The Urban and Regional Planning Requirements for a Cultural Heritage Conservation Policy

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Spatial Indicators for the Economic Valuation of the Cultural Heritage

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Summary

1. Economics of conservation and the need for evaluations

Granting an economic value to things has become more and more important as allocation and efficiency problems develop (implying hereby the delicate subject of the choice between feasible options). Limited in the past to problems easily transformed into figures, the field of economics has now extended to matters in which not only quantitative but also qualitative data are used for interpretation purposes. The perception that objective evaluation is not always possible and that qualitative factors are important features of the world surrounding us has given rise to a growing use of carefully balanced qualitative statements in economics.

This opening to qualitative matters has brought about a whole new field of research for economists, now able to tackle questions like the efficiency of health or transport systems, of museum or justice management. It is important, when tackling the field of Cultural Built Heritage (in short CBH), to test the capacity of the existing body of economic science to apprehend its various dimensions. Indeed, peculiarities of the CBH (in other words economic a-typical characteristics) could affect the validity of economic analysis.

Analysis of the costs and benefits generated by the presence and/or utilisation of CBH in its current state is usually labelled **impact analysis or value assessment of current CBH. A distinctive feature of this type of analysis is that it involves no decisional process, as there is no rehabilitation project at stake. Referring to a single moment in the long life of the CBH, it simply assesses the weight of the CBH in the socio-economic life, and involves a cross-section description of a flow of resources over a period of time.**

From a policy standpoint, the impact study provides little useful information : policy makers may use it to argue for preserving or even increasing their budget, but they are not told what the result of a budget increase or decrease would be. Impact analysis does not compare alternative projects, which simplifies its methodology, but restricts its interest. Indeed, if it gives a current picture of the agents and activities situated around a given monument, it cannot go much further.

The very favourable results obtained through impact analysis must be considered objectively : first, theses analyses were made on successful sites, the impacts of which were likely to be important from the start; second, by simply adding up the benefits, they are unable to prove whether the CBH really creates wealth and employment or if it simply displaces them.

Contrary to impact analysis, **project evaluation involves a decision-making process, while looking at the costs and benefits that will eventually be generated by the rehabilitation/restoration of CBH over a given time period. Project evaluation aims at distinguishing, among the impacts listed for a project, the main costs and benefits emanating from the project, for all economic agents concerned. It allows integration of long term investment for a given collectivity and takes into account not only financial but also social benefits.**

Broadening the scope could also be achieved through the recently developed **multi-criteria analyses and multi-objective decision models, which are beginning to receive much attention and seem to be a new opportunity to reach a balanced analysis of all facets of modern planning problems, particularly because many intangibles like social effects and environmental repercussions can be taken into account.**

We could say that there are roughly two classes of multi-criteria methods : the first class includes methods which attempt to compute in an indirect way monetary values for the different project outcomes (examples are cost benefit analysis, cost effectiveness analysis, planning balance sheets). The second class of evaluation methods starts from a different point of view. Instead of a monetary transformation of all different project outcomes, non-monetary evaluation methods attempt to take into consideration the multiple dimensions of a decision problem. When project effects are treated in their own dimensions, the obvious problem arises of how to weigh against each other the various project effects. Clearly, such a weighing procedure depends on the relative priorities attached to the various decision criteria for the plan concerned. These methods are, therefore, also called multi-criteria methods. Examples of these methods are benchmarking, spider models, meta-regression analysis, regime analysis, flag models, and rough set analysis.

2. Cultural heritage and urban planning

Sustainability of cultural heritage in an urban city is an important question, related to the roles of modern cities, both as favourable settings for economic growth (through the external effects that they create) and as trustees of cultural heritage (thus carrying a socio-cultural identity). What analytical tools could be developed in order to ensure harmonious integration of the CBH in an urban setting?

Some characteristics of the CBH allow us to consider it as a major element of the urban setting, be it as an ornament for its inhabitants or as part of its attractivity to external visitors:

* Immobility

CBH is composed of monuments, groups of historical buildings, or historical sites : common features of these "goods" are their extreme heterogeneity, their non-reproducibility and their relative lack of substitutes. Heterogeneity and absence of substitutes are reinforced by the immutable, untransferable nature of CBH as a commodity, due to its "real estate" character. Immobility of the CBH (obliging people literally to move towards it) induces the role of CBH as an attraction pole. This constitutes a typical feature of our object of analysis, and distinguishes it from moveables (ancient pieces of furniture, for instance).

