CELEBRATING OUR URBAN HERITAGE

INNOVATIVE STRATEGIES FOR URBAN HERITAGE CONSERVATION, SUSTAINABLE DEVELOPMENT, AND RENEWABLE ENERGY

Luigi Fusco Girard

Sustainable Urban Development

Currently there are three important challenges to be addressed in the coming decade:

- Mitigating the negative impacts of global economic competition;
- Reducing inequality and the growing disparities in wealth, income, employment opportunities, and overall quality of life;
- Reversing the tide of climate change and global warming.

These three interdependent issues are concentrated in urban areas. Cities and urbanized regions produce the highest level of water, soil, and air pollution. Poverty, once a mainly rural issue, is rapidly rising in urban regions. Increasingly, advanced production processes are urban-based.

Cities can make a difference resolving the above three critical issues. Urban policies are essential in order to counteract the negative effects of climate change. These policies include land use, transportation, waste management, construction methods, and many other aspects of the current environmental challenge. Similarly, overcoming of poverty, unemployment, and social exclusion, along with improving overall economic performances in the face of global competition, depends on specific urban policies, programs, and related initiatives.

Urban development strategies related to the physical structure of cities are a key element of community economic regeneration by enhancing urban assets that improve attractiveness. This means assigning a "focus" to every urban neighborhood that orients its future growth as an integrated asset of a polycentric region. This "focus" is often represented by cultural and architectural heritage that is restored to new and greater vitality, involving an important contribution to urban environmental quality of life, and to cultural and architectural place-identity. Cities and urban regions become more able to generate new functions and prevent the loss of existing activities. The role of conservation of urban physical and cultural heritage can be interpreted not only as an "attractor", but also as an "incubator" or catalyst for new economic services, from tourism to innovation.

Conservation and renovation projects as vital elements of urban regeneration

Which kind of conservation project? Each conservation project or plan implies choices among different values, objectives, uses, functions, materials, technologies, and combinations among new and ancient architecture, and between arts and sciences. It is always necessary to compare different alternatives in terms of the entire range of direct and indirect impacts, both in the medium-term and the long-term. Any rehabilitation or restoration proposal is designed in part to stimulate higher use values. Generally this involved increased energy consumption. If the energy sources are based on conventional carbon-based fuels, then even as heritage conservation induces new economic investment and development, it also negatively contributes to the problem of climate change. In other words, the long-run effects of these heritage restoration projects may be harmful in that without energy conservation, they are not environmentally sustainable.

Sustainable conservation and renewable energy usage should be closely linked

Heritage conservation should be an important part of a more general urban economic development strategy of city, as well as a spatial development strategy. At the same time, it must also be part of an energy conservation and renewable resources utilization strategy. For example, "solar city strategies" can promote closer integration of the economic and ecological systems, such that urban environmental economics can be implemented to foster sustainable prosperity and quality of life. A strategy based on renewable energy can positively affect the physical structure of a city, both its form and its building architecture.

Strategies for conserving the built environment are designed to preserve and enhance cultural, historic, and artistic values, and more importantly, to provide a set of economic and social benefits and contribute to improving the quality and sustainability of the urban ecology. Urban planning and spatial development policy can be both economic and ecological if the overall systems are balanced, starting with energy production and consumption. Conservation of urban heritage can be genuinely sustainable to the extent that it revitalizes communities by creating a dynamic, growth-oriented mix of new functions that regenerate economic and social life, while at the same time reducing energy consumption and increasing the use of renewable resources.

Cultural Heritage in Global Economic Competition: Tourism and Local Economic Development

The need to emphasize the elements that "make the difference" urban areas rises from increasing global economic competition. This implies a widespread strategy of city and regional maintenance, rehabilitation and restoration, characterized by the recycling and renewal of all major spatial resources. Communities, cities, and urban regions are investing in heritage conservation to become more attractive for foreign investment and for creating decent employment opportunities. If they also are able to link conservation to the use of renewable energy sources, they can help reduce the negative impacts of climate change and thus become far more sustainable and economically viable in the long run. Potential conflicts between conservation and development can be avoided by increasing the functional integration of urban space through better and more comprehensive planning and research. Enhancing the functional integration of housing, work, leisure, and mobility, along with social, cultural, and public services helps reduce exchange distances and circulation length, and is an essential means of minimizing the displacement of people and the excessive consumption of physical assets such as materials, water, and energy.

