

An approach to assess the experience of physical intervention in Al-Darb Al-Ahmar district in Cairo

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1-Introduction:

Al-Darb Al-Ahmar region has a strategic location within the historic city of Cairo, it locates near to the center of Cairo, adjacent to historical buildings such as al-Azhar mosque and the fence of Salah-eldin, Al- Darb Al-Ahmar area includes many Islamic heritage buildings such as the School of Umm al-Sultan Shaaban, the palace of Tarabay al-Sharif , the Khayer Bek buildings ,Al-Darb Al-Ahmar district is famous of many traditional handmade crafts like handmade copper jewelry and carpets, ornamental glass and leather industries.

A project aims at developing and rehabilitating Al-Darb Al-Ahmar area had been achieved, this project included urban, physical, social, economic and cultural aspects to develop of the Al-Darb Al-Ahmar area.

The development process of the project included physical intervention in Al-Darb al-Ahmar region, included the restoration and rehabilitation works, also the work of demolition and rebuilding.

2-Aim of the research:

The aim of the research is to assess the experience of physical intervention in Al- Darb Al-Ahmar region, to determine the positive and negative results of the physical intervention in Al-Darb Al-Ahmar region.

3-The scope and limits of the research:

The research limits is to study the actual physical situation, which had been implemented in the operations of physical intervention in Al- Darb Al-Ahmar.

4-The Study inputs :

Study adopted input on several elements as follows:

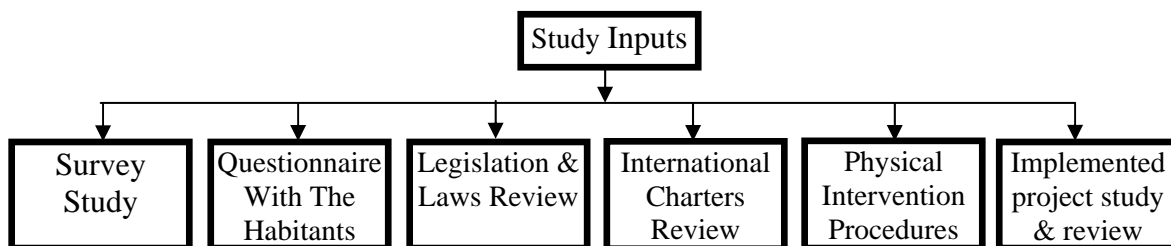


Fig (1) Shows Inputs of the Study

5-Physical Intervention in Al- Darb Al-Ahmar:

The project had started in 1997, the process of physical intervention included the works of restoration of historical buildings, rehabilitation of some residential buildings, some public spaces, public buildings and socio economic development .⁽⁹⁾

The project reached to its final stage, deciding to unselect another building or public space to rehabilitate, this final stage includes completing of the buildings which had started in rehabilitation process and still in progress.

5-1 Advantages of physical intervention in Al- Darb Al-Ahmar:

5-1-1 Infra-structure network:

- Fresh clean water had connected to 93 residential building ⁽⁵⁾.
- The Sewage network of about 516 meters had implemented ⁽⁹⁾.
- The main electrical distribution network had renovated, street lighting units had been installed ⁽⁵⁾ to increase safety for users and reduce the spread of crime ⁽⁹⁾, these networks had implemented in Darb Shoughlan, Aslum area, Bab al-Wazir area, and Khayer Bek complex.
- The networks of rain water drainage had installed in the areas of ⁽⁵⁾ Burg al-Zafar street, Atfet Asaad, Darb Shoughlan, Aslum area, Bab al-Wazir area, and Khayer Bek complex .
- The elements of security and safety has been developed fire hydrants are connected to the water network , because the narrow streets and alleys are not suitable for fire trucks ⁽⁵⁾.

5-1-2 houses Rehabilitation:

- Missing parts of buildings in prior periods and completely collapsed buildings had been rebuilt, and returned to the native mode of the old ⁽¹⁰⁾.
- Facades of deteriorated houses had been rehabilitated ⁽⁹⁾.
- The full interior finishes had been implemented for the rehabilitated buildings .
- Some user's additions, materials, and paints that unsuitable with the region character had been removed ⁽⁵⁾.
- Some of the elements necessary for users had been added such as bathrooms which were. not exist ⁽⁵⁾.



Atfet Hozayen,
Before intervention



Atfet Hozayen,,
After intervention



Darb Shoughlan,
Before intervention



Darb Shoughlan,
After intervention

Fig (2) Shows some house after & before intervention

5-1-3 Public Buildings:

Um al-Sultan Shaaban mosque had restored and had reused as a center for professional activities ⁽¹¹⁾, and also Khayer Bek complex had restored .

