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**UNDERSTANDING THE CITY THROUGH THE NOTION FOR LIVEABLE
CITIES OF JANE JACOBS AND CHRISTOPHER ALEXANDER:
PUBLIC REALM CASE STUDIES IN ALMATY (KAZAKHSTAN)
AND CARDIFF (THE UNITED KINGDOM)**

Abstract. *This article extends our understanding of the city through the notion for liveable cities of Jacobs (1961) ‘Death and Life of Great American Cities’, and Alexander (1964) ‘A city is not a tree’. Two large cities such as Almaty and Cardiff are selected to be a case study and analyses for supporting the arguments. Generally, both cities’ modern parts represent how the public realm might be socially inactive due to its lack of urban design complexity. Meanwhile, more pedestrian-oriented and functionally mixed historical centres are liveable.*

Keywords: *urban design, liveable public realm, Jane Jacobs, Christopher Alexander.*

Introduction

In the urban design theory, the mid-twentieth century is known for attempts to develop rigorous urban design methods to achieve a comfortable living environment in cities [2, pp. 1-2]. One of the popular theorists of that time, Jacobs [5] defines her understanding of urban planning principles in the extract ‘The kind of problem a city is’, from Death and Life of Great American Cities. Whether Alexander’s seminal article ‘A City is not a Tree’ appeared in 1965, analyses the concept of a city from a hierarchical aspect. Although these two theorists have common observations about city planning approaches, there is still a controversial discussion regarding the outcomes in the public realm of cities. Therefore, this essay aims to evaluate similarities and differences between the works of Alexander and Jacobs and current urban design approaches in public realm case studies of Cardiff (The United Kingdom) and Almaty (Kazakhstan). These two case studies illustrate how both urban design approaches work in different public realm contexts. The first case is Almaty’s historical area and modernistic urban developments with politically important buildings for local authorities. The second case is Cardiff city’s historical centre and Cardiff Bay regeneration area developed for the last two decades. Therefore, this paper deepens our knowledge about Jacobs’s analysis of the problems urban design thinking deals with and her prescription for how urban designers should approach understanding the city, with Alexander’s ideas about how cities work.

Methodology and method

This part of the research presents the methodological procedures adopted in the study. Research methodology unveils how urban design approaches work in different public realm contexts of Almaty and Cardiff. Thus, the study is based on two case studies of historical and modern parts of the cities. Predominantly, the focus is on the social value of these spaces in order to evaluate the outcomes of urban transformations in relation to understanding though the notion for liveable cities of Jane Jacobs and Christopher Alexander. Overall, a case study method is needed to identify to what extent the urban design approaches might be successful to bring social value to a public realm. The gathered information was discussed in relation to works of Jane Jacobs and Christopher Alexander. The secondary data comes from internationally published works of other researchers in journals, official webpages of local authorities and specialised urban design webpages and up-to date platforms.

Results and discussion

Understanding a successful city

Generally, Jacobs and Alexander's notion for liveable and successful cities are similar [8]. Jacobs [5, p. 454] claims that cities are ‘forms of processes’ as an essential component in understanding urban design theory, while Alexander [1, p. 155] interprets it as ‘natural’ that has grown harmoniously for centuries. For example, Alexander [1, p.162] refers to one of Jane Jacobs’ case studies, such as Brooklyn’s backyard industry growth, to be appropriate evidence of a natural city with overlapping systems. Residential and industrial zones work together as a space for a dweller willing to open their own business. Another confirmation of the natural urban evolution is both Almaty and Cardiff cities. Almaty (Figure 1) and Cardiff (Figure 2) have been intensively growing since the mid-nineteenth century, emerging from the city centre as an embryo (Figures 3 and 4).

