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# Temporary Use Approach as A Catalyst for Urban Regeneration for Abandoned Urban Voids: A Case Study of Al-Hattaba, Historical Cairo

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## Abstract

Urban void redevelopment scenarios have garnered considerable interest from researchers around the world. Urban regeneration in historical districts faces challenges in reconciling historical significance with the local community's needs. Abandoned spaces in historical districts provide significant possibilities for improving social, economic, physical, and environmental aspects. In contrast, the temporary use approach can initiate a new, innovative, and inclusive culture of urban life by providing spaces with multiple functions at various times. While the temporary use approach is a short-term initiative that brings underdeveloped, unused, or abandoned space to innovative socially-beneficial uses. This paper aims to highlight the role that abandoned voids might play as opportunities in the regeneration of the urban context of the historical districts and how abandoned spaces may be transformed into integrated community open spaces through the application of a temporary use approach. Therefore, this case study approach aims to investigate the abandonment phenomenon. In addition to using a questionnaire to collect data about temporary uses suggested by the local community, the study identified unused spaces using geographical maps and field surveys. The paper concludes that the proposed temporary uses for abandoned spaces in Al-Hattaba neighborhood can improve people's lives rather than highlighting the significance of reusing abandoned spaces and how this could increase the value of the historical districts.

**Keywords** Temporary use approach, Urban voids, Abandoned spaces, Urban regeneration, Al-Hattaba area.

## منهج الاستخدام المؤقت كمحفز للتجديد الحضري للفراغات العمرانية المهجورة دراسة حالة منطقة الحطابية، القاهرة التاريخية

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## المخلص

حظيت سياسات إعادة تطوير الفراغات العمرانية اهتمام العديد من الباحثين على مستوى العالم، حيث تواجه سياسة التجديد العمرانى بالمناطق التاريخية العديد من التحديات فى محاولة للتوفيق ما بين الأهمية التاريخية للمنطقة واحتياجات المجتمع المحلى بها، وتعتبر الفراغات العمرانية المهجورة بالمناطق التاريخية إمكانية لتحسين جميع الجوانب الاجتماعية والاقتصادية والبيئية والعمرانية بالمنطقة، ويمكن لنهج الاستخدام المؤقت لهذه الفراغات أن يبدأ بثقافة جديدة ومبتكرة من خلال توفير مساحات عمرانية بوظائف متعددة بأوقات زمنية مختلفة فهو نهج قصير الاجل يمكن من خلاله استخدام المساحات الغير مطورة والغير مستخدمة والمهجورة لاستخدامات مبتكرة ذات منافع اجتماعيه. وتهدف الورقة البحثية إلى توضيح الدور الذى يمكن أن تلعبه الفراغات العمرانية المهجورة بالمناطق التاريخية كفرص فى تجديد السياق العمرانى بها وكيفية تحويلها الى فراغات عمرانية مفتوحة مجتمعية متكاملة من خلال تطبيق نهج الاستخدام المؤقت. تم دراسة حالة منطقة الحطابية بالقاهرة التاريخية والفراغات المهجورة بها باستخدام الخرائط الجغرافية والمسوحات الميدانية بالإضافة الى استبيان للمجتمع المحلى بالمنطقة حول اقتراحات الاستخدامات المؤقتة للفراغات المهجورة وخلصت الدراسة إلى أن نهج الاستخدامات المؤقتة المقترحة للمساحات المهجورة فى حي الحطابية يمكن أن يحسن حياة السكان وإلى زيادة قيمة المناطق التاريخية.

الكلمات الدالة: منهج الاستخدام المؤقت، الفراغات العمرانية، الفراغات المهجورة، إعادة التجديد، منطقة الحطابة القاهرة التاريخية.

## 1. Introduction

Many historical districts are suffering from urban deterioration and poor building conditions, which have negatively impacted the quality of life in these districts and led to the partial or complete rundown of many old buildings and the formation of abandoned urban voids. These abandoned voids are left without any intervention for a long time for several reasons, including the decline of old buildings, negligence of demolished buildings by their multiple owners, and legal barriers preventing deteriorated buildings from receiving maintenance. The different types of urban voids, such as rubble of dilapidated and demolished buildings, typically leave "undeveloped vacant pockets". The rundown buildings have created intimate spaces among the area's residents, with undesirable activities, creating urban voids that are empty, inactive, abandoned, neglected, and uninhabited (Al Hasany, 2018).

Abandoned urban voids may have a new function that meets the needs of society or a new configuration that attract the passerby and lodges into his or her memory (Pluta, 2017). These vacant spaces can become attractions for the area (Habbal, 2017), especially if they are situated within the historic district. (Habbal, 2017).

Moreover, the temporary use approach of abandoned urban voids is one of the approaches that support the revitalization of the urban context to reduce the negative effects and maximize many benefits, which are environmental, social, and economic benefits. Urban voids are one of the most important and vital resources for city development (Girolamo, 2013). Furthermore, UNESCO recommendations about vacant' plots/ruins and spaces that can be redeveloped for temporary exhibitions and meetings. And it could be associated with studios and ateliers for contemporary artists/designers that work in collaboration with local craftsmen (WHC-UNESCO, 2014).

### 1.1 Methods

This research investigates the local perception of abandoned voids in historic Cairo (Al-Hattaba neighborhood) to improve space usability. In addition, it aims to recommend effective strategies to improve usability and redesign abandoned voids that have emerged over decades.

Therefore, 30 respondents were interviewed as samples for the questionnaire survey in qualitative research. Their responses and understandings as the end users help contribute to designing proposals for abandoned voids that incorporate respondents' value and significance.

The research methodology for developing the temporary use approach to dealing with abandoned voids is composed of three main parts as follows:

- *Part one:* literature review and theoretical studies

Theoretical studies cover characteristics of unused spaces, definitions, policies, and strategies for dealing with abandoned voids. In addition to multiple case study analyses.

- *Part two:* site visit and a local community survey

Following the site visit to (Al-Hattaba neighborhood), a survey was conducted in two chosen spaces. The local community's perspective on repurposing spaces based on their significance was examined through a questionnaire designed to gather data to determine appropriate proposals for the abandoned voids and determine the community's perspective. Statistical analysis was conducted using the SPSS program.