*** Accessibility**

We firmly believe that it is the attractiveness of the site that creates the most easily recognised economic side effects. In order for this attractiveness to exist, the site or monument must be accessible to the public.
Four degrees of accessibility can be detected :

- Internal access to paying visitors allows them to visit a monument (except its private or reserved parts) some days, at determined hours, for a certain price.

- Free internal access happens when the monument or site can be visited for free (at the exclusion of some private parts). Access may be limited in time. It is mainly the case of religious buildings, for which no entrance fees may be asked for obvious reasons.

- External access. If the place does not allow visitors inside, but remains externally visible to all, allowing each and everyone to admire its façade or external profile, we speak of external access.

- Inaccessibility characterises a place that is not even visible : a castle surrounded by a closed park would indeed be inaccessible to all but its owners, and the same holds for an archaeological site in the middle of the Asian jungle. Economic benefits are then very thin (restricted to the owner/inhabitant) or at best potential (inasmuch as the inaccessible site could be opened to public visit).

*** Collective nature**

CBH corresponds in part to what economists call "collective goods", that is, in Paul SAMUELSON's words, goods "which all enjoy in common in the sense that each individual's consumption of such a good leads to no substraction from any other individual's consumption of that good."

> Services offered by the CBH are often of the same nature and community-oriented (libraries, museums, shops...). As such, they could be typified as "collective", in view of the large number of persons using them simultaneously. Nevertheless, the public/private nature of services depends on supply conditions : a public-owned monument (for example a state-owned building) could be opened to private consumers (transformed into apartments) as well as to demand of a more collective nature (transformed into a museum). The same holds for a private owner. Hence the necessity of demand segmentation, according to the various uses of CBH.

*** Externalities**

The collective nature of CBH generates externalities. This is a situation in which one agent's actions induce advantages (in the case of positive externalities) or disadvantages (negative externalities) to one or more other agents, while this interdependence is not accounted for by the market. In the case of CBH, the presence of a monument could be experienced positively by some agents (e.g. visitors) and negatively by others (neighbours, suffering from noise, pollution and congestion). In economic terms, utility functions are interrelated, and measurement of these external effects remains a difficult task.

In the presence of externalities, the market ceases to function as an efficient informative and incitative tool, as individual preferences are not clearly revealed, which may render public intervention necessary. Cultural economics is then closely linked to "public" economics and to urban planning, both in the sense of reducing negative externalities and promoting positive ones.

*** Long life cycle**

A common attitude towards the CBH is that it has always been and will always be present. Indeed, 5 or even 10-century-old CBH is rather frequently found in our regions, resisting more or less bravely to the assaults of modern pollution. But their perpetuity is in no way insured without particular measures. Financial expenses incurred in order to preserve and possibly rebuild these remains of our past must be balanced with the consumer's utility, that is with the higher satisfaction of needs that they could bring about. This satisfaction could indeed be increased by the simple fact of belonging to a nation or a city rich in proudly preserved historic monuments that will be transmitted to future generations.

It could be increased again if a new function can be assigned to a historical building: if consumers' utility is higher when a monument is transformed into offices, museums or housing, then the important service rendered to the community insures the conservation of a part of the CBH otherwise condemned to disappear. Here again, the connection with urban planning is obvious.

*** Local development and international resource**

Conservation is a cultural preoccupation, but certainly not incompatible with economic objectives : it is possible to formulate cultural aims and policies serving economic welfare at the same time. Indeed CBH is an economic resource involving tourism benefits, and this is particularly clear in the case of developing countries like Egypt, where the tourism receipts induced by the millenary Egyptian culture are almost exclusively of foreign origin. The international dimension of the CBH is then no illusion and implies taking into account the transnational impacts of national

decisions concerning monuments. These impacts will differ greatly according to the nature of the countries involved.

If for developing countries the most obvious use is tourism (for the benefits that it brings in terms of current account), it is not necessarily the case for industrialised countries, where other uses can and must be found with an eye on local development. The CBH can help in attracting and stabilising economic activities, by focusing people on common cultural features and awakening their interest, and by associating a local identity with a universally recognised CBH.