– The restoration works of Aslum mosque, Aqsunqur mosque, Beit al-Razzaz and Alin Aq palace had implemented ⁽¹¹⁾.

- Building no.(69) had constructed⁽⁵⁾ to use as a center for vocational training to conserve the heritage industries in region , such as wood , copper and leather ⁽⁵⁾products.

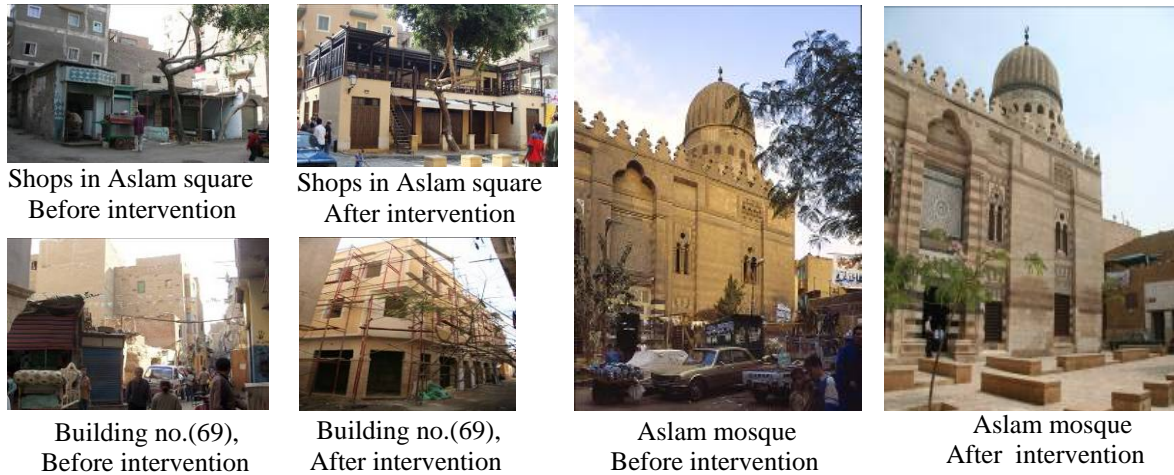


Fig (3) Show some public building after & before intervention

5-1-4 Public Open Spaces:

Public open spaces had been developed to be more interactive and service to users ⁽⁸⁾ such as (Darb Shoughlan, Bab al-Wazir Aslam square)



Fig (4) Show Aslam Square after & Before intervention

5-1-5 Community Participation:

- 1- People were encouraged to participate in the development of their communities ⁽⁵⁾.
- 2-The project focused on the idea of integrated local development of the region through development activities, community development, infra structure and human development, the project tried to maintain the handmade crafts in Al-Darb Al-Ahmar such as wood, copper and leather products ⁽⁹⁾.

5-2 Disadvantages of physical intervention in Darb Al-Ahmar:

5-2-1 Implementation Process:

The project had reached to its end stage ,it rehabilitated 100 houses of 600 target house , the rehabilitated buildings were scattered and not contiguous, and adjacent to many deteriorated buildings ,which led to create a not homogeneous visual image because of presence of some building that had been rehabilitated interspersed with deteriorated buildings

- The project did not achieve the target rehabilitated building according to its study.

The project is divided into three action areas.

