



Prevailing Value System Based Context, Adaptive Reuse

Hanaa Moosa Issa Moosa¹

¹The Higher Institute of Engineering at Shorouk, Architecture Department Cairo, Egypt

Abstract

The local problem in Egypt concerns the absence of balance between benefiting the community throughout the buildings' new uses and conserving them. As in many cases, either the concept of museamizing buildings within the absence of visiting museums culture, or reusing the building in a vital function to the community such as schools. Within the second case a lot of destruction is caused due to absence of reuse codes, lack of awareness of cultural value for both users, and the administrative practices and vision.

The research conducted a number of analytical stages. Through the analysis, it is concluded that there is a more comprehensive context than the known ones representing the generally prevailing value system in the community and its continual changing of the other contexts and their direction of change.

An Adaptive Reuse Classification of 6 types will be reached after the analysis of a number of cases, in which every type is identified and ways of how to achieve the purposed balance is concluded. A methodology is formulated in order to reach a balance between getting the benefit of the heritage building and conserving it. Finally, a case study will take place.

© 2018 The Authors. Published by IEREK press. This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>). Peer-review under responsibility of ESSD's International Scientific Committee of Reviewers.

Keywords

Adaptive reuse; Value system; Adaptive reuse classification; Prevailing value system methodology

1. Introduction

This paper aims to provide an adaptive reuse methodology to achieve balance between fulfilling the real needs of the community within conserving heritage. It helped a lot when it was noticed that there were cases of reuse which occurred collectively where quantitative cases of reusing a certain building type in a certain period of time took place in a certain country. Analyzing these cases was a benefit to the research as it supported an approach concerning the mutual relations between the contexts affecting the process of building reusing. This concluded contexts relations were followed by another phase of studying individual cases which lead to a classification of reusing buildings.

2. The Collective Reuse Cases

It is natural that changes occurs to nations, these changes could cause reusing buildings in-order to adapt with the new conditions. Sometimes the changes are really major that would lead to the reuse of large number of certain buildings' types at a certain period of time as in industrial buildings in Canada, Palaces and Mansions in Egypt,

Churches in the United States of America and Germany, and the case of schools in Australia, the United States of America and Portugal. The following discusses three of these cases as an initial stage of the paper's methodological analysis.

2.1. Residential Buildings (Palaces in Egypt)

One of the most significant cases in Egypt was reusing the palaces of the royal and elite built during the Mohammed Ali's dynasty. First, it is important to mention that the trend of reusing royal and elite palaces took place through two different periods of time. The first, was during Khedive's Ismail regime where he decided to continue Mohamed's Ali pasha policy concerning the Egyptian renaissance where education was a main issue to support. The second was after the pass of the nationalization decree to guarantee and achieve the 1952 revolution goals of social equality, education and others.

Although political views played the major role in both cases, but the results were different; as it was obvious that huge harm caused the reused palaces after the 1952 revolution. Therefore, it is concluded that other factors may have impacted the community's values towards the reused palaces which in return affected the actions towards the buildings and so their physical state. These other factors were the changed social and culture contexts, as significant differences occurred within the time between the two periods.

Starting the khedive's Ismail regime till the 1952 revolution there was a state of appreciation and a community's sense of ownership towards the palaces as at that time Ali Pasha Mubarak was the minister of both the *Awkaf* and the Education ministries, as he reused the abandoned *Awkaf* buildings as schools. Also, the community had their share of supporting education through donating unused palaces, as what Tousson Pasha did with his palace named after him in Shobra neighbourhood. The target was to support more schools for the children of the poor who cannot afford the fees, as the poor paid low rated fees and the rich paid expensive fees, while all of them were attending same schools. The same target and aim came back again after the 1952 revolution, but the reuse took a wider scale and different perception of the community, where they considered the palaces as a refund of their taken rights and properties. This sense of refunding got a negative impact towards the palaces as the ongoing cultural change of that time supported the separation between the community's present and history from the whole period of Muhammad's Ali pasha dynasty and considered them as invaders. Study cases: Casdagli palace, Shweekar hanem palace and Aboud pasha villa were reused as schools (Moosa, 2008; Negm, 2002).

2.2. Religious Buildings

As mentioned in the introduction, analyzing these cases generally lead to conclude the concept of main and sub contexts affecting the reuse process. In the United States of America and a number of European countries as Germany, number of churches were reused either partially by hosting other suitable uses beside the religious, or totally by a full re-occupation of another new function. It was found that the main reason of stopping the old use in all studied cases was the economical factor as the churches' administrations were not able to fund the use anymore. That economical factor has been affected by other contexts as; the social context which had the greatest impact to prevent the continuity of the function represented in the internal migration, unemployment, the inability to pay taxes or donations. The cultural context also had its impact as the change in the religious beliefs caused the loss of a huge number of worshipers who used to donate, besides the high costs needed for the maintenance and the variance between the high values of the land in comparison to the building's value. Finally, the political factor had an impact in the United States of America where the separation between state and religion forbids churches of any official financial support unless very few cases. Study cases: In Germany, Sankt Marien in Müncheberg is reused as city library, Sankt Maximin in Trier is reused by two schools as a gym and for concerts and events, Sankt Bonifatius-Kirche in Münster reused is as a library, Heilig-Geist-Kapelle is reused as religious library, Bethlehemkirche in Hamburg Eimsbüttel is reused as a nursery, Sankt Alfons in Aachen is reused as library and Martinikirche in Bielefeld is reused as a restaurant. While in the United States of America the city's

adult educational center regularly uses the church for events and exhibitions, Sacred Heart Cultural Center in August is reused to host events, McColl Center for Visual Art in Charlotte is reused as Visual Art’s Gallery and Artists Studios and Meridian Arch in Indianapolis is reused as residential units (Leug, 2011).

