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## **Urban Regeneration as an Approach for Rehabilitating the Two-Entrance Region of Alexandria City**

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### **Abstract**

Over the last four decades, the urban formation of Alexandria City's two-entrance region has changed from natural agricultural farmlands to informal urbanized areas that contain different uses. The urban regeneration is an approach for restructuring the urban informal areas by providing radical changes depend on the origins of the social and economic formation of the informal areas. This process is based on the contemporary urban design principles that help in analyzing the formation of urbanization based growth and stating the required principles for a rehabilitation process, since the traditional methods by demolishing and replacing mostly failed to cope with the continuously rising social and economic changes in the areas. This approach considers the distorted growth by urbanization or urban sprawl as a required social and economic guidance in regenerating informal areas. The paper attempts to analyze the potentials behind the urban distortion by the ongoing urbanization process in the region. It was found that the social formation and economic creations in the areas are the basis for creating an optimal urban pattern. It aims to assist with the emergence of academic disciplines that effectively regenerate a comprehensive framework to continuously manage the urban growth for generations to come.

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### **Keywords**

Urban Regeneration; Urban Sprawl; Urbanization Process; Urban Design Theories; Alexandria City

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### **1. Introduction**

The urban spaces' configuration is a direct response to society's culture, identity, economics, and environment on one hand, and is also affected by legalizations and policies on the other hand. The contemporary principles of urban design are based on the origins of the spaces' formation to regenerate an adequate rehabilitation process to contain uncontrolled urbanization continuously (Clancy, 2017). Since 1960, the contemporary urban design principles are in a state of upgrading and theorizing to form approaches that empower the community to be involved in the development and maintenance process by analyzing the existing social and economic formation of their settlements. This action came after the failure of urban design theories from 1918 to 1960 (Taylor, 2010), where the traditional methods by demolishing and replacing mostly failed to cope with the rapid social and economic changes that rise faster unlike the rehabilitation process (Wall & Waterman, 2010).

Recently, since most countries became aware of the importance of urban revival or regeneration processes, they started to re-examine their urban policies and enact new legislations that are based on the contemporary principles

of urban design to regenerate a well-defined purpose, method, and solution (Andersen, 2007). The UK government released "The UK government's Urban White Paper" based on the report of Lord Rogers. The French government released "a new Planning Act, the SRU of 2000" based on the ideas of the Sueur report of 1998. Furthermore, other well-known programs exist such as the "Social Cities program" in Germany and the "Major Cities program" in the Netherlands, as well as recent initiatives in urban planning in both Brussels and the Walloon region of Belgium (Andersen, 2007). Those programs aim to revive the cities' urban distortions as urban sprawl, informal areas, or uncontrolled urbanization according to adequate analysis for concerned urban formation. In Egypt, a number of legislations were stated to solve informal areas' issues. However, most of them failed to cope their social and economic configurations. In most cases, the informal communities recreate themselves again according to their informal vision (Jacobs, 1992).

The study addressed this point with special regards to the urbanization process within the region of Alexandria city's two entrances: the Suez Canal Road and the 45th Road. Over the past four decades, both entrances have witnessed a rapid urbanization process and extreme urban sprawl toward the agricultural areas. The study seeks to emerge the academic disciplines that regenerate a comprehensive framework to effectively cope and reform the uncontrolled rapid urbanization process overcoming regenerations.

## **2. Theoretical Base of Urban Design Issues and Principles**

The urbanization process does not always enhance the quality of city urban life (Clifford & Edwards, 2012) ; it may accompany urban sprawl issues or extend the process. Since the industrial age, many cities around the world face different shapes and forms of rapid urbanization process and urban sprawl according to many factors. On the other hand, principles were theorized to face those issues in urban life. Periodically, there was retrofitting revolutions for upgrading policies and regulations to rehabilitate the informal areas in the cities. Since 1960, the urban design principles are mostly based on a moral debate that involves the environmental, social and economic formation of the informal communities (Walton, 2007). The contemporary urban design principles had emerged from several case studies, stated as theories for rehabilitation, counted by hundreds to serve different disciplines socially, economically and environmentally (Wall & Waterman, 2010). Accordingly, the urban regeneration process is not a fixed process but rather utilizes the required principles for analysis, evaluates and rehabilitates the urban issues. The analysis process is based on a literature overview to shed some light on the debate about some terms and principles.