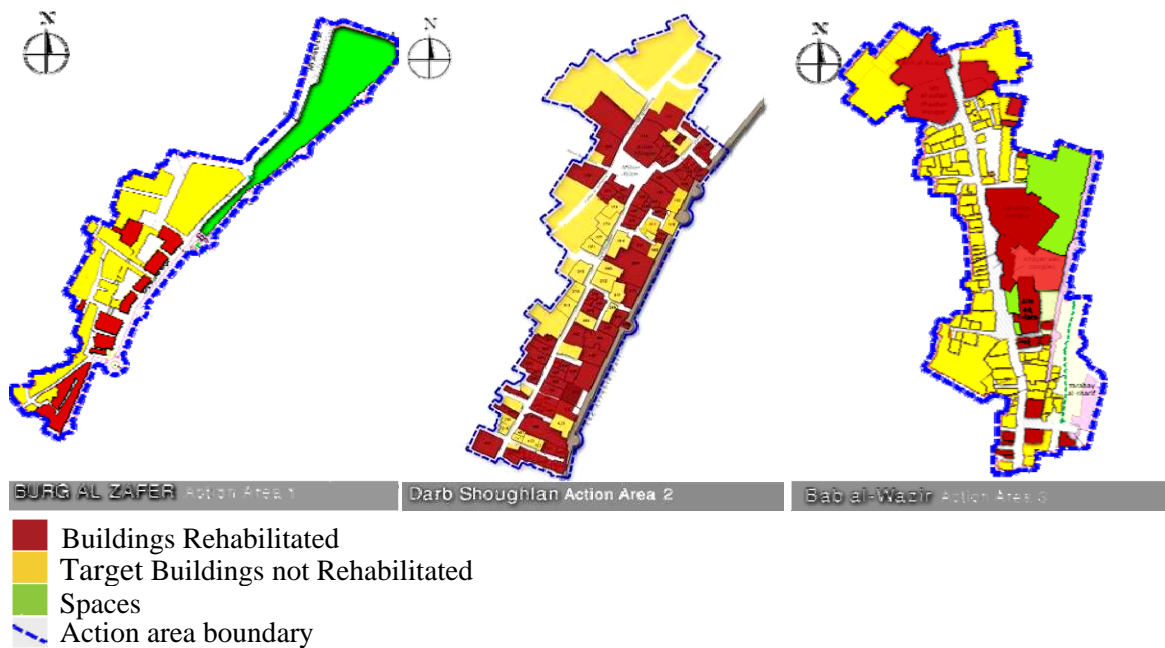


Fig (5) Shows Rehabilitated Buildings & Target Buildings that hadn't Rehabilitated in The three Action Areas

Type	Target Buildings According To Study	Implementation	% Completed
Houses	600 Houses	100 Houses	16.7 %
Public Buildings	31 Buildings	9 Buildings	29 %
Public Open Spaces	9 Spaces	7 spaces	77.9 %

Table (1) Shows project percentage implementation till year 2010 ⁽⁵⁾.

Years	implementation of Houses	implementation of Public Buildings	Implementation of Public Open Spaces
2000-2003	44 Houses	6 Buildings	2 Spaces
2004-2006	31 houses	10 Buildings	3 Spaces
2007-2009	25 Houses	25 Buildings	2 Spaces

Table (2) Shows the rate of implementation according to the time period ⁽⁵⁾.

Buildings	Target Buildings According To Study
Al-Baghasi Mosque	Not Rehabilitated
Zawyet Al- Sheikh Morshid	Not Rehabilitated
Sabil-Mausoleum And House Of Omar Age Mustahfazam	Not Rehabilitated

Table (3) Shows the non rehabilitated public buildings which had included in target project.

5-2-2 Maintenance:

- The absence of a strategic plan for the maintenance of public buildings, residential buildings, public open spaces and infra structure, also the absence of funding sources for such maintenance after the rehabilitation process, that will result in deterioration in future.
- The absence of trained staff to carry out the maintenance of historic buildings in a scientific way.⁽¹⁾



Fig (6) shows a few of deterioration after rehabilitation according to absence of maintenance

Type	No. of rehabilitated buildings	Deteriorated buildings after rehabilitation	%Completed
Houses	100 Houses	9 Houses	9 %
Public Buildings	19 Buildings	2 Buildings	10.5. %
Public Open Spaces	7 Spaces	1 Space	14 %

Table (4) Shows number of buildings which have a few of Deterioration after rehabilitation according to the absence of maintenance .

5-2-3 Funding programs to complete the project:

- There are no agreement contracts of financing the project to ensure continuity until the end of the project, which led to the withdrawal of some funding bodies before the completion of the project's completion.
- There're no legal plan with government bodies to ensure the completion of the project in case of the withdrawal of any of the financiers.
- The process of reuse wasn't used successfully in supporting the fund for the project.

5-2-4 Governmental support & participation:

- Governmental bodies hadn't cooperated by implementing the infra structure for the project, which had placed a great burden of funding.
- Inadequate cooperation from some governmental bodies assigned to the development of such areas.

5-2-5 Community Participation:

- The absence of a strategic plan to ensure community participation in maintaining the project after its completion.
- The absence of a plan to ensure continuity participation for funding the project to implement all regions of Al-Darb al-Ahmar.
- There's no NGOs created, which interested in developing physical aspects of urban areas.

5-2-6 Implementation of the project in the large region:

- The absence of a clear plan for the sustainability of rehabilitation work in the future to include all regions of the Al-Darb al-Ahmar.

5-2-7 Legislation & Laws :

- The lack of legislation and laws to support the project during its implementation process, and ensure the sustainability of implementation after the completion of the project.



