Korkut and Nalbantoğlu *Computational Urban Science* (2023) 3:32
https://doi.org/10.1007/s43762-023-00108-8

Computational Urban Science

ORIGINAL PAPER

Open Access

Adaptability of everyday planning in urban design practices: self-organization and spontaneous action analysis of Galataport, Istanbul

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Abstract

Cities are information systems by its social and physical components. The data of these components create a wider picture in urban texture than it was designed by planners and designer in urban practices. The idea of collecting the data and composing models of spontaneous actions in urban simulations can add different dimensions to planning ideas in social terms and spatial texture. The issue is to find out how these components can be better related with each other to let citizens be urban planners as well up to some level, and what level that would be. The aim of the project is to bring back the social impact of the whole city as linking the hubs of Karaköy and Kabataş through the waterfront, also reawakening the collective memory of the port, by preserving the texture of warehouses form Ottoman Empire. The final outcome would be understanding how effectively project would be able to create the dynamics that have been proposed, and whether there have been other spontaneous actions thought the designed area.

Keywords Self-organization, Spontaneous order, Galataport, Shannon's theory, Cognitive images, Behavioural patterns

1 Introduction

The implications of planning can be an application of a new type of information and new definition, or an adaptive policy or design to the existing information and the dynamic of the city. To find the balance between the adaptive information of the parameters that designs the city, some studies are taking place to understand how the system of the city works as the physical, cognitive, social and many other types of information combined and adapt each other. There has been an ignorance of the effect of social dynamics on urban system, has caused the materialism of urban spaces and the creation of weak spaces, which the reason has been cited as "the decline of linear conceptions of history, the reduction of welfare systems and post-Fordist work organization are among the many factors leading to new time structures. Although it would be possible to detect similar increases of complexity in terms of national territorial organization, globalization and mediatization, the social constitution of space has not received the same amount of attention as the temporal order" (Knoblauch & Löw, 2017), and claimed that the urban sociology has been left out of theory and practice of urban planning and design.

Same issue applies to the lack of urban studies in sociology. There are still few studies and real-life projects that implicated the necessity and importance of social sciences within the urban environment, so that there are

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still some examples of non-places today, in recent urban design projects. The issue to answer here in this research is, whether there is any implication of social movements through the urban areas, or is it just the top-down regulations that lead the social movements. Also, the issue of spontaneous order through urban areas emergence is possible through social dynamics, though, in what extent the empirical data and observations would be able show the flexibility of urban environment and social behaviours, and their adaptation of one to another. The case study that will be applied in this study, Galataport project, seems to apply the bottom-up decisions that has been analysed through Karaköy and Kabataş, allows people to reach the waterfront through a dense urban area, though, in implication of the project, the unescapable forces from the business administrative of the Galataport complex, implies some top-down rules, so that tumble the ability of self-planning of the people that are used to the dynamic of self-organization at Karaköy and Cihangir. There has been a force identification of places, rather than letting people identify by their habits and behaviours, or, such as in the example of Galataport, letting people design, up to some level, and until the top-down regulations supress the self-organization citizens; "Space ceased to be regarded simply as the environment of society marked by bounded territories and defined by the code of 'here' and 'there'; the turn takes space to be a relational category based in social interaction and interdependency" (Knoblauch & Löw, 2017). In this manner, Galataport was chosen to be the case study to analyse under the adaptation and self-organization theory in urban developments, because it started as an opportunity to connect the social dynamic in the ideology of the project, throughout the coastline, that has been disconnected for many years even before the construction of the project area, and later the implications of the top-down regulation because the complex area turned out to be a private–public area, which are surrounded by commercial based business, and sometimes tourist cruise ships by the cost, which block the physical connection of the major water source for both area and the whole city, although, there are still some actions of self-organization actions in between these physical forces and top-down regulation that brough by the administration.

The pattern recognition is possible to be observed in any case a human being is involved. Since the city is the main habitat of the human beings, every urban area has a possibility to be involved in a pattern recognition process. The definition of place also occurs through this process of pattern recognition and cognition of urban places. When cognitive and structural image composed together, the urban spaces started to be identified as "urban places". The structural information would give an idea of the quantity, quality and physical description of an urban environment, which all of the measures can be identified mathematically and visually. The complexity of the source of information begins when the cognitions are being involved as the emotional, experimental, habitual, preference and many other parameters that effects people's decision of urban path and place in the built-up environment. As a product, which latter becomes a tool to analyse social flows and create solutions in the urban planning and design practices, self-organization systems appear. In cities, self-organized systems are based on human actions and bottom-up decisions. The human beings' choices of interactions combine with urban areas and create a social dynamic in the city, which defines the urban areas in a social manner. In planning, the room for spontaneity creates an opportunity for people to self-organized themselves. The act of self-organization upon people, leads to the fact of everyday planning, which people do every time they spend in urban areas, intentionally, or unintentionally, "In cognitions, the routines and behaviours are being planned and analysed, so people find a way to adapt their routines with respect with others and the structural organization of their surroundings. Adapting the idea of everyday planning with the institutional planning would have given the perspective of being able to plan/imagine the human behaviour. The involvement of the human cognitions into planning practices would help to adaptation of social and structural information, in order to benefit and harmonize in an efficient dynamism in a city" (Korkut, 2020). This study both analyses the opportunities in the adaptation of social theories in practice and criticizes the fact that designer and planner are not clearly applying rooms for spontaneity, though, they are also planners in both practical and social manner, as institutional planners/designers and citizens. There is a mutual influence between the social and spatial elements of the city. Furthermore, with the use of real-life case study such Galataport, gives an opportunity to analyse and observe up to which levels habitants tent to and allowed to create room for spontaneity in urban plazas, and criticize on semi-public policies that are limit and force to adapt the designed intentional dynamics of such urban environments.

The reason to choose Galataport as a case study for the topic of urban adaptation, is to fully understand the differences between the design goals and the implications that occur after the construction in real life. The are of Galataport before the launch of the project construction was already an area of discussion, on still is today. The opportunity on this case study that is being personally included within the design team of the project and have a clearer observation on how it should be, aimed to be and how it turned out to be after the construction.

