Abstract

The topic of this paper is part of the research field connected with the sustainability in the processes of urban management. For several years, this theme is the subject of studies and analysis by a lot of national and European political authorities. Specifically, we want to establish an innovative methodological approach to implement sustainability in the processes of regeneration of historical city centers and to determine priority areas of intervention and turn them into concrete project proposals. We started from a broad survey of the experiences of urban regeneration and the use of particular instruments of sustainability in the Euro-Mediterranean area; then we have examined in detail the historical center of the case study of Jableh in Syria.

© 2011 Published by Elsevier Ltd. Open access under CC BY-NC-ND license.
Selection and/or peer-review under responsibility of APAAS

Keywords: innovation; methodological approach; sustainability

1. Sustainable regeneration in the historical centers of the Mediterranean basin

* Corresponding author. Tel.: +39-010-353-2826; fax: +39-010-3532971
E-mail addresses: francesca.pirlone@unige.it

In the paper:
Federica Minetto gathered data and information for the historical center of Jableh and she identified indicators and best practices relevant to the case study. In particular, she described the mobility in the center of Jableh and she realized project proposals.
Francesca Pirlone has taken care of the methodological approach to a sustainable regeneration in the historical centers of the Mediterranean basin. Starting from the existing scientific literature and Euromediterranean experiences she has found, in particular, indicators and best practices aimed at planning interventions for historical centers.
The concept of sustainability in actually very important both in the choices that actions that must be considered in an appropriate and effective planning and urban management.

The inclusion of the concept of sustainability in land management is the way to strengthen environmental awareness and make real, within the same planning, values such as environmental protection and quality of life.

1.1. Approach and application

In this context, the theme of old town is very interesting if we want to analyzed the historical town of the entire Mediterranean basin, as we want to do in this paper.

It is interesting to apply the concept of sustainability in consolidated urban reality as the historical centers. In Europe in fact, much of the action "green" focused on building of new sustainable neighborhoods or review of parts of the city, in a modern way.

Actually, consider sustainability in the redevelopment of historic city centers is innovative and necessary, because it contributes to achieve the objectives of environmental reevaluation (pollution and improved quality of life), economic and social regeneration (best attraction tourism and the fight against unemployment), durable development in the sense of protection of environmental resources for future generations. Old Town is also a place of traditions, cultures, specific activities, which can be preserved and best enhanced, through actions for sustainability.

The intent of dealing with this subject derives primarily from the interest for a topic of great interest such as sustainability and the need to identify methodologies and tools to the assessment and monitoring in the territorial management. It is also essential the need to establish a comparison between tools, sustainability policies, methods of regeneration to determine a specific methodological approach to the historical centers, which can be translated into concrete planning actions.

Specifically, the work was designed to identify applied methodologies to analyze, plan and monitor the development of a specific historical center of the Mediterranean area, in order to facilitate and encourage the processes of urban regeneration which can be integrated and sustainable.

In recent years several Mediterranean cities have found themselves faced with the challenge of renewal, regeneration and economic revitalization of its urban areas: historic centers, suburbs, industrial areas,…. These experiences are characterized by different actions, situations and, approaches depending on the subject of regeneration. In particular the problem of historical center, that is place of most of its historical and cultural heritage of a city, was treated in many cases such as a situation developed and designed according to old logics and principles, as “turn the historical center into a museum”. The European Union, with the support of Member States (France and Italy in particular), has promoted neighborhood policies.

Lorenza Tomasoni dealt with the theme of historical centers in the Mediterranean basin and the existing policies, tools and specific Organisms. Even after specific inspections in Jableh and interviews with Local Authorities, she has taken care of, in particular, the application of the proposed methodology.
with States and Countries of the southern Mediterranean Basin\(^b\) and has stressed on the importance to do steps towards a new geographic area that is a Mediterranean area to promote and developed common strategies.

Currently the best known strategy at regional level is certainly the MSSD, (Mediterranean Strategy for Sustainable Development) that is much desired by Plan Bleu\(^c\) and supported by European Commission.