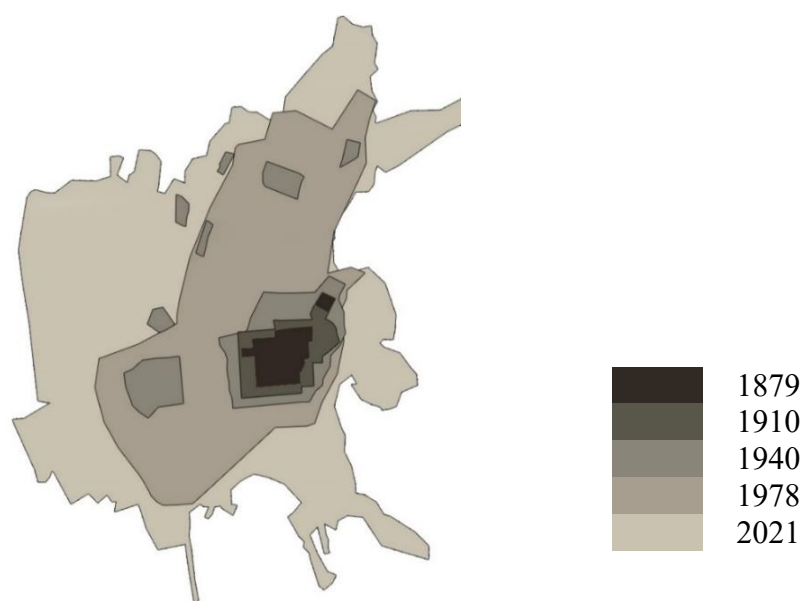


Figure 1 – The growth of the built-up area of Almaty since 1879
[Source: based on Keen 2022]

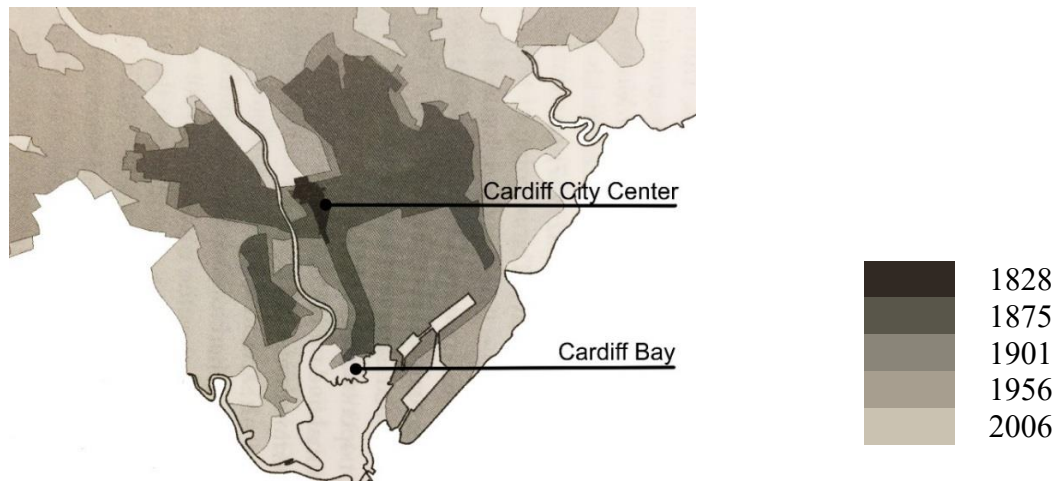


Figure 2 – The growth of the built-up area of Cardiff since 1820
[Source: Hooper 2006, p. 6]



Figure 3 – Almaty city's historical centre [Source: Planespotting Time, 2014]



Figure 4 – Cardiff's City centre [Source: Punter 2006a, p.147]

Jacobs's illusion of a comfortable city is primarily based on several districts, particularly Greenwich Village [2, p. 5], and Alexander (1965, p.154) mentions cities, such as Manhattan, Kyoto and Liverpool. However, there is no scientific evidence for being 'semi-lattice', an abstract structure for well-organized complex urban systems [7]. Jacobs and Alexander refer to historical cities [8, p. 43] known for communities developing gradually according to their urban built environment expansion [15]. It can be witnessed in Cardiff city centre's public realm (Figure 5) and in one of the historical parts of Almaty that have been transformed to primarily pedestrian-oriented (Figure 6). Moreover, Marshall [7] critically evaluates both authors as subjective and theoretical, with no research-based support for proposed hypotheses and arguments commonly made by thought experiments and personal observations. However, figures 5 and 6 illustrate that public realms in Almaty and Cardiff are socially active on weekdays and weekends.



Figure 5 – Public realm of Cardiff's historical city centre in weekly days
[Author's material]

