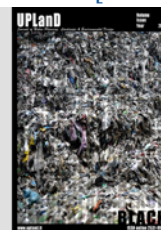


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MEASURING THE IMPACT OF A SLOW REGENERATION PROCESS: THE HLH PL@CE INDEX

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HIGHLIGHTS

- Slow regeneration is a kind of regeneration which take into account the need of people first and is aimed at changing the places slowly.
 - New technologies have had numerous hits on the deepening of the study of the territory.
 - The current urban methods of analysis and design should have and holistic approach to the study of territory.
 - The Ecoliv@ble+ design method of analysis and design is devoted to both topics concerning liveability, health and happiness, and participation, meant in wide manner, including the contribution of the social networks, all in the optic of slow regeneration.
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ABSTRACT

Slow regeneration is a kind of regeneration which take into account the need of people first and is aimed at changing the places slowly in order to co-create the both new identity of place and its healthy use with and for people according with the times of participation.

On the other hand, nowadays, new tools are used in order to support the knowledge of places. The emergence of internet as a medium of communication has opened up spaces and their users to new meanings and uses, including different approach to citizen participation such as community hubs, network thinking and social networks. The introduction of new technologies has had numerous hits on the deepening of the study of the territory. Indeed, the study on these topics is growing although not still framed in a systematic way in the urban planning and design disciplines. Starting from these premises, the adaptation of an original method of urban analysis and design to an emblematic case study will be illustrated. The case study of slow regeneration concerns the city of Pompeii – South of Italy – in the framework of both Smart@Pompeii project and Civitates Pompeii asset with the itinerant event Jazz.it Festival Pompeii. Furthermore, a new index - the *HLH PL@ce index* - to specifically measure the impact of Jazz.it event will be proposed.

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1. INTRODUCTION

Slow regeneration is a kind of regeneration which take into account the need of people first and is aimed at changing the places slowly in order to co-create the both new identity of place and its healthy use with and for people according with the times of participation (Sepe, 2018).

On the other hand, nowadays, new tools are used in order to support the knowledge of places. The emergence of internet as a medium of communication has opened up spaces and their users to new meanings and uses, including different approach to citizen participation such as community hubs, network thinking and social networks. Indeed, the introduction of new technologies has had numerous hits on the deepening of the study of the territory. Thanks to the innovatory contribution of the virtual infrastructures territorial usage is being reorganised, creating contexts where social exchange comes to replace the more traditional contexts. Such processes are not easy to identify because the visible evidence does not always correspond to the transformations in progress.

Such cyber communities have the common goal of supporting specialised social groups which are often geographically distant. The success of these cyber groups is due in the first place to the fact that the networks support “imaginary communities” without the barriers imposed by the physical urban space. In this perspective internet is the means that has enabled the development of social networks and led some to speculate about a global society based on networks.

Accordingly, infrastructures we use in a different manner by the cyber city are at the heart of what is known as the “smart city”, in which the whole range of technologies are at the service of the city both to improve the quality of life and ensure its sustainability (Appleyard, 1981; Castells, 1989; Duany et al., 2010; Grant, 2009; Lupo & Özdil, 2013). In this case, the hybridizations vary widely in terms of both significance and application, so that the issues are at times hard to define, and, although the study on these topics is growing, this is not still framed in a systematic way in the urban planning and design disciplines.

Starting from these premises, the adaptation of an original Ecoliv@ble+ design method of analysis and design to an emblematic case study will be illustrated. This original method has characteristic of flexibility and is devoted to both topics concerning liveability, health and happiness, and partici-

pation, meant in wide manner, including the contribution of the social networks, all in the optic of slow regeneration. Accordingly useful reference is represented by the New Urban Agenda document, which was adopted in Quito, in October 2016 (UN, 2017).