Some location, historical and literature analysis and personal observation, illustrative and photographical documentation were made to have a criticism and analytical data about the real-life project of the theory of spontaneous order and adaptability. The overall research aims to find out how adaptable the social components and urban constructions as physical components to each other, and to point out the limitations of creation a room for spontaneity.

2 Preliminary clarifications on self-organization systems of cities

2.1 Shannon's theory

Structural information depends on the physical information which is easily acceptable universally. The landmarks, their shape, quantity, material, location and many other physical specialties defines them in a structural way. As Shannon's theory of information is focusing on the quantity, there is also semantic information that focuses on the urban elements, which is also not considered different from pragmatic information, "we do not distinguish between semantic and pragmatic information. This implies that we adopt a strictly operational point of view. We leave it open, however, how to observe the effect on the receiver. (This effect could be a specific reaction of the receiver (person/machine) or the storage in memory.)"(Haken & Portugali, 2015). Shannon information is considered similar with the theory of entropy in statistical mechanics, such, the elements would be likely stay as they are; thus, the information is measurable in physical terms. Shannon's theory is somehow related to the practices of geography, which described the one as geographer "analyses (and possibly rearranges, for reasons of clarity) fine details, but retains the topology of the map. This cartographer thus analyses (…) the brain has to draw its conclusions from the correlations starting from a somewhat larger scale up to the size of the original image. At this stage it synthesises" (Haken & Portugali, 2015). As social terms are considered in this theory, the cognitions of human beings depend on their taste, routines, habits, culture, education, lifestyle and many other psychological views that affect how people give meaning and perceive the physical picture. That brings up the theory of cognitions in urban studies.

The challenge of cognitive images is that it depends on both intention and behaviour, and these two factors affect each other in some point so that the physical intention of perception of an image might be supressed by the emotional behaviours. This phenomenon creates a flexibility that every individual tends to create their own image of a physical being, though none of them are wrong, as children in kindergarden portray many different forms to describe the same thing, only from their own point of view. People perceive almost everything in their own senses of manner, as how they make a most meaning of them.

The fact of leaving the reaction to the receiver brings up the discussion of information adaptation, which depends on the relation between cognitions. Human beings might see the patterns in the same physical shape but they value the patterns in a differently. They tend to build a cognitive image depending on their own experiences and emotions and define the pattern accordingly, other than the patterns' own semantic information that has been designed. There are no specifically correct or wrong way to develop a cognitive image so that is possible to say that citizens are able to plan and design their own cognitive maps/cities accordingly to their habits, emotions, memories and perceptions on the structural environments of theirs. In the case study of Galataport analyses show how citizens are challenged keep their habits through the new port, just as they used to flow around Karaköy and its narrow areas, instead of using the designed urban plaza, which supposed to be the most dynamic area and the actual centre of the urban plaza. The case study is related with the theory because of the local citizens challenge to keep their habits in the complex of Galataport, and how top-down regulations are administered, including the controlled entrance to the urban plaza, that includes a coastline that supposed to be a public urban area. The main critics about the top-down regulation of the project that limits the self-organization behaviour that thought to be allowed to citizens, is the privatization of urban areas, and especially the sea promenade, which was already a problematic issue for the whole city of Istanbul. Although, the tension to preserve the habits of citizens through the port would be allowed with unintentionally designed spaces for spontaneous action and the fact of citizens being a part of a self-organized social system themselves, despite of the privatization of a supposed to be public area.

2.2 Juval Portugali's Self-Organized Cities

Self-organized citizens' behavior in urban environments is being discussed and studied recently to find an answer about how urban places are being shaped by social patterns of people who live in that urban system, or the other way around, how the physical conditions effect the social patterns of the city. To understand and create a better understanding of urban phenomena and to produce more beneficial urban models, sociological and physical analysis are concerned to understand how society is being self-organized. As Juval Portugali mentioned in his book *Self-Organization and the City,* "Self-organization, as is well established today, has captured the forefront of the system approach in science and as such

became a paradigm relevant to phenomena in a wide spectrum of domains in the life sciences, social sciences and humanities"(Portugali, 2000). While designing and planning urban environments, it is unescapable to consider such facts like 'how it can benefit the social life or citizens?', 'how the urban flow would shape through this urban system', 'in such a design, can people continue their routines or violate the policies of the authorities?' and so on. Briefly, self-organization creates a lot to offer and study within the cities' structure and morphology, when it merged with socio-spatial theories, since it includes people and sociological patterns.

Self-organization has been defined as a formal theory, "a general umbrella for several theoretical approaches which, while agreeing on general principles, differ in their treatment of such systems, in the emphasis they give to the various processes and properties, and in the subject matters they refer to"(Portugali, 2000). Instead of behaviours are being determined or caused by the external causes, in the theory of self-organization, the external facts trigger on internal and independent process, also through the spontaneity that comes from the self-organization itself. On the other hand, the energy flow that happens through the boundaries that has been defined physically, leads the system to organize itself spontaneously, as well as attaining a certain structure and maintain it, "'create' or 'invent' novel structures and new and novel modes of behaviour. Self-organized systems are thus said to be 'creative'" (Portugali, 2000). Since the urban elements and human beings that pass through in a local scale urban environment is limited to larger scales, it is easier to understand the meanings of the behaviours and how they define the spatial structures. Therefore, the information of the urban environment is easier to collect; the analysis between the cognitive and physical patterns is clear and focused, and the relation between two is more straightforward. The process and development between the spatial and social components are more visible in local scale. After construction and physical definition of an urban space, the social composition of experiences, uses and appropriations that all attained by human beings are the un-planned and unpredicted phases of the design of a place, which leads to re-defining of an urban space. This process of re-definition of space also depends on how adaptable and flexible is the urban space is. When the possibility of people to self-organize themselves and the environment's flexibility are combined, the phenomena of urban self-organization become real.