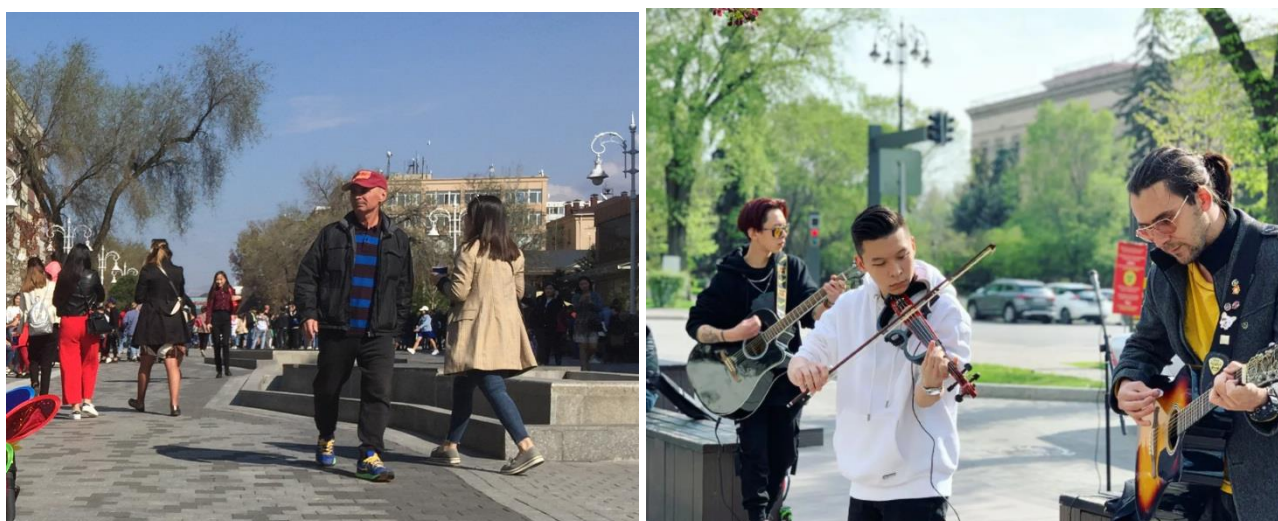


Figure 6 – Public realm of Almaty's historical city centre in weekly days
[Author's material]

In contrast to analogous hypotheses on semi-lattice settlements of Alexander (1965) and cities of organized complexities offered by Jacobs [5], the significant difference is in the way of a research methodology [2, pp. 5-7]. Most of Jacobs' research methodology is based on on-site visiting and literature review [5, p. 453]. However, Alexander's study focuses on analogies and mathematical thought experiments. In identifying a natural city, the key factor is the logical comparison of semi-lattice and tree-like structures, whether a city could belong to one of these groups [7]. Nevertheless, Mehaffy [8, p. 43] states that "Today a new generation of planners and architects seems to have forgotten – or never learned – Alexander's elegant mathematical analysis".

The vision for a designed city

Alexander (1965, p. 154) defines deliberately created cities as 'artificial' urban development that reflects critiques being offered by Jacobs [5, pp. 444-446] in the theory of 'disorganized complexity'. In Jacobs' context, disorganized complexity is urban processes primarily designed and divided into dispersed functional zones that are transformable into simple problems, such as city cultural facilities, housing, greenery, industry, and traffic [5, pp. 451-452]. Alexander (1965, p. 162) supports her ideas in the hypothesis of zoning and separating to work and living in artificial cities. Dovey and Pafka [2] suggest that a combination of different functional mixes creates liveable cities. For example, areas with more overlapping functional mix make the public realm more liveable and more socially active than the public realm of mono-functional areas.

Alexander (1965), as well as Jacobs [5], widely criticizes architects and planners, including Le Corbusier's functionalistic urban design philosophy for deploying tree-like thinking [14]. Moreover, Jacobs [4, pp. 311-315] adds that Le Corbusier's city planning projects such as Chandigarh and Brasilia do not encourage its citizens for a healthy public life. They are designed with wide streets for vehicle movement, large building blocks and long distances between dominantly mono-functional zones. That is similar to the new development of Cardiff Bay (Figure 7) as well as Almaty's new urban areas, such as the local authority's area of municipal Akimat (a city council). However, it might be argued that there is no demand to design cities in principle if artificial urban planning is failing in generating the same qualities as natural cities [7]. Even though, in the case of Cardiff Bay regeneration experience (Figure 9) that has been expected to become a truly successful part of the city, it has created disconnected a mono-functional area mostly encouraging private transportation [11, p.170]. A similar modern urban planning principle has been applied to Almaty city's political centre in Akimat's area (Figure 8). In both cases, the modernistic urban developments are designed as mono-functional buildings. Therefore, it could be evidenced that primarily these areas are car-oriented and less liveable (Figures 9, 10).