2.3. Industrial Buildings

The evacuation of industrial buildings within the cities in Europe was a result of two main factors. First, the social and environmental trend of conserving residential areas out of any pollutants. Second, the technological evolution concerned in the easiness of mobility, increasing number of cars and the evolution of manufacturing equipment where in return the urban context was affected. The reuse cases took place in USA , Canada and Europe. Study cases: In Canada, the Tip Top Lofts is reused to residential condominium units (Context Developments, 2009), Toronto Carpet Factory is reused as an office space housing more than 150 businesses ranging from video production companies to law firms, Consumers Gas Station is reused into the headquarters for the 51 Division of the Toronto Police Service and the site and finally, buildings of the Don Valley Pressed Brickworks were situated to house a large-scale environmental community centre and national hub for sustainability (Wilson, 2010; Cantel, 2005).

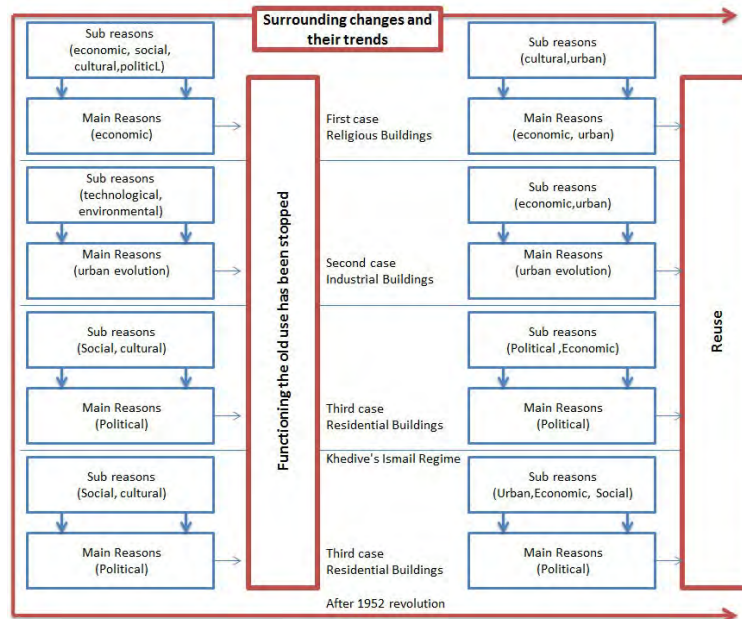


Figure 1. Contexts in their main and sub states affecting collective reuse cases

3. Contexts Affecting Adaptive Reuse

After analysing the three quantitative cases of adaptive reuse mentioned above, it is found that the stop of the original use resulted of a main context affected by other sub contexts. See Figure 1. These contexts are: Politics, Urban, Economics, Cultural, Social, Technological evolution, Others).

The following shows the issues where each context could affect the adaptive reuse through.

— Politics could be represented in the main political goals, policies of general development, heritage conservation and legislation, partnership programs and the related stakeholders.

— Urban: the urban tissue and its physical state of buildings, streets, green areas, etc, the fulfilling of the community needs. The urban context itself has also got aspects to affect it such as politics, policies, cultural, social, economic, and urban as its physical state.

- Economics: as the main economic conditions and policies, funding resources, the economical resources and activities in the urban.
- Cultural: the cultural tourism which enhanced conservation (adaptive reuse), cultural perception of community considering heritage.
- Social: the social class of the surrounding community or users.
- Technological evolution: as in the impact of different sciences on different fields (the most famous are scientific, technological and economic as shown in the case of the industrial buildings reuse case).
- Others: as in management tools and stakeholders. And this is wide open to any other aspect to be added.

All of these contexts affect each other within a more comprehensive context representing the direction of change which leads to the stopping or launching uses. This context is the prevailing value system of the community. This system does not only contain the process of change, but it is also a part of the change where there is a dynamic mutual effect between it and the other contexts. This effect causes a continual change to all involved contexts. See Figure 2.

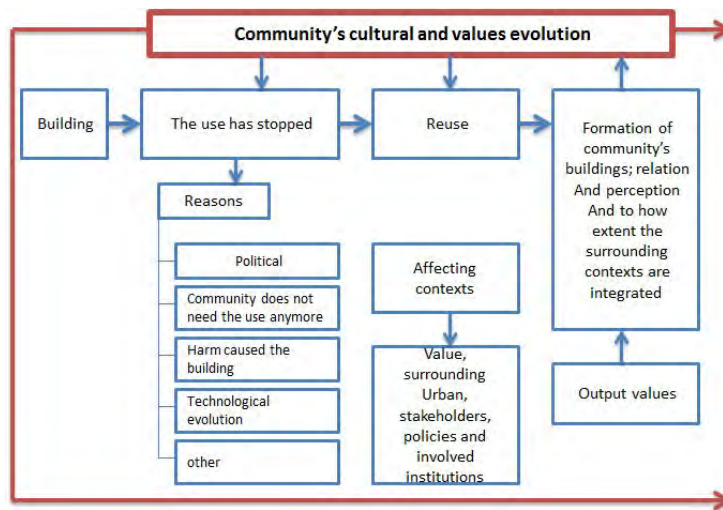


Figure 2. Impact of the community evolution to AdaptiveReuse

4. Values

The heritage conservation researches always mentioned the values in means of the perception concerning the building itself or the surrounding urban. The classifications and definitions of values were set through: The international community in which defines value through charters, recommendations and classifications as in the world heritage list and OUV outstanding universal value by ICCROM. The National State's laws and legislations as in Egypt law number 144 for the year 2006 in which value was defined in 5 different types, the Non Governmental research institution which would support the state with needed researches and also values classified by researchers and professionals. This research is about to adopt an aspect of values represented in the following:

First, the community's values where they are presented in the main and ruling intellectual public opinion of the community (prevailing value system) as in the concept of materialization and not just presented in the awareness towards the heritage buildings where it does affect the direction of change, presents the comprehensive context where a mutual effect takes place between it and the other contexts.

Second, values are introduced as outputs and inputs. Any case of adaptive reuse has got inputs resulted out of the surrounding changes in which decides the community's opinion towards meant by cases; starting the building itself following the community's appreciation to the old and new uses and the other whole contexts. These inputs were the out puts of the previous life of the building, and it is expected to predict the outputs of the upcoming reusing

after interacting with new changes .

Third, value(s) required to be “planted, vanished or strengthened” through adaptive reuse projects. As a result of the outputs and inputs concept, selected values could be controlled through reuse, and that what is meant by “planted, vanished or strengthened”.

5. The Classification of Adaptive Reuse Projects

The following classification has been based on studying several projects implemented nationally and globally. The analysis made by the author was based on observing the architectural vocabulary in which supported the aimed balance between conserving the building and benefiting the community. The criteria where the projects were analyzed upon are (Conserving the high valued building, methods implemented, Benefiting the community through the function, Serving the community morally (if the building is attached to a community’s moral value, additions took place to the project), and as a conclusion of the analysis; six categories of adaptive reuse were resulted. Each category will illustrate the potentials; where upon them this category could be chosen to be the trend of reusing a certain case, and the needed elements to achieve balance.

5.1. Category (1) Reusing Buildings Related to an Outstanding Significant Change

Buildings related to a revolutionary incident, which affected the surrounding community. These buildings could be reused in a way which keeps the history memorized within the architectural metaphors.

Studied case: This category has been concluded after analyzing the case of the Reichstag . (Cope, 2001)

Factors defining potentials and balance elements: The German have a high sense of awareness towards their history and local character, it was obvious through rebuilding their country after the World War II where they have chosen to rebuild their cities and keep on their history within expressing the new vision. This concept is applied on the case of the German parliament building where the community is aware of their history and previous use as a residence of imperial diet then as a parliament during the Nazism regime. Correcting the path has been symbolized through adaptive reuse and additions made to the building that reffered to their new vision of being open to the world stated in the glassed added dome and exhibiting the photo of the soviet soldier raising his country’s flag on the Reichtagg building in WWII announcing at that time the German’s loss of war. The reuse also relied on the concept of the multi uses as beside that the building is used as a parliament, it has other cultural, entertainment roles in addition of creating green areas . This multi use trend distinguished the project and could be considered as a vital balance element between the main funtion and the community’s perception and needs .

Potentials enhanced a successful reuse within this category: The building’s symbolism related to a revolutionary event which in return affected the roots of several society aspects.

Elements to achieve balance

- Using the power of symbolism through its continuity, can be revealed in two ways. First, the existence of community’s awareness of the building and the related event. Second, the symbolism of added architectural elements.
- Multi use of the building, as multi uses may support both the historical aspect and the new concept needed to be addressed.
- Timing: balance could be achieved easily as long as the reuse takes place before the community looses the awareness towards the building and the related incident happened.

5.2. Category (2) Reusing Buildings Related to a Main Development Strategy

It is the category of reuse in which supports a main development strategy to the community.

Studied cases: This category has been concluded after analyzing the case of the Ferry building in San Francisco

(equity office, 2016), the Reading Terminal in Philadelphia, Pennsylvania (Jefferson, 2005), United States and Bishop Square in London, United Kingdom (Bishop-square, 2017).

Factors defining potentials and balance elements: All of the cases have in common a public/ private partnerships, they serve the community within both the old and new uses, they serve economic goals and have investment opportunities, the technical evolution affected the old uses of both rail terminals, as the ferry building and the reading terminal where they were affected by the technological evolution and the increase of vehicles numbers through the years. The three of them were distinguished by stable contexts of politics, economics and values concerning the buildings and their uses from the community's perception point of view. The continuity of the old use only took place in the Ferry Building and Bishop Square, where the first still has its use as a terminal to travel across the San Francisco Bay, besides the new use as a market place, and the second kept the old market, built the new commercial headquarters, supported a space for the residents with an open view to the new covered pedestrian lined with shops route which opens up with the views of Christ Church Spitalfields. As for the Reading terminal it was reused as the new convention center main entrance, afterwards reusing of more trends took place as now the building serves as a market. (The reading terminal market, 2017).

Potentials enhanced a successful reuse within this category: The reused buildings have significant impact on the daily basic needs of the community.

Elements to achieve balance:

- Support the old use through the new one.
- Community have a distinguished role.
- Public / private partnership in talking decisions concerning design and funding.
- Project's new use should achieve the revival of the building's old role towards the community.
- Achieve economic benefit through using the surrounding resources in order to overcome the impact of the technological evolution affected the old use.