The MSSD has proposed a lot of targets divided by themes and priorities to the formulation of guidelines for urban development and territorial cohesion at regional and local level. For the purposes of this paper is considered important to stress the importance of the MSSD attributed to urban development and tourism. For this reason, the cross-borders Cooperation has a key role for North-South link, and, as better explained later, also for further development, refinement and adaptation of best-practices identified.

This approach uses well-known tools of sustainability, to propose supporting actions for local administration decisions and to define project proposals for regeneration of historic centers in the Mediterranean area. In this sense, it is very important to consider that every geographical, historical and cultural context needs of a adaptation of the approach, because of specific characteristics of the area.

Among the tools of sustainability are stressed in this paper indicators and best practices. Indicators are very important to photograph actual situation. “Indicators for sustainable development should be used to provide a solid basis for decision processes of government at all levels” (1992, Conference of Rio de Janeiro); actually “it is known that cities and towns must based decision and control activities over different types of indicators, including quality of urban environment indicators, traffic flows indicators, and even more importantly, indicators of urban sustainability” (1994, Conference of Aalborg).

The use of sustainability indicators as a tool to support sustainable development policies, is actually recognized by major European and international organizations which dealing with environment and sustainability. In this sense, it was important to identify a set of specific indicators for urban regeneration, in which cross and overlap a lot of different themes (mobility, transport systems, population, urban green).

A good practice is "... an action, exportable to other realities, which allows any local government to move towards sustainable forms of management at the local level ". A practice is "good", when it responds to the idea that sustainability is an essential factor for development that is able to respond "... to the needs of the present generations without compromising the possibility of future generations to meet their own needs " (UNCED 1987, Bruntland Report).

---

\(^b\)The Euro-Mediterranean Partnership (EMP), also known as Barcelona Process, started in 1995 with the First Euro-Mediterranean Conference. The EMP has been reinforced in occasion of the 12th Conference of the Contracting Parties to the Barcelona Convention (Monaco, November 2001) in which the need for a “MSSD - Mediterranean Strategy for Sustainable Development” has been expressed. This strategy deals with the economical and social problems affecting Mediterranean urban societies; it aims also the environmental safeguard and the improvement of local, national and regional governance of territories. As known, since 2007, following the promotion of the ENP (European Neighborhood Policy) in 2004, the European strategy in the Mediterranean has been financially sustaining by the ENPI CBC-MED (European Neighborhood Partnership Instrument for Cross Border Cooperation in the Mediterranean), in substitution of the previous MEDA and TACIS programs. It was created to finance projects of cooperation promoting exchange between the two shores of the Mediterranean basin and the development of its territories. The EMP became in 2008 the Union for the Mediterranean, organism strongly sustained by the French President Nicolas Sarkozy. The initiative has presented many difficulties in its being put into operation due to unstable and fragile relationships between Europe and the Southern shore of the Mediterranean, but also, and above all among Southern Countries themselves (Gulf war, Arab-Israeli Conflicts, …) as recent events show (the Arab spring 2011). A revision of the European Mediterranean strategy and of its role is strongly expected by all partners.

\(^c\)The Blue Plan is a Regional Activity Centre located in Marseille, acting on more than ten different environmental topics through constant monitoring actions of the different national frameworks as an essential preliminary step for the building of a shared Mediterranean strategy Their work is fund on Scientific Meetings and Researches. Very interesting results have been reached in the field of the urban management and development. [Plan Bleu Website, 2010].
However it is important to stress that best practices should be specific for each analyzed reality and not be applied at different spatial contexts at the same time. Also it is essential that every best practice should be able to respond simultaneously to three different dimensions of sustainability, environmental, economic and social, and not just one aspect.

At first, the new methodology developed led to the selection of a set of indicators to be used in historical centers, starting from the current literature and best practice used in different historical contexts of the Mediterranean area. Secondly, these instruments were applied to a case study of the Mediterranean basin, and that is the historic center of Jableh, Syria.

Currently Jableh wants to direct its policy toward the economic revitalization and commercial development of the city to regain the local identity, to encourage urban renewal and enhancement of historical and architectural heritage, also to promote a future tourism development of the area. In this sense it is essential to determine strategic and programmatic action lines and put all of the punctual interventions so far made within a wider framework to promote a new global vision of the urban system and a new "integrated plan for urban renewal and sustainable regeneration ". To date in that context there is not a global vision of urban space, but it is necessary for a appropriate process of urban regeneration.