3. Information-gathering through spatial indicators

Both impact analysis and project evaluation rely on techniques aiming at identifying actions, perceptions or attitudes on the site and around the site. This implies a description of economic flows in the impact area, an evaluation of direct, indirect and induced effects, and a differentiation of economic actors.

The theory of the so-called "tourism multiplier" shows that various levels of impact created in the economy can be subdivided into three distinct categories:

- direct effects: the amount of income (employment, output etc) created in the sector as a direct result of the change in tourist expenditure e.g. wages, salaries and distributed profits in hotels, restaurants and tour companies;
- indirect effects: the amount of income created by the increased expenditure of the tourist sectors on goods and services from their suppliers in the domestic economy (which may, or may not, be directly related to the tourist sectors). The indirect effects also include the effect of the increased demand created by the suppliers to the tourist sector to their own suppliers;
- induced effects: as income levels increase throughout the economy, as a result of the direct and indirect effects of a change in tourist expenditure, some of this additional income will be respent within the domestic economy. This repercussionary effect on the demand for domestically produced goods and services will in turn increase income, output, employment...

The idea is to apply these concepts, originally developed for the tourism industry, to the particular case of the CBH.

Symbolic values are universally recognised to CBH: social value, educational value, historic value, artistic value, to name but a few. They are for the most part difficult to quantify, but the economic approach of the CBH as a commodity consists in detecting their measurable effects, emerging through the following four signs or symptoms:

- the look at the monument,
- the visit of the monument,
- the show, the entertainment using the monument as a scene,

- the "pole", the monument creating a series of measurable spill-overs, notably in terms of employment.

All four signs reflect the "touristic" attractiveness of the monument : it is then clear that, if the monument disappears, these symptoms would also vanish, and with them, the chain of economic spill-overs for the immediate surroundings. Hence the importance of measuring these spill-overs in order to maintain and to preserve such a powerful resource.

Several concepts can be developed in order to identify spatial indicators.

*** Magnet or Pole**

Let us immediately note that the immobility of the CBH makes it a magnet : it is because people move towards an interesting historic site or building (in order to visit it, to live or to work in it) that we can speak of commercial spill-overs and multiplier effect. It is the attractiveness of the site that creates the flows of revenues that we would like to measure, and this explains why the CBH can be viewed as an attraction POLE. Clearly, the sequence is as follows : (no) pole, (no) attractiveness, (no) spill-overs. The presence of a symbolic value is then the necessary prerequisite for an economic analysis of the multiplier effect generated by the CBH.

The concept of a pole is envisaged in relative terms : a monument is said to represent a pole in opposition to other monuments which do not. Moreover, the attractiveness of a pole is not necessarily connected to its architectural value : more people can be attracted to places comparatively poor from an architectural point of view. Priority is here given to attractiveness, for the important economic spill-overs it generates through the amount of CBH users attracted, not to architectural, artistic value.

Preservation projects are also said to be acting as magnets : they create new business and stabilise old business by bringing people into a particular area in great numbers. The term "pole" is generally associated with tourist business, but there is a more extensive sense to the word when we think of the new businesses located around. Magnet effects can be measured in terms of greater than average business formation rates on the one hand and lower failure rates in the case of existing business on the other. This permits a separation of the income generated by existing business and the income generated by those who are drawn to the area to make investments. Determination of the poles is then the first step in any analysis of the CBH.

*** Site**

CBH can be approached in terms of an architectural site. The site can be identical to the pole : it is the case with an isolated monument; its structure is then said to be unipolar. The site can also be constituted of a group of poles in a multipolar

structure. A site may then contain historic buildings with various CBH-related uses : the predominance of one particular use does not hinder analysis, but orientates it in a particular direction (for example, a predominating residential use induces a cadastral survey analysis, in a ground rent approach, whereas a predominating commercial use implies a study of the percentage of turn-over generated by the touristic flows).

*** Axes**

The axes frame the site by relating the different poles, and can be prolonged outside the site, in what we shall call the "impact area" of the CBH. Axes are the obliged ways through which visitors of the site have to pass : streets, avenues, squares in urban sites; roads, by-roads, communication knots in larger impact areas.

We can detect three types of axes :

- polar axes : the pole is constituted by one or more axes. This is often the case in urban historic centres, where the architectural monuments are integrated within the city (for instance the Champs Elysées);
- joining axes : axes that interrelate different poles, through which people must pass when circulating from one pole to another. These are often commercial axes, gathering together commercial activities related to tourism attractiveness;
- axes giving access to poles, from outside the site.