Urbanization process is an increase in a population in cities and towns versus rural areas (Clifford & Edwards, 2012). Its origins began during the industrial revolution when workers moved towards manufacturing hubs in cities to obtain jobs in factories as agricultural jobs became less common. Until now, the gravitation towards the city is an issue in urban configuration and formation of cities (Hassan, 2012). Since then, large cities face the uncontrolled situation of urban sprawl. The urban sprawl is a situation in which large stores, groups of houses, etc. are built in areas around a city that formerly had few people living in it due to the de-concentration of urban land use (Roberts, Sykes & Granger, 2015). Some theories consider urban sprawl, as a term, to be a general concept without a precise meaning or definition (Taylor, 2010) that also is hard to be measured. Both terms are about the state of public realm damage on the cities border socially, economically and environmentally. Notably, urban sprawl is not related only to urbanization process. Terms such as suburbanization, urban growth, or suburban development are related too. The theoretical connection comes from their impact images and characteristics in the public realm; which means there are various terms and definitions involved in the analysis process of this field. The lack of certain defined concepts impedes the application of the most appropriate methodological approach or significant and valid results. Therefore, contemporary principles based on a group of criteria for analysis is quite demanding.

Urban regeneration is a comprehensive and integrated approach; it resolves urban defects by analyzing the origin of the spaces configuration socially, economically, and environmentally, to promote a lasting physical improvement in the urban formation (Ploegmakers & Beckers, 2015). Its methodology keeps pace with the consequences of

continued processes of urban change by relying on the adequate principles for the urban defects. It is a flexible approach that absorbs the upcoming situations and new field studies for developments. This may be the more effective approach in the developing informal areas according to the following:

- Urban regeneration process does not just alleviate the social and economic defects; it manages the rapid and continuous changes, and keeps up with the emerging activities for inhabitants in a well-studied framework (Hassan, 2012).
- There are some powers who may impede or disagree with the idealistic development methods, such as stakeholders, owners, residents or legislations. The urban regeneration depends on those powers in the rehabilitation process as factors for restructuring (Ploegmakers & Beckers, 2015).
- The social judgment for space may be very subjective in any community; the revival process needs a base. Considering the origins of the space formation as a reference in the process eliminate this dilemma.

Adopting these procedures in rehabilitating the informal areas reveals two advantages. First, inhabitants become potential in the space, their small investments or visions manage and maintain the rehabilitation process. Second, the governments adopt regulating the inhabitants' vision, investments and type of activities for restructuring the space, and thus the urbanization process become under the authorities' study and control continuously (Hassan, 2012). Regeneration is an approach that depends on the potentials and attraction points of an area, respect the existence formation of social and economic activities, to rehabilitate the physical environment comprehensively. It works as a collaborative process between several disciplines; socially, economically and 'in the first place' ecologically, to result a three-dimensional form fits human needs in urban life (Ploegmakers & Beckers, 2014).