(NOTE) All the projects are distinguished by stability concerning politics, economics, investment jobs, public/private partnership

5.3. Category (3) Reusing Supporting a Basic Community Need

It is the category of reuse in which supports a basic use to the community as education, residency, hospitals or others.

Studied cases: This category has been concluded after analyzing the cases of the Flagler college hostel (Hotel Ponce de León) (flagler, 2016) and reused Egyptian royal and elite palaces built during Mohammed Ali's dynasty (Rafe'i, 1982).

Factors defining potentials and balance elements: First it should be mentioned that both cases are totally opposite concerning the policies of funding, maintenance and conservation; where the Egyptian case didn't meet the aimed balance between benefiting the community and stay conserved. As the schools in Egypt are classified according to their construction dates by the meant authorities, so the royal and elite palaces are included within the oldest category comprises buildings established before year 1950, where maintenance and additions done to accommodate the educational use does not meet any consideration to the value of the buildings and does not distinguish them than the other new built schools. While the reuse of the Hotel Ponce de León and its rehabilitation took place according to a studied plan. Both are considered to use real estate wealth in order to serve the community.

Potentials enhanced a successful reuse within this category: Buildings served public basic community needs, and their designs are distinguished to be flexible to be reused to serve large number of users.

Elements to achieve balance:

- Income and maintenance.

- Conservation legislations and organizing issues.
- Economic context: get benefit of a large scaled, flexible designed unused asset.
- Community awareness of the building's value.

5.4. Category (4) Reusing Related to Economical Investment

This category is a special case itself it could be considered as a conserving strategy itself.

Studied cases: This category has been concluded after analyzing the case of the Zhuyan house in Beijing(bamboo garden hotel, 1982), the Reading Terminal (Jefferson, 2005) in Philadelphia, Pennsylvania, United States and the pump house of Kununurra in Australia(pump house, 2017).

Zhuyan house, before being reused as a hotel was the house of the Minister of Posts of the late Qing dynasty, what is distinguished about the project is that it took place in 1980 where the conservation trend was not followed yet and a lot of destruction caused old Beijing. The other case is the abandoned pump house in Australia in which it was reused as a restaurant and the reading terminal where it has been reused as a convention centre.

Factors defining potentials and balance elements: All had in common this factor; that a pure vision of the investor took place within the needs of the context where the hotel served a historical context and a touristic target, as for the restaurant the surrounding water and the exceptional experience of eating within an interior of an original pump station of iconic structure while watching the teeming fish. And at last the convention centre where it enhanced an existing use of the city and became the main entrance of the convention centre also supported the visual view of the Marriott hotel to be a fine view instead of an abandoned building.

Potentials enhanced a successful reuse within this category: No special qualifications were traced but it should be a place of significance with a special use or it could be a building within a regular use within the urban it could depend upon investors' perception.

Elements to achieve balance:

- Investing projects is considered to be a balance tool itself where maintenance is not a problem due to the available fund.
- Supports a main economic strategy.
- Uniqueness, courageous aspects of the idea itself.

5.5. Category (5) Absolute Conserving Trend

This category of reuse limits the interaction of users to the building, so the use could be considered as a conservation tool itself. Uses could be a museum or a cultural centre or any other related use.

Studied cases: The museum of the southwest civilization Gaoua Burkina Faso(Unesco, 2006), was originally built for colonial functionaries. The building is reused to hosts a collection of about one thousand ethnographic objects. And the cultural palaces in Egypt (Cultural Development Fund(CDF),2017) as El Suhaymi House is reused as creative center, Al-Ghuri Complex is reused as Wekalet El Ghouri Arts Center, Manastrly Palace is reused s International Music Center , House of Sit Wasila is reused as Poetry House , Bashtak Palace is reused as Arab Singing House, Beit Al Eini is reused as Children's Creativity Center, Harawy house is reused as Arab Oud House, , Ali Labib House is reused as house of Egyptian architecture and the Prince Taz Palace is resued as a permanent exhibition of the artist Engy Aflaton . The mamluki *beyot* (houses) to serve pure cultural purposes after their renovation .Also the case of reusing the Zihlua temple in Beijing as a museum with a small number of visitors and the absence of activities related to the exhibited age.

Factors defining potentials and balance elements: There are limited possibilities of uses as the buildings are distinguished to be high valued. The number of visitors may affect two aspects, the first is the income where in return

affects the maintenance, and the second is about the power of the cultural role of the buildings supposed to fulfill. In case of the Zihlua temple, the low number of visitors affects the balance between benefiting the community and conserving building. As for the Egyptian cultural palaces, they have a very special influence to the community of cultured and talented people in different fields, and that explains that most of the users are not the residents of the surrounding urban. But that does not mean that the residents have zero interaction as their existence within a historical touristic context make them familiar of the culture of appreciating heritage and arts, in addition to that their main income used to be out of tourism and hosting visitors. So, that proves the importance of having a benefit out of heritage existence even if the main intellectual trend of the community does not appreciate heritage and that what will result later *the importance of having both active and passive adaptive reuse methods*. Unfortunately there were no definite information about the community's perception in Burkina Faso towards the museum of southwest civilization and the importance of the exhibits to their nation's history.

Potentials enhanced a successful reuse within this category: The potentials of indicating buildings applicable to this category is the building's outstanding value itself, the community's awareness of that value and its important role to them.

Elements to achieve balance:

- Economic :supporting income to afford maintenance and the continuity of the use.
- The use should benefit the community and not being just decided to conserve the building, and limiting the interaction of users to it.