The first results of an emblematic case study will be presented. This concerns the city of Pompeii – South of Italy – in the framework of both Smart@Pompeii project and Civitates Pompeii asset and Jazzit fest (<https://www.smartforcity.it>; <http://www.jazzitfest.it>). The case was previously analysed by the author in the framework of “The historic urban landscape as a resource for local development: an innovative approach for smart strategies to value creation” project- within the PRIN - Project of Relevant Italian National Interest. The previous knowledge of the object area by the author allowed a better comprehension of the place and its changes or condition of persistence of some factors (Grant, 2009; Carmona et al., 2010; Sepe, 2013-2018).

Furthermore, the original HLH - Healthy Liveable Happy - Pl@ce index and relative results will be proposed. In the specific Pompeii case study the index will measure the impact of Civitates Pompeii and Jazzit Fest on the city for the period of interest of the event and after, namely how this event is capable to improve the healthy, liveability and happiness of this place.

The paper is organized as follows: section 2 is devoted to illustrate the NUA Agenda; section 3 illustrates the Ecoliv@ble+ Design method and the adaptation to the case study; section 4 shows the first results of the case study and the new index. Finally, section 5 will draw the conclusion.

2. THE NUA

The general framework of this research concerns the New Urban Agenda, that is a recent document which contains many topics of interest for this study. The interest in this document stands in the fact that each principle is treated in a holistic way and not in separate manner, which is at the basis of the present research. Many principles that are contained in the Agenda concerns topics related to public spaces, liveability, healthy, ICT networks. It was adopted during the UN-Habitat III Conference which was held in Quito in October 2016. It represents “a shared vision for a better and more

sustainable future”.

Accordingly, in the following, a selection of these principles are reported.

13. “We envisage cities and human settlements that:
 - (b) Are participatory, promote civic engagement, engender a sense of belonging and ownership among all their inhabitants, prioritize safe, inclusive, accessible, green and quality public spaces that are friendly for families, enhance social and intergenerational interactions, cultural expressions and political participation, as appropriate, and foster social cohesion, inclusion and safety in peaceful and pluralistic societies, where the needs of all inhabitants are met, recognizing the specific needs of those in vulnerable situations”.
36. “We commit ourselves to promoting appropriate measures in cities and human settlements that facilitate access for persons with disabilities, on an equal basis with others, to the physical environment of cities, in particular to public spaces, public transport, housing, education and health facilities, public information and communication (including information and communications technologies and systems) and other facilities and services open or provided to the public, in both urban and rural areas”.
37. “We commit ourselves to promoting safe, inclusive, accessible, green and quality public spaces, including streets, sidewalks and cycling lanes, squares, waterfront areas, gardens and parks, that are multifunctional areas for social interaction and inclusion, human health and well-being, economic exchange and cultural expression and dialogue among a wide diversity of people and cultures, and that are designed and managed to ensure human development and build peaceful, inclusive and participatory societies, as well as to promote living together, connectivity and social inclusion”.
50. “We commit ourselves to encouraging urban-rural interactions and connectivity by strengthening sustainable transport and mobility, and technology and communications networks and infrastructure, underpinned by planning instruments based on an integrated urban and territorial approach, in order to maximize the potential of these sectors for enhanced productivity, social, economic and territorial cohesion, as well as safety and environmental sustainability. This should include connectivity between cities and their surroundings, peri-urban and rural areas, as well as greater land-sea connections, where appropriate”.
53. “We commit ourselves to promoting safe, inclusive, accessible, green and quality public spaces as drivers of social and economic development, in order to sustainably leverage their potential to generate increased social and economic value, including property value, and to facilitate business and public and private investments and livelihood opportunities for all”.
67. “We commit ourselves to promoting the creation and maintenance of well-connected and well distributed networks of open, multipurpose, safe, inclusive, accessible, green and quality public spaces, to improving the resilience of cities to disasters and climate change, including floods, drought risks and heat waves, to improving food security and nutrition, physical and mental health, and household and ambient air quality, to reducing noise and promoting attractive and liveable cities, human settlements and urban landscapes and to prioritizing the conservation of endemic species”.
97. “We will promote planned urban extensions and infill, prioritizing renewal, regeneration and retrofitting of urban areas, as appropriate, including the upgrading of slums and informal settlements, providing high-quality buildings and public spaces, promoting integrated and participatory approaches involving all relevant stakeholders and inhabitants and avoiding spatial and socioeconomic segregation and gentrification, while preserving cultural heritage and preventing and containing urban sprawl”.
99. “We will support the implementation of urban planning strategies, as appropriate, that facilitate a social mix through the provision of affordable housing options with access to quality basic services and public spaces for all, enhancing safety and security and favouring social and intergenerational interaction and the appreciation of diversity. We will take steps to include appropriate training and support for service delivery professionals and communities in areas affected by urban violence”.
100. “We will support the provision of well-de-