Through the time, as the complexity theory of cities has been emerged, space and place started to be defined apart from each other and the location theory also evolved, "complex reality is reduced to a large container in which the spatial interaction between such bodies/entities as settlements, central places, and demand is governed by spatial forces" (Portugali, 2006). The space has started to the considered as artifacts, especially according to social oriented theories, that people are able to compose their social interactions on it. As they perform their interactions and creating social flows through the space, the space has another definition as 'place' depending on new social information that has been added to the artificial component of space. Even though 'place' is defined in human's mind, it is defined with the respect of artificial spaces. To clarify the difference between the notions of space and place, the emergence of the definition of place appeared with the discussions of cognitive geography, "Cognitive behavioural geography joined the positivistic culture, concentrating on quantitative scientific notions such as 'space' and 'spatial behaviour'" (Portugali, 2006). Moreover, the theory of self-organization has a part of the definition of place, since the actions of self-organizing systems are depending on the behavioural interactions, and place includes the behavioural geography as an addition to space. Under the explanation of location theory, stating that inclusion of social norms, behaviours, flows, interactions, emotions and many other facts that produced in human mind, defines the 'space' as 'place'. Accordingly, space and place are two different forms of information compression.

Self-organizing systems tend to be spontaneous, which the link between the chaos and order theory. As much cities are more adaptive for self-organization, which means in urban environments would be open for spontaneous dynamics, the chaos theory is likely to emerge routines of daily life patterns settled. The theory of chaos and the self-organization systems not contradicting each other but rather work together in an inevitable way, the order is found through or within chaos. The possibility of different patterns for self-organized systems is defined as the 'readiness' of the pattern information begins with the instability of it, which further stated as "Each pattern has a specific strength (amplitude) characterized by its order parameter. These order parameters compete among each other until one on them—the initially strongest order parameter—wins (at least in general) the competition. The winner then enslaves all the individual parts and forces the total system (here the liquid) into the ordered state"(Haken & Portugali, 2015). The reflections of such readiness and the opposed rejections of self-organized systems are exemplified through Galataport's social dynamics, as people tend to keep their habits. Up to some level, they are allowed to keep them, although, for the benefit of the commercial privatization policies of the urban plaza, it is tended to be limited. If, somehow, there might be some balance between the top-down

regulations and bottom-up decision of citizens, that includes the unintentional interaction through the urban areas, self-organized actions would still be able to exist through a semi-public urban area like Galataport.

2.3 Cognitive images of a city

The concept of cognitive images is another way to understand the social structure of the city. The challenge about the cognitive image of a city is that there is always a difference between the intention and the behaviour. The difference grows as the individuals get together and clash in the urban area, or as another fact, synchronize. In urban areas, it is more likely to synchronize to be able to adapt the social circulation of the urban environment that supports also daily routines, "a cognitive gap or dissonance between an individual's intentions and his/her actual behaviour and action, is cognitively unbearable—it creates a cognitive tension which eventually will have to be resolved either by a change of behaviour and action, or by a change of intentions and value system" (Portugali, 2000). So that, cognitive images might be still differ from each individual, but people may not behave accordingly to their own images. When the human relations are involved, then the action of massive self-organizing becomes available to be analysed and observed. Both social and spatial structures would be considered together as the self-organizing systems are being explained. All the follow-ups of separation between the behaviour and intentional organizations that are performed by the citizens, and also designed by the actors or authorities are the components of the whole urban system, though to define a situation, they should be considered in as a separate matter to be addressed. The personal cognitions that represent a city image for individuals have a role in self-organized urban systems, though, one of the main reasons that the cognitive images differ, is having different routines to perform in different urban areas. The view that cognition theory is supported as "People still might give the different value and the different meaning to an image or a place, but behave with respect to the surroundings and other individuals who they are interacting intentionally or unintentionally. The activities they do and the interaction they make develops the cognitive image since the meaning gets stronger or weaker as a place, for an individual" (Korkut, 2020), covers how the top-down rules by the institutions or private administrations have an impact on the perception of an urban area. The meanings through the cognitive images and behaviours turn an urban space into an urban place, as it gains an identity in many terms possible, especially social meanings for the citizens.

The act of unintentional social behaviour, creates a personal and societal cognitive image of an urban place. An example from a previous social behaviour that has taken place in Tunalı Hilmi Street in Ankara, Turkey, had the example of self-organization behaviour, which citizens used to name it "minibar". This act started in a street where is still one of most vibrant streets of Ankara, that already had a dominant lifestyle of nightlife of youth. As people get together, they start have some drinks from a local market of the neighbourhood, before they get into the bars or clubs, so that would be cheaper. They used to drink in street, sitting on walls, stairs or sidewalks, since they were not allowed to enter any of the private bars with another drink in their hands. This behaviour latter let people drink in groups on street, socializing, meeting new people and having conversation before entering a club or a bar, where they would not be able to have the same level of conversation because of loud music inside. So the act of "minibar" emerged and existed for a while "and even led to manipulate the urban and social environment wherever it took place, since the boundaries of 'Minibar' was flexible throughout the surrounding neighbourhood" (Korkut, 2020). The pattern of action was flexible because there were no physical boundaries when it was emerged. Later on, it started to act accordingly to the environment, such as the some top-down regulations of adding fences on the garden's wall so people cannot sit during "minibar", or during a police patrol. Altay analysed the whole movement of "minibar" of Tunalı Hilmi Street as "When the city inhabitants start to use the urban space in their own ways and through their own perspectives, they start to re-define it to produce their own space. This approach introduces the urban space as composed of those provided places, which are in perpetual re-formation within the daily practices of the inhabitants" (Altay, 2006). The example of Tunalı Hilmi Street's "minibar" is the example of how self-organization has emerged by people, shaped through the top-down rules while still continue to exist and again the growing top-down rules as they continue. This is only one example and the opposite side of the tension that's happening in Galataport's top-down regulations and bottom-up behaviours of self-organization.