- *Part three: results and conclusion*

In this section, the research determines and refines the most important list of proposals for abandoned voids in historical districts that could be implemented in urban regeneration policies to contribute to the urban quality of life.

## **2. Abandoned Spaces, Definition, and Possibility of Improvement**

### **2.1 Abandoned Space**

Abandoned urban property is any empty or unimproved parcel of land or structure in urban areas that have remained in this condition for an extended period of time due to neglect and lack of maintenance, insecurity, and property and ownership issues (Ennouri, 2015).

Historic Cairo was scanned for vacant lands, which revealed the presence of vacant lands of different types, some of these abandoned public or private spaces are used as dumps for solid waste, posing a severe environmental risk. Changing these uses of abandoned spaces into public spaces converts a threat into an opportunity, these spaces can be used temporarily by local administration to satisfy public need for an outdoor space. (El Zafarany, 2011).

#### **2.2.1 The abandoned urban voids as problems**

Abandoned urban voids can result in significant social, environmental, and economic issues, the severity of which increases if no action is taken.

**Social problems:** these are the most likely to attract homeless people and criminals, making them ideal for illegal activities such as drug trafficking (Omar & Saeed, 2019; Pluta, 2017). Dark, abandoned urban results in a sense of unsafe (Habbal, 2017). Furthermore, it offers spaces for informal uses, such as homeless shelters and illegal structures (Rahmann & Jonas, 2011).

**Environmental problems:** urban voids can be garbage dumps, and trash-filled yards provide an ideal habitat for vermin and other stray animals (Goldstein et al., 2001).

**Economic problems:** when the urban area is filled with vacant or trash-filled lots and dilapidated buildings, which results in a predominance of low-income residents, thereby reducing investment opportunities (Habbal, 2017). If a vacancy is the primary characteristic of a neighborhood, it will be difficult to initiate redevelopment (Goldstein et al., 2001; Omar & Saeed, 2019).

#### **2.2.2 The abandoned urban voids as a possibility**

Urban voids are one of the essential vital resources and a significant component of significant social, economic, and ecological benefits that represent opportunities for urban development (Omar & Saeed, 2019).

Socially, abandoned spaces have great potential (Kushwah & Rathi, 2017), these voids can be utilized as social services such as entertainment activities, open restaurants, cafeterias, urban agriculture, and education centers, thereby enhancing social interactions and a sense of place (Omar & Saeed, 2019).

Ecologically, abandoned urban spaces can improve the quality of life by being converted into green spaces, reducing air pollution, maintaining public health and playing an essential role in air cooling by reducing the impact of urban heat islands (Omar & Saeed, 2019).

Economically, abandoned urban voids can provide temporary locations for seasonal celebrations events, a marketplace, and farmer's markets, providing low-cost working spaces that can serve as an urban catalyst of city development (Omar & Saeed, 2019).

### 2.3 Urban Regeneration

In urban regeneration efforts, public spaces play a crucial role in developing the urban fabric and giving meaning to the regenerated regions.

The regeneration of abandoned spaces encompass a variety of actions, including cultural activity, trading in open spaces, cultural equipment, and the improvement of existing roads and sidewalks. Many initiatives to provide a safer public space are all part of the process of revitalizing neglected historical centers (URBACT - USER, 2015).

The presence of abandoned plots in historical city centers especially when multiple abandoned properties are located in the same location or neighborhood, many of these plots are repurposed for informal uses such as car parking, become dumping grounds, or serve as a haven for criminal activity. Which emphasizes the importance of these abandoned plots' regeneration. (URBACT - USER, 2015).

## 3. STRATEGIES DEALING WITH ABANDONED SPACES

Infilling, reusing, and renovating existing structures are crucial strategies for the creation of successful integrated public open spaces, which can be elaborated as follows:

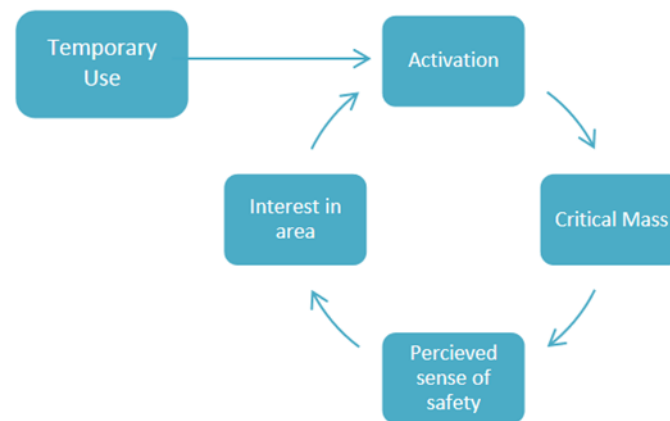
- *Urban infill*: is defined as a new development constructed on vacant or undeveloped land within an existing community, which is enclosed by various forms of development.
- *Reuse*: It is the process of reusing an old site or building for a "purpose" other than what it was designed for.
- *Renewal*: It is the application resulting in the revitalization of any or all portions of the urban structure that are not performing their intended functions. It generally applies to inner-city neighborhoods situated within historical districts(Sameeh et al., 2019).
- *Temporary Use*: When space is abandoned, it is available for purchase by a new owner. However, this process can be time-consuming, resulting in vacant space. During the waiting period, temporary use of these spaces is permitted(Kasarabada, 2020).

### 3.1 Temporary Use

Changes in life and thinking styles, values, the emergence of new schools, and the arrival of new technologies to life are the factors affecting the abandonment of urban lands. Another factor is the rigidity of urban plans, particularly in comprehensive plans and land-use planning schemas (Rajabi et al., 2017).

In cities, temporary uses have frequently resulted in projects cherished by the community and, ultimately, the city. Consequently, the projects were formalized and directed by governments and other authorities. As a result, developers and planners are allocating space for temporary uses during construction (Kasarabada, 2020).

Temporary use as a tool for activating urban spaces, (see Fig. 1), provides the opportunity to increase activity.



**Fig. 1** Temporary use activation cycle for urban (Shaw & Sivam, 2015).

Temporary use has varying effects on public spaces; Table (1) below shows parameters of temporary use that may improve the livability of public spaces.