signed networks of safe, accessible, green and quality streets and other public spaces that are accessible to all and free from crime and violence, including sexual harassment and gender-based violence, considering the human scale, and measures that allow for the best possible commercial use of street-level floors, fostering both formal and informal local markets and commerce, as well as not-for-profit community initiatives, bringing people into public spaces and promoting walkability and cycling with the goal of improving health and wellbeing”.

109. “We will consider increased allocations of financial and human resources, as appropriate, for the upgrading and, to the extent possible, prevention of slums and informal settlements, with strategies that go beyond physical and environmental improvements to ensure that slums and informal settlements are integrated into the social, economic, cultural and political dimensions of cities. These strategies should include, as applicable, access to sustainable, adequate, safe and affordable housing, basic and social services, and safe, inclusive, accessible, green and quality public spaces, and they should promote security of tenure and its regularization, as well as measures for conflict prevention and mediation”.
- 114 (d) “Urban freight planning and logistics concepts that enable efficient access to products and services, minimizing their impact on the environment and on the liveability of the city and maximizing their contribution to sustained, inclusive and sustainable economic growth”.
118. “We will encourage national, subnational and local governments to develop and expand financing instruments, enabling them to improve their transport and mobility infrastructure and systems, such as mass rapid-transit systems, integrated transport systems, air and rail systems, and safe, sufficient and adequate pedestrian and cycling infrastructure and technology-based innovations in transport and transit systems to reduce congestion and pollution while improving efficiency, connectivity, accessibility, health and quality of life”.
149. “We will support local government associations as promoters and providers of capacity development, recognizing and strengthening, as appropriate, both their involvement in national consultations on urban policies and

development priorities and their cooperation with subnational and local governments, along with civil society, the private sector, professionals, academia and research institutions, and their existing networks, to deliver on capacity-development programmes.

This should be done by means of peer-to-peer learning, subject-matter-related partnerships and collaborative actions, such as inter-municipal cooperation, on a global, regional, national, subnational and local scale, including the establishment of practitioners’ networks and science policy interface practices”. (UN, 2017)

3. THE METHOD

The Ecoliv@ble+ design method aims at identifying and design urban healthy, liveability and happiness from the users point of view. The part of analysis of the method – five phases - consists of different kinds of surveys, observations and questionnaires. The part of design is composed by three phases and includes the check of consistency with the 25 principles of the Charter of urban health, liveable and happy urban design (Sepe, 2018).

To adapt the method to the Pompeii case study new kinds of survey were added and/or specified. In the following, the different phases of the method will be illustrated and the new parts will be indicated.

Phase 1 of the method consists in the definition of the study area; it needs to go on the site in question and decide, through one or more inspections, whether to confirm the delimitation decided beforehand or modify it.

Phase 2 is characterized by the observation of the characteristics of the place through three surveys concerning the kinds of activities, the perceptions, and the elements that contribute to the perception of urban healthy, happiness and liveability.

In the survey 1, the types of people - locals, visitors, professionals - and activities - enjoyment, passing by, work - are observed. It needs to observe these activities from the quantitative point of view, in order to collect data concerning in what percentage the activities are present in that place and how influence its liveability and healthy. Then, it needs both measure and observe the presence of persons from the quantitative point of view. Accordingly, the frequency with which the activities

are repeated or implemented and with what pace is measured: namely, it is observed if that activity is carried out with a rapid, slow or moderate pace. The survey 2 consists in the identification of singular and mixed perceptions. The singular perception include the visual, auditory, tactile, olfactory, taste perceptions, while the mixed ones include chaos, serenity, disorder, joy, harmony, disorientation, uncomfotability and so on, deriving from the sum of one or more perceptions. Their quantity is expressed as light, medium and high amount percentage; the quality is expressed as pleasant, non influential and annoying perceived perception.