Those relations of each urban space with another tend to define the whole urban grid. All the relations and adaptations in urban grid help the creation of a mental map as well as the structural settlement of the urban environment, "each movement within the urban grid follows the visual appraisal of the final destination, by means of the sequence of the intermediate destinations scattered along the shortest path" (Cutini, 2008) through the short paths, the physical and social connections occur. Whenever the cognitive images of individuals collapse or synchronize with some others, intentionally or unintentionally, the urban places are identified by a mass of social patterns

and routines, that combined with same or different cognitions. The inclusion of human beings makes the social flow of the city harder to predict and forces it to be flexible, which is supported as "One key criterion of human systems is that they are innovative and creative, and in this sense unpredictable, at least in terms of their details. Such unpredictability can be represented by models based on nonlinear feedbacks, phase transitions and tipping points, and it is for reasons such as these that our ability to predict the future state of systems such as cities has been so problematic" (Batty, 2008). Thus, a city is defined as not an organism but rather an ecosystem since its complexity is composed by many artificial and living elements that interact with another and finally function as a whole.

3 Case study of galataport

3.1 Unintentional movements, reflections and rejections

Before urban spaces reach the level of becoming self-organized systems, the nature of the human brain develops and recomposes the patterns. The definition of deconstruction-reconstruction releases the comparison of bottom-up and top-down decisions. Bottom-up decisions are defined as the deconstruction which is related with the human brain and its syntactic capabilities, and it implements the social patterns that would add to cognitive image of a constructed urban space and make it place. Also, the method of analysis-synthesis is considered as a clarification of how human brain understands and processes the place, and then create a path to arrange their patterns in the city. Galataport's historical self-organized systems, locations and the new project area makes the district an urban laboratory to analyse and observe a social dynamic timeline of how the spontaneous action of the port has been developed. The location and the regeneration of it have defined crucial as "Spontaneous socio-spatial transformations, shaped by individual actions of urban residents, have been observed in Karaköy District since the 1990s. Analyses of these transformations and their use as data for a planned transformation project in the area are crucial to the sustainability of regeneration activities" (Karslı, 2015). As the historical identity and the buildings physical restoration, the collective social memory is aimed to be reawaken for the whole district. The study is to analyse the level of the design and self-organization system's harmony and how the expectations are for the future analysis.

Since the idea of Galataport project, the area and the project itself has been a subject of discussions for Istanbul and Karaköy, which concerns how it may affect the social dynamics of the surrounding neighbourhoods. The construction area that is illustrated in Fig. 1 have been blocked with a wall for many years, that means the view of Bosphorus was blocked for citizens. There has been no opportunity walk on a coastline for a long time, between Kabataş and Karaköy ferry ports. Even the

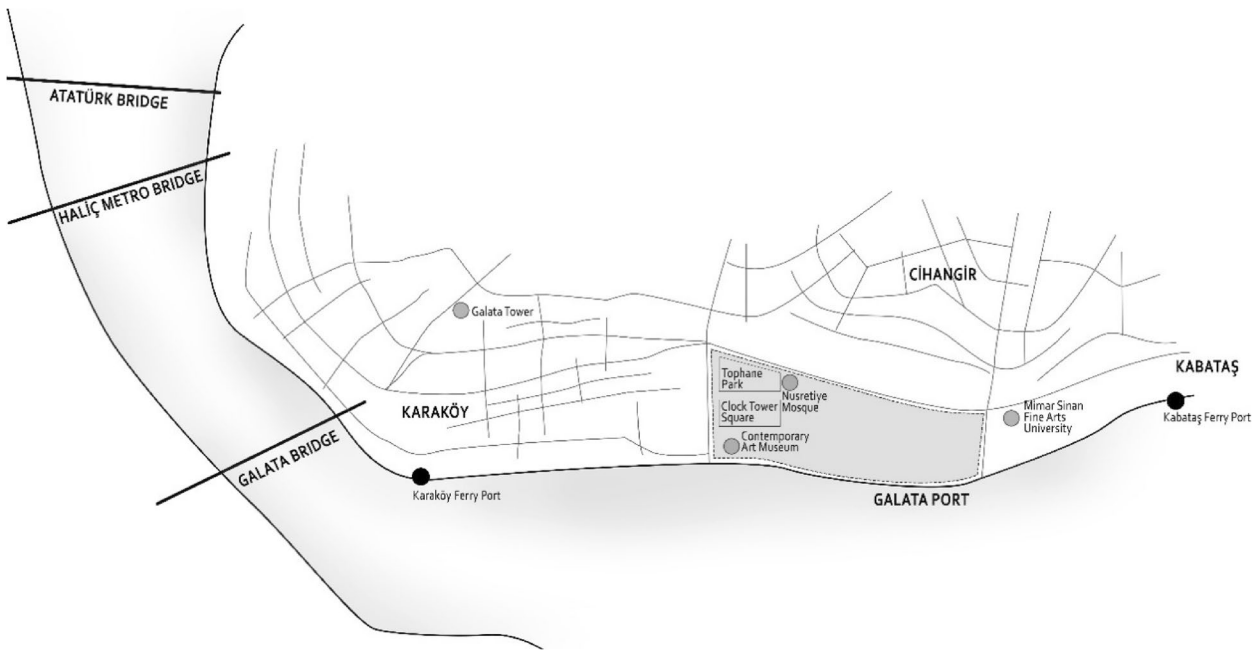

Fig. 1 Location of Galata Port: should be located under *3. Case Study of Galata Port, Comparison of the Goals and Outcomes,* between the heading and the first paragraph

project was offering a continuous seafront promenade between the ferry ports, the lifestyle that Galataport tend to bring to the area was not a match with the bohemian lifestyle of Karaköy and Cihangir's citizens. The luxuries commercial businesses that have been decided to be included in the complex of Galataport mostly strike the tourist's fancy, that is designed as a cruise port as well. Having a feature of being a cruise port as well was the topic of another discussion, that seems to offer a view of Bosphorus and a continuous seafront promenade, only until a cruise ship is docked to the port that blocks the entire view for people visit the complex from the city. Afterall, it has been constructed in 2020, and started to be transition area in between Kabataş and Karaköy, for both citizens and tourist.