**Table 1.** Parameters of Temporary Use to Enhance Public Space

Parameters	Definition
Inclusivity	Design and management in a way that addresses all, such as locals, outsiders, tourists, sellers, passers, etc., by providing safety and comfort for all.
Sociability	People stay, meet, and spend time with others when they have a temporary use for them.
Vitality	Urban spaces' vitality levels vary throughout the day and night, and their use varies over time.
Flexibility	Multiple temporary uses have the potential to accommodate a range of activities within the same area. This type of adaptability differs in form, spatial arrangement, and legal implications.
Multiplicity	Many different activities designed for temporary use may be conducted by various people, enabling many people to be in the same space for various purposes.
Discovery	When the elements of known places change, such as the contrast or juxtaposition of elements, discovery can occur. Temporary uses ensure a change in the physical qualities of the space as well as the daily routines. Changes proposed in a creative cultural manner arouse people's desire for discovery.
Participation	Participants can play a role at any stage of the process, including the initial process of exploration and problem definition, providing ideas and solutions for detected problems, and even participating in the final construction process.

Source: (GÜRMAN, 2020).

The abandoned spaces may be developed for artistic, commercial, recreational, educational, or other purposes. This is contingent on a number of variables, including market conditions, location, infrastructure, accessibility, previous activity, and intensity of use (Earls, 2011).

#### 4. ACTIVATING ABANDONED VOIDS CASE STUDIES

##### 4.1 Zaragoza-Spain (this is not a plot)

In 2009, Zaragoza City Council in Spain developed a specific program designed to activate urban voids as part of an initiative entitled "This is not a plot" (Bellet, 2014).

**4.1.1. The project's aim:** The objective was to give vacant, unbuilt-up lots and sites around Zaragoza, a temporary use to maximize the usage of each city block, thus transforming the old urban fabric of the city into a more dynamic space and facilitating more democratic and political participation (Pohl, 2014). The program began in 2009 in 14 plots in the Old Town, (see Fig. 2), and then in 2010, was extended to the entire city, recycling 14 additional sites, not just the Old Town (USUDS, 2013).

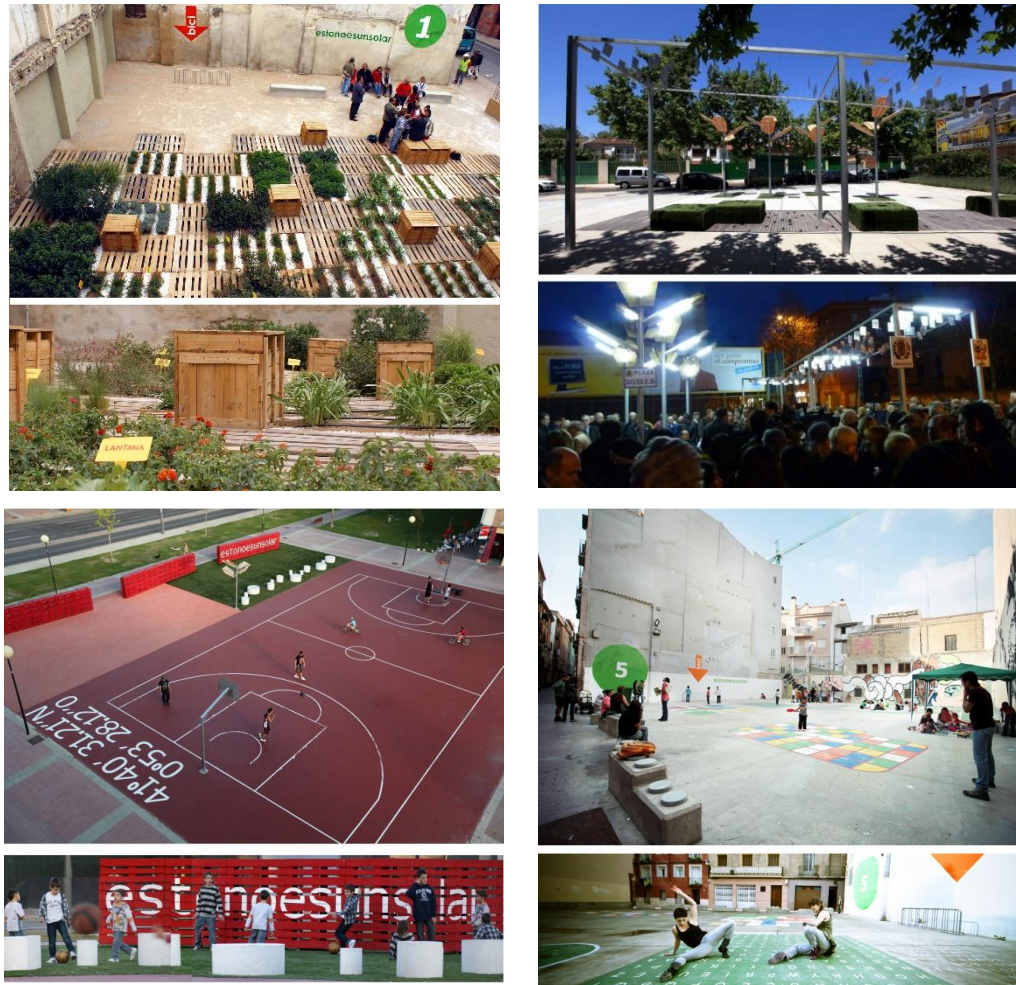


**Fig. 2.** Urban voids in Zaragoza (Mackenzie, 2015; Sánchez, 2012).

**4.1.2. Urban spaces typology:** The project's complexity stems from the fact that each plot is unique and is located in a variety of urban and socioeconomic contexts (Pohl, 2014).

**4.1.3. Provision of citizen needs:** Citizens submitted proposals for small-scale projects that address each area's social and cultural realities and needs. Over fifty organizations have participated in the initiative, including schools, community groups, and cultural institutions.

Children's play areas, leisure areas, urban gardens, sports facilities, and urban vegetable gardens were all proposed. (See Fig. 3) shows these suggestions that provide dynamic public areas and give the city a fresh appearance (Omar & Saeed, 2019).



**Fig. 3** Reuse urban voids in Zaragoza- (this is not a plot) (Mackenzie, 2015).

**4.1.4. Temporary use significant impact:** Approximately sixty organizations have transformed 42,000 m<sup>2</sup> of urban voids into public spaces and new dynamic spaces. This program has received many awards (Omar & Saeed, 2019).

