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**Approaches and Tools
for Implementing
the Circular City Model**



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Editorial

Luigi Fusco Girard

This new number of BDC takes up and deepens the theme of the circular economy as a new urban development model.

As is generally known, this model has been introduced through the strategic goal n. 12 of Agenda 2030 and has been recalled in its spatial interpretation in the New Urban Agenda in paragraphs 71-74: in the circular city model.

In which way (approaches, tools) can we move towards this new urban development strategy, reducing the consumption of all resources and thus the amount of waste? In which way is it possible to avoid the waste/underuse of different forms of capital: natural, man-made, human and social?

The CLIC project, financed under the HORIZON 2020 program by the European Commission, deals with the inclusion of the reuse of cultural heritage in the context of the circular city model.

The Interdepartmental Research Center “Alberto Calza Bini” has been particularly involved in the identification of new evaluation processes at different scales (urban, historical district, single site) since they are the element able to link as a “fil-rouge” both governance strategies and the new business and financing/management models.

The notion of sustainable “human” development, together with resilience, inclusion, hybridization, systemic interdependence concepts (for example among art, culture, architecture, landscape, community, economy), “shape” and put in relationship the different specialized disciplinary perspectives.

Flexible, transparent and inclusive tools to *manage change* of the cultural landscape are required to leverage the potential of cultural heritage for Europe, fostering adaptive reuse of cultural heritage/landscape in a systemic perspective. Tools for management of change should consider the evaluation of costs and benefits at local level and for all stakeholders, including future generations, and should take into account the cultural, social, environmental and economic costs of disrepair through neglect, compared to the benefits obtained through diverse scenarios of transformation/integrated conservation.

Costs and values of cultural heritage systemic/adaptive reuse have to be compared in a multidimensional space. In which way?

The main goal of the CLIC project can be expressed in these terms: “evaluation tools to develop and test innovative circular financing, business and governance models for *systemic adaptive reuse* of cultural heritage and landscape, creating shared values from heritage commons and long lasting economic, cultural, social and environmental wealth”, contributing to operationalize the circular economy approach in the cultural heritage/landscape management and planning.

The achievement of this general goal requires in turn the reaching of many instrumental objectives:

- *Objective 1*, to synthesize existing knowledge on best practices of cultural heritage adaptive reuse making it accessible to researchers, policy makers, entrepreneurs and civil society organizations, also with direct dialogue with their *promoteurs*;
- *Objective 2*, to provide a holistic evaluation framework for the integrated assessment of

the economic, social, cultural and environmental impacts of cultural heritage adaptive reuse;

- *Objective 3*, to provide EU-wide participated policy guidelines to overcome existing cultural, social, economic, institutional, legal, regulatory and administrative barriers and bottlenecks for cultural heritage systemic adaptive reuse;
- *Objective 4*, to develop and test innovative governance models and a set of evidence-based, participative, usable, scalable and replicable decision support evaluation tools to improve policy and management options/choices on cultural heritage systemic adaptive reuse, in the perspective of the circular economy;
- *Objective 5*, to analyse hybrid financing and business models that promote “circularity” through shared value creation, and assess their feasibility, bankability and robustness for cultural heritage adaptive reuse;
- *Objective 6*, to validate the CLIC circular financing, business and governance practical tools in five European cities/territories representative of different geographic, historic, cultural and political contexts;

The achievement of these objectives allows contributing to operationalise the management change of the cultural landscape, implementing the UNESCO Recommendation on Historic Urban Landscape.

In this perspective, on 26 June 2018, as Scientific Coordinator of CLIC Project, I have been invited to take part to the High-level European Parliament Conference about “Cultural heritage in Europe: linking past and future”. As I stressed in the presentation of CLIC Project, the challenge is not only to link cultural heritage conservation to sustainable development but, in particular, to contribute to the “paradigm-shift” proposed by United Nations in the Agenda 2030 for Sustainable Development (through Sustainable Development Goals) and in the New Urban Agenda, towards the “humanization” of our cities (paragraph 26).

This is the general challenge of our time.

The cultural heritage can help in facing this challenge, because it contributes to:

- regenerate the “connective infrastructure” of our cities/society, going beyond the hyper-individualism and embracing interdependencies;
- regenerate community bonds, through regenerating the collective memory;
- help subjects to move from “I” to “We”: to cooperate each other.

This contribution can be realized enhancing and regenerating the “connective infrastructure” of our society through strengthening and celebrating our cultural memory; thus, going beyond the production of economic wealth and trying to produce value also in the symbolic, cultural, spiritual dimension. These are the non-economic pre-conditions for the economic development.