Organizing the multifunctional use of space in more efficient ways

The ecological restoration process aims to preserve and increase the use values of green spaces, avoiding their transformation into exchange values under the pressure of speculative urban rents. Cultural and environmental integrated conservation produces relevant economic and social benefits overall. For example, tourism represents an economic sector of increasing importance for many local, regional, and national economies. The success of tourism depends on a set of elements including transportation accessibility (infrastructure and network links), attractiveness due to natural and cultural resources (beaches, mountains, and monuments), and the supply of various amenities and services (cultural and social). It is characterized by a major positive multiplier effect on business activities, employment, investment, and development by drawing in revenues and resources from outside of the marketplace. Direct employment resulting from renewed cultural assets can be calculated to generate 1.5 overall new jobs for every 10,000 visitors, to which new jobs specifically in the tourism sector along with temporary construction and renovation jobs in the field of heritage investments must be added. Tourism helps increase property values, wealth, jobs, incomes, and a positive international balance of payments for the tourist destination and its surrounding region and nation. This is also its limitation, because of the negative impacts of tourism on the same resources (the natural and built environment) on which it is based. Each site has a specific "carrying capacity" that should not be overly utilized. Also, tourist demand is characterized by high variability. It is necessary to identify new "strategic niches" such

as tourism linked to health and welfare (thermal or "medical tourism"), sports tourism linked to recreational activities (riding or golf), agricultural tourism linked to specialized local farming activities (biofarming), "elite tourism" (oriented towards longer stays by the same absolute number of users but with a much higher willingness to pay), and cultural tourism (based on the supply of cultural sites, amenities, and services).

Historic urban centers can again become the places where traditional activities of the "old economy" like craftsmanship and trade (sometimes informal and hidden) can be combined with information technology and telecommunications-based "new economy" entrepreneurial functions. Such multifunctional development "growth poles" and hubs currently characterize most recent urban regeneration investments and strategies.

Central cities must realize that in order to compete in global markets to attract capital, economic activities, and most importantly, people, they first need valorize their specific cultural identity, represented best by their historic urban core. But the economics of historic urban centers does not simply correspond to the promotion of tourism, because while building hotels, residences and supermarkets can create jobs, it can also destroy physical and cultural heritage values that are much greater economic assets over time, and once they are destroyed and lost, they cannot easily if ever be replaced.

Renewal and restoration of urban cultural heritage with many greatly specialized functions in the rising fields of the "knowledge economy" are rapidly multiplying, through the transformation of cultural assets concentrated in historic urban centers into areas of excellence for new multi-media production and services, graphic design, software research, internet website construction, and many related activities.

The challenge is not only to link these artistic and cultural activities to entrepreneurial initiatives, such as investing in the installation of high-speed "broadband" cable infrastructure to help expand information and communications technology usage by small and medium-sized enterprises, but also to spread their utilization in schools and among citizens living and working in these communities. New "incubators" of development and cooperation capabilities are implemented in this way, by means of advanced research and development and technology commercialization. Cultural assets and heritage conservation can be promoted in the context of developing new direct, indirect, and induced business and employment growth, with significant impacts on economic, social, and environmental conditions. This might include, for example, linking a potentially dynamic growth sector with improving the conditions of everyday life, through the adoption of new informatics, telematics, and communications technologies.

'Beauty' for Improving Wealth and Reducing Poverty

Today "attractiveness" reflected in the quality of life, is a key economic development factor due to a combination of environmental, social, cultural, and economic values. Both artistic and ecological resources contribute to the beauty of a site or a landscape, which in turn can potentially attract economic activities that produce wealth and reduce poverty.

Beauty is linked not only to the existing order in a territory. It reflects the harmony existing among its different elements. It transmits a sense of completeness rising from the perception that some attributes are satisfied at their maximum level. Beauty is the synthesis of different dimensions: it is the perception that every element is mutually interconnected, and fosters a sense of connection between community, capital, and assets.

The excellence or beauty of a site is not only an aesthetic element, but contributes to economic development. The natural and manmade beauty helps to increase productivity of all forms of capital. Giovanni Botero asserted back in 1538 that beauty was one of the four "attractive virtues" of a city. It attracts new economic activities, and both enhances and therefore helps retain existing activities. Many experts now argue that quality of life is one of the most important factors in the success or failure of economic growth and prosperity. Beauty and quality of life are closely linked.