## 4.2 Darb al-Husr Sports Area

The Cairo Government financed the transformation of a 600-square-meter plot on Darb al-Husr Street into a football field and sports area (See Fig. 4). Murals on neighboring structures depict al-heritage, Khalifa's myths, and monuments (Athar Lina, 2015).

**4.2.1. The project's aim:** This project is a part of "Athar Lina's Open Spaces Program," which aims to improve the efficiency of the urban systems of Al-Khalifa, thereby improving the built environment for the benefit of both residents and cultural heritage (Athar Lina, 2015).



**Fig. 4** Darb al-Husr Sports Area, before and after (Megawra Built Environment Collective, 2016; Al -Abrashy, 2021).

**4.2.2. Provision of citizen's needs:** A study is also conducted on vacant lots, which pose a health and fire risk due to waste accumulation. In conjunction with local authorities, the lots were mapped and cleaned.

**4.2.3. Temporary use significant impact:** Currently, an investigation is being conducted into their own status and the possibility of temporary public benefit use (Athar Lina, 2017).

## 5. AL HATTABA, HISTORICAL CAIRO, STUDY AREA

### 5.1 Al Hattaba Neighborhood Overview

Shiakha Al-Hattaba is a part of the Al-Khalifa district in historic Cairo and has been listed as a UNESCO World Heritage Site since 1979 (UNESCO World Heritage, 1979). It is a historic neighborhood whose urban fabric has not changed since it was documented by the French Expedition in its "Description de l'Egypte" map in 1801 (AtharLina Initiative, 2018). It was a residential extension of the Salah Al-Din Citadel, located directly across from it.

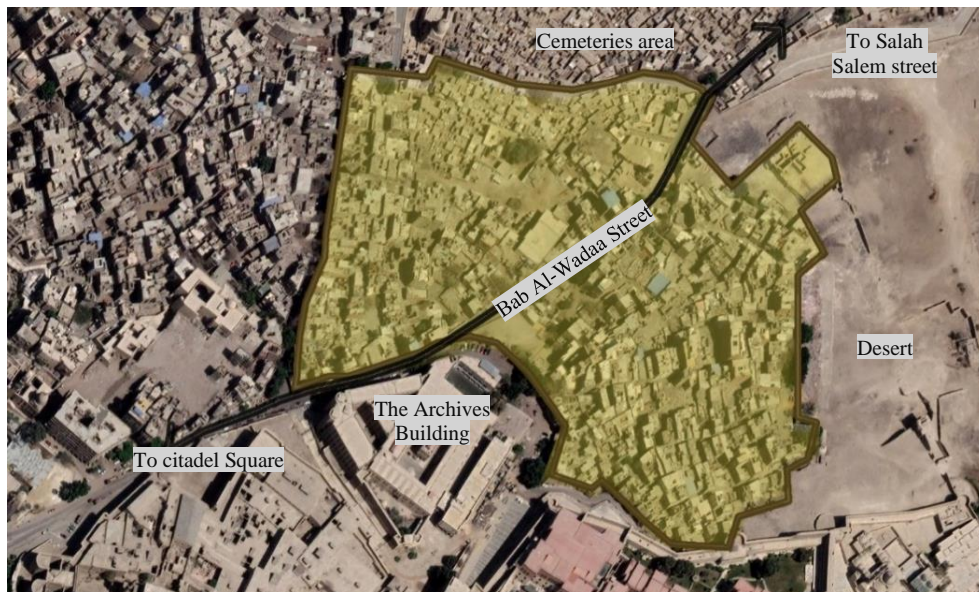
Al-Hattaba area is located on an uphill rock area; it is quiet and isolated, possibly due to the only connection to the surrounding area being through Bab Al-Wadaa Street, a link between the citadel square and Salah Salem. (See Fig. 5), the residential building ratio (old dwellings) is 65.9%. It has an area of 0.523 km<sup>2</sup>, a population of 3595 persons, and a low population density of 68.7 inhabitants per hectare (WHC-UNESCO, 2011).

In Al-Hattaba area, renovations, demolitions, and constructions are prohibited by law, which has contributed to the deterioration of buildings and the growth of abandoned open spaces. Since the implementation of the law, residents have been prohibited from maintaining or renovating their homes or workshops (Wahdan, 2019).

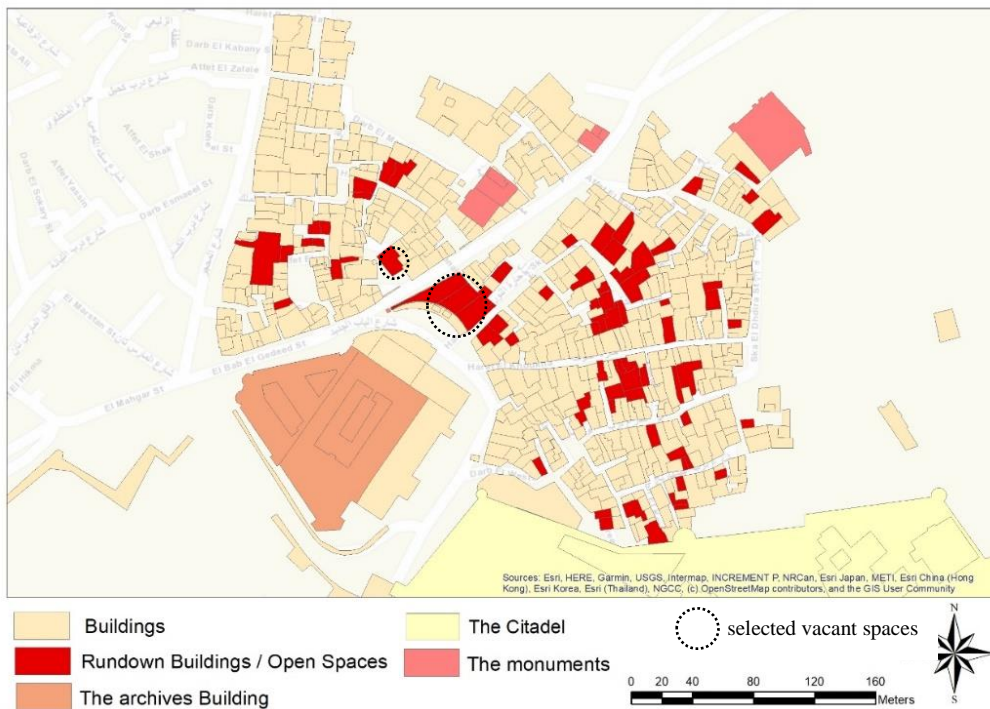


Spaces in Al-Hattaba are divided into two categories open spaces and buildings ruins. The percentage of total ruins is 19.3%, with a total of 388 buildings (37 full ruins, 38 partial ruins) (UNESCO World Heritage Centre, 2014), (see Fig. 6) The Informal Settlements Development Fund in 2011 classified Al-Hattaba as an unsafe area (AtharLina Initiative, 2018).