Optical deformation of the building in the absence of laws which obligate users with the process of rehabilitation



Rehabilitation by non specialists because of the absence of applied regulatory laws of government bodies, that led to presence of architectural vocabularies don't commensurate with the character of the area



Fig (7) shows Optical deformation as a result of absence of applied laws

5-2-8 Sustainability in development & Rehabilitation:

- Absence of future development plan to include the sustainability development and rehabilitation.
- Absence of an economic system of financing for ensuring the continuity of the project in the future.
- The absence of a plan for the preparation of trained technical persons with expertise to the sustainability of rehabilitation work.

5-2-9 Intervention & Rehabilitation Techniques in project:

- All the buildings in Atfet-Asaad had been totally removed and rebuilt again using modern finishing colors⁽¹⁰⁾
- Reinforced concrete beams had been used in the ceiling which is an alien material to the original building materials.⁽¹⁰⁾
- Rehabilitation techniques used were expensive and consume large amounts of fund⁽⁹⁾.

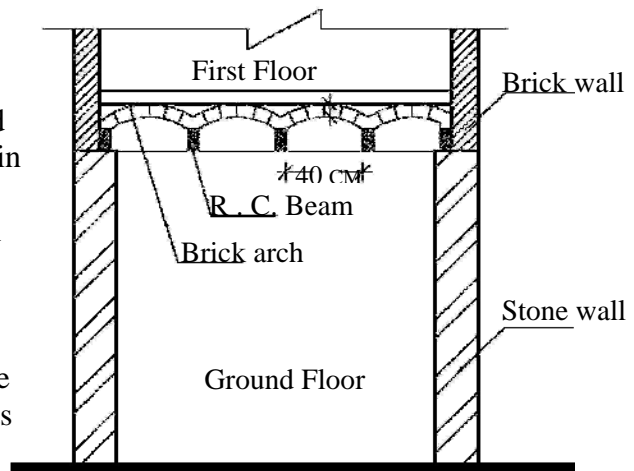


Fig . (8) shows a detail of rehabilitated structural system that had implemented in project

5-2-9-1 houses Rehabilitation:

- There's no scientific basis for selection priorities of the residential buildings to rehabilitate.
- Intervention in the rehabilitation of residential buildings was adopted only on the willingness of the inhabitants and owners in the rehabilitation process, without taking in consideration the bad effect of the whole urban region in the case of the unwillingness of some of the inhabitants to rehabilitate their houses⁽²⁾.

5-2-9-2 public open spaces:

- Intervention in public spaces didn't take in consideration the requirements of future maintenance⁽³⁾.

6-Assessment of Physical intervention in Al-Darb AL-Ahmar

	Elements	Assessment	Assessment Statement
Policies for conservation and rehabilitation of historical areas according to the charters and international treaties	Revitalization of fabric and fill	Good	well conservation of fabric ⁽³⁾
	Conditions of Preservation, restoration and rehabilitation for historical buildings	Average	use of reinforced concrete beams in rehabilitation of houses. ⁽¹⁰⁾
	Preservation of architectural and urban character	Good	
	Preservation of historical and cultural buildings	Good	
	Development of border areas, adjacent to the historical regions, so as to reduce the negative impacts of physical aspects.	Weak	
	Development control of changes and new additions	Weak	
	Urban Rehabilitation	Infra-structure network repair	Good
Improving residential environment		Good	
Rehabilitation of deteriorating elements		Good	
Optimization use of uninhabited places		Weak	only Building no. (69) ⁽⁵⁾
Connected by the city roads network		Not exist	
Transfer workshops polluting the environment outside urban boundary		Not exist	
Providing of parking spaces		Not exist	
Implementation Process Strategies	Ensuring the completion of target residential buildings	Average	incomplete the target
	Ensuring the completion of target public buildings	Average	incomplete the target
	Ensuring the completion of target open spaces	Average	incomplete the target
	Identify groups of the adjacent residential	Weak	scattered
Socio-Economic Development	Improving the economic and environmental current situation.	Good	
	Supporting the local economy by reviving the traditional functions of appropriate investment promotion and tourism	Good	
	developing professional skills, traditional construction skills	Average	not development for the traditional construction skills ⁽⁶⁾
	Supporting and development of economic activities.	Good	
	Supporting awareness of heritage among the population.	Good	
Fund	Supporting with funding bodies for implementing of the project.	Good	
	Providing systems to ensure continuity of funding completing the project	Not exist	Not providing funding for the project until the end
Governmental support & participation	The commitment of government to enact and enforce laws and legislation to help the project during its implementation and after completion.	Not exist	
	Ensure the commitment of government agencies as the project model to be circulated in all regions of AL- Darb al-Ahmar.	Not exist	Lack of governmental agencies commitment
	The existence of a system to ensure the cooperation of local bodies with the population of AL- Darb al-Ahmar.	Not exist	