The survey 3 of this phase consists in the observation of the elements which contribute to the healthy and happiness sensation such as constructed and natural elements, suitable pedestrian areas, transportation modes, good quality equipment and services (furniture, pavement, wireless, etc).

Finally, from the intersection of these data, a first result on the degree of healthy, happiness and liveability is obtained, resulted from the surveys on the place in object.

In phase 2 the new surveys include: the kinds of people who is involved and the new activities deriving from the different laboratories within the Civitates Pompeii project for Jazzit Fest (June 2019, <http://www.jazzitfest.it>), asset of Smart@Pompei. Laboratories include: widespread hospitality; collaborative economy; civil economy; education; urban regeneration; business innovation.

Phase 3 consists in an onsite questionnaire to the people who use the sites aimed at identifying factors and elements which give them the sensation of healthy, happy and liveable place. The questionnaire is completed by a research on both web reviews concerning booking of tourist services and social networks to comprehend problems and degree of satisfaction concerning the study area.

Questions may include the following and will be modified in accordance with the place characteristics.

1. This place gives you a feeling of happiness or sadness/ liveability or discomfort/ health or unhealthy?
2. What are the elements that give you the above sensations?
3. What are the main facilities that give in your opinion quality to this place?
4. What are the activities that you act in this place and how often?
5. What do you think about the presence of many

or few people here? Do you think that it is capable to improve the pleasantness or unpleasantness of the place?

6. According to the current place healthy, liveability and happiness what could be done in order to improve this place?
7. What is a healthy/happy/liveable place that you remember in this city or elsewhere?
8. How - in your opinion - the weather conditions might influence the perception of liveability or happiness this place?

Accordingly, two more questions were added, namely:

9. What do you know about Jazzit Fest?
10. Will you collaborate or participate in this event?

Furthermore, considering the wide use of social networks for the Jazzit Fest organization, a specific search on its presence on these tools will be carried out, identifying followers, hastags, like and so on.

Phase 4 is that of the analysis of the traditional cartography in order to understand the elements that compose the place in terms of the type of the archaeological, historical and architectural elements, urban fabric, the natural environment (green areas, sea, hills, etc ..), and other public spaces in the surrounding area. A collection of projects of urban design in development on these area - including for this case Smart@Pompeii project - completes the analysis.

Phase 5 involves the construction of the map of urban healthy, liveability and happiness with the identification of spaces and features that give to the people who use that place the perception of these factors. The map will be the result of the different survey operations, analysis and observation, which were collected on the sites in object.

In phase 6 - the most important for the design - the check of the current degree of healthy, liveability and happiness is carried out. This is obtained through the study of both intrinsic and extrinsic factors contained in the map which are capable to determine urban healthy, liveability and happiness. The intrinsic factors include the perceptions, tradition and culture. Extrinsic factors include the architecture, facilities and urban furniture. The aim is that of identifying a map of those areas where there is a minor presence of healthy, liveability and happiness, which are underused with respect to the place in general and where the project interventions have to be concentrated. These areas could be represented by both perceived

empty spaces or physical empty spaces – such as a non utilized square, or an area destroyed following an environmental disaster. Furthermore, these areas can be marginal with respect to the place or central, or can also be constituted by the whole study place. The check is carried out through the 25 principles of urban health, liveable and happy design concerning the Charter.

Furthermore, these areas can be marginal with respect to the place or central, or can also be constituted by the whole study place. The check is carried out through the 25 principles of urban health, liveable and happy design concerning the aforementioned Charter.

1. A healthy, liveable and happy place is a space that can transmit feelings of healthy, liveability and happiness to everyone who uses it.