During a study of land uses in the Al-Hattaba area, many dilapidated buildings were scattered, and unused spaces were identified. Two vacant spaces are directly adjacent to Bab Al-Wadaa Street were surveyed on the ground. As shown in Fig. 6, the selection of the two plots depends on the following factors: plot exposure, diversity in size, diversity in shape, and characteristics of their previous activity.



**Fig. 5** Location of Al- Hattaba area. Source (Authors)

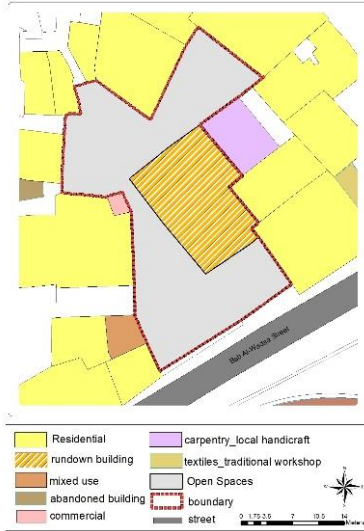
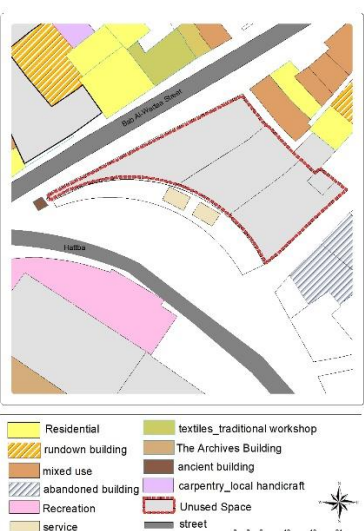
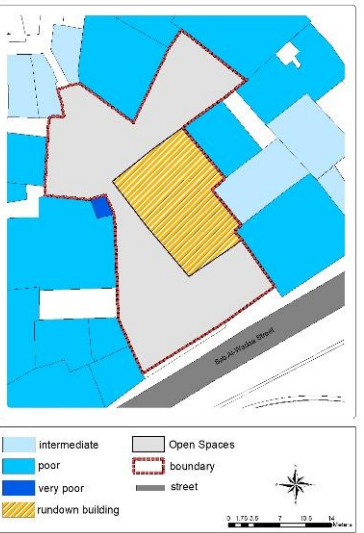
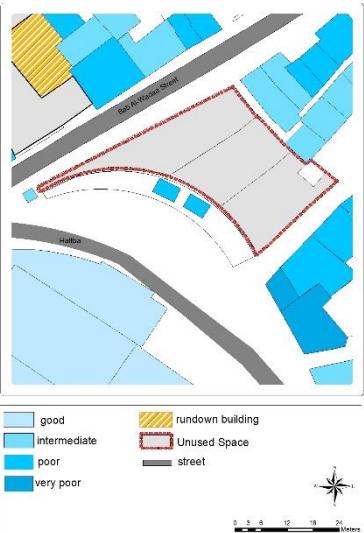


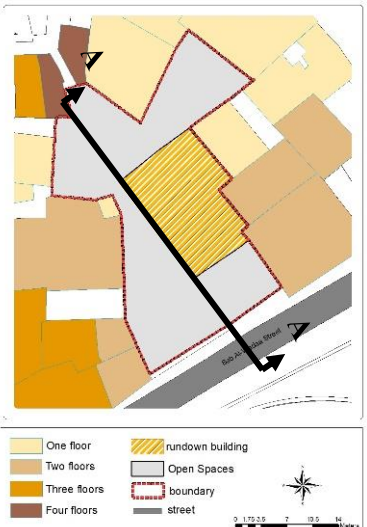
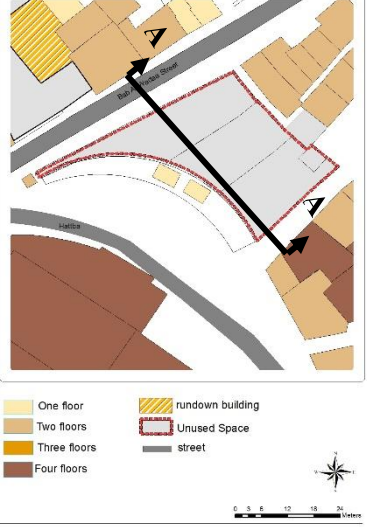
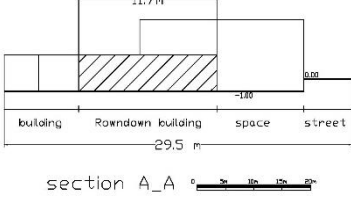
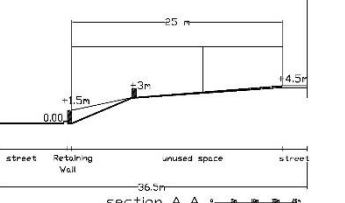
**Fig. 6** Rundown Buildings of the Al-Hattaba area. Source (Authors)

### 5.2 Field survey on vacant' plots/ruins

A field survey was conducted to examine the characteristics of two selected vacant plots in the Al-Hattaba area, besides their direct connectivity to the main street in the area, as shown in Table 2.

