Each panel is 30-40 mm approximate thickness. There will be 55 rows of panel and each row contains 11 panels. All faces of each pillar will contain 605 LED panels. The metal surface of the pillars turning their surface into an interactive metal-led screen on which QR codes will appear and give access to an interface for controlling information on the pillars such as scrolling between pages, changing the language of text or can access data bank of previous exhibitions. Additionally, for controlling light intensity, a light sensor which will measure the brightness of the sun and adjust the led brightness due to its measurements is added on top of every side of each pillar. For interactivity, On the metal-led screens, QR codes will appear and give access to an interface for controlling information on the pillars such as scrolling between pages, changing the language of text or can access data bank of previous exhibitions.



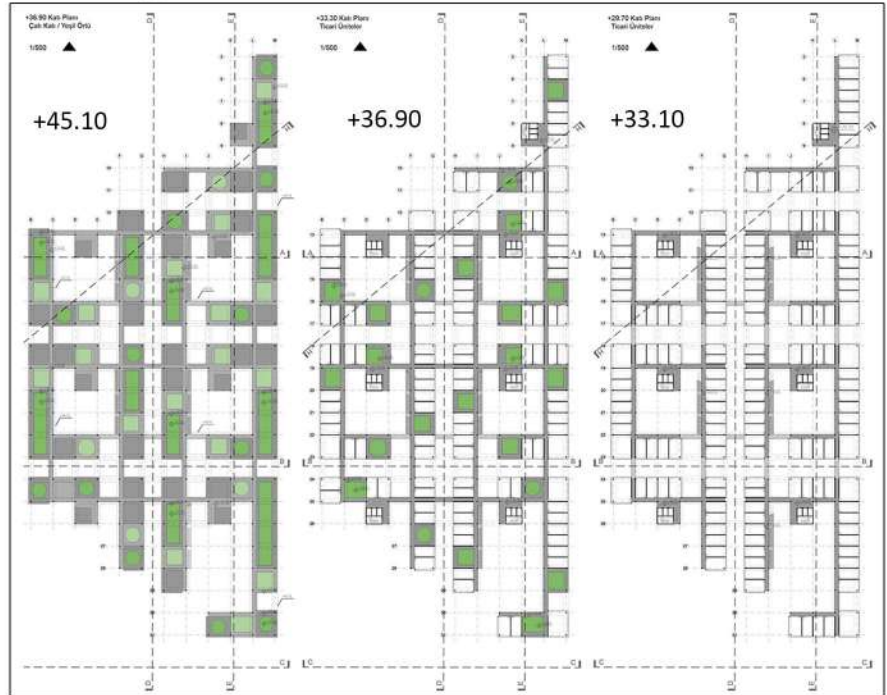
Tectonic & Technology

Interactive Pillars with Metalized Digital Screen

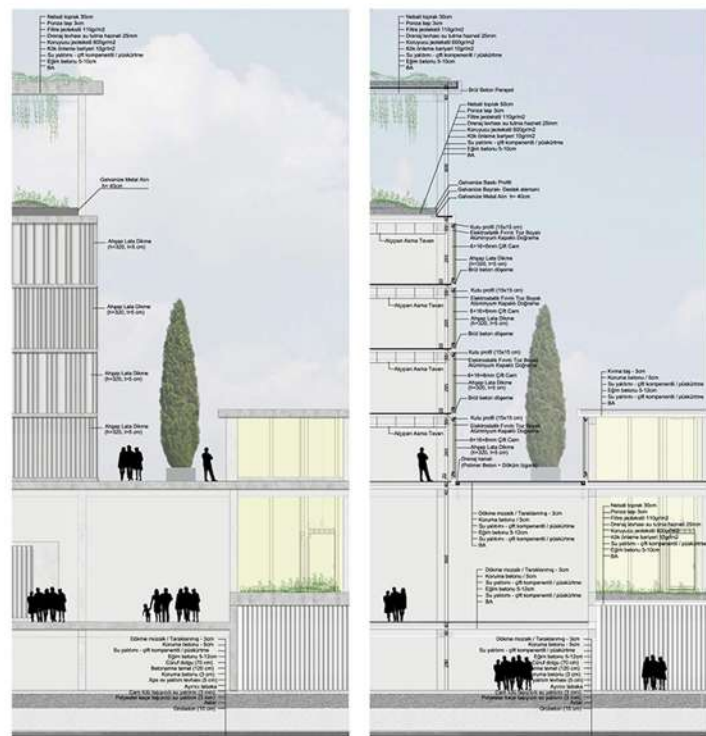


Competition (1.Mension)

Adana Seyhan Sucuzade Urban Design



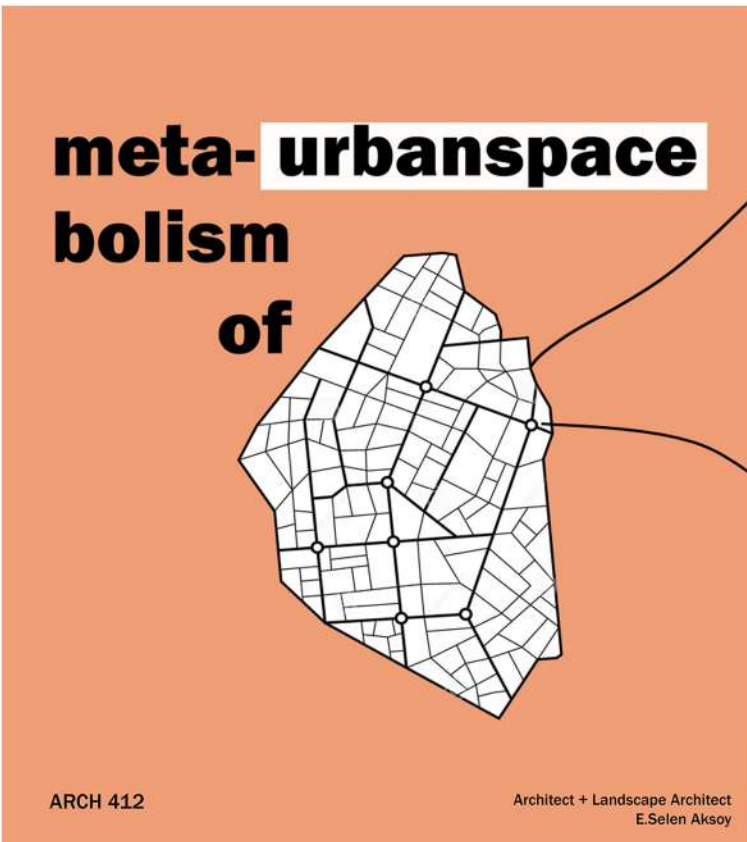
The square is distributed to +11.70 / +15.30 / +22.50 levels with its multi-storey system and offers different uses. The +11.70 level is reserved for support units such as a closed car park, shelter and archive, as well as forming the ground level of the multi-purpose show hall. The show hall provides the service and parking lot entrances at +11.70 elevation, and its main entrances are at +15.30 and +22.50 square elevations. +15.30 level is the main venue for social and cultural activities. Long-term open space uses such as exhibitions, concerts, open-air cinemas and museums are positioned in this quota. Therefore, the uses located in shade / semi-shade areas are spaces that provide alternative solutions according to the differences of the day and season. Indoor uses, on the other hand, are separated by usage such as cinema, theater, food and beverage units, closed exhibition and meeting rooms, support units. Vertical connections between the levels work in integration with the courtyard system, and useful spaces are designed with suggestions such as wind corridors, air circulation, sun / light intake, pedestrian connection between the lower and upper levels of the project area. . At +22.50 elevation, its main connections have been solved with vertical circulation units and platform ramp and ladder systems.