Accordingly, it is important:

2. to encourage the use of the place by people of different age groups, from children to the elderly;
3. to eliminate architectural barriers, which might discourage people from frequenting that space;
4. to create a suitable balance between the elements of nature, landscape and equipment in the composition elements of the space;
5. to have both in streets and public spaces natural lighting during the day and artificial at other times, avoiding artificial light in daily hours;
6. to retain an adequate state of cleanliness and maintenance;
7. to create suitable spaces for dogs and domestic animals, which are accompanied by their owners;
8. to create a sense of security and safety to those who walk, cross, rest, and do different activities in the public spaces;
9. to minimise or eliminate the noise generated by public transport;
10. to improve suitable pedestrian and cycle lines;
11. to fully perceive naturally occurring smells - e.g. wood, grass, sea, etc.;
12. to have direct contact with natural materials, preferably local, used in the design of the space;
13. to have the presence of water in different shapes (e.g. fountains) which promotes the vitality of the place;
14. to have the possibility of doing actions – such as walking, watching, etc.. - with a moderate or slow pace, promoting opportunities to take breaks in the space;

15. to have the possibility of using the space in different weather conditions and seasons, contributing at the same time to its continuous good state of maintenance;
16. to preserve both the place identity and the intangible characteristics of the site and its surroundings;
17. to both allow and promote different types of functions such as games, breaks, walking, etc.;
18. to facilitate gymnastic activities – also slow ones - with the presence of small equipment or a designated space;
19. to have the possibility of doing actions that normally are not permitted – such as walking barefoot in the water or in designated public areas -, improving a feeling of freedom and joy;
20. to encourage the presence of art in its different forms;
21. to promote sculptures, games, or other elements and amenities which can bring a smile to a person's face, promoting a state of liveability and happiness;
22. to promote participation, namely the feeling of being able to contribute to the life of that place, increasing the sense of belonging;
23. to encourage the consideration of the place as symbolic of the neighbourhood, improving the perception of its identity;
24. to promote the educational function, which a place has – e.g. clearly displayed information about history of the place etc. or suitable ways to use it –, increasing its intrinsic value;
25. to facilitate the use of new technologies to increase the knowledge of its intangible values and history, offering a more profound experience of the place.

Phase 7 concerns the check of the emerged first design ideas - with the users of the place to obtain a mosaic of degree of pleasure on these. Two typologies of questionnaires are carried out: the questionnaire on site that has to be administered to the different kinds of users and visitors of the place; the research on the websites with the user requests. In the first kind of questionnaire, the design hypothesis are verified with demands selected by who carried out the study, *ad hoc* with respect both to the place and the results of the phase 7.

With respect to the Charter, after a first check of consistency with the Pompeii case study, it does not need any change. The only adaptation concerns the new sentence “in different forms” in principles 22 which is hence widened as follows:

22. To promote participation, namely the feeling of being able to contribute to the life of that place in different forms, increasing the sense of belonging. The second kind of questionnaire is constituted by or the study of web reviews concerning booking of tourist services (e.g. booking or trip advisor) already on-line or *ad hoc* new tools, such as the realization of blogs or other social network tools to support this and other phases of the project.

Answers to the different questionnaires administered on site and online will be overlapped, constituting the participative part of the project, but also the possibility of comprehension of the place in a wider manner.

In the Pompeii case study, this part is important because, as aforementioned, the Jazzit fest is built with a wide phase of participation.

Following the check of consistency with the Charter of phase 6 and the results of the phase 7 questionnaires, the identification of project interventions is carried out. In phase 8 – the last one - the design of the project interventions in the areas in object is carried out through: the overlapping of the results of the previous phases; a check of consistency with spaces and urban furniture and equipment already present; the identification of the use of the traces – urban, cultural, etc., already existing in the place.

The existing traces to which connect the project interventions are not only the urban ones, but also the cultural and natural ones belonging to memories, perceptions and other tangible and intangible factors. A detailed analysis will provide the more suitable information in order to make emerge the existent characteristics and peculiarities and connect the project of new parts. In this way a map of urban health, liveability and happiness design will be obtained. The design of the new spaces to be harmonized with the existent ones is an important point, above all when the final objective is constituted by the urban health, happiness and liveable achievements, concepts which are often hardly reachable.