3.2 Comparison of the goals and outcomes

The project area of Galataport (Fig. 1) aimed to bring new activities and dynamics, where used to be undefined and blocked for pedestrian flow for such a time. The existing elements of the area, illustrated in Fig. 2 that creates the composition of collective memory even from the era of Ottoman Empire, as Nusretiye Mosque used to be the location of administration and the meeting point of the port, as well as being one of the major public squares of the city, in that era. One other structure of the redefined public square is the Tophane Clock Tower (Fig. 3), once sunken, restored and brough back to the ground level. Nevertheless, these structural elements are to be strengthened with two museums, which are Istanbul Museum of Painting and Sculpture and (designed by

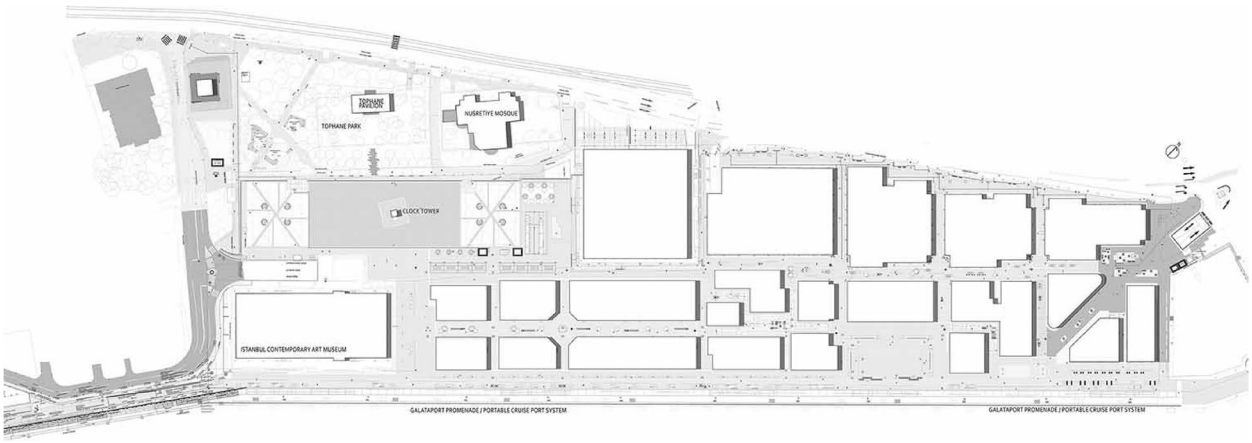

Fig. 2 Galata Port project master plan designed by On Tasarım: should be located under *3. Case Study of Galata Port, Comparison of the Goals and Outcomes,* after the first paragraph of the heading

Fig. 3 Tophane Square and Clock Tower: should be located under *3. Case Study of Galata Port, Comparison of the Goals and Outcomes,* embed to the second paragraph of the heading

Emre Arolat Architecture), and the new building of Istanbul Modern (designed by Renzo Piano). The crossing of the daily users of the port and the visitors of the museums are tend to create variable dynamisms through the area. Before the reconstruction of the port, the hookah places were the major identity of the whole area, which has been completely changed and replaced with the urban plaza and commercial uses of the port. The new dynamic of the port aimed to contain fancier and more socio-cultural activities through the link of commercial and touristic use that sprawled through the whole area. Newly opened contemporary art museum Istanbul Modern started to attract art lovers, designers, tourists, architects and tourists. There are already some both private and public symposiums and events taken place in the museum. However, the social flow and use of the area has not reached its aimed proposal, yet.

The physical construction of the port creates an accessibility between Karaköy and Kabataş as the barrier for the pedestrian movement has been overcome and the coastline become more desirable for new experiences as the citizens create a flow. The physical flow has been achieved successfully, though, the social flow still has its resistance which comes from the habits of Karaköy citizens which they are not ready to leave or combine with another dynamic yet. Though the physical connection was assured between Kabataş and Tophane Park and Fountain, the force of a luxurious dynamic through the water promenade that Galataport provides, damages the social relation of the surrounding and Tophane Park. As the social dynamics continue to stay unrelated through the promenade, the current lifestyle of bohemian and narrow streets of Karaköy is also strange to the new fancy dynamics to the port. As Karaköy reserves its bohemian urban identity, it creates a curiosity for the visitors of the port. This means the activation of the Galataport strengthen and re-identified the current dynamics of the district. The tourist attraction of Karaköy has increased and overlapped with the routines of the habitants of it. But the flow from Karaköy district to the port is not as strong as the one has been mentioned above. Karaköy's habitants is resisting against the fancy lifestyle that the port offers. Whenever they visit the port, they tend to recreate the habits of their own that has been shaped by the narrow streets of Karaköy (Fig. 4). One of the examples that they create spontaneously is happening in the back of the cruise gate of the port. When the port is free of cruise ships, people are able to walk through the promenade continuously, on the port gate, that is shown at Fig. 5. Whenever there is a cruise ship anchored at the port and the gate in between is lifted, the space between the high-rise building and the gate becomes narrow.

Fig. 4 People walking on the un-lifted port gate as there is no cruise ship: should be located under *3. Case Study of Galata Port, Comparison of the Goals and Outcomes,* embed to the second paragraph of the heading

The seafront is losing its identity physically, though, the social knowledge that people knowing that there is the sea next to that gate creates an attractiveness for that narrow area. Between the constructed area and the building-like-size cruise ships cause a shrinkage on the promenade that goes through sea front. Also, the narrowness of the area is a perception that can be the social reflection and cognition of the narrow streets that the citizens are already used to spend time in. They tend to identify that space as an urban area as they self-organize through the self-organization dynamics of their own. Even though there is an open urban space in between already existing Tophane Park, the tendency of people to squeeze themselves into narrow places create some unintentional experiences and habits.

The self-organization theory has been inspired form the entropy theory that applies to physics and how materials interact with each other. In social life, the interactions are likely happen depending on a pattern and routine, which would influence another, or either be influenced by the surroundings. In the case of the narrow areas of Galataport, the dynamic is influenced by the existing patterns of Karaköy. The reflection of spontaneous action in narrow

Fig. 5 The shrinkage of the promenade when there is a cruise ship anchored to the port area: should be located under *3. Case Study of Galata Port, Comparison of the Goals and Outcomes,* embed to the third paragraph of the heading

areas shows that the dynamic of Karaköy's social patterns is still stronger than the port forced dynamics. Since the resistance continue, spontaneous action of narrow streets tends to become dominant and has a possibility to redefine the dynamic of the port. Either, the dynamics that the port offers may diffuse the ones in the narrow areas by time. These variable presumptions proves that Galataport is an urban laboratory with its physical and social conditions to be studied.