5.6. Category (6) Exceptional Incidents

This is a category of special and sudden circumstances as in wars, occupations or revolutions where the urgent need of some uses suddenly exists as urgently field hospitals, it is not meant by just buildings but also the needed open spaces and fields.

Studied cases: the Al- Zaafran palace has been occupied by the British officers as a headquarter (Negm, 2002) to them after the British occupation to Egypt in 1882.

It is not applicable to represent potentials enhanced a successful reuse or balance elements due to the category's specialty.

6. Proposed Methodology to Adaptive Reuse Projects

This methodology is a direct reflection of a trend which aims to conserve the local identity and history within the context of the contemporary needs. But first it is important to mention the three main axis of the adaptive reuse process. See Figure 3.

Building : The building has two aspects of impact, the first is the physical state and its embedded values, building's potentials, adaptability, re-design ability, while the second is represented the intangible dimension as in the community's general awareness, the prevailing value system forming the cultural pattern to the building and the surrounding urban.

Use: Each of the previous categories (excluding the sixth) could be implemented either in an active or a passive way. The reason to decide whether to choose any of them is related to the level of awareness of the community towards the building aimed to be reused. The active method suits the case of the existence of the community's heritage awareness. So, the study shall include the normal physical aspects defining building's potentials as symbolism, location to urban, area, volume and design, and also community Primary needs, needs, ongoing developing strategies community, project's scale and others in addition to the mutual relation between the use and community's awareness.

Where the indirect use (passive method), will be suggested in case that the community have a problem concerning

heritage awareness. So, in order to achieve the balance; a conditional link shall exist, to develop a new approach of awareness towards heritage. First, the community’s common intellectual trend of thinking should be defined, so as instance if it is materialistic, then the use should offer benefits fulfilling the materialistic need in order to enhance the building’s value once more within the community. The study then shall include any changes resulted out of politics decisions, economic state, urban changes, social changes and others and their relation to the comprehensive value context. As a more specific example; if a special cultural or social context of a community is represented in the revival of a certain craft, it should serve an income to support the economic context representing the suggested materialistic trend. Or the community should decide the activities or the way they could get benefit out of the use and building, as an application to the should be existing role of the community as mentioned in the ICOMOS New Zealand charter in 1992.

Community: Community’s perception towards the building, where awareness creates a mental conservation barrier, where the community itself does prevent any harm that could occur. This perception is based on community’s value system, which in return affects the adaptive reuse category.

Constants and variables: The adaptability should not be wide open, so constants which should be kept must be set as conserving urban style, compatibility of used materials to the original ones, conserving any heritage concerning the greenery as in old trees and landscapes, Sculptures paintings and high valued interior elements and others. While variables as factors needed to accommodate the contemporary life style should take place as instructional supports, technological additions, A/C, electricity, divisions, security, users’ health and others Constants are set according to the building’s value itself.

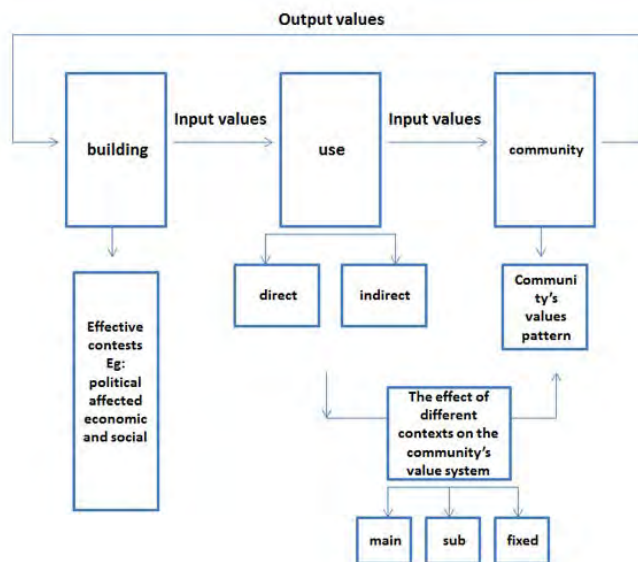


Figure 3. The basic elements of reuse within the adaptive reuse

7. The Stages of the Methodology

This methodology is divided into three main stages; the wide context stage, the limit context stage and the technical studies stage. See Figure 4.

The wide context stage is the stage where a comprehensive study takes place to specify the affecting contexts through understanding the value context , its direction and the surrounding context, categorizing contexts (as mentioned above in contexts affecting adaptive reuse)to main and sub contexts, decide adaptive reuse methods (Active, passive) and the Adaptive reuse field out of the five categories (reusing buildings related to an outstanding signif-

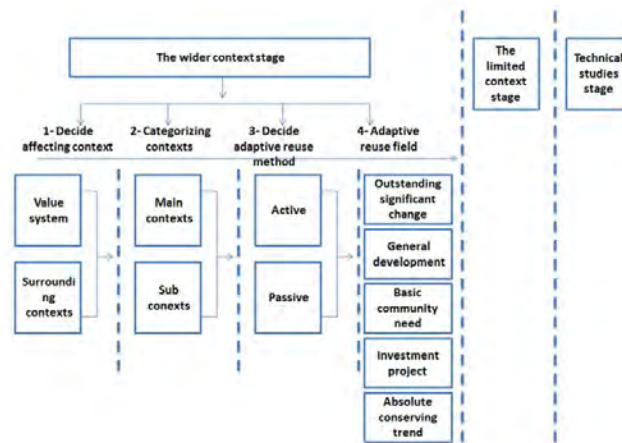


Figure 4. prevailing value system based, adaptive reuse methodology

change, reusing buildings related to a main development strategy, reusing supporting a basic community need, reusing related to a general development, absolute conserving trend).