A high quality environment can improve the sense of well-being in a specific site; it can also open people's minds and lift their vision to a greater sense of community and civic spirit. Sites characterized by beauty can help overcome civic fragmentation and contribute to social integration.

Social capital and cultural heritage are important elements of urban attractiveness. Increasingly the attractiveness of a site is being perceived in relation to its sustainability, such as possible utilization of renewable resources. Culture, arts, and innovation in the field of energy conservation can help generating a stimulating economic environment

The beauty of a landscape or a site can be compromised by pollution or improper usage such as inappropriate "modernization." Excessive energy consumption leads to climate changes due to the greenhouse gas impacts of carbon dioxide (CO2) pollution. In the long run this can damage many currently attractive and productive cultural and agricultural landscapes, because of the rising variations in temperature and the rising frequency of "extreme" meteorological events like hurricanes, floods, and tsunamis. Changes in the hydrological cycle of surface water evaporation, precipitation, and flow may become catastrophic in terms of a growing lack of fresh water, parching forests and agricultural soils, drying up rivers and lakes, and rapid soil erosion, with the harmful consequences both of increased flooding and greater drought. Landscape beauty is more and more threatened by the use of fossil fuels like oil and gas, coke and coal.

The value of preserved (or lost) beauty is an important benefit (or cost) item to take into account when comparing traditional energy sources versus newer and cleaner fuels. This comparison must include cultural, visual, and symbolic values, not just functional ones.

Conservation, Restoration, Renewal, and New Energy Sources

Conservation and renovation of physical and cultural heritage is more effective when linked to innovative economic production and investment. The multifunctional use of urban space can become the new integrated and sustainable conservation strategy that brings about a set of agglomeration economies and social benefits. But there are also negative externalities, because the multifunctional use of space implies an increase of energy consumption. Such a rehabilitation process may be an advantage for present users, but represents a distinct disadvantage for future generations due to pollution and its negative impacts on climate change.

Beauty and conventional energies are in conflict in the future. The impacts of the greenhouse effect and of air and water pollution caused by sulfur oxide, nitrogen dioxide, benzene, and various particulates are destined to harm our cultural and agricultural landscapes, reducing the carrying capacity of land and producing a major loss of ecological and economic value.

Economic and social systems need energy in order to survive and grow. However, beauty and new renewable energy sources are congruent and can produce economically sustainable development by connecting cultural and environmental heritage conservation with innovations in the energy field, through the use of renewable energy sources combined with substantially improved energy efficiency. Geothermal springs, water, wind, and solar power are all widely available in varying degrees from place to place, and they can be used effectively to make urban heritage both more sustainable and more valuable. This, in turn, can help promote technological innovation and related spin-off activities such as research and development, which generates substantial new employment.

The productive sector of renewable energies is characterized by a very promising potential of expansion, especially relating to small and medium-sized enterprises that can help stimulate local economic development. The capability to generate new employment in technology-oriented sectors will arise from the increasingly widespread application of energy conservation and the use of renewable energy sources in housing, transportation, industry, trade, services, education, health, and many other aspects of urban daily life.

The above is true, in general, for western and northern European cities and regions, characterized by their specific cultural heritage. But the perspective of heritage conservation in the framework of conservation and renewable energy strategies is even more necessary for cities and regions in southern and eastern Europe that are on the threshold of a widespread new development and modernization processes. To attract economic investment and production, including heritage tourism, they must face these difficult challenges in new and innovative ways. Conservation strategies must be part of overall urban and regional economic development strategies, which in turn should be closely linked to renewable energy strategies.

Toward the Scenario of 'Solar Cities and Regions'

Today each community, town, city, and region faces at least two very different scenarios. One scenario is a continuation of the status quo approach, with all of the predictably harmful consequences in terms of environmental and social impacts. Alternatively, based on a new social and environmental vision, there is an ecological-economic scenario. We can imagine that this much more sustainable scenario adopts a longer term perspective by planning for a transition towards a human economy that is no longer carbon-based, but more and more "de-carbonized".