Most of the facts that redefine the spaces tend to have their own spatial patterns and locational logics to define the actions that aimed to take place. When the events are taking into consideration, the space is conceived of as something separate from the meaning that people would give to that place, instead, the actual use defined by the event uses and practices by taking place in that space. In this case, it is relatable with the usage of the urban park, the plaza of the port and the promenade itself through the waterfront that has shown in Fig. 6. Whenever there is an event scheduled in the area, the open space becomes dynamic and defined by the event, as the other urban places are being used as escape points. Without any event, the major urban plaza becomes less attractive, as the narrow places becomes more attractive. In this case, Tophane Park tends to negotiate with the old and new functions of the area as an urban park. The plaza being the semi-public urban place which is scheduled and controlled with barriers forces the place become dysfunctional time by time. The fact of being the urban place controlled is beneficial for the surrounding commercial activities of the port and the safety facts of the overall area, it creates a social restriction intentionally.

This is the discussion of 'urban spaces being objectified' and criticized as "the objectification makes it impossible to grasp the classical idea of public space as a political constellation and a vehicle of a specific community. This aspect has become increasingly complex and contested with the rise of consumerism, electronic media and the

Fig. 6 Galata Port waterfront promenade: should be located under *3. Case Study of Galata Port, Comparison of the Goals and Outcomes,* embed to the fourth paragraph of the heading

horizon of a global community, so that it is possible to argue that urban space has fundamentally lost its role as a political arena" (Lehtovuori, 2010). This is clearly the result of changing lifestyles, preferences and rhythms through time, generation and mixture of culture, so that public urban spaces are getting segregated, simplified, sanitized, and most importantly, non-identified by social facts but forced by some physical facts alone.

The fact that Galataport's entrance is even controlled by some security system, it gives the sense that public areas are controlled by business administrative and the access is somehow limited. That means when the administration of the urban complexed is closed by the day shift, citizens would not have access to the waterfront, which supposed to be the public place for them. The analyses of social dynamics prove that people still try to find a way to deprivatize the area, as they bring their own portable chair to be promenade or the green areas of the complex, that supports the idea of Shannon entropy theory that seeks the connection between the source and the receiver, perceiving how they react the physical constructions to adapt their own social patterns "Even though Shannon entropy theory of information explains this in a more mechanic way, human mind works more broadly and more complicated. Human brain is working in a broader way, limits are harder to define and the perception of every one of them is infinite. The fact of humans are also social creatures makes them more available to be exposed to every incident that takes place around them" (Korkut, 2020) People tend to adapt to the physical construction, bringing as much of their own habits and social dynamics to define some new, reflecting the old. There adaptations might lead to reach the attractiveness of the complex of Galataport by time, and maybe to create some other undesigned and undefined dynamics that later would be able identify as one of the features of Galataport. To allow new dynamics institutional planning decision, in this case top-down regulations of the urban complex should leave more room for spontaneity for bottom-up behaviours.

The case study analysis sums up that there are some implications for stakeholders that affect the urban adaptation of a public space. Mentioning the security systems, commercial areas that cover the most of Galataport's urban complex, and the administration of the cruise port in the promenade shrink the public area that was supposedly be dedicated for citizens. In such a complex, stakeholders and private administrators of the urban complex tent to push through some top-down regulation, even though these regulations are not actually from a governmental authority, but from business administrative units that included in the urban complex. This fact makes this study not only a laboratory to research on how adaptive or rejective can the social and administrative actors through each other, but also a critic against a growing rent-seeking policy of Istanbul's urban development.

4 Discussions on spontaneous order of the city

4.1 Behavioural patterns and everyday planners

It is an unescapable truth that the events and the spaces of events influence the people attend the event defines the space, the dynamic is caused by the event itself. It might be the true fact that non-places are replacing the needs of social life, but to do so they reduce the sociability and become lack of fiction, togetherness and any deeper reason to communicate in their system. People unconsciously prefer non-places just because of more recent solutions they offer. Nonetheless, the necessity of rehearsing civility occurs in these non-places. Lehtovouri has another definition that would give one of the most primitive information of an urban place "Weak places remain private, and not easily 'operationalize' them in the public realm, in planning debates, for example. Only the coming-together, juxtaposition and collision of many people and experiences – the resulting conflict – lends weak places a public form" (Lehtovuori, 2010). which proves that social dynamics are faded or never even appeared in these places. The modern and globalized solutions lead to these kinds of 'non-places' or 'weak places' to escape from the conflict of social facts and force a dynamism, an identity, rather creating an opportunity of interaction they create motionless areas with more privatized and less interactive actions.

In the example of Galataport, there has been an urban space designed in an urban plaza in between the commercial functions of cafes and restaurants. However, the design of the square is limited with green bents and the buildings limits the open space and becomes a non-place (Fig. 7). The urban space itself failed to reach its purpose as a meeting point in daily use because of its surroundings and unresolved design with green boundaries. So that it can be defined as "non-place" or "weak place". Despite it is defined as such for daily use socially and unintentionally, by the times when there are crowds and event through the whole area of the port, people tent to use this "weak place" as an escape point so that people can enjoy the calm of that urban place and have a view of the seafront. In that time when it becomes functional, the spontaneous actions of self-organization appears so that people that needs a breathing area from the crowd and the event gets to meet in the same place, such as, the periodically changes that take place in the main square of Galataport, such as placing an art object that's seen as an example at Fig. 8, creates a different kind of attraction of self-organization, that influenced by people and a temporary change of an urban place. Also, the narrow areas in front of the cruise prove that the people plan their own

Fig. 7 Green belts separating commercial areas and the public promenade: should be located under *4. Discussions on spontaneous order of the city, Behavioural patterns and everyday planners,* embed to the second paragraph of the heading

actions unintentionally. In the area once that was once separated from the sea because of the construction is still not fully accessed to the water because of the cruise ships and the barrier between the ships and the promenade. As shown in Fig. 8, by the time a cruise ship is anchored by the main square of the plaza, there is no visually and physically access directly, though people have an influential knowledge of coastline in that area. Even it is not visible, knowing that there is a water element is enough for people to plan their habits in those spots. They still prefer to sit next to the gate port, which they know the cost line still exists at the other side of the port. These kinds of acts of self-organization rooted to citizens mind by their cognitive image of mind, which means they already know there is a reachable water coastline by the cruise. The sight of the sea is only in the mind, even though it is not visual.