Then the limited context stage is the stage where an adopted strategy of differentiating between suggested uses related to the chosen category as intellectual Capital Model (Alauddin, 2011), development toward adaptive reuse sustainability, adaptive reuse potential model (ARP) (Conejos, 2011), the use comparator system (Kincaid, 2002) or any other adopted methodology. It is important to mention that choosing the strategy depends upon the trend adopted by the meant by authorities or researchers.

Then the stage of technical studies takes place to achieve a more accurate degree of differentiation and supports the detailed technical needed interventions.

8. Study Case (The Case of Abandoned Nubian “Madiafa” Buildings)

The Nubian people represent an example of one of the most strong bond between culture and urban especially before their displacement to another land. Their daily cultural life, beliefs and ethics as privacy and cleanness, the importance of the Nile to them and other values were translated into the fields of art, architecture and urban. Their main income was based on cultivation of dates. The displacement took place through several stages; the last one was in 1964. The early Nubians to be displaced were the luckiest as they had the chance to build their new settlements as the same way they used to live in, but within much more smaller areas (Serag, 2013). The major problems faced Nubians who were displaced later, as their culture was totally ignored to be put in consideration in their new homeland, and houses (Mahgoub, 1990).

After the region became repulsive to the population; serious threatens aroused concerning the continuity of the Nubian culture, as the dispersal caused the Nubian society where the people are forced to leave their land as a result to the harsh surrounding conditions. Although the Nubian voice has not been absent since the displacement in demanding the right of return and the restoration of their lives, and they have already obtained the article of the Constitution of 2014 which provides their right to return to their motherland, but there are some voices of young generations wondering about their ability to adapt to the new (authentic) agricultural community after being born away from their land, and these voices have the right to live in the place they desire beside preserving Nubian culture as well. The survival of this community must be supported by the present potentials in order to support the existing serious solutions to priority problems such as the irrigation problem, the provision of fertilizers (which is the responsibility of the Ministry of Agriculture and the Cooperative Society), the struggle of the displaced Nubians for their own exploitation from the black market and the intermediary traders, and by unifying the prices

of the sale of the crop or even the purchase of the fertilizers, which should be set by the State itself, as the prices does not cover the costs. Despite the existence of a special association of sugar cane producers, the problems have not been resolved in addition to the questions raised in the People’s Assembly regarding them (Awad, Islam & Taher, 2016). As well as the need for workshops and exchange of scientific and knowledge on agriculture among countries as recommended by some studies (Shetawy &El-Shafie, 2013).

Buildings potentials The madiafa, was once an architectural space in the Nubian house and had a high valued symbolism in the Nubian culture, even after it has been separated from the Nubian house to be a separate building after their displacement. The Madiafa used to have a significant impact on the daily basic needs of the community concerning the hospitality, cooperation and the community’s solidarity.

Affecting contexts Architectural and urban new contexts had negative impact to the Nubian lifestyle, value structure and the social context, as the families were located in their new homes according to number of children in every family , so the brothers families’ were separated which is considered to be a serious issue to happen. The madiafa which was used to be a part of the Nubian house where it had a high social benefit and ethical symbolism as it is used to be always open to visitors any time. The small spaces between the new houses also affected the used to be existed privacy.

The economic context was majorly affected as the dates cultivation was replaced by the sugarcane where they had no experience concerning that, also the land on which the buildings were built on consists of silty soil which has caused cracks to buildings, so they should be repaired every ten years and that enhances the sense of instability. As for the economic context also, the sugarcane farmers suffer from problems as the shortage of irrigation water, fertilizers and diesel needed for transportation, which provides the opportunity to exploit the black market for fertilizers and diesel, in addition to exploiting traders and intermediaries during the sale process of the crops. At the level of the cultural context they lost the sense of safety, privacy, social cohesion and others. And it wasn’t easy for the Nubians to get involved with another society of different culture in Upper Egypt. As a result the social context was affected, as a lot of the citizens had to travel searching for jobs to afford the new needs, and that in return threatens the Nubian culture, also the Nubian language is no longer inherited the same way as in the past as Nubians are engaging other societies. See Figure 5.

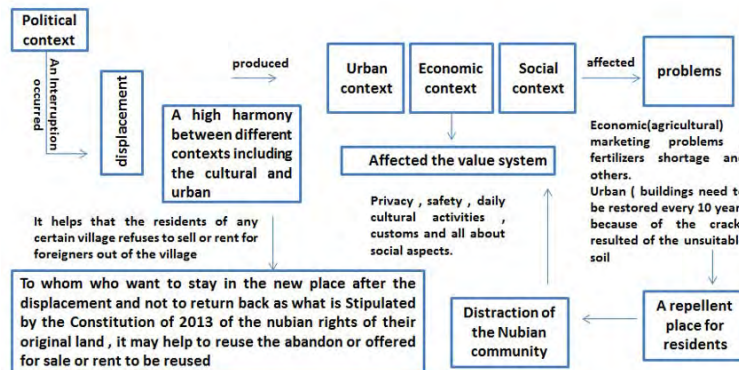


Figure 5. Analysis of the contextual pattern of the NubianCase

Categorizing contexts affected the building’s use : The political context is considered to be the main context to affect the building , and the sub contexts would be concluded as the urban, economic, social where they were affected by the political, and in return affected the value system.