**Table 2.** Characteristics of vacant' plots/ruins

Characteristics	vacant' space 1	vacant' space 2
<p><b>Land use</b></p>		
<p><b>Buildings Conditions</b></p>		

Characteristics	vacant' space 1	vacant' space 2
<b>Buildings Heights</b>		
<b>Proportion spaces</b>	 <p data-bbox="544 1061 917 1151">The proportion of spaces 1:3 (suitable space)</p>	 <p data-bbox="979 1061 1353 1151">The proportion of spaces 1:4 (Shallow space)</p>
<b>Area</b>	710 m <sup>2</sup>	905 m <sup>2</sup>
<b>Size</b>	Medium	Large
<b>Exposed/invisible</b>	Exposed on the street	Exposed on the street
<b>Regularity/irregularity</b>	Irregularity	Regularity
<b>Flat /levels</b>	Flat	Levels
<b>Lights</b>	dark at night	Light at night
<b>Enclosure</b>	Less enclosure	Less enclosure

Source (Authors)

Residents of the area have completed a questionnaire to determine the causes of the dilapidated buildings and to outline their suggestions for temporary uses of the spaces that are most suitable for the neighborhood.

### 5.3 Characteristics of Respondents

The four sections of the questionnaire were as follows: section (A) personal data; section (B) abandoned spaces past and current situation; section (C) local community suggestions for unused/abandoned spaces; section (D) monitoring proposals for temporary use of spaces and willingness to participate in the development process for unused/abandoned spaces.

*Section (A) Personal data:*

The sample size was calculated according to the following formula, (as shown in Eq.1):

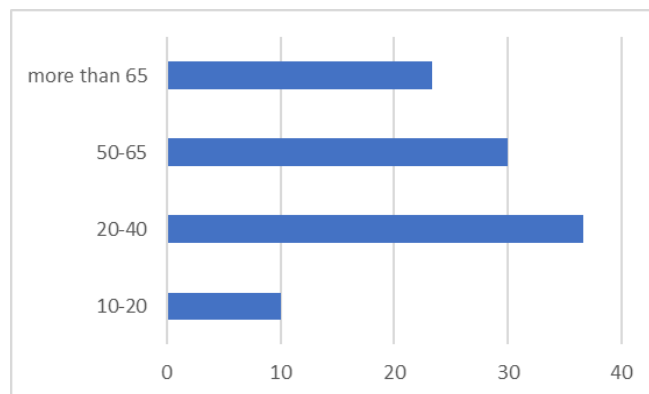
$$n = \frac{\frac{z^2 * p (1 - p)}{e^2}}{1 + \frac{z^2 * p (1 - p)}{e^2 N}}$$

Eq. (1). The sample size formula. Source: (Singh & Masuku, 2014; Kaur, 2017).

Where **n** is the sample size, **z** is Z-score it is a constant value that changes according to the confidence level, in this study confidence level was assumed 90%, so z-score is 1.645. and **p** is the Stander Deviation, **e** is margin of error. In the study the margin of error is assumed 15%, and N is population size \*

So, n= (((1.645)2\*.5(.5))/0.0225)/ 1+(((1.645)2\*.5(.5))/0.0225\*3595)/ = 30

This analysis is based on 30 responses, 67% were males, and 33% were females. The age of the residents' sample was varied, whereas ages ranged from 20 to 40 on average (17%), ages ranged from 40 to 60 (37%), and 60 or older (43%). On the question relating to educational attainment, the largest number of respondents (47%) were illiterate, (13%) had completed primary school, (37%) had completed high school, and a small number (3%) had graduated from college. (See Fig. 7), the duration of living in Al-Hattaba area shows that approximately (90%) of those surveyed have been living in Al-Hattaba for more than 20 years.



**Fig. 7** Respondents' Duration of Living in the Al-Hattaba Area

*Section (B) abandoned spaces past and current situation:*

\*This study used a confidence level 90%, and a margin of error assumed 15%, the greater the confidence level and smaller the margin of error the bigger sample size.

According to the data, two types of abandoned spaces are based on ownership. First, private ownership for spaces formerly occupied by residential buildings that were demolished, and second, public ownership for long-time unused spaces.

According to the survey, the main reasons why abandoned spaces have not been developed for so long are a lack of attention from governors (29%), existing laws that prohibit rebuilding or vacant land redevelopment due to the area's heritage value (38%), a lack of funding (13%), and problems with multiple heirs (21%).

The respondents indicated that the main problems they suffer from due to abandoned space existence are the sheltering of illegal activity (13%) and the large volumes of waste accumulation (74%). In addition, abandoned spaces contribute to neighborhood decline (13%).

*Section (C) Local community suggestions for unused/ abandoned spaces:*

Participants had some ideas for solutions to vacant land in their community, including the transformation of vacant lots into a green area (19%) or a small park for the children (17%) or playgrounds for youth (12%), besides (6%) responses were for a seating area, and a few participants around (1%) suggested botanical garden as a reuse alternative. Therefore, the majority (55%) of the responses were slanted toward providing recreational green spaces.

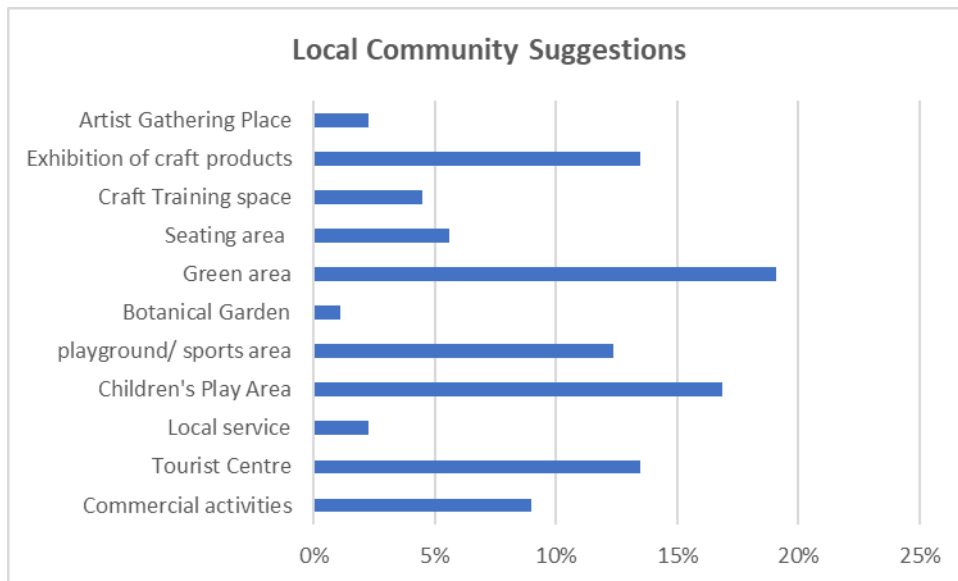
Conversely, (13%) of respondents indicated that an exhibition of handicrafts would be suitable for reuse. In addition, (4%) indicated a need for a craft training space. Consequently, the range of craft-related proposals is (17%). Other respondents suggested establishing commercial activities in the abandoned spaces with range (9%) besides (2%) suggested reusing space to address the shortage of local services (see Fig. 8).