The so-called "solar city and region" is characterized by a new and original mix of renewable energies. The most sustainable scenario is represented by a combination "solar/hydrogen", "wind/hydrogen", "geothermal/hydrogen", "micro-hydroelectric water power/hydrogen", and "biomass/hydrogen" with hydrogen production also from urban wastes converted to energy through thermovalorization power plants. Solar cities and regions will directly use sunlight (or indirectly use wind power, water power, or biomass) to produce energy. Accumulation is possible through hydrogen (produced mostly by a water electrolysis process). Hydrogen can be used for heating and cooling buildings and water, as well as for urban ground, water, or air transportation, including through the use of fuel cells. Fixed fuel cells will likely become more widely utilized in the coming decades. Projects that provide for the matching of photovoltaic panels with electrolysis process and fixed fuel cells correspond to the vision of the solar city/region.

In promoting and supporting sustainable heritage conservation, fuel cells can be used in residential, commercial, and industrial buildings and landscapes. With these fuel cells, it will be possible to store the surplus energy in the form of hydrogen for use during the night when additional power is needed to offset the loss of direct sunlight. Waste collection also can contribute to the decentralized production of hydrogen. The convenience and economic viability of this strategy is based over the long term on favorable cost comparisons with conventional forms of carbon-based fossil fuels due to the dramatic rise in traditional energy prices, and correspondingly, the decreasing relative costs of renewable energy.

Good and Best Practices

In order to transform urban and regional economies from running on fossil fuels to operating through energy conservation and energy efficient renewable sources, new technologies and techniques must be tried and tested. Today there are a growing number of good and best practices involving conservation projects using energy efficient renewable sources. These initiatives must be assessed carefully, identifying their positive and negative aspects. Freiburg in Germany is an excellent example not only of building a solar city and region, but of doing so with widespread and active citizen participation. In the Vauban district where low energy consumption dwellings and passive solar dwellings were built, old French military barracks from the early 19^{h} century were renewed using photovoltaic technology. A cogeneration system, fed by the nearby woodland area by-products, produces electric power and heating for the whole district. Due to the promotion of mobility based on walking, cycling, and public transit rather than private automobiles, energy consumption in the Vauban district was substantially reduced, along with major reductions in emissions of carbon dioxide, sulfur dioxide, and a variety of other minerals. In addition, photovoltaic cells were used in the renovation of the Town Hall and the Victoria Hotel, close to the historic city center. Similarly, the restoration of the House of Parliament in Berlin involved the

installation of a Foster dome and photovoltaic panels. The Austrian experience has become somewhat of a model in Europe, especially with respect to the reducing carbon emissions. In particular, the city of Vienna implemented a subsidized building renewal program that significantly decreased both fossil fuel consumption and carbon-based emissions.

Older buildings can be more expensive to maintain and manage due to inadequate insulation that leads to greater energy loss compared to more modern buildings. One study in Denmark determined that older buildings require two to four times more energy per square meter for heating and cooling. Thus in restoring and renovating older structures of old assets, new energy conservation techniques and renewable energy efficient technologies must be introduced to lower ongoing costs, though these machines and methods must be made compatible with the preservation of historic cultural and architectural values. In Kolding, Denmark, photovoltaic cells are being used in the renewal of historic buildings and neighborhoods. In Arles, France, the municipality restored a church that was originally built one thousand years ago, to be used today as a major tourist attraction and information center. Three photovoltaic fronts with 70 panels were installed on the church. In Dublin, Ireland, energy efficient materials, solar panels, photovoltaic and wind energy systems, and other modern conservation methods were used to in the renovation of the Temple Bar, turning this historic structure into a 21st century "green building" that reduced energy costs by 80 percent, more than offsetting the added costs of energy innovation

Added capital costs of restoration costs are balanced not only by reductions in ongoing energy consumption expenses, but by a wider set environmental, social, economic, and cultural benefits. Diminishing the damaging air pollution emissions of carbon dioxide, sulfur dioxide, nitrogen dioxide and other particulates causes far less harm to human health and to the health of our ecosystem. Combining energy efficient conservation with energy production using renewable sources contributes to increased employment, enhancing overall demand with clear multiplier effects, while at the same time escaping the harmful effects of dependency on oil and gas. Overall, these enlightened and sustainable practices can help encourage new cultural and civic values.

Tools for Building the Transition Toward the Solar City/Region: Urban Conservation and Energy Planning

The "solar city/region" represents a perspective linked to the systematic introduction renewable energy. The transition towards the solar city/region requires active participation by citizens, institutions, planners, and designers. This change will proceed more rapidly if architects and urban planners develop creative solutions to reshape urban buildings and open spaces in new ways, saving on both materials and energy consumption and costs.