Teaching

Metabolism of Urban Space @ BILGI UNIVERSITY elective course I • 2021/22 Spring Semester

Esma Selen Aksoy (Lecturer)



metabolism

● **of urbanspace**

looks at a city as if it has a metabolism, like a living biological system, with inputs and outputs.

- In this lecture, **metabolism** is used to analyze how urban space live with the built environment, human activities, and the natural environment in a **systems approach**.

The three basic principles on which the systems approach is based are;

- holistic approach
- interdisciplinary approach
- scientific approach

● **meta-** "beyond," "after" "behind"

urbanspace

-**Meta-urban space** is looking beyond the urban space of in times and to focus on diversification of concepts of inhabitation of the world.

-**Meta-urban space is to question what the urban space is beyond all relations and how it should be perceived.**

Course structure

The course is divided in three parts

0. Definition of urban space, meta-urban space and metabolism of urban space

1. Urban space theories

Urban space history & utopias

Urban space history & utopias

Student presentation: (%10)

- Project example

2. Digitalization of urban space

- Parametric urbanism

- Urban space and ai

- Smart cities

- Sustainability and circularity

Student presentation : (poster) (%40)

3. Studio

Develop a new urban framework in neighborhood scale

-select one theme and location

-define problems

-create new approaches for solving problems

-create a system for solving problems and linked other urban space problems

The course focuses on urban spaces and their attributes that affect each other. Use of metabolism is an analogy to understand this reciprocal relationship and meta is a way to address beyond the definition of urban space. In this course, the concept of urban space will be questioned and theoretical approaches in history will be examined with examples. The transformation of the urban space in technological era and the criteria determining the urban design decisions will be evaluated. Urban space will be studied at different scales and the metabolism of urban space will be tried to be understood through different periods and theories.

examples of student works

1

Problem Detection

As a consideration of the global crisis. Global Warming one of the most important problem that we face decades. The most important elements of the fire rescue is water so in the first analysis water collection possibilities was searched.

Methodology of the Analysis

Rhino- Grasshopper
In order to create graphics of the analysis Grasshopper Rhino used as a main programme.

Plug-in : Urbano.io
As a plug-in Urbano.io was used take datas from OSM. Besides use the analysis tool create visuals as a consequences of data analytic process.

OpenStreetMap
OpenStreetMap.com was used as a data source. OpenStreetMap is an open GIS tool which any user could provide information.

Analysis
In the data flow the surface of the existing topography was rebuild with points with the help of the anemeno plug in the existing water flow ways was detected.

Possible Solutions
The path of the water flows could detected from these point the fire hydrant system could imply.

2

Problem Detection

As a earlier discussion the type of the building is determined as a public building so the landscape of the land has to design as a urban development project

So the path of the project is let to people obtained time by time in order to guess the path which people create after certain amount of the time road hierarchy is determined with Urbano.io with the help of the Street-Hits