4.2 Participatory design vs. intentional design

This would overcome the physical construction or merging with it. To understand the most beneficial urban structure that would provide the social needs, the analysis of social patterns and behaviours plays a crucial role, so that design tend to be more participatory than interventional. Cozzolino discusses the relation between the human mind perception of beauty and the urban environment as "Cities are not exempt from the application of the concept of beauty; urban design has been guided and permeated by this notion throughout the ages" (Cozzolino, 2022). He supports this idea with the Lynch's most influential idea of spatial legibility that allows clarity within the urban places and coherence of the social patterns through. Also the beauty concept is one of the strong factors that leads to the self-organization systems "cities do not achieve aesthetic appreciation only for their spatial legibility or, to put it differently, for those elements that are well-designed and intentionally organized by talented architects and planners; in fact, there are other hardly controllable, social-spatial factors as well" (Cozzolino, 2022). However, the common ground of these interactions is they have been processed by a cognitive

Fig. 8 The main square as a cruise ship is anchored: should be located under *4. Discussions on spontaneous order of the city, Behavioural patterns and everyday planners, after* the second paragraph of the heading

pattern recognition of 'spaces' to define them as 'places', and finally, giving identities, meanings and social functions to the places to be able to interact in an urban flow.

The complex cities always identified by the variety of their components, which all together would create a code of that urban environment, 'urban code'. In traditional cities, the components fit and work just like a huge machine. As the social and spatial components are part of the complex system, they are also the elements that are tended to adapt or reject each other and create the urban code. In today's complex cities that are more contemporary and flexible, the urban codes are likely to adapt and change accordingly. The citizens' desire of defining the place and designing the urban environments spontaneously creates a diversity for the urban codes, which they would decode or recode themselves, or some of their components to be able to adapt. This adaptation capacity is becoming available with self-organized societies, that is being studied in different scales, "'placemaking' as an urban mechanism whose function is not only to allow different local voices to express themselves, but also to assist in updating and adapting the 'urban DNA' to the city constituents and their diversity" (Rosner-Manor, Borghini, Boonstra, & Silva, 2019). Planning is one of the activities that creates the physical components of the DNA, and the social components are being the human beings that would have the will to connect with the physical components, so that they can make a whole system that is able to work together. Though the example of biological DNA is more stable than the urban DNA, they both are created by some elements. Cities have their rules, objects that includes buildings, streets, squares and so on, and human beings. In contrary, the study of epigenetics explains how the rapid changes can take place though a life time of an organism. The similar changes happen in urban environments as well, and human beings adapt. In this progress, the identity of an urban environment changes, so that the information that it has provided earlier transforms into another.

The studies that lead to cognitive planning agree that every human being is a planner up to some level. Individuals decide what path to follow in the urban areas and how to behave according to the urban areas they are visiting. Some areas to interact with people, some of them are just hubs to pass by, some are the connections between the places that they reach for their daily routine habits and so on. Adding the experimental, preferable and emotional factors that people develop in their minds, cognitive patterns are created for an urban area, which is more specifically called cognitive map in this scale of focus. The challenge here is the cognitive map is not really structural and constructed, it is a product of human's mind. The base for the cognitive map is still the spatial planned urban environment, but depending on the social flow and behavioural actions taken place on those urban places, people develop their own personal images to locate themselves and their actions in the city and they redraw the urban environment in an abstract way. Which means, cognitive planning is highly depending on human behaviour in the urban places and how they link and treat them. It is assumed that it is being constructed by the physical information that has been represented including the structures and urban elements' names, perceptual characteristics, functions, and scales that are variable. As the scale is being expended to city scale, human starts to include the elements to construct as Lynch defined. They are composing the base elements that defines a city in their mind. The organization of each cognitive map depends on people's own perspectives and different scales of attractiveness including personal and collective parameters. Therefore, they can built the social flow on the built environment, as they analyse urban areas that they would use, interact, pass by, or even avoid (Garling et al., 1984). Overall, since citizens are practicing cognitive planning within their daily routine, that would be on point to define each citizen as everyday planners. Institutional planners are also citizens and everyday planners. This point of perspective should also inspire institutional planners to imagine their own daily life in an urban environment, as a part of the community. In cognitions, the routines and behaviours are being planned and analysed, so people find a way to adapt their routines with respect with others and the structural organization of their surroundings. Adapting the idea of everyday planning with the institutional planning would have given the perspective of being able to plan/imagine the human behaviour. The involvement of the human cognitions into planning practices would help to the adaptation of social and structural information, in order to benefit and harmonize in an efficient dynamism in a city.

5 Conclusion

The acceptance of people being complex components of the soceity, leads to the understanding of urban environments are also complex because of them and their interactions. In complex systems, social interactions happen spontaneously. These spontaneous interactions might happen intentionally and unintentionally, which creates a variable possibilities of dynamisms in urban environment. By the time, these interactions become routines and social behaviors start to form to be syncronize in the cities, that is defined as collective behaviour by Juval Portugali. Because spontaneous interactions are happenning without any set of rules, other then cognitions and the need of unconsious harmony to move in through the city. The movements and behaviours they perform

depends on the information they collect, combining with their own knowledge, experiences, emotions and many other personal and collective norm they have gained, so that the system and the elements of the system can have an identity. The cities that are able to self-organize are capable of forming an internal order autonomously without an external force, "self-organization emerges from interplay between bottom-up processes and multiple-scale feedback forming a complex, nested system of networks. Its dynamics may be promoted or prevented, or the system may lock in. In a city, the border conditions (eg, built, natural, social, and economic environment, and regulations and laws) provide a certain frame for generative processes" (Partanen, 2015). Self-organizing cities tend to be more innovative and evolve successfully. The fact of self-organization is depending on bottom-up decisions, so the citizens would find an opportunity to design the urban places as they desire and identify the places. Nonetheless, in modern planning strategies still depend on top-down rules. The historical planned cities are designed by top-down rules, though in local scaled urban areas within cities bottom-up decisions are applicable, thus, easier to observe the causes and elements that creates the self-organization systems and analyse the outcome of the actions. Though, there are some criticalities of self-organizing cities since they might cause a mass of information depending on people's individual freedom of developing their own flow though the built environment, "Self-organizing criticality is a concept indicating that the system operates on or near the threshold of instability, implying complex, 'edge-of-chaos' behaviour. The system evolves to this critical state from the bottom up, without external guidance by self-organization" (Partanen, 2015).