In the case study of the historical center of Jableh have been proposed specific best practices and indicators for the development of the trading system of the old city and cross-cutting best practices and indicators to upgrade the whole urban environment in social, cultural, environmental and touristic aspects.

In Table 1 there is a data processing of the best practices identified, and in Table 2 there are the respective indicators. In this sense, the competent local authorities have contributed to extrapolate the indicators of primary importance in the process of urban regeneration and economic development of the historical center. These were used as the main guide in a second phase, i.e., design and project.

Through visits and inspections during research programs and interviews with local administrators and experts, showed the need to improve the quality of urban environment, reducing traffic in the center, strengthening and enhancing public spaces for citizens and tourists.

\[\text{Jableh (in Arabic: } \text{jabl} \text{)} \text{ is a Syrian city with 160,000 inhabitants, and it is part of the Governorate of Lattakia. Jableh is a city in constant transformation that overlooks the Mediterranean Sea. Archaeological excavations show that the first massive and continuing settlement in the area dates from the second millennium BC. Over the centuries the city was characterized from the settlement of different peoples, including the Assyrians, Persians, Phoenicians, Greeks, Romans, Byzantines, the Ottomans and the French (World War II). But it is under the Roman Empire and the Umayyad Caliphate that the territory had a significant commercial and urban development.}\]
| Historic and architectural aspects | Safety measures for buildings that have structural problems and decay  
|                               | Reintegration of unused historical buildings into new tourist ways  
|                               | Involvement of local people in cultural events and ventures to promote historical heritage |
| Economic aspects               | Promotion of trade fairs, cultural events to enhance manufacturing, workplaces and handmade instruments  
|                               | Promotion of measures for strengthening the crafts  
|                               | Enhancement of commercial routes to promote local craft production  
|                               | Improving pedestrian, vehicular and goods access to shops  |
| Touristic aspects              | Encouragement of quality tourism to preserve cultural and social identity  
|                               | Introduction of tourist facilities suitable for the historical urban center  
|                               | Development of services and tourist routes to discover the landscape on human scale  |
| Mobility and transport system  | Development of public transport system with low environmental impact  
|                               | Creation of traffic plans  
|                               | Promotion of measures to reduce traffic caused by private vehicles (traffic calming)  |
| Air                           | Promotion of measures for air quality  
|                               | Use of electric vehicles for refuse collection, street cleaning and goods distribution  
|                               | Increase of limited traffic zone and hour plans  |
| Population and the urban environment | Promotion of information events for environmental management  
|                               | Increase of green urban purchases  
|                               | Promotion of integrated environmental planning  |

---

**Table 1. Best practices**
Table 2. Indicators

| Historic and architectural aspects | Number of historical and cultural routes |
|-----------------------------------|----------------------------------------|
|                                   | Level of use of historical and cultural heritage |
|                                   | Level of pedestrian and cycle accessibility to cultural and historical heritage |
|                                   | Number of initiatives to enhance the archaeological heritage |
|                                   | Percentage of use of historic buildings from the population |
| Economic aspects                  | Number of initiatives for promotion of craft |
|                                   | Number of public parking to serve business and crafts |
|                                   | Percentage of public land available to the catchment area |
|                                   | Number of goods distribution routes |
|                                   | Number pedestrian routes and access to shops |
| Touristic aspects                 | Number of touristic pedestrian routes |
|                                   | Number pedestrian areas |
|                                   | Number info point and services for tourists |
| Mobility and transport system     | Number public parking |
|                                   | Number car sharing and bike sharing |
|                                   | Number interchange poles |
|                                   | Percentage public transport system |
|                                   | Length cycling routes |
|                                   | Extension pedestrian areas |
|                                   | Extension ZTL (Limited traffic zone) |
| Air                               | Extension ZTL (Limited traffic zone) |
| Population and the urban environment | Availability of green urban purchases |
|                                   | Level of access to green areas |
|                                   | Extension of green area |
|                                   | Availability of public space |
|                                   | Percentage of new road surface and new flooring |
|                                   | Percentage of new street lighting |
|                                   | Percentage of new street furniture |

Very important are the green spaces and pedestrian areas, places of aggregation and representation, which may represent a new access to old town to put in evidence the strong historical link between the various functional and architectural structures in the area.