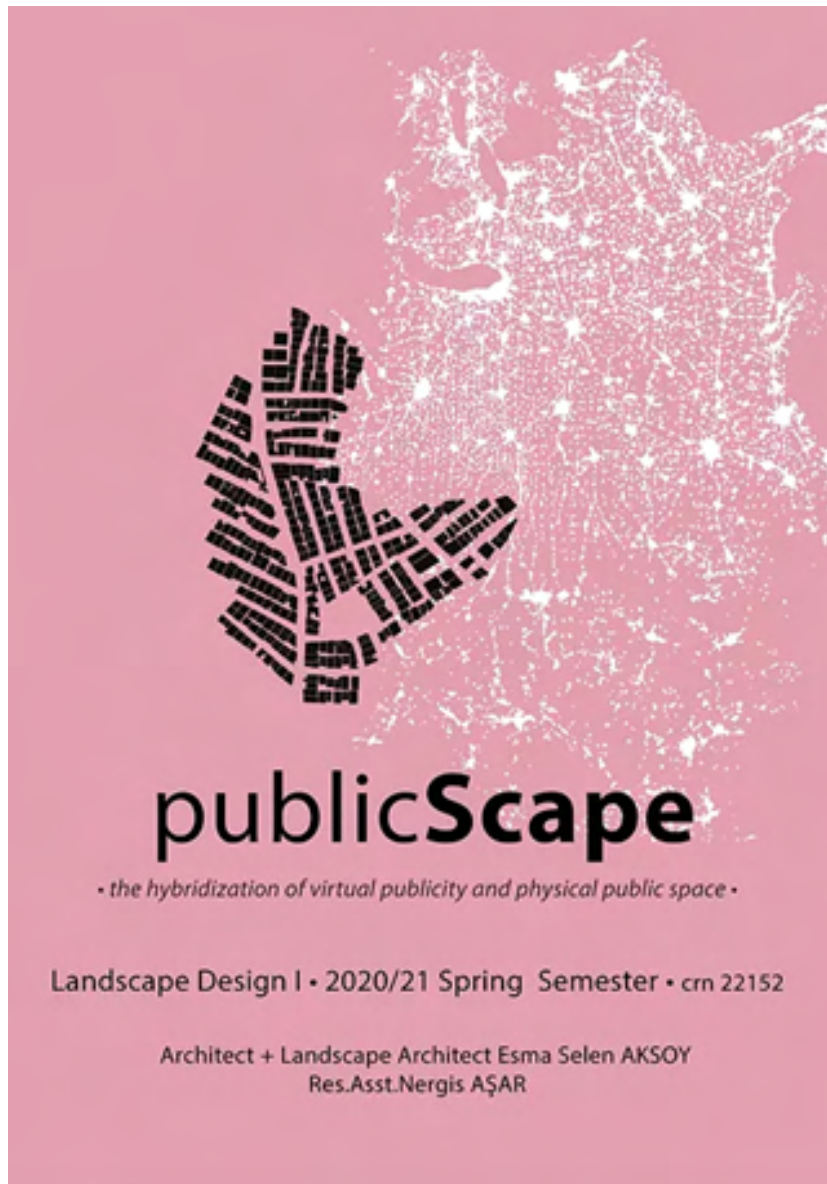
Analysis
In the data flow the function which occupied the roads is determined with parametric factors.

Possible Solutions
The landscape of the site is designed with these analysis and the path is designed according to graph that shared.

Teaching

PublicScope @ ISTANBUL TECHNICAL UNIVERSITY Landscape Landscape Design I • 2020/21 Spring Semester

Esma Selen Aksoy (Lecturer)



The definition of public space has been discussed throughout history. Public space is not only an urban open area but also is a meeting and production space for new ideas and cultural relationships. Boundaries of the public space are blurred today. Public spaces, where location-based data is accumulated, is transformed into a surface where we can follow the traces of the city. The main scope of the studio is the pursuit for creation of new design scenarios with virtual traces changing physical public space. The project areas were selected from Esenler district, where the housing density is high, due to the scarcity of existing public spaces compared to the residential texture. It is aimed to activate public spaces by changing the usage scenarios of existing public spaces. Within the scope of this project, it is expected that the selected area will be designed considering the possibilities of the public space between reality and virtuality. While the project areas are redesigned, new definitions of public relations can be discovered by combining existing urban habits with new virtual habits and city data. The studio holds in total four sequential parts in which two of them are workshops and two of them are modules. *Workshop I* involves "a workshop/minor project on "researching mobile application for activating open urban area " through the mobile app studies. *Module I* in starts with "a seminar- mini workshop on data analytic approach for design " through collection of data in the within walking distance via internet (google street view, twitter or instagram data) *Workshop II* involves "perception mapping " - merging representation techniques." *Module II* Project Design phase