Figure 7 – Cardiff Bay [Source: Punter 2006a]



Figure 8 – Almaty city political centre [Source: Official Information Source of the Prime Minister of the Republic of Kazakhstan 2019]



Figure 9 – Roald Dahl Plass, Cardiff Bay in weekly days [Author’s material]



Figure 10 – Plaza in front of Akimat in weekly days [Author’s material]

As the outcome of his work, Alexander [1, p. 166] strongly suggests, “It is the semi-lattice we must look for, not the tree” and rejects artificial cities, such as Sun City in Arizona, Levittown, and British New Towns. However, Jacobs [5, p. 461] hesitates that “Being human is itself difficult, and therefore all kinds of settlements (except dream cities) have problems”. Nevertheless, Schubert [13] convinces that Jacobs’ ideas are now establishing and becoming more polemic, although over half a century has passed since her controversial interpretation of modern cities.

Conclusion

Both authors conclude that more interaction possibilities are required between functional zones, population, transportation, and built environment for effective urban development. While Jacobs’ [5] philosophical statements lead to assume that the primary message about ideal cities and organized complexity are equal with ‘Dream cities’, Alexander [1] believes that it is almost impossible to design a natural city with the participation of modern urban planners and architects, because socially successful cities usually have a historical background. Even though many authors doubt the urban theories from the 1960s of Jacobs and Alexander, they can still apply to modern

cities. Case studies of Almaty and Cardiff suggest that the majority of modernistic urban design approaches created a lack of liveability in the public realm. Site visit observations illustrate that the Almaty Akimat area and Cardiff bay regeneration area do not facilitate people to explore the public realm due to ‘artificial’ urban design approaches. However, historical areas with a more pedestrian-oriented urban design created more opportunities for people to make the public realm more liveable than mono-functional areas. The idea is that both Jacobs and Alexander are concerned that urban design thinking will take a wrong turn if it is too impressed by the example of physical part of cities as a model for rigour and rationality. Both think that the problems urban designers have to address are not of a kind that allows them to be solved by approaches slavishly modelled only with concern of physical part of cities.

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**ДЖЕЙН ДЖЕЙКОБС ПЕН КРИСТОФЕР АЛЕКСАНДР ТЕОРИЯСЫ БОЙЫНША
ӘЛЕУМЕТТІК БЕЛСЕНДІ ҚАЛА ТҮСІНІГІ: АЛМАТЫ (ҚАЗАҚСТАН)
ЖӘНЕ КАРДИФ (БІРІККЕН КОРОЛЬДІК) ҚАЛАЛАРЫНДАҒЫ
ҚОҒАМДЫҚ КЕҢІСТІК МЫСАЛЫНДА**

Аңдатпа. Мақалада Джейкобстың (1961) «Американың ұлы қалаларының өлімі мен өмірі» және Александрдың (1964) «Қала ағаш емес» теориясына негізделген әлеуметтік белсенді қаланың теориясы қарастырылады. Бұл теорияларды зерттеу және талдау үшін Алматы және Кардифф ірі қала таңдалды. Жалпы алғанда, екі қаланың заманауи аудандары қалалық жоспарлаудың болмауына байланысты қоғамдық кеңістіктің әлеуметтік тұрғыдан белсенді емес болуы мүмкін екенін көрсетеді, ал жаяу жүргіншілер үшін қолайлы және функционалды әртүрлі тарихи орталықтар өмір сүруге жарамды.

Түйін сөздер: қала жобалауы, әлеуметтік белсенді қоғамдық кеңістік, Джейн Джейкобс, Кристофер Александр.

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**ПРЕДСТАВЛЕНИЕ СОЦИАЛЬНО АКТИВНОГО ГОРОДА ПО ТЕОРИИ ДЖЕЙН
ДЖЕЙКОБС И КРИСТОФЕРА АЛЕКСАНДРА: НА ПРИМЕРЕ ОБЩЕСТВЕННЫХ
ПРОСТРАНСТВ В Г.АЛМАТЫ (КАЗАХСТАН) И
Г. КАРДИФ (СОЕДИНЕННОЕ КОРОЛЕВСТВО)**

Аннотация. В статье рассматривается понимание социально активного города на основе теории Джейкобса (1961) «Смерть и жизнь великих американских городов» и Александра (1964) «Город — это не дерево». Два крупных города, такие как Алматы и Кардифф, выбраны для исследования и анализа этих теорий. В целом, современные районы обоих городов представляют собой то, как общественное пространство может быть социальной не активной из-за отсутствия городского планирования, в то время как более ориентированные на пешеходов и функционально разнообразные исторические центры комфортные для жизни.

Ключевые слова: городское планирование, социально активное общественное пространство, Джейн Джейкобс, Кристофер Александр.