Energy availability is a vital factor in urban life because it assures its vitality in terms of economic development and quality of life, with impacts on employment rates, social conditions, and cultural styles. The development and use of renewable energy in urban regions can be accelerated by clearing away existing various economic, technical, and institutional constraints, especially those linked to the adoption of specific technologies such as harnessing solar and wind power. In addition, it will be necessary to make urban planning an "active" (not neutral) tool supporting research and development of energy conservation methods and renewable energy sources, which not only reduce negative environmental impacts including air pollution, but they can help generate new economic activities and increased employment.

Urban planning policies and regulations can encourage more energy-efficient insulation of cultural heritage structures, including public works and infrastructure, residential dwellings, and commercial buildings. This new type of urban planning can promote creation of thermal districts that integrate heat and cooling with electric power generation, and it also can foster combining the management of waste products and materials with recycling and reuse. Moreover, through more aggressive rule-making along with financial incentives, urban planning can enhance the capacity of individual dwellings and entire

neighborhoods both to conserve energy and to produce at least some energy locally to help meet the growing demand. At the same time, urban planners should focus on buildings and communities providing for natural ventilation and the cooling of spaces. This should help induce market-based investors to find an appropriate rate or return in energy innovations, which, through conservation, sustainable technology, and economic competition, should reduce production costs in the long run.

Conservation planning has its foundation in the ways that energy is produced and consumed. In other words, it must be closely tied to energy planning. The combination of heritage conservation activities and renewable energy systems represents the "entrance point" and the critical element needed to activate sustainable urban development strategies. From careful energy and conservation planning, genuine sustainable economic development can result. In fact, the energy issues are structurally interdependent with land-use, urban spatial planning, transportation, housing, infrastructure, and industrial policies.

Urban communities and regions represent the places where the transition from a carbon-based economy to an economy based on renewable sources can start occurring "on the ground". Sustainable urban development strategies that include both heritage conservation and renewable energy can be the starting point for activating a process of change.

Participatory Evaluation of Cultural Heritage Landscapes

We are now faced with new choices: how to compare different alternative actions in multidimensional urban space? Further, how do we compare newly produced values with lost values. Which are the most important values in urban heritage conservation? Which heritage values have recently been damaged? What are the impacts of combining heritage conservation with renewable energy strategies for the sustainable regeneration of economic, social, cultural, and ecological life?

There are many evaluation issues related to the above-mentioned comprehensive and innovative strategies. For example, beauty value can be assessed in terms of different approaches (economic, ecological, and socio-cultural) different levels of intervention (strategic or operational). Local Agenda 21 movements in urban communities promoting sustainable development to improve the environment and stop climate change seem to be the best political arena for creating a strategic vision of solar city/region through widespread and coherent participatory processes. The adoption of a "Local Agenda 21 of Culture" at the 2004 UNESCO-sponsored Universal Forum of Cultures in Barcelona as a central element for making strategic and participatory urban development decisions based on cultural heritage and comparable issues can serve as a model for evaluating the production of new values as opposed to existing "status quo" values.

An example of evaluations derived from participation is the concept of "intrinsic values" of cultural landscapes. The value of the historic center of Italian communities like Assisi or Gubbio is not only represented by each of their monuments, but by the integration between the various monuments and the surrounding environment that has been shaped over many centuries to define their collective cultural identity and particular historical sense of unity. Intrinsic value reflects this sense of cultural belonging, resulting from the unified integration of many diverse components that all combine together to express the "spirit" of the place. Sacred sites, both natural and built monuments, are examples of resources that represent predominantly "intangible" values unrelated to their construction and maintenance costs or to the revenues they directly or indirectly generate: people assign them spiritual values that are not overtly connected to the economic dimension, even if some benefits can be monetarily measured, such as spending and donations by visitors and tourists.

The roots of these intrinsic values are in cultural traditions, in the history of a community that reflects itself in the whole of the physical signs, symbols, and spiritual values that inspire it. The value of natural holy places is not just through preserving biodiversity, but in the richness of nature that provides the essence for a number of goods and services, including ingredients for products such as medicines and cosmetics, and most importantly, through the deep linkages with human relationships and communities. For

example, places represent living embodiments of the collective memory of vital historic events that help determines a sense of co-belonging, of deep unity between people and nature and between individuals, families, and larger communities: of mutual interdependence that connects all of us together as a fundamental characteristic of humanity.