According to questionnaire form local community suggestions question was multiple choice, so every participant suggested more than one option as shown in table (3).

Table 3. Local community suggestions frequency.

Local community suggestions	Frequency	A percentage from total number	Percentage from a sample size
Commercial activities	8	9%	27%
Tourist Centre	12	13%	40%
Local service	2	2%	7%
Children's Play Area	15	17%	50%
playground/ sports area	11	12%	37%
Botanical Garden	1	1%	3%
Green area	17	19%	57%
Seating area	5	6%	17%
Craft Training space	4	4%	13%
Exhibition of craft products	12	13%	40%
Artist Gathering Place	2	2%	7%

Source: authors.



**Fig. 8** Local community suggestions about reuse options for the abandoned spaces  
Source: authors.

Relative Importance Index analysis was used to rank the local community suggestions (as shown in Eq.2) according to their relative importance. The relative index is calculated using the following formula (Akadiri, 2011) (Mostafa et al., 2022):

$$RII = \frac{\sum W}{A \times N} \quad (0 \leq RII \leq 1)$$

Where:

W= the respondent's weighting of each element, A= Highest Weightage,

N= Total number of people who responded.

Eq. (2). The relative importance index formula.

The weighted average will be derived based on the ranking (R) of relative indices (RI), as shown in Table 4.

Table 4. Evaluation Criteria for Likert Scale Questions

Score Interval (Mean) RII Values	Importance Level Evaluation Criteria	
$0 \leq RII \leq 0.2$	Very low	V-L
$0.2 \leq RII \leq 0.4$	Low	L
$0.4 \leq RII \leq 0.6$	Medium	M
$0.6 \leq RII \leq 0.8$	High	H
$0.8 \leq RII \leq 1$	Very High	V-H

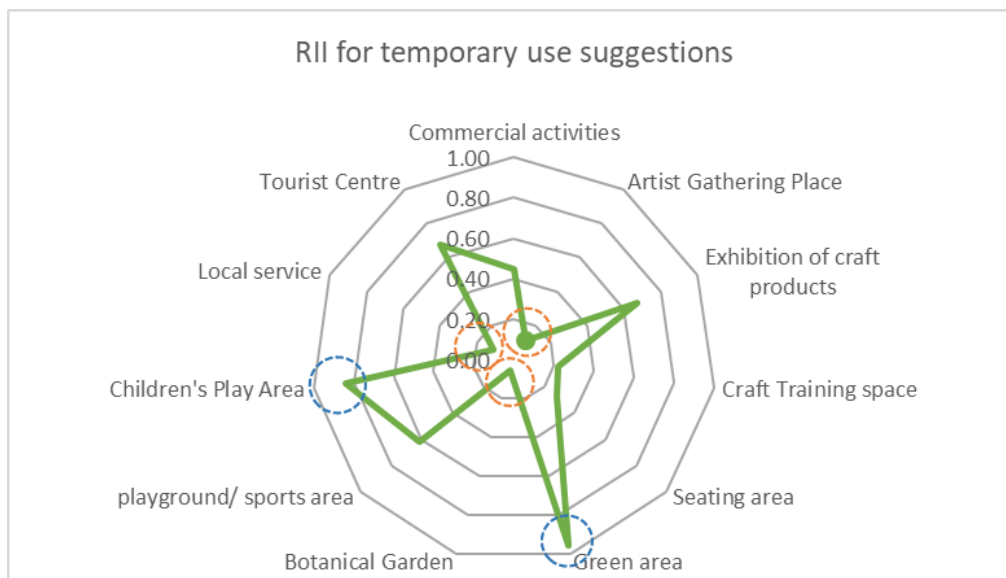
Source: (Akadiri, 2011), (Mostafa et al., 2022).

The analysis shows that suggestion (Green Area) has the highest score, where its RII value = 0.96, followed by (Children's Play Area) with scores 0.84, indicating that the recreational uses recorded the highest values, followed by suggestions (Tourist Centre), (Exhibition of craft products) and ( playground/ sports area) with scores 0.67, 0.67 and 0.62, respectively. The lowest ranking was for suggestions (Local service) and (Artist Gathering Place) with a score of 0.11, as depicted in (Table 5) and (see Fig. 9).

Table 5. Mean and RII for reuse alternatives according to the local community survey

Reuse alternatives	Mean	RII	Importance Level
Commercial activities	0.09	0.45	M
Tourist Centre	0.13	0.67	H
Local service	0.02	0.11	V-L
Children's Play Area	0.17	0.84	V-H
playground/ sports area	0.12	0.62	H
Botanical Garden	0.01	0.06	V-L
Green area	0.19	0.96	V-H
Seating area	0.06	0.28	L
Craft Training space	0.04	0.22	L
Exhibition of craft products	0.13	0.67	H
Artist Gathering Place	0.02	0.11	V-L

Source (Authors)