### **3. Analyzing the Urbanization Process at the Two Entrances of Alexandria City:**

Alexandria City witnessed a state of rapid urbanization process along its southern border for the last forty years (Fig.1). This region attracts the investors and stakeholders to set new economic activities according to its available wider areas and their cheaper prices relatively than inside the city, as well as, it attracts migrants from rural areas. Originally, Alexandria's southern border is an open agricultural region with fresh water bodies that act as a natural green belt that borders the city. Since 1980's, the city urban extension was towards this region, as many farmlands had been razed and water bodies silted. In the 1990's, the Alexandria Governorate allowed investors to raze farmland or silt water body to start some economic activities at the city entrance, the Suez Canal Road (Alex Med, 2017). That movement takes about 10 years to attract the investors and community. In the 1990's, some reactional facilities have been opened, but the rate of occupation had raisin after opening well-known hyper maker at the entrance of Alexandria City. The facilities and activities provided by this market served and attracted the city inhabitants to head out to city border. Since 2000's and for 15 years later, a series of shops, cafes, restaurants, and other facilities established at the region. Meanwhile, the inhabitants were headed along the city's southern border to establish small and big facilities due to the scarcity of vacant lands and their prices inside Alexandria City. However, this inhibition method was not under the government directions. The success of every sector or zone along the southern border started with a success of one facility that attracted the inhabitants out of the city, and then the construction method started rapidly with other similar or complementary facilities held in the place. The second city entrance, the 45th Road had been urbanized according to individuals' visions. The timeline shows the urbanization process toward the region of Alexandria City two entrances is in a state of exponential growth over years (Fig.2). Although the governmental and inhabitants urbanization movements were not according to clear concept or trend in construction, each entrance has its own characteristic image in the urban space, defined by the economic activities (Fig. 3- 6). For example, the both sides of Suez Canal Road are occupied by reactional, hosting and commercial facilities (Fig.3-5), while the both sides of the 45th Road are occupied by service facilities, schools, headquarters, and residential compounds (Fig.4-6).

The Suez Canal Road became the recreational destination for Alexandria city inhabitants while the 45th Road became a destination for essential facilities.

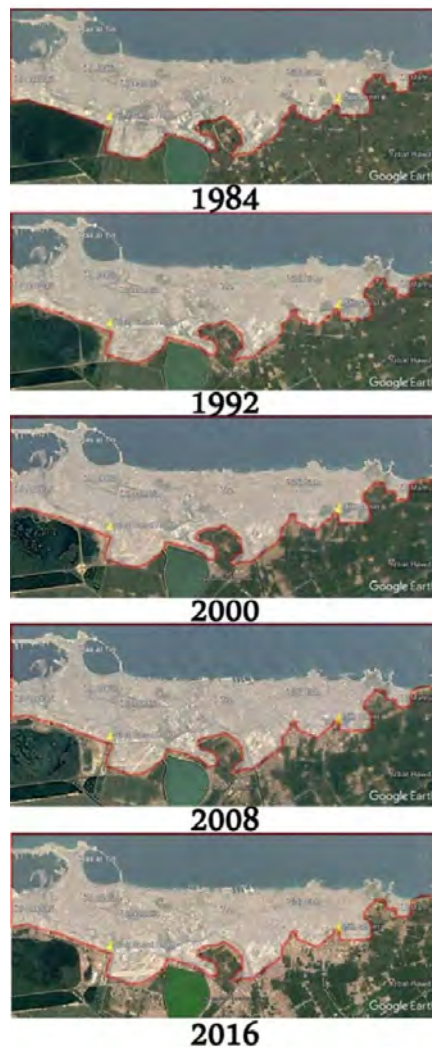


Figure 1. The city growth over the last four decades (Google Earth, n.d.)

### 3.1. The Economic Formation of the Region

The economic factor was the power of urbanization process at the city entrances. The economic activities, projects, and facilities attract the inhabitants from all over Alexandria city to be vibrant destinations for the great sector of citizens despite the dangerous movements next to the regional roads (Fig.5,6). Both areas are not provided by tunnels or bridges for pedestrians, but the inhabitants cross the dangerous regional road constantly as a circulation between the usages.

The southern border was the nearest and easiest direction for economical extension; the city gridiron planning extended along the Mediterranean coast is bordered by southern agricultural region making the only permeability to be the south (Fig.1). The city entrances were the sanctuary for the investors and stakeholders to establish new businesses in wider and cheaper land than inside the city. Rapidly, the entrances were revived by the vibrant image of economic activities instead of open extended green farmlands. The urban image of the city entrances is changing every year according to upcoming projects. The survey showed the type of projects are confined in commerce projects (as branded shops, hypermarkets and malls- restaurants and cafés, clubs and a hotel), schools, and residential buildings (vary from small villager homes to large residential compounds).



Figure 2. The urbanization process along the Alexandria City two entrances (2003-2016), the Suez Canal Road, and the 45th Road (Google Earth, 2017).



Figure 3. The urban image at the Suez Canal Road (Yoseph, 2017).