Isolating the axes facilitates the analysis of economic costs and benefits generated by the CBH, as each axis can be treated separately.

*** Impact area**

The impact area is the limited zone in which significant economic spill-overs can be detected. Outside this area, these spill-overs can be neglected: no need to say that a careful investigation will be necessary in order to determine this frame of analysis. A convenient analogy would be with the economic Hinterland or zone coming under the economic and commercial influence of an urban, industrial or commercial centre (in our terminology the pole). An architectural Hinterland around CBH will be known as "direct impact area" around CBH.

There is no absolute rule while tracing it: economic impacts do not necessarily propagate in concentric circles with decreasing intensity; they could diffuse further and in other directions than previously thought.

Four elements can help us detecting impact areas of CBH:

- Ground configuration: impact areas must be drawn differently according to the eographic situation of the CBH (in open ground, in the mountains, in an urban region, at the seaside...). Impact areas follow the geography of the site, according to natural obstacles, and account for the development steps of a town or region.

- Road connections: if the CBH is located along an important communication knot, the impact area will propagate along this particular axis, following the visitors' movements. If it is situated at the far end of an uneasy road, the impact area will probably move away from the site itself, at a more convenient place. The presence of a nearby airport or railway station can also influence the aspect of the area.
- Commercial equipment : the presence or absence of trades and shops around the pole is an essential determinant of the shape of the impact area. Commercial equipment does not necessarily coincide with the road connections, even if trade opportunities develop more easily along these touristic communication axes. The impact area must therefore account for the visitors' easy access to the site and for the possible detours that they would make in order to purchase what they want as "souvenirs".
- Methodological requirements : in some cases, if elements of analysis mentioned so far reveal themselves as inoperational or incoherent, we will have to dismember the impact area for a better "reading" of the CBH. It would then be justified to follow a more arbitrary procedure, aiming at a maximum clarity.

As to the shape of the impact area, various cases are possible : concentric around the site, eccentric as to the site, directional (along one or more axes), or star-shaped.

4. Typology of impact areas

Bringing the cultural heritage and conservation into the economic debate implies a decision-making procedure, either from the public or the private side. Because each decision presents some degree of uncertainty and entails some risk, we need the best information and the best procedure available. **We propose a 2-stage approach of the economic effects of the CBH. First, by mapping the economic effects using a large set of indicators. Secondly, by identifying the impact area using a typology.**

Mapping the spatial indicators described above is an important stage in the decision-making process of urban planners. As far as the economic dimension of the CBH is concerned, we suggest four project variables to be detected : potential attractivity of the CBH, touristic spill-overs, inclusiveness considering alternative sources of attractivity, directionality or connectivity in the area. These variables should be described separately on specific maps. Superposing the maps would then inform us as to the type of impact area.

Map # 1: ATTRACTIVITY.

The first map would list the CBH and the poles, their uses, their accessibility, the number of visitors (tourists, local residents).

Map # 2: TOURISTIC SPILL-OVERS.

A second map would list hotels, restaurants, tourist shops, entertaining... all purely touristic spill-overs, measured through surveys.

Map # 3: INCLUSIVENESS.

The third map could represent other functions, which also generate important flows : offices, other shops, other entertainment, housing, "social" functions (libraries, hospitals, schools...). It would give a picture of attractivity other than purely touristic.

Map # 4: DIRECTIONALITY (efficient management of internal flows) and CONNECTIVITY (integration in international networks).

Finally, a map with urban transport, parking spaces, pedestrian ways, railroad stations and airports could position the site into a global transport network.

When spatial indicators have been gathered, there is a need for a typology in order to summarise the information relevant to the CBH. Using the project variables, five types of impact areas can be detected :

Area # 1 : Tourism-intensive impact area

These areas include a large number of monuments, none of them isolated. Although some of the monuments have outstanding cultural value, the interest for this heritage is derived from the homogeneity of the monuments, buildings or groups of buildings and from their integration in the local environment. Historic centres are the best example.

Tourism is the major source of economics flows. Souvenir shops, hotels and restaurants are located on the site and provide food, accommodation and commercial services almost exclusively to tourists. Because of the tourism-intensive activities, most of the original urban functions are seized down, if not forced to migrate out of the cultural area.