Decided adaptive reuse method Active: as the community already has the awareness of the value of their urban, buildings and needs

Adaptive reuse field. The proposed reuse could support main development strategy as the Madiafa building has significant impact on the daily basic needs of the community.

Elements to achieve balance supposed to achieve (Support the old use through the new one , Community have a distinguished role , Public / private partnership in talking decisions concerning design and funding. , Project’s

new use should achieve the revival of the building's old role towards the community. Achieve economic benefit through using the surrounding resources in order to overcome the impact of the technological evolution affected the old use.

The proposed trend of reusing in order to match the achieving balance elements: The original use could evolve in means of the new circumstances so, it is suggested that *madiafa* would be a headquarter of a representer for the whole village to deal with the black market brokers of needed fuel to transport the harvest for the villages depending on agriculture, instead of the individual deals. And as for villages depending on tourism the use could enhance tourism attraction aiming of local development. The community's impact is clear when they refused to sell their properties to people other than Nubians, and is totally applicable to have a private / public ownership for decision-making and funding the projects, between the community and the state's authority.

9. Conclusions

This research is driven out of the local case in Egypt, where the problem occurs. A local based methodology is needed to deal with the problem, as most of the cases lack to achieve the balance between fulfilling the community's needs and conservation. So, the stage of analyzing different case studies took place in terms of searching common criteria in which provide local and international reuse projects to achieve balance. First, the researcher analyzed the quantitative reuse cases, as it was found that number of buildings of the same type were reused in a limited period of time in a certain country. Through this analysis an observation was concluded concerning the impact of the surrounding contexts within the mutual relation between them and the prevailing value system, in which effect the reuse process. The context could be sorted as the political, urban, economical, cultural, social, technological evolution and others: as in management tools and stakeholders. As for values; they are sorted through three categories, the first concerns the community's values and its direction of change, the second, introduces values as outputs and inputs and the third, presents value(s) as the required to be "planted, vanished or strengthened" through adaptive reuse projects.

Afterwards another analysis of other individual cases took place, by means of criteria involving the community's perception to the building, use and value. This analytical stage resulted adaptive reuse six categories, each one is presented in the paper in means of studied cases, factors defining its potentials and elements enhanced the aimed balance. These categories are reusing buildings related to an outstanding significant change, reusing buildings related to a main development strategy, reusing supporting a basic community need, reusing related to economical investment, absolute conserving trend and finally reusing within sudden occurring exceptional incidents.

The formation of methodology required a definition of the relation between its three axis, (community, use and buildings) and their mutual relation between each other, where the methods of interventions are decided according to the compatibility between the use and building, the harm that could be avoided to cause buildings depends on the community's way of perception towards the Building's value and finally, the relation between the community and use where it sets the Community's actual needs, its value and importance to them.

Each re-use project has its unique pattern as each, is impacted by its own surrounding urban fabric, economic, social, cultural and other contexts. The effect may be negative or positive, so the natural change of contexts will be classified as primary or secondary depending on the case's pattern and their role of impact to the whole value prevailing system and the reuse.

Adaptive reuse could be defined as, a value-driven process that has inputs and outputs, within a dynamic ever-changing context. Each case has its specific pattern in terms of its role of impact and effect. The limits of impact are not only confined by the immediate contexts of the use or the building as in the (finance, legislation, structural condition of the building, etc.), but are also influenced by the general surrounding contexts as in (the general political and economic situation of society and others). In which affects the integrity of the use and the building's role within the wider context. See Figure 6.

An application of the *madiafa* building in the urban settlements Nubian is presented, where it matched the second

category of reusing buildings related to a main development strategy. A further study of application cases in Egypt of the other categories already took place, could be presented in further researches.