Figure 4. The urban image at the 45th Road (Yoseph, 2017)

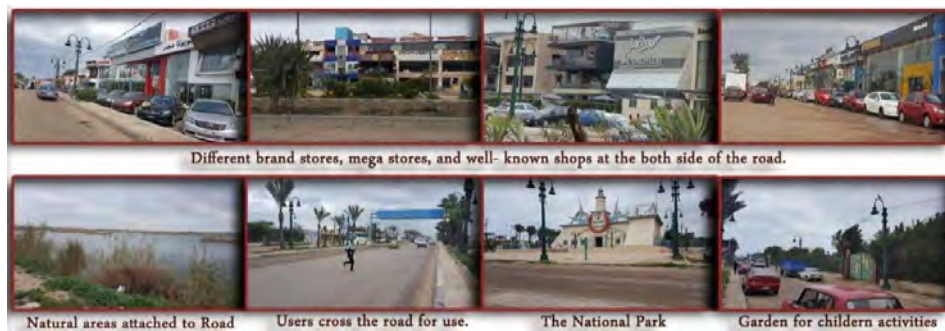


Figure 5. Facilities at the Suez Canal Road (Yoseph, 2017).



Figure 6. Facilities at the 45th Road (Yoseph, 2017)

There was not a certain vision when the razing and urbanizing processes were done even though the attached urban context to each entrance is shaped by a certain type of the economic activities and land use (see table 1). The Suez Canal Road is connected to the city center. The projects that have been established succeeded in attracting users such as clubs, hypermarkets, malls, cafés, restaurants, and similar facilities. The 45th Road in there is connected to almost the three biggest districts in Alexandria City; the type of projects are schools, hypermarkets, and mega housing projects.

Table 1. The economic formation at Alexandria City entrances

Alexandria entrance	The Suez Canal Road	The 45th Road
Authorized by Alex Med (2017)	The government allowed razing farmland and silting water bodies for construction; the investors and stakeholders take that move.	Not authorized, landowner razed their own farmlands for construction.
Attached land-use	The city center, the central park, main facilities in the city, class districts.	The Highest populated districts; Sidi Bisher, Mandra, Montaza
Attracted facilities	Clubs, hypermarkets, malls, restaurants, and mega stores.	Schools, workshops hypermarkets, small housing unit and mega housing projects.
Early attracted projects	Malls and mega stores	Schools and housing

This urbanization process is an application of economic activities that are required for the city inhabitants. It grows in the only available direction according to the city formation (Fig.1), regardless of its ecological impact towards the agriculture region. The following urban design principles state the economic potential at the region beyond the non-visionary urbanization process in the areas:

- “Economic needs’ as targets and attraction points” (Rottle & Yocom, 2010). The available and cheaper areas promote establishing small and big economic activities. At the Suez Canal Road, the economic sphere is opened for reactional activities, while it is opened for small crafted business at the 45th Road (Fig.5:8).
- ”Manage sustainable Economic” (Jacobs, 1992). There is a spontaneous land use identified in (table 1), each are considered as stand-alone economic in both areas. Attracting inhabitants agrees with the concept of ”economically viable and maintained to continue success and function of the space” (Jacobs, 1992).

### 3.2. The Social Formation of the Region

The urban design is a process based on human activities in public realm. It is influenced by the contemporary civilization and reacted to the spatial system over years (Walton, 2007). The human factor, in those cases, play a

big role in shaping the street public realm. The type of users at each entrance of the city shapes the public realm, density, dimension, and characteristics. The individuals' visions in optimizing the micro-urban space affects the overall image of the public realm, and characterize its roads civilization image (Fig.5&6).

The users at the Suez Canal Road are customers, clubbers and shoppers that seek for a well-designed destination for recreation and leisure. The urban context is ordered by straight or curved lines (Fig.7), formed wide streets, well-constructed facilities, and green areas. Even though, it misses the national vision for constructing, identified iconic buildings or landmarks that suit the entrance of the Alexandria city (Fig.5).

The users at the 45th Road are farmers or middle-class inhabitants who seek to find a new and available settlement for inhabiting. They build middle-class housing units and establish some workshops for bread-winning (Fig.6). They urbanize the area according to their sense and background, and customize the public realm according to their class vision. It is a more medieval concept than a modern one. Accordingly, the spatial system is characterized by high densities, small outward expansion, narrow streets, unclear building compositions, and highly compacted spatially land uses (Fig.8). The human share of well-designed urban spaces is missing. This area is also constructed in a non-national vision. The contemporary urban design principles are applying the social potential according to the levels of interacting with the type of activities (Ellis, 2013).

