Health spaces

Hospital Outdoor Environment

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The important growth attributed to sensory perceptual stimulations on the path to healing of hospitalized patients is increasingly pushing designers of social and health care facilities to enhance the physical and environmental elements of ‘nature’ until they are considered fundamental inputs in order to optimize the quality not only of the care spaces but of all the spaces that help in the process of regenerating the physical and emotional conditions of people who are sick. It is no coincidence that, since the earliest antiquity, the fundamental principles of design in the Asclepia in ancient Greece included the “insertion of structures to be used for care in areas highly integrated with nature (in connection with the sacred forest)”, equipped with open spaces for leisure and physical activities and geared towards creating visual relationships with the dwelling places of the deities, for the psychological effect that this performance could have in patients.

Spaces “without walls” increasingly tend to assume a strategic value in the spatial and physical configuration of the hospital complex and require particular attention from the initial preparation of masterplans for social and health care facilities, going on to influence, where possible, the territorial planning of urban voids in all their multiform manifestations.

There are a variety of ways in which expressions of nature, plants, flowers, colours, scents, water, noise, and birds can have a positive effect on the senses of those who are physically and psychologically debilitated, and expertise is required to understand how individuals react to the stimuli perceived in relation to their state of wellbeing/malaise. However, we cannot forget that, together with patients who spend limited periods of time in healthcare facilities, the medical and care staff due to their continued presence are subject to fatigue and burn-out that would justify – even in terms of efficiency, productivity and risk reduction – design solutions that consider the design of suitable open spaces to be a valid and recognized contribution to the containment of this critical issue.

All this leads us to make some reflections that are difficult to dispute:
- the design of the spaces outside the functional units of hospitals should be
approached so it is fully integrated with the design of the interior spaces;
- as there are many types of outdoor spaces and they are highly differentiated
  in terms of their potential to support the restoration of wellness (internal courtyards,
gardens, parks, footpaths), it is not easy to define design rules or guidelines that are
generally applicable;
- certain solutions can only be deemed effective if supported by post-
occupancy checks that help to classify as “evidence-based” the design solutions that
turned out to be of actual therapeutic benefit and where wellbeing was perceived
by the users;
- the close correlation that exists between the different user categories and
their different ways of reacting to psycho-sensory stimulations make it clearly
apparent that the performances of an outdoor space for sick children cannot
be considered similar to those intended, for example, for those suffering from
Alzheimer’s disease or for cancer patients: the type of building configures the
different specificities.

Being mindful of the above, the aim of this book is not to compile a set of guidelines
with systematic discipline, nor to act as a manual to be added to the already
numerous publications on the design of Healing Gardens, rather it has attempted
to extract – from experiences, projects and research – some principles aimed at
highlighting the contribution offered by designers in treating, with equal dignity and
equal purpose, the outdoor spaces as interior spaces in healthcare facilities.

The inclusion of case studies that refer to contexts with different social-cultural
as well as geographical-territorial connotations offers the reader the opportunity
to reflect on how the diversity of different contexts makes it difficult to generalize
about design approaches to the problem and how important it is to derive solutions
from knowledge of the culture of those places.

The range of case studies examined tends to construct a sort of database – and not
necessarily best practices – that can continuously be enriched by new contributions
to stimulate the sensitivity of designers and clients on the topic addressed and to
create a widespread culture of human-centred design for spaces of health and
wellness rather than spaces for treatment alone aimed at recovery.
Having in mind that present considerations regarding good public health to be highly prioritized resource for the sustainable development, the ‘ambiance’ of a space generally must be reconsidered. In recent years design for public spaces especially begun to include designing enhancements in an attempt to reduce stress and anxiety, increase users’ satisfaction, and promote health throughout the urban territory. Lately was established a process for designing and applying several techniques based on pro-health architectural and urban improvements of hospital outdoor environment. Thus this book presents some of the existing research on this subject as the information base in order to widen aspects considered in planning and designing built and natural environment, and to enlist opportunities that already exist and to predict new in order to make meaningful contributions in this area that are likely to make a significant impact to achieve both individual health (at micro level) and public and environment health outcomes (at macro level). The book includes the views of educationalists and practitioners and raises considerations of an added social value to be asked for as an important dimension in people’s well-being and recovery from ill health or social exclusion. Such outcomes emerge from the idea of public spaces becoming a ‘product’ delivered to the community, and contributing and being healing or promoting health in public space generally.