It has been suggested a gradual and progressive increase of limitations of the private car, with the
extension of regulated Limited Traffic Zone to stimulate the process of relieving congestion in the historic center and to improve the quality of life, air and urban environment. These actions are made to maintain the security of the city center during peak times or more traffic times, to contain the pollution levels in central areas, and increase receipts by introducing payment of a congestion charge.

Currently, the center of Jableh is characterized by the use of highly polluting vehicles (Euro 0 and Euro 1), by the presence of driveways with heavy traffic and by the increase of unregulated parking along all streets of the historic center. In this sense are expected many steps to a progressive extension of ZTL in the old town, with special exemptions for residents and owners of vehicles Euro 2, and a gradual decrease of illegal parking by the inclusion of interchange poles located strategically, to consider the direction of main traffic flow and the proximity of bus stops, expected for a new public transport line. It is also suggested the development of pedestrian areas and alternative transportation systems, including car sharing and bike sharing. It was also thought a management system of interchange poles to facilitate residents and encourage tourists to use shuttle buses and minibuses.

In Fig. 2 there is the conceptual framework of new methodological approach and then a project proposal. Both of them are about the aforementioned priorities, that is "private road system" and represents an example of the work done for a sustainable regeneration of historical center of Jableh. The project proposals are the result of specific indicators and best practices, and also refer to a progressive and a step-by-step process. In this sense, the developed project proposals are different because they depend on: short, medium and long term; for each there is a level of sustainability to be achieved.

The new proposed methodology has wanted to make a specific contribution to the theme of sustainability in the management of the territory and regeneration of historic urban centers because it has tried to find a tool to support strategic and planning decisions of local administrations, also taking practical actions and project proposals at architectural and urban scale.

In this sense it has been suggested an integrated methodological approach in order to put together the themes and objectives of sustainable development and the artistic, social and cultural aspects of historic urban centers.

The ambitious intent to place the concept of sustainability in Mediterranean urban management is to create links and paths of cooperation and common development to create and strengthen the idea of "sustainable urban environment" in all its complexity.
Fig. 2. Conceptual framework and first project proposal

References

[1] AA.VV. Progress Report on the Sustainable Development Strategy 2007, COM(2007) 642. Bruxelles;2007.
[2] Bejor G. Vie colonnate: paesaggi urbani del mondo antico. Roma: G. Bretschneider Editore; 1999.
[3] Belziti D, Pirlone F, Ugolini P. Indicatori e valutazioni di sostenibilità a scala territoriale. In Ugolini P., Approccio alla sostenibilità nella governance del territorio, Milano: FrancoAngeli;2010, p.54-62.
[4] Belziti D, Pirlone F. La sostenibilità: elemento chiave dell’Urbanistica del XXI secolo, XIII Conferenza nazionale SIU Città e crisi globale. Clima, sviluppo e convivenza, Roma: 25-27 febbraio 2010
[5] Delponte I, Tomasoni L, Ugolini P. Sustainability evaluation: indications for computerised DSSs. In Caglioni M, Scarlatti F, editors. Representation of Geographical Information for Planning, Bologna:Editrice Esculapio;2009.
[6] Eslami N. Architettura e città del Mediterraneo tra Oriente e Occidente. Genova: De Ferrari;2006.
[7] Neglia GA. Medina: saggi sui paesaggi urbani delle città del Mediterraneo sudorientale. Bari: Polibpress Arti Grafiche Favia; 2009
[8] Sauvaget J. Le plan de Laodicée sur mer. Bulletin d’Etudes Orientales de l’Institut de Damas;1934
[9] Tomasoni L, Ugolini P. Infrastructures, productive system and urban growth,The case of Genoa (Italy). CD Proceedings Euro-Sirian Cities Congress; Damascus; 2009.