Principles state the social potential at the Suez Canal Road:

- “Creating a theater of public life” (Tiesdell & Oc, 1998), that represented in wideness between different land use; the urban context is divided separately between the types of functions (Fig.7). The mega stores, clubs, mall, cafes, and restaurants are located in zones. The movement between those activities supports comprehending the full image of the overall urban space, and promote lively atmosphere between usages.
- “Encouragement for more social activities within the urban fabric” (Taylor, 2010), the aforementioned diversity in land use for more than function supports good social interactions.
- “Enhancing the city life” (Walton, 2007), the areas present a required level of service that is not available inside the city, in well-constructed facilities; attract the inhabitants from all over the city (Alex Med, 2017).

Principles state the social potential at the 45th Road:

- “Design in an urban context” (Andersen, 2007), the urbanization process followed the agriculture land grid (Fig. 8). The streets pattern are gridiron plan as the same module and rhythm of the original farmlands', although the razing process is done randomly. That is considered as a spontaneous concept followed in the region.
- “Promote social growth” (Walton, 2007), the open extended gridiron plan of the agriculture region promotes horizontal extension, along and across the grid. Razing farmland is against the environmental principles, but the extension is increasing over years, creating a vibrant and desirable settlement for inhabitants. This potential is required to be optimized environmentally. The social growth for the sub-neighbourhoods enriches the existing zones; the urban areas are not deserted or abandoned, but hourly occupied. It seems that inhabitants seek for the new urban zone to start a life. Although the urban sprawl is not a desirable situation for city borders, the urbanization along the city are a distention.

### **3.3. The Environmental Impact at the Region**

This urbanizing process has a negative environment impact. Razing agricultural fields and silting water bodies cause serious well-known ecological problems. Enact laws or regulation to prevent razing or silting processes, in this case, are considered to be superficial solutions. Already existing in the Egyptian Law (Article 35 of Law 57 of 1959) is an indispensable live-able settlement in this region. This is the first environmental challenge in the area.



Figure 7. A well-constructed urban context around the Suez Canal Road (Google Earth, 2017).



Figure 8. A high-density urban context around the 45<sup>th</sup> Road (Google Earth, 2017).

The principle "Satisfying ecological needs and to compensate for the loss of nature" (Roberts, Sykes & Granger, 2015) aims to mitigate negative effects of urbanization by providing the urban context with alternate green and water areas. Their concept emphasizes on achieving integrated for the original ecosystem. The second challenge; urbanization process, misses contemporary urban design theories, such as less density, wider streets, low dense population, plazas, and sufficient green areas.

The urbanization is growing as old slums configuration at the 45th Road (Fig.6), while at the Suez Canal Road, the urbanization is growing without terms, just investment visions. The third challenge, constructions are native methods or retrograde visions. No eco-friendly methods suit the region green life. These situations are existing in both city entrances. The principle "Physical manifestations of human ecologies" (Jacobs, 1992) imposes satisfying ecological needs by determining the densities, concepts, and methods of the construction process.

#### 4. Discussion

Urban regeneration is how to obtain the potentials beyond negativities. Over history, many cases show that the ongoing informal areas recreate themselves after demolishing or replacing (Roberts, Skyes & Granger, 2015). Urbanization processes at the two entrances of the Alexandria City are clear cases of urban sprawl, which are considered as a big defect infects the city formation. Even though there are running economic activities and vibrant urban communities stand behind this urban deformation. The urban regeneration, in those cases, revolves around the type of social formation and ongoing economic activities at each entrance. The followed methods depend on attributing the optimal required urban state to the contemporary principles that achieve highly urban rehabilitations for their type of formation and activities, requires a delicate development process that balances between the stand-alone social formation and economic activities and the ongoing razing process to mitigate the negative environmental impact. The assessment seeks to search the contemporary principles that accomplish the high objectives in this specific case such as optimizing the razing and controlling the negative effects environmentally, enhancing the sense of identity of each regional entrance social formation and achieving high urban space quality at each level socially. As well as imposing the national vision, supporting the succeeded standalone facilities and creating responsive urban context to upcoming changes economically.