Three different elements should be put together in a triangle of reciprocal interdependence for linking past and future through the functional reuse of cultural heritage, combining in a general framework:

- the circular economy model, it is the economy of natural bio eco/system that reduces entropy, increases resilience and stimulates cooperation between components (it starts from the search of efficiency, but it is based on and it stimulates cooperation/synergies). It is the economy of co-evolution, co-operation, co-ordination of actions for a common interest;
- the circular city model, it is the concept of city as a living complex dynamic circular

- system, cities able to self-organize, self-manage, self-govern themselves;
- the adaptive reuse of cultural heritage/landscape, cultural heritage is the memory itself of the urban living system; it is the heart of the city, its identity conserved over the centuries;

The three main players should be put in a reciprocal and circular flow of interdependences:

- the private sector, both the entrepreneurs and the owners;
- the public sector;
- the local community.

Solutions should be characterized by the search of “positive sum strategies” in which each player (private owners, private entrepreneurs, public bodies, local communities) can gain reciprocal benefits, through win-win-win partnerships, agreements, pacts in which the tangible impacts are integrated with intangible ones (symbolic, cultural, spiritual).

But there is a problem.

Often the local community is evoked. However, local communities are more and more fragmented, atomized under the pressure of growing hyperindividualism.

We try to reduce this weakness, but too often the particular interests succeed over the common good of the city and society, over the general interest.

More and more frequently we are seeing that particular interests are winning over the general city/society interest.

The challenge is to demonstrate, through empirical evidence, the potential value of cultural heritage/landscape in the circular city model in terms of benefits coming from the connections between:

- memory and future;
- conservation and economic development;
- short time and long time horizon (in for decision making processes);
- instrumental values and “independent of use” values (“intrinsic values”);
- traditional and new technologies;
- needs of this generation and needs of future generations;
- inhabitants and places;
- public and private interests;
- scientific specialized knowledge and humanistic knowledge;
- creativity and responsibility;
- the historic centre and the city territory;
- cultural capital and natural capital.

In this way this potential can be concretely implemented towards reducing/closing the gap within the desirable (“humanistic”) vision and the status quo conditions.

A key element to contribute to the regeneration of the European “connective infrastructure” that is more and more fragmented is the creation of “heritage communities”, as the general pre-conditions of economic development.

A particular manmade capital that fundamentally contributes to the European cultural landscape (both urban and extra-urban) is represented by religious cultural heritage. It is the most frequent category of UNESCO sites. If it is abandoned and/or left to degrade, it is damaged on multiple levels (very high maintenance and management costs, lower attractiveness to the location of activities and people, renunciation to the satisfaction of social/relational needs, etc.).

Nocca and Fusco Girard analyse the circular city model starting from definitions in

literature and case studies of European circular metropolitan cities. They define an evaluation framework for assessing and monitoring the efficiency of the circular cities, that is to assess (positive and/or negative) impacts of projects and initiatives of the circular city agendas.

The paper “The implementation of circular economy model for the Torre Annunziata waterfront regeneration” by Angrisano, Bosone, Ravezzi, Ascione deals with the “circular economy approach”, to understand how to apply it for the regeneration of port areas.

Through the analysis of some best practices, in this paper, a design exercise has been proposed for the Torre Annunziata port area regeneration, with the aim to activate new symbioses between the urbanized city and the waterfront.

Acierno and Lanzi deal with the issue of “anti-fragile” planning with reference to the transport sector. In particular, the authors apply the “geodesign” as an operational tool in an interesting experience of a road bridge project in Oregon.

Varone focuses on searching a special language for the Municipal Plan with particular reference to new forms of planning, that is its articulation in structural and operational plan, taking into account the analytic reports and the graphical representations.

The paper by Freda focuses on the State of Israel and, in particular, on the nature of Sharon’s plan (aimed to encourage social and economic progress and to support waves of Jewish immigrants) and its legacy and differences with the current territory management.

Sgobbo analyses the holistic approach to the urban complexity inherent in the Water Sensitive Urban Planning as an urban sustainability strategy paying attention on the need to support the planner with decision-making models able to assess (also quantifying) the effects of the proposed solutions.

Daldanise and Cerreta propose a paper about a cultural creative process for Pisticci regeneration (Matera, Italy). The culture-led urban regeneration strategy is proposed to activate innovative productivity systems where interplay culture and creativity in urban districts, adaptive reuse of buildings and industrial sites, and bottom-up cooperation for common goods management.