These "museum-oriented" areas bring about a huge amount of economic benefits, while simultaneously facing a deterioration of their monuments due to an excessive flow of tourists.

Area # 2 : Multiple functions impact area

These areas include groups of buildings with architectural interest but very few outstanding monuments. Touristic attractiveness is rather low and the economic flows of revenues are mainly due to urban activities (commercial, administrative, housing).

A main feature of this type of area is an intricate urban system where many functions are intermingled. Urban planning requirements have contributed to develop a lot of activities over time, giving to this area a truly systemic dimension and providing a mix of activities as a result of both public regulation and private markets.

Large and densified urban areas illustrate this type of situation. Even in a large city with outstanding CBH, the complexity and size of the city make the economic flows from culture less obvious, because the relative share of touristic revenues over the total amount of urban resources is low.

Area # 3 : Multipolar impact area

These areas present the multipolar structure described above. Rather than being homogeneous, the CBH is distributed among several locations over the site. The attractive poles are linked together by either touristic or commercial flows. In a multipolar structure, monuments can compete with each other in terms of attractiveness or can be integrated in a common scheme (guided tours, single entrance fee to several monuments,...).

Such areas are in fact the subdivision of a larger area. Depending on the size of the site, we could separate an homogeneous area into several sections of cultural interest with specific flows of economic revenues. Aware of the fact that the total amount of benefits generated by the heritage exceeds the sum of the partial benefits of each section, we still could rely on this method as a proxy of the revenues of the heritage as a whole.

Area # 4 : Decentralised impact area

These areas can be identified as flows of revenues geographically separated from their cultural source. A monument located on an island or isolated from any urban areas will generate flows of revenues far away from the site itself. In this regard, mobility is a key-word because the physical links between the CBH and its impact area (roads, mass-transportation, parking lots,...) will be a pre-requisite to any economic benefit.

Monuments or historic sites must eventually be of outstanding interest. Their attractiveness must be as powerful as to generate impacts far away from the site. It should be noted that this situation does not imply a tourism-intensive area, for the decentralised impact can provide many other activities than touristic.

Area # 5 : Competitive impact area

These areas constitute the most difficult issue of the economic dimension of the CBH. Many studies have shown the complexity of consumer behaviour as far as leisure activities are concerned. Most of the visitors of monuments take their journey as a 'package' (the visit is just a part of it), and people who live in an historic district enjoy looking at the monuments just by passing-by. Therefore, indirect or induced effects from the heritage are hard to determine.

To the extent that more appropriate methods can be effective, it is important to detect and describe this type of situation. Great cities often rely to that type of areas : poles are not just architectural ones, even not cultural ones. Conflicts that could arise between different functions (housing vs. offices, industrial vs. environmental-friendly

activities, administrative vs. private use,...) or between different actors, could also arise with leisure activities. As an example, tourists are eager to go to Greece for vacation not just because of the cultural heritage.

5. Strategies in cultural heritage conservation

The implementation of a conservation policy requires a lot of information. Spatial indicators and the mapping process can help visualising the impact of decisions. Given the type of impact area, options can be selected and policies can be devised in an appropriate way.

As far as tourism-intensive impact areas are concerned, priority should be given to alleviate unbalanced urban effects and social or economic costs (gentrification, congestion, deterioration of CBH...). The loss of urban amenities -if not of basic urban functions like housing- implies guidelines to preserve some activities and to restrict touristic flows.

While diversification strategies can be implemented in multipolar impact areas, policies of conservation should be conducted by a single managerial authority in decentralised impact areas to ensure consistency between decisions relative to the pole and to the impact area. In particular, developing countries face the need to include infrastructure and accommodation projects into conservation plans.

Competitive areas are situations where integrated conservation must be the rule. History shows that urban development was partly the result of socio-economic and physical factors : intersection of two roads, intersection of a road and a river, an access to the sea, the vicinity of raw material or a source of energy, cheap labour force,...

Competition between urban centres or regions for attracting new investors were mainly based on objective elements. Nowadays it seems that both globalisation and the surge of new technologies imply a new kind of competition. The production of economic wealth is no more related to fixed assets but to moveable resources.

In this regard, quality of life plays a key-role in modern development and architectural or cultural poles become new assets for attracting investment. Accordingly, competitive areas can be defined as an internal competitive market (on-site competition between all sectors improving quality of life) and external competition (off-site competition between cities or regions).