#### **4.1. Managing Growing Process**

The urban growth or expansion is a state of place value; the value may be an inherited culture, some kind of labor, specific activities, or a series of investments. Those values in urban design involve the activities that make the place liveable and support the belonging. Managing growing process depends on the kind of the place values; at each regional entrance of Alexandria city, the economic growth manages to attract a certain class of the inhabitants and characterizes a certain social formation. The economic activities, running facilities, and social classes shape the space own values that promote their own growth, but conflict with the land-use master plan. That is a critical issue according to the urban design data. The city natural green belt must border the city without constructed areas, the agricultural land and water bodies must be preserved and the land use must be according to optimal structure density. The regions along both the entrances are driven by an interest group coalition who all benefit from continuous growth and expansion. Therefore, it is hard to stop or prevent. Enacted laws could not stop this uncontrolled urbanization. The ongoing growth method, at least, is required to be according to the ideal urban structure density, to control the urban sprawl expanding into rural lands, and preserve the remaining agricultural land where about 31% of farmlands were razed (AlexMed, 2017).

The process aims to restore the urban growth according to the urban self-perpetuating of the area. It suggests a development pattern following the succeeded economic model in the region, and achieves the new urbanism principles for dense and compact, promotes walkable neighborhoods that contain a range of housing and job types, manages the relationship between the quality of life, and suggests an economic pattern.

#### **4.2. Managing the Distortion Process**

The extended areas based on classes of individuals' visions in constructing and urbanizing is not on an integrated design process that is started from regional planning to urban design level. The optimal required goal of the urban regeneration process is managing the space values for people than would otherwise be produced (Tiesdell & Oc, 1998), that can come at three levels.

##### **4.2.1. Environmentally**

As the economic factors attract the investors and small businesspersons to this region continuously, the slight edification is required to control the urbanization process. Principles as "working with the landscape" (Clifford & Edwards, 2012) and "design with nature" (Rottle & yocom, 2010) could restore the resulted negative environmental affect (Roberts, Skyes & Granger, 2015).

- The "working with the landscape" (Taylor, 2010) could optimize the land ratio in the razing process, which means the urbanized areas will be among agricultural fields instead of infertile lands.
- The "design with nature" (Rottle & Yocom, 2010) could control the negative effects of urbanization by preserving the natural biodiversity of the region in the urban design.

Imposing those principles targets conditioning the ratio of natural agricultural land around projects to enforce urbanizing in a harmony with the surrounding region as a natural landscape. The region could be revived as small-specialized worker villages or functioning communities distributed in the open green agricultural region. That could control the connection between man, his actions, and the natural environment, and create an identified space respect the region nature. It mainly aims to convert the urbanization process from an urban sprawl to an integrated process with existing nature of the area's agricultural formations.

##### **4.2.2. Socially**

The following principles promote regenerating the social potential at both regions.

- "Places for People" (Gehl, 2006) aims to sense an identity that came out of people behavior, by providing a variety in use to be vibrant zones to wider sectors of society.
- "Connect to the Surrounding Urban Fabric" (Walton, 2007), aims to achieve permeability, accessibility, and connection in the urban fabric. The natural grid of the farmland is a potential for achieving a good context hierarchy, to connect different land use visually as well as physically, and to promote circulation routes around the spaces.
- "Mixed Use" (Jacobs, 1992) aims to enhance the quality of public realm and sustain social formation for life, by analyzing the existence use to promote the upcoming.