Likewise, the value of a religious monumental complex, or of pilgrimage places, goes beyond the emotions evoked by their aesthetic beauty by opening one's self to a spiritual relationship characterized by the acknowledgement of a deeper unity with the cosmos, inspiring, in turn, decisions and behavior that guide human actions. They touch us with the personal experience of the evolution of community life over time, of shared beliefs, and of our relationships with others who share this common identity. They emanate an "intrinsic" value that is an expression of cultural patterns, and these differences from place to place are more urgently in need of preservation in our increasingly globalized and homogenized world. UNESCO's World Heritage Forum acknowledges intangible/spiritual/religious values in designating world heritage sites, in addition to archaeological, artistic, and many other historic values to be honored, and conserved. These values do not always revolve around cost-benefit analyses or measurements "willingness to pay" and thus cannot generally be characterized in precise monetary data. Thus it is necessary to develop more sophisticated, multidimensional approaches to values assessment with respect to heritage conservation.

If all of us are not careful, these intrinsic historic values can be forever lost due to excessive "modernization" initiatives, and also because of the harmful impacts of greenhouse gases, air pollution, and climate change. The perception and acknowledgement of these values help to build a new strategic vision, comparing benefits lost versus benefits gained, costs incurred versus costs foregone. At this level, evaluations consist first of all in acknowledging new and future, not just past or current values. Producing value added can involve both continuity and change.

Evaluation of the "complex convenience" of the investment in cultural heritage conservation should always be included in a multidimensional perspective, using specific techniques and indicators. The economic impacts of the introduction of renewable energy sources in urban heritage preservation can be effectively highlighted by emphasizing the convenience of the investment in renewable sources if all the external monetary effects and the saved costs to the heritage site are included together with cultural and symbolic benefits. They will clearly indicate that it is entirely possible and even very desirable to implement positive sum game strategies that conserve the natural and the human environment and generate sustainable prosperity and quality of life at the same time.

Conclusion

Investing in urban heritage conservation can be a major catalyst of economic development and urban regeneration, far beyond the simple appeal to cultural and/or physical attractiveness. Historic buildings and sites characterized by special beauty are able — in rich and poor countries alike — to improve quality of life, and then to more effectively promote investment, development, and growth of jobs, businesses, incomes, and wealth. Beauty is an economic resource that is able to attract a wide range of production and consumption activities: we have to conserve it in a sustainable way, because, in turn, beauty lifts the human spirit and contributes to community the "good life" for families and communities.

"Solar" cities and regions really are sustainable cities and regions. Energy conservation and renewable energy generation and use is fast becoming our only viable future, if we want to build and maintain a better world. The environment, energy, and economic development form a very complex and interdependent triangle, one that ultimately emphasizes the benefits of clean and renewable energy sources. Environmental conservation and energy efficiency are necessary though not sufficient precondition for sustainable development of our world over the next millennium

Sustainable heritage conservation is characterized by a multifunctional renewal of urban space and by a high rate of relative utilization of a multiplicity of renewable energy sources, including but not limited to

photovoltaics, wind, geothermal, micro-hydroelectric, and biomass, in various desirable combinations with hydrogen. Restoration and preservation of urban heritage sites is sustainable if it is able to use energy with the highest efficiency, and especially if it manages to produce by itself the energy it needs, together with the recycling of water and materials resources. In fact, both are fundamental to sustain life. A worldwide movement — "Local Agenda 21 for Culture" — should be organized to support integrated heritage conservation and renewable energy strategies in every nation, region, city, town, and community.

Urban planning and development has always succeeded based on cultural dimensions: on values, new ideas, and visions of the future. Culture is one of the main engines of urban development. The world needs a strategic cultural plan for stimulating widespread democratic citizen participation about identifying and prioritizing goals, strategies, and actions. The starting point for good urban governance is represented by heritage conservation closely integrated with "solar" urban regions.

Luigi Fusco Girard *is a Professor of Economy and Environmental Evaluation and Director of the Department of Conservation of Cultural and Environmental Heritage in the Faculty of Architecture at the University of Napoli Federico II in Naples, Italy. Dr. Fusco Girard is a member of the Board of Directors of Global Urban Development, serving as Co-Chair of the GUD Program Committee on Celebrating Our Urban Heritage. He is co-author of* The Human Sustainable City*,* and Economic and Financial Aspects of the Conservation of Monuments and Historic City Centers.