4. THE CASE STUDY

The Pompeii case study has started in 2013 in the framework of the research “The historic urban landscape as a resource for local development: an innovative approach for smart strategies to value creation” - within the PRIN - Project of Relevant

Italian National Interest -, which aims to illustrate their definitional aspects and its evolution, and how to sustainably organize the territory in order to accommodate those paths.

The PRIN project started from the idea that “the hard values, the tangible, material and monetary ones are dominating, while the soft values, the intangible, immaterial and non-monetary ones are forgotten. (...) By integrated approaches, it is possible to reach the balance between conservation and transformation, respecting values and existing forms of capital (human, social, cultural, environmental, economic, etc.). (...). Tangible and intangible values lead knowledge/interpretation and select the way to look at the territory, researching (local and numerous) specific codes and the significant available resources. (...) This implies a consciousness of the complex social value of the territory, constituted by primary (intrinsic) values and secondary (instrumental) values. Intrinsic value expresses the spirit of a place, its specific, unique, non-reproducible character, its particular identity, the emotional link existing between social, man-made and natural capitals. Intrinsic value constructs integration, reduces marginalization, goes over fragmentation, stimulates vitality. It is a catalyst of material and immaterial energies, able to link different dimensions of value, helping to understand the deep unity”. In that sense, the general aim of the PRIN research was: “elaborating a methodological process that combines the contribution of different expertise in order to implement an innovative and smart local development model based on dynamic landscape concept, in continuous evolution and transformation, multidimensional and complex, where different systems of relationships interact, sometimes able to self-regenerate and become catalyst of virtuous processes” (Sepe, 2015).

The experiment is continuing in the framework of Smart@Pompeii e Civitates Pompeii – and Jazz.it fest (June 2019), in which technological and social innovation are integrated and will continue for the next year to assess the impact of the event after it. The main objective of Smart@Pompeii is the realization of a replicable, modular and flexible integrated technological model, based on the use of IoT technologies and aimed at the intelligent, sustainable and inclusive management of the security - of both people and monument - of the Pompeii Archaeological Park in both normal and emergency conditions. The design process of innovation technology is realized harmonizing pro-

tection and enhancement of the cultural heritage. Civitates Pompei is a strategic asset of the Smart@Pompeii project and is focused on social innovation, declined in hospitality, urban regeneration, civic laboratories, participation of the inhabitants of Pompeii and the buffer zone. Jazz.it is an itinerant event in which about three hundred musicians and professionals from all over the world meet - spontaneously and by way of volunteering - get to know each other, perform, produce and compose new music, transforming the host country into a place of artistic experimentation (<https://www.smartforcity.it>; <http://www.jazzitfest.it>).

The first result was the adaptation of the Ecoliv@ble+ Design Method to the Pompeii case study - explained in the previous section - and the creation of the HLH Pl@ce index.

The different surveys, concerning the first phase of the analysis of this area lead at concentrating the study between Via Plinio, Via Roma - namely the main thoroughfare which connect the two main attractions of Pompeii, Pompeii ruins and the Sanctuary, - the Piazza Bartolo Longo and the Parco Fonte Salutare. From the first results of the other phases of the method a low use of the Via Plinio-Via Roma axes and Parco della Fonte was observed, while a medium use of Piazza Bartolo Longo was noted. In general, people who use Via Plinio-Via Roma are more visitors than locals, while Piazza Bartolo Longo and the Parco Fonte Salutare are more frequented by locals than tourists. The presence of touristy places (for eating, drinking etc) was noted. The high frequency of visitors is above all concentrated in the Archaeological Park and Sanctuary, which represent at moment the main attractions of Pompeii.

In order to measure the results of the phases of analysis and those of design an index was created: the HLH - *Health, Liveable and Happiness - Pl@ce index*. It will measure the impact of Civitates Pompeii and Jazzit Fest on the city for the period of interest of the event and after, namely how this event is capable to improve the *healthy, liveability and happiness* of this place.