There is a social shifting in running on the city borders that requires good management by higher optimal goals. The regions at both Alexandria city entrances have a high number of population, their social factor is a powerful potential connected to the economic activities in the area. Managing the social formation and its regeneration is not only by attracting more sectors of users. It is a method of controlling the quality of use to be a vibrant atmosphere. The 45 Road social formation is characterized by slums areas with massive residential buildings blocks (Fig.4&6). At the Suez Canal Road, it is not slums as its mixed-use facilities in a non-national vision or designed land-use (Fig. 3&5). The process of non-slumming or relocating settlements in the area is hard to process due to the power of continuous attracting the users and inhabitants. However, each region has its economic base for regenerating the social formation and sustaining the use for life that is the power to implement the first principle. Controlling the ideal density comes by providing sufficient natural green areas, and creating a strong and clear hierarchy of paths, streets, and roadways network. For example, at the 45th Road region, the natural gridiron plan is not in a strong hierarchy and the housing design is not clustered with series of green areas to optimize the privacy. In addition, at the same region, there are mixed-use functions between workshops and residential whereas the workshops attract customers who are strangers to the residential blocks and causes unclear movements that attack the social privacy.

#### 4.2.3. Economically

Over history, cities are manifested by economical means and location as a paramount success within the city's urban formation (Boundless, 2016). Economic diversity in cities is always a decisive factor in urban design theory (Jacobs, 1992). That concept shapes the diagrammatic land use in a cities' master plan, as it is organizing into single land use zones. All the southern borders of Alexandria city witnesses a challenge in shaping the diagrammatic land use. Mainly, each entrance's region needs an "Economic Vision Management" (Jacobs, 1992), this principle imposes a national vision sustains an economic vision for upgrading the existence economics and maintains their continuity and growth. Also, the principle of "Enrich the Existing economic fabric" (Gehl, 2016), is necessary for supporting the succeeded standalone facilities by empowering the land-use mater-plan and the formation of the urban contest. This principle enriches the mutual relationship between the urban fabric and the land use, which means designing land use should respond to their surrounding context by complementing each another's, to support the spaces strengths and minimize their weaknesses (Jacobs, 1992). The third required principle for regeneration is "Design for Change" (Walton, 2007), to be responsive to upcoming changes in the urban fabric by proposing a flexible land use master plan contains related economic activities to the existence one. The economic regeneration aims to preserve the economic means from decay, where a non-visionary or uncontrolled method in urbanization may not have the support for continuity.

#### 4.3. Laws and Regulations

The contemporary urban design principles are a wide range of theories not specific methods for the rehabilitation process. Using urban regeneration as an approach for implementing new policies and practices is based on an analysis process by an unlimited range of urban design principles. The research presented the most related principles to the cases formation and state. The analysis process could emerge academic framework to regenerate and

optimize the urban defects at the region of the two entrances of the Alexandria city comprehensively (see table 2). The study sought to draw the base for the needed laws to be enforced for regenerating the area and to control the distortion growth over coming regeneration continuously.

Table 2. A framework for urban regeneration process at the region of Alexandria city two entrances

		Potential beyond the uncontrolled growth	
Entrance		The Suez Canal Road	The 45th Road
Environmental	"Satisfying ecological needs and to compensate for loss of nature" (Roberts, Sykes & Granger, 2015).		
	Regulations for evaluating the impact of the original ecosystem and measure its loss.		
	"Physical manifestations of human ecologies" (Jacobs, 1992).		
	Regulations for eco-friendly construction methodologies		
Socially	"Creating a theatre of public Life" (Tiesdell & Oc, 1998).		"Design in an urban context" (Andersen, 2007).
	Regulations for promoting the urban reactional activities.		Regulations for evaluating the design order among nature.
	"Encouragement for more social activities within the urban fabric" (Taylor, 2010).		"Promote social growth" (Walton, 2007).
	Regulations for activities' type at each region, and stating required future fields in the areas.		
	"Enhancing the life of the city and its inhabitants" (Walton, 2007).		
	Regulations for creating a remarkable urban entrance for the city.		
	Regulations for evaluating the identified urban image.		Regulations for planning concepts and regulatory lines.
Economically	"Economic need and growth are a target and attraction point."		
	Regulating reactional projects.		Regulating services projects.
	"Manage sustainable Economic" (Jacobs, 1992).		
	Regulations for studying continuous maintaining the activities type, land use, and price.		