The redefinition and recognition of Galataport, in this case, has been able to be analysed from its construction to the public launch for use of the port. During the construction, there has been a wall that would limit the access to the whole seafront of, that would create a social undesirability and safety issues for the urban flow. The habitants of Karaköy avoid the construction area and there has been a dysconnectivity between the flow of Karaköy and Kabataş, which has always been walkable. During that time, the port would be defined as a boundary between the dynamics of Karaköy and Kabataş, which is separating the texture and social characteristics of flow in between. By the time Galataport has launched for public use and has its grand opening, the area itself became an attraction point. The construction area where has been once defined as unsafe and as a boundary became a socially recognized and appreciated for its commercial and semi-public functions. Also, through the self-organization patterns, the seafront became functional and experimental once again. Even without getting involved with the defined functions of the area, the pedestrian flow between Karaköy and Kabataş gave a social identity and a backbone to the whole planned area of the district. There has been mentioned that the flow from Karaköy to the port is now weaker form the flow from the port to Karaköy district because of social mismatches that the habitants of Karaköy has for the port. As it has been analysed during the construction and the launch of the area, by time, the dynamic between Karaköy and the port is expected to be diffused and become more familiar, which would be able to be discussed in the next studies on how the outcome is through the studies of Galataport. Although, the top-down policies forced through the semi-privatized organizations of the started to limit the participation of self-organization, through some measures as time-limitation, physical boundaries and limitation of use in non-commercial areas in between the commercial area to preserve their own benefit. This would be the outcome overcoming the theory of 'edge of chaos' that spontaneous action may cause, though, it is still creating a challenge of the use of so-called public place, when there is no self-organization allowed.

Despite of all the observation and analytical information that has been gathered in this research, there are still some limitations that would not yet to allow the urban and social sciences to figure out clearly, as the urban complex continues to evolve time to time. As if, at the very start of this research, Istanbul Modern was yet to launched, later on, as it was finally launched by April 2023, there has been a change in the social dynamics and additions to function of the whole urban area. The artists, architects, tourist that has been attracted by Renzo Piano and the other contemporary artists that have any artwork in the galleries of the museums have been included as an active visitor of Galataport. This is only an example of a time dependency of the research, and a clue to that many to come in the future. The reason that Galataport was defined as an urban laboratory is its already dynamic system because of the cruise port and the fact that the complex itself is still developing and the social dynamics are evolving depending on the changes. In fact, a future work on this subject and Galataport as a case study is planned, as a continuous of this research and to show the fact that how time dependency work on adaptability and how the new dynamics or regulations would affect the urban complex as a whole, in comparison to the past.

To conclude, there has been a timeline of change from construction to the public use, and continuing change of flow through the districts, some directions' flows and identities are dominant the others and so on. This analysis of the area is yet to be continued in the future studies, whether the dynamics would be merging by time, or detach from each other. Throughout the whole area,

also the connection with the districts has already defined physically and socially. There are unintentionally and intentionally definitions, which there has been a proof that the design of the port, at some point leaves people to re-define the urban places with their own cognition and the collective dynamism of self-organizations. As there are "rooms for spontaneous action" through the area, Galataport gives an opportunity to citizens to be actual "everyday planners" up to some level. That level would be the areas that where some restrictions occur through the area so that the urban plazas are still defined as "semi-public urban places". Even with some limitations, people are now able to self-organized as everyday planners. The strength of historical collective memory and the present cultural events are defined as common senses for most users, in this case tourists of the port and habitants of Karaköy. The case study and the administrative limitations that are enforced at in urban places cannot fully block the ability of citizens to self-organize and plan their own social patterns. As long as there are people using a space, it tent to be unintentionally planned by social components, even though the physical outcomes and top-down regulations are planned institutionally. Though, there are still some social mismatches, the usages of these common senses will make it possible to analyse how the social timeline of the self-organization and dynamism would be affected, and how the balance between the policies and social flows are provided, whether in semi-public defined areas, of public areas. Throughout the challenges of top-down decisions eliminating the bottom-up spontaneous action, there would be more issues to discuss on whether the public use of the urban place copes the policies or eliminated in favour of commercial use of urban plaza which keeps it from turning into public place.

Acknowledgements
This article is based on the master thesis "City as an Information System: Implications on Urban Planning", supervised by Prof. Stefano Moroni, in the university of Politecnico di Milano. The case study included in the article is designed by On Tasarım, which provided the master plan design and photographs of used and modified in the article.

Authors' contribution
Theoretical data collection, literature review, methodology was performed by CK, who also studied the master thesis the article based on. The design and description of the case study was provided by ON, who is the founder of the design office that worked on the case chosen case study of Galata Port. Illustration of the location diagram and master plan project provided by CK. The first draft of the manuscript was written by CK and ON commented and guided on how to link the case study with the theoretical methodology. Both authors read and approved the final manuscript.

Funding
The authors did not any financial funding from any organization for the article.

Availability of data and materials
The data supports the findings in the article are available in the supporting in the references of the article. The study is based on the master thesis http://hdl.handle.net/10589/153503.

Declarations

Ethics approval and consent to participate
The authors declare that the findings used to support the was open to public and the case study was approved to be used by the designed team.

Consent for publication
The authors has consented to the submission of the case study and the visuals included in the article to the journal.

Competing interests
The authors have no competing interest to declare relevant the content of the article.

Received: 30 May 2023 Revised: 14 September 2023 Accepted: 20 September 2023
Published online: 03 October 2023

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