**Fig. 9** RII value of local community suggestions for reusing abandoned spaces in Al-Hattaba.  
Source: authors.

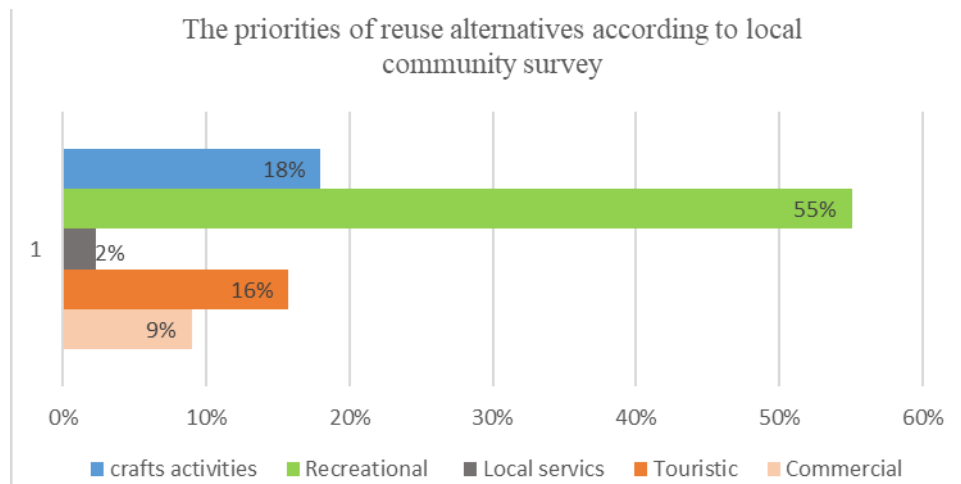
#### *Section (D)* monitoring proposals & and willingness to participate:

This section presents the survey results about the Al-Hattaba local community's willingness to participate in the process of reusing abandoned spaces. All respondents (100%) indicated a willingness to participate. Regarding the type of participation (47%) were willing to participate by contributing money, and (53%) were willing to participate morally by being consulted or by working with institutions during the development process.

Development monitoring should then ensure that the declining status would not come back. The survey analysis revealed that (33%) of the respondents indicated that the local community needs for the suggested activities would result in self-monitoring from the community itself. Similarly, (5%) emphasized that craftsmen would be monitoring the craft's activity as stakeholders. In contrast, (62%) suggested hiring a responsible for monitoring.

## 6. RESULTS AND DISCUSSION

The concept of temporary use has been developed as an effective approach to dealing with abandoned spaces in historical districts. The proposed temporary uses for abandoned spaces in the Al-Hattaba area have been retrieved from the local community questionnaire, and these proposals are analyzed as the most needed activities for the residents. (See Fig. 10), the local community in Al-Hattaba prioritizes recreational uses (55%), followed by craft activities (18%) and touristic activities (16%), commercial activities (9%), and finally the establishment of local services (2%).



**Fig. 10.** Summary of local community suggestions for reusing abandoned spaces in Al-Hattaba Source: authors.

Temporary activities that may occur in abandoned spaces contribute to the expansion of social life in the area. People are attracted by activities that entice them to stay, in addition to supporting the revitalization of the area's historical significance and the preservation of the urban pattern in historical districts.

## 7. CONCLUSIONS

This research aimed to recommend effective proposals to improve the usability and redesign of abandoned spaces in historical Cairo, as well as investigate the local community's viewpoint about reusing spaces according to their importance.

Activating the temporary use approach for abandoned spaces in historical centers has the potential to decrease the abandonment phenomenon and regenerate the historic area. Moreover, involving the community in the regeneration process plays a critical role in sustaining the proposed projects. As discussed in the case study (Al-Hattaba area) each case can be analyzed according to location, ownership, and local community needs and priorities to propose an effective temporary use for the abandoned spaces.

Using the approach of temporary reuse of abandoned spaces in historical districts as a resource to improve the urban environment in these areas, accomplishes the following values: as shown in table 6.

- 1- society integration in the development process and creating social cultural dialogue.
- 2- provides recreational and physical health services.
- 3- Creating economic growth in many activities involving places and pathways.



4- Temporary use of abandoned vacant spaces helps to change them from inactive areas to vital ones which can be utilized.

Table 6. The achieved values by temporary use of abandoned spaces.

Reuse alternatives categories	Reuse alternatives options	Values achieved
Recreational Uses	Children's Play Area playground/ sports area Green area Seating area	1,2,4
Craft Activities	Craft Training space Exhibition of craft products	1,3,4
Touristic Activities	Tourist Centre Artist Gathering Place	3,4
Commercial Activities	Commercial activities Botanical Garden	1,3,4
Local Services	(Educational- health services- ...etc.)	1,2,4

Source (Authors)

The paper focused on the proposed activities. Consequently, further research is needed to identify the implementation challenges and problems of property and ownership in addition to the issues of negotiation with different stakeholders and the abandoned space spatial suitability. In addition, funding options and the assessment phase as shown in figure (11).

- *The abandoned space spatial suitability:* by analyzing the space context, in harmony with the city/district, geographic databases, community maps, and analysis of issues/potentials to determine to what extent the temporary use proposal is suitable.
- *Funding options:* The intervention will require a financing model. Any subsidies needed to make the intervention affordable will be considered. There are many different sources of financing for an intervention like this, such as public, private, user fees, etc.
- *Assessment phase:* Temporary use project will need to monitor both quantitative and qualitative (e.g. how people felt about the reuse project) indicators to see if it has had any positive or negative impacts. The project will also need to evaluate the impacts periodically to see if they are staying consistent with the original goals.

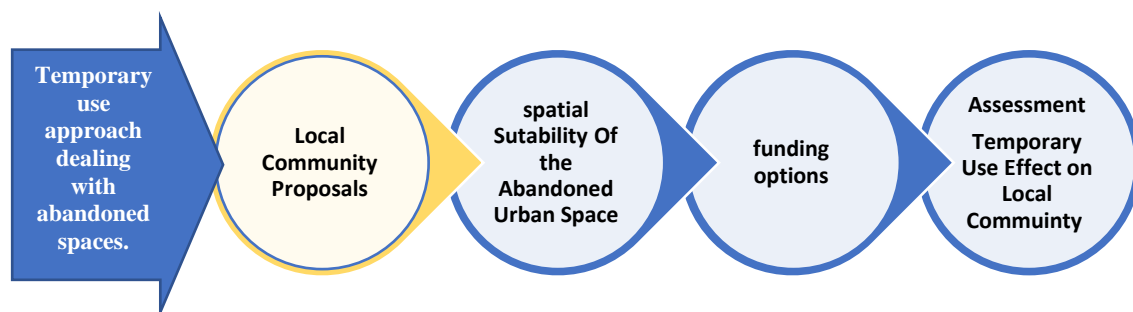


Figure (11). Research focus and Points for further research. Source: Authors.

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