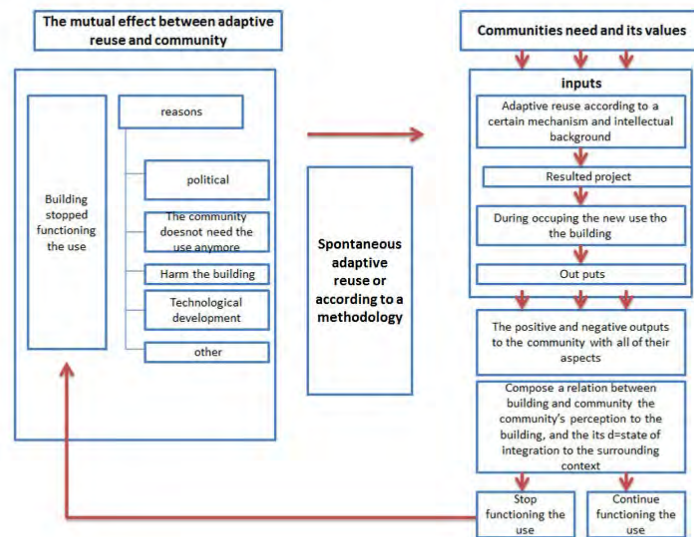


Figure 6. The cycle of Adaptive reuse

10. References

1. Al-Rafe'i, A. (1982). *Ismail's Era – part two*(4th ed.). Cairo, Egypt: Dar Al Ma'aref.
2. Awad, S., Islam, N., & Tahir, A. (2016, December 25). The sugar cane crisis worsens. Retrieved October, 2017, from <http://www.tahrirnews.com/Posts/printing/606095/>
3. Bamboo Garden Hotel Beijing. (1982). Retrieved October, 2017, from <http://www.bamboogarden-hotel.com/>
4. Barillet, C., Joffroy, T., & Longuet, I. (2006). *A Guide for African Local Governments. Cultural Heritage & local development*. [PDF]. Craterre-ENSAG / Convention France-UNESCO.
5. Bishop-square. (2017). Bishops Square — Foster Partners. Retrieved October, 2017, from <https://www.fosterandpartners.com/projects/bishops-square/>
6. Cantell, S. F. (2005). The adaptive reuse of historic industrial buildings: regulation barriers, best practices and case studies. *The adaptive reuse of historic industrial buildings: Regulation barrier, best practices and case studies. Master Thesis: Virginia Polytechnic Institute and State University, USA, 40*.
7. Catherine, S. J. (2005). *Adaptive Reuse : Recent hotel conversions in downtown Philadelphia* , (Master's thesis, University of Pennsylvania, 2005). Faculties of the University of Pennsylvania.
8. Conejos, S., Langston, C., & Smith, J. (2011). Improving the implementation of adaptive reuse strategies for historic buildings. In *Le Vie dei Mercanti S.A.V.E. HERITAGE: Safeguard of Architectural, Visual, Environmental Heritage*. Gold Coast, Australia: Institute of Sustainable Development and Architecture. Bond University.
9. Cope, R. L. (2001). Housing a legislature: when architecture and politics meet. *Papers on Parliament, 37*, 1-48.

10. Cultural Development Fund (Ministry of Culture, Egypt). (n.d.). Retrieved October, 2017, from <http://www.cdf.gov.eg/>
11. Deutscher Bundestag. (2012). *Visiting the German Bundesta. Information on services for visiting groups and individuals for the year 2012*[PDF]. Germany: Deutscher Bundestag.
12. Flagler college magazine. (2012, September 21). Preservation award given to Flagler in recognition of its work with the Florida East Coast Railway buildings. Retrieved October, 2017, from <http://www.flagler.edu/news-events/flagler-college-magazine/flagler-college-magazine/preservation-award-given-to-flagler-in-recognition-of-its-work-with-the-florida-east-coast-railway-buildings>
13. Garstka, B. J. (2012). *Holy renovations: Adaptive re-use and dependent stakeholder opinion of converted church buildings*(Master's thesis, Utrecht University, 2012). Faculty of Geosciences of, Utrecht University , Netherlands.
14. Hanaa, M. (2008). *The high Valued Monumental Educational Buildings As a Device to boost Awareness through upcoming Generations*(Master's thesis, Faculty of Engineering at Cairo University, 2008). Cairo, Egypt: Cairo University.
15. Kartina, A., & Kerry, L. (2011). Intellectual Captital Model Development Towards Adaptive Re-Use Success: An Analysis On Historical Development Of Case Studies. *Management and Innovation for a Sustainable Built Environment Conference , 20 – 23 June 2011, Amsterdam, The Netherlands.*
16. Kincaid, D. (2002). *Adapting Buildings for Changing Uses, Guidelines for Change of Use Refurbishment*(1st ed.). London: Routledge.
17. Lueg, R. (2011). *Houses of God. . . or not?! Approaches to the adaptive reuse of churches in Germany and the United.* (A Masters Final Project). Submitted to the Faculty of the Historic Preservation Program, School of Architecture, Planning and Preservation, University of Maryland, College Park: USA.
18. Mahgoub, Y. O. (1990). *The Nubian experience: A study of the social and cultural meanings of architecture*(Doctoral thesis, The University of Michigan, 1990). Michigan, USA: The University of Michigan.
19. Marei, L. K. (2013). *Revival of Mamluk Architecture in the 19th & 20th centuries*(Master's thesis, The American University In Cairo, 2013.). Department of Arab and Islamic Civilizations , Islamic Art and Architecture , The American University In Cairo.
20. Negm, A. (2002). *Princes; and Pashas palaces in Cairo city in the nineteenth century*(Vol. 1). Cairo, Egypt: Zahraa Al Sharq Publishing House.
21. Reading Terminal Market. (2017). Retrieved October, 2017, from <https://readingterminalmarket.org/>
22. Serag, Y. (2013). Nubian Resettlement Challenges Between past memories and present settings. In *Sustainable building conference SB13-Cairo 2013*. SBE Series.
23. Shetawy, A. & El-Shafie, M. (2013). The Myth of Nubia, Egypt: A Vivid Potential or Desert Mirage. In *Sustainable building conference SB13-Cairo 2013*. SBE Series.
24. The Ferry Building. (2016). Equity Office San Fransico. Retrieved October 2017, from <http://www.flagler.edu/news-events/flagler-college-magazine/flagler-college-magazine/preservation-award-given-to-flagler-in-recognition-of-its-work-with-the-florida-east-coast-railway-buildings>
25. The PumpHouse Restaurant. (n.d.). The PumpHouse [Picture of the pumphouse restaurant]. Retrieved from <https://www.thepumphouserestaurant.com/Photo-gallery.html>
26. Wilson, C. (2010). *Adaptive Reuse of Industrial Buildings in Toronto, Ontario: Evaluating Criteria for Determining Building Selection*(Master's thesis, Queen's University Kingston. Ontario, Canada, 2010). Ontario, Canada: Queen's University Kingston.