The HLH Pl@ce index is defined by the degree of place and its activities satisfaction by people - both locals, visitors and specific group of involved actors - e.g. by the Civitates Laboratory -, according with the results of consistency with the Charter (phase 6 of the method).

In particular, this is calculated by the sum of factors deriving by the comparison with the principles of the Charter associated to a weight. The

weight is calculated between 1 and 5, namely: $w_i = 1$ has little impact in calculating the index, while the highest value $w_i = 5$ counts for a lot.

For example, as regards principles 2 "To encourage the use of the place by people of different age groups, from children to the elderly", the weight is 1 if in the place in object few activities for different use and for different people groups are previewed and 5 if the place is well equipped for all.

The index can be calculated in different periods of the experimentation in order to measure the impact of the activities during the short and long time. The range is 25-125. In the analysis phases, the first result of the index calculation for Pompeii city is 75, while the first result of the index calculation for Pompeii archaeological site is 100. The results show that the general liveability of the Pompeii archaeological site is greater than that of Pompeii city.

A wider support of the ICT and social networks could represent a fundamental factor, as already emerged from the previous experiment on Pompeii. The creation of a both virtual and experiential path of Pompeii could constitute elements of slow regeneration encouraging the enjoyment of this place by both locals and visitors starting from its better and less known contemporary identity resources not only related to its archaeological site but also to its cultural and local roots. (Porteous, 1977; Degen & Rose, 2012; Buttimer & Seamon, 1980; Feld, 2005).

5. CONCLUSION

The paper illustrated the adaptation of the Ecoliv@ble+ Design method to the case of Pompeii, carried out in the framework of Smart@Pompeii, Civitates Pompeii and Jazz.it Fest (June 2019). Indeed, the original Ecoliv@ble+ Design method is flexible and is devoted to both topics concerning liveability, health, happiness, and participation, meant in a wide manner, including the contribution of the social networks, all in the optic of sustainable and slow regeneration. The method was adapted to better fit the Pompeii case study adding or improving some surveys and questionnaire demands.

The NUA - New Urban Agenda adopted in 2016 Habitat III Conference - has represented an important theoretical framework for the comprehension of the holistic approach which was used in the present study, whose topics are related to

public spaces, liveability, healthy places, and ICT networks.

The main objective of Smart@Pompeii is the realization of a replicable, modular and flexible integrated technological model, aimed at the intelligent, sustainable and inclusive management of the security of the Pompeii Archaeological Park in both normal and emergency conditions. The design process of innovation technology is realized harmonizing protection and enhancement of the cultural heritage. Civitates Pompei is a strategic asset of the Smart@Pompeii project and is focused on social innovation, declined in hospitality, urban regeneration, civic laboratories and participation. Jazz.it is an itinerant event in which musicians and professionals from all over the world meet - spontaneously and by way of volunteering - transforming the host country into a place of artistic experimentation.

In order to measure the impact of Jazz.it Fest - highly supported by social networks - on the city for the period of interest of the event, namely measure how this event is capable to improve the *healthy, liveability and happiness* of this place, the *HLH (health, liveable and happiness) PI@ce index*

was created. On a range of 25-125, the first result of the index calculation for Pompeii city is 75; the first result of the index calculation for Pompeii archaeological site is 100. The result shows that the general liveability of the Pompeii archaeological site is greater than that of Pompeii city.

A wider support of the ICT and social networks could represent a fundamental factor, as already emerged from the previous experiment on Pompeii. The creation of a both virtual and experiential path of Pompeii could encourage the enjoyment of this place by both locals and visitors. Existing and new public spaces could be reconnected physically and virtually to the archaeological site and the religious sanctuary. The network of public spaces with their different identities constitutes both a suitable cultural connection between the two main attractions - the archaeological site and the Sanctuary - and an experiential path through the promotion of local products. Two important factors, in the future steps of this research, will include to understand how the use of social networks can really support a lasting regeneration process and in what measure cultural events are capable to contribute to the transformation of a place.

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