		Elements	Assessment	Assessment Statement	
Community Participation	A plan to ensure community participation in maintaining the project after completion		Not exist		
	A plan to ensure continuity of participation by inhabitants funding the project to complete all regions of Al-Darb Al-Ahmar		Not exist		
	The presence of NGOs concerned with aspects of development and rehabilitation of urban areas.		Not exist		
Sustainability trends	Sustainable conservation of elements of heritage.		Average	For public and archaeological buildings only ⁽⁴⁾	
	Sustainability of maintenance.		Not exist		
	Sustainability of development and rehabilitation.		Not exist		
Maintenance	A plan for the maintenance of buildings and sources of funding		Not exist		
	A plan for the maintenance of infra structure and sources of funding		Not exist		
	A plan for the maintenance of public spaces and sources of funding		Not exist		
Rehabilitation Techniques	houses Rehabilitation	Material		Average	reinforced concrete beams in the ceiling, ⁽¹⁰⁾
		Rehabilitation Techniques	The work of strengthening and consolidation of the elements of construction	Good	
			Work of rebuilding to the original character	Good	
			The work of completing the missing parts	Good	
	Monuments Buildings	Material	Materials compatibility with the original construction materials	Good	
			Meet the minimum maintenance times		
		Rehabilitation Techniques	strengthening works	Good	
			keeping original character	Good	
			completing the missing parts	Good	
			experts on the restoration works		
		Rehabilitation & Reuse		Good	
	Public Open Spaces	Material		Average	some changes in material (basalt stone replace by cement interlock tiles)
		Works of the development of Public Open Space		Average	future maintenance of networks not considered.

Table (5) Shows Assessment of Physical intervention in Al-Darb AL-Ahmar

Conclusion:

1-Physical intervention in the Al-Darb Al-Ahmar has several positives including the development of infra structure networks, and conducting the restoration of historical buildings and archaeological region , the project aimed at rehabilitation of some residential buildings, public buildings, public open spaces and reusing of some public buildings .

2 - The project aimed to preserve the traditional crafts in Al-Darb Al-Ahmar and protect them from extinction, such as crafts related to wood, copper and leather products.

3- The project supported the popular participation processes to implement of community development programs in order to upgrade the deteriorating urban areas, socially and economically.

4 - The following elements are considered as negative aspects of the project:

- The project did not achieve all the target buildings and public open spaces , the project achieved 16.7% of the target rehabilitation houses, 29% of target public buildings, and 77.9% of the target public spaces.

- The government bodies did not implement the infra structure networks which had implemented by the donor (AGA KHAN Trust for Culture) that led to increase financial burden on the donor.

- The absence of a strategic plan for maintaining the items that had been rehabilitated, such as buildings, public open spaces and infra structure, may lead to some a few deterioration.

- There is no legal agreement or contracts of financing the project to ensure continuity to complete the project.

- Rehabilitation techniques used were expensive, and consume large amounts of fund.

- The physical intervention of residential buildings adopted only on the willingness of the beneficiaries and owners, without taking in consideration the negative effect to the urban region in the case of the unwillingness of some of the beneficiaries to rehabilitate their houses, which led to the existence of houses has not been rehabilitated adjacent to rehabilitated houses that created a bad visual image of the region.

- The absence of a plan for the sustainable of rehabilitation work in the future.

Recommendations:

1 - Achieving some agreements with funding quarters to complete development and rehabilitation of all regions of Al-Darb Al-Ahmar .

2 - Inclusion of a plan for ensuring the continuity of maintenance of residential buildings, public buildings, public open spaces and infra structure, that plan is supervised by government bodies and includes the technical aspects and the required funding.

3 - Using archaeological and historical buildings as a tourist attractions to generate a return on financially contribute to the processes of development and rehabilitation.

4 - Enacting necessary laws by governmental bodies to ensure the spread of experience in historical Cairo regions with the participation of the entire population.

5 - Establishment a center for the development the traditional crafts of the accurate restoration work, residents of Al-Darb Al-Ahmar, which increasing rate of development ,rehabilitation processes and making more employment opportunities for the population of the Al-Darb Al-Ahmar .

6 - Activating the role of popular participation through the establishment of civil associations of residents of the Al-Darb Al-Ahmar attach a great importance to conservation processes and community development.

7 - Development of legislation and laws for the new construction within the area of Al-Darb Al-Ahmar to ensure maintaining the general character of the historic area.

8 - Improving the economic situation of the population of the Al-Darb Al-Ahmar through the establishment of productive projects which increase employment opportunities for inhabitants.

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