		Urban Regenerating Process in the Area	
Entrance		The Suez Canal Road	The 45th Road
Environmental	"Working with the landscape" (Clifford & Edwards, 2012).		
	Enacting laws for stating the green area and natural farmland ratios within projects area		
	"Design with nature" (Rottle & Yocom, 2010).		
	Enacting laws for preserving the ecosystem and biodiversity in the areas.		
Socially	"Places for People" (Gehl, 2006).		
	"Connect to the Surrounding Urban Fabric" (Walton, 2007).		
	"Mixed Use" (Jacobs, 1992).		

*Continued on next page*

Table 3 continued

	Enacting laws for identify performance criteria by stating the trend, style, and characters for the land use, the constriction ratio and street network, to manage the relationship between the human, use and his action, and to reform the urban context to be as an urban characterization for each entrance identity.	
Economically	"Economic Vision Management" (Jacobs, 1992).	
	"Enrich the Existing economic fabric" (Gehl, 2006).	
	"Design for Change" (Walton, 2007).	
	Enacting laws to state the vision for an upcoming project in a master plan, to sustain the economic factors.	
	Supporting reacting	Supportingthesmall business, services facilities, and workshops.
Regeneration process may base on merging civil life with urban nature to compensate the missing urban criteria as less population and construction dense, wider streets and sufficient public areas.		

Table 2 shows the urban regeneration as an approach for rehabilitating the region of the Alexandria city two entrances. The approach based on contemporary principles that are flourished from similar case studies around the world and stated as urban design theories. Based upon, this approach suggested required laws and regulations as a base for rehabilitating the region, and it could absorb more regulatory laws that emerged from similar analysis process.

## 5. Conclusion

When Alexander the Greater founded the Alexandria city, he developed a small-succeeded fishing village called Rhakotis. This process depended on the potential of the existence small settlement to be the well-known Alexandria city, as an ideal example for urban regeneration concept.

Urbanization and urban sprawl are terms that refer to damages, deteriorations or distortions in the urban realm, but the ongoing urban life beyond this image is the key elements for the regeneration process. The southern region of Alexandria city is witnessing an uncontrolled urbanized process that grows towards the agricultural region constantly, and may be faster than required enacted laws to regulate the razing for the urbanization process. This urbanization process resulted from required economic activities for Alexandria city, and supported types of social activities at each region. That caused some negative environmental impacts. In addition, the urbanization process was state of urban sprawl formed some informal areas, but each entrance of the city has its own urban character. The Suez Canal Road is characterized by a universal style for different types of economic recreational activities. The 45th Road is characterized by distorted urban areas that reflect the struggle between the individuals' power in creating their own realm and their optimal goal of achieving higher standards of living. Each zone was urbanized in absence of national economic vision or organized legislations.

Enacting laws to rehabilitate each region needs a scientific approach to manage the distorted changes continuously. The contemporary principles are based on a literature; using those principles to rehabilitate the region must involve a thorough analysis for the existence settlement to empower the hidden economic and social potential in the process as the following:

- The traditional way as demolishing informal areas for total restructure is not effective, it is like facing a power of a vibrant settled community, the resulted social and economic damages are greater than to be contained. Mostly, the areas will recreate itself again.

- The ecological damages caused by the urbanization process need a delicate development process to manage the balance between the stand-alone economic activities and the ongoing razing process. Inadequate legislations are required to involve preserving the ecosystem and biodiversity in the areas.
- The economic activities and the type of the social life created in the areas are the basis for creating the urban pattern. Even the environmental deteriorations become constraints in the restructuring process.
- The inhabitants' vision in settling in the region could be the base for stating trends, styles and characters for the land use. In a brief, avoid ignoring the social factors (as the citizens, the government, and the private sector) in shaping the urban pattern.
- The relationship between the human and his actions can reform the urban context, and power creating an identity for the urban formation.
- Avoid the lack of experimentation with the updated urban theories, and avoid ignoring how areas have traditionally arisen from social, economic, cultural, political and ecological changes throughout time

The suggested approach aims to cultivate the urban distortion and support the vibrant atmosphere at the two regions on many levels. Also, enforce the perception sense of ecological aspect in a built-up environment, which could help in creating better place suite the type of uses. The required regulations are extending to existing situations as supplements to the vibrant potential in the areas to form the certain quality of their public realm coming regeneration.

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