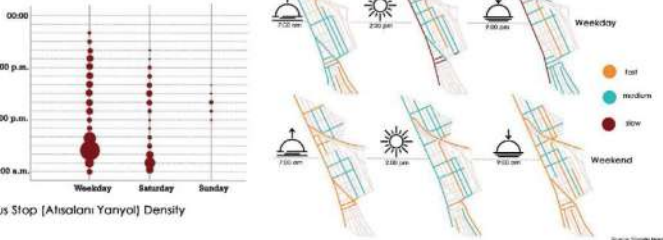
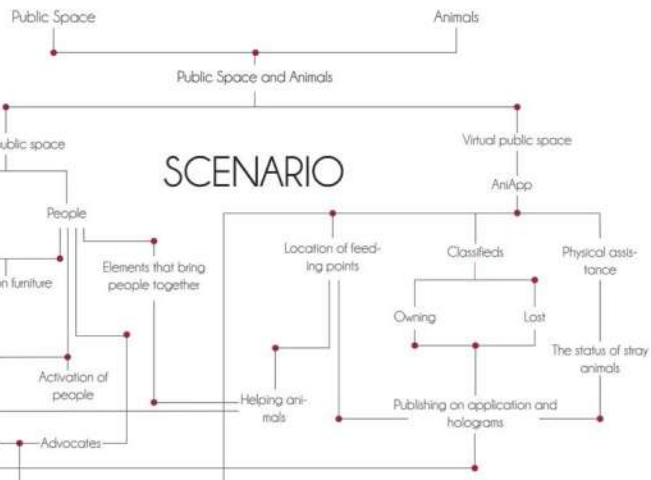
Teaching

PublicScope @ ISTANBUL TECHNICAL UNIVERSITY Landscape Landscape Design I • 2020/21 Spring Semester

Esma Selen Aksoy (Lecturer)

module 2 / examle work 1

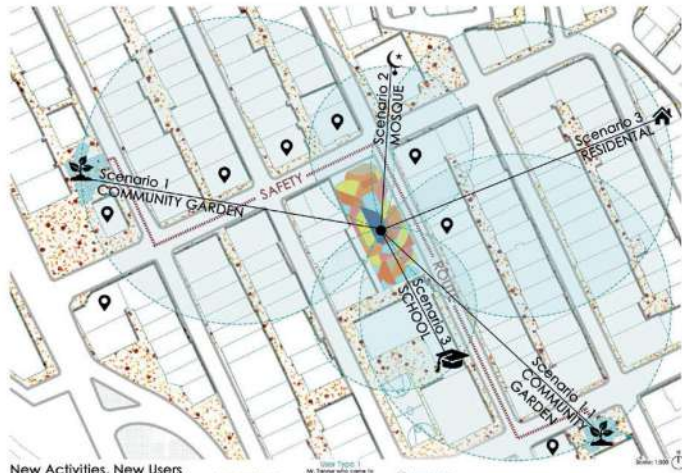
module 2 / examle work 2



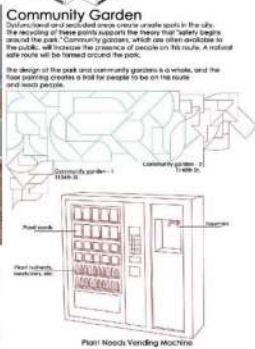
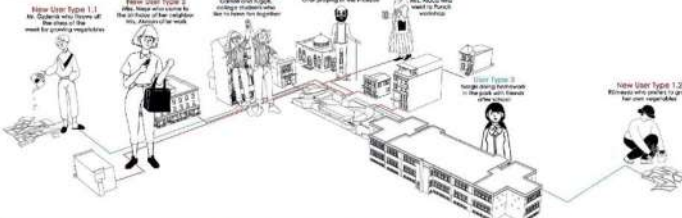
Physical Analysis



"PARK SAFETY STARTS ITS AROUNDS."



New Activities, New Users



Synthesis



Source: Twitter, Instagram, Google Maps, Vander Maps, Google Photos and <http://www.ikercatalk.com/index.php?analis=2014/>

AniPark App

With the AniPark app you will be able to see the animals in need of help around the park, check the status of the feeding points, follow the lost and appropriation notices, and access the locations and dates of the walks. In addition, you will be able to be instantly warned of these situations with the hologram signs in the park.