The high demographic shift towards urbanization and a rise of people living in urban areas pose environmental problems among others and a need to promote health effects in urban design and planning. The space has an effect on people using the space, therefore current tendencies are aimed at creation and design of spaces “providing a positive context” and being actively salutogenic. Recent researches have been concentrated on a limited number of settings and design guidelines for the physical elements of an optimal healing environment, also the description, development and reflection of relations between experience of health and access to open and public spaces in cities.

Public urban space is used as a comprehensive term for all urban areas in the city: parks and green spaces, nature areas near population centers, gardens, residential...
and school courtyards, etc. With this in regard, public urban spaces are viewed as a health-promoting element of city planning. Open spaces provide benefits linked to physical activity and reported stress and quality of life, as well as social and natural capital outcomes related to general wellbeing.

Finally, the book provides a narrative summary for urban planners and designers and, especially, health policy-makers and demonstration that consideration of health becomes an element of high importance in city planning. Presented findings of the relationship between physical and social dimensions of urban spaces and their association with health protection sought to pull together clear relevance public outdoor spaces have for public health and to encompass the wider social and economic determinants of public health.
It was February 2012 at the Faculty of Architecture, University of Belgrade during the course “Health Urban Design” when we have developed the topic of Healthy spaces around the hospital complex. Thanks to the Basileus Erasmus Mundus programme, we had the chance to work together for one month and then we have received the funds by Sapienza International Office, on the basis of the mutual agreement between our Institutions, to go on with our research and teaching activities.

The Serbian students, during the Course, worked on the regeneration of the outdoor environments at the Clinical Center of Serbia in Belgrade. To let them fully understand the topic, the students together with us, met the board of management of the Clinical Center and they interviewed, through a questionnaire given by us, 108 users amongst which there were patients, hospital staff, students and visitors. The interviews’ results were really interesting. On the one hand the results highlight the bad feelings of users towards outdoor environments, on the other hand the great importance of outdoor environments for the users as an integral part of surroundings city and the importance of the relation with the indoor activities of the hospital.

We discussed the topic in deep, concluding that there are a lot of places around the world where the outdoor environments around the big hospitals are not properly taken into account by the designers. Even if the hospitals occupy a big portion of the city, the outdoor spaces are not integrated into the city, nor used as an extension of the healthcare activities.

It can be argued that the ‘outdoor spaces’ are not ‘places characterized’ but only physically ‘open spaces’.

The book “Health spaces. Hospital Outdoor Environments” comes from that teaching experience and from the studies made during these years.

We decided to write this book involving different experts in the healthcare design and landscape, aware of the need for interdisciplinary approaches and of the significant importance that landscape design gains in these last years. The book discusses and shows design solutions aimed at creating the right balance as much
between the city and the hospital’s outdoors, that much between hospital open spaces and indoor environments, in accordance with users’ needs and behaviors.

The book develops the topic of “Health spaces: Hospital Outdoor Environments” starting from a general approach to go on in the real case study’s analysis. According to that, the book is divided in two parts: the first part collects essays on planning and design approach and the second part shows significant case studies located in Serbia and in Italy.

The first part of the book collected six papers. They explore theoretically the main topic from different points of view, from different disciplines.

The paper “Hospital open spaces and urban open spaces” (by Z. Đukanovic), which is opening the book, presents a brief review of the relation between urban open space as a wider, complex system of contemporary cities and the hospital open spaces as its, not less complex, sub-element. There are several different types of approaches to researching and defining the ‘openness’ of the open spaces and the author discusses the main five approaches: landscape, formal, functional, cultural and economic.

The paper “Regeneration and restoration of the hospital spaces” (by F. Terranova) proposes a critical path that a designer should follow in designing a meta-project of a hospital, starting from the analysis of the importance of the social determinants. The paper also argues that the goal of a good design is to find solutions aimed at mitigating environmental pressures and the increasing gaining importance of the landscape design. At the end the author closes the paper with some recommendations to address the designers.

The paper “Healing environments design” (by N. Beretić) researches a gap between urban open spaces and health care facilities and it symbolically presents green spaces as health promoters, but considered balance between notions and presents theories dealing with the research of urban open spaces within healthcare facilities. It researches those notions trough two lenses: the first is a review of existing literature about defining the main theories in the field of healthcare outdoors, and the second one observes historical and cultural conception of outdoor spaces within healthcare facilities.

The paper “Observation as a way of knowing and measuring open hospital spaces” (by F. Quici), discusses two main questions: “Can open hospital spaces be considered
‘places’? Can it be said that the open spaces of today’s hospital structures present characteristics sufficient to qualify them as public spaces?”. The paper argues that the first step towards understanding the nature and the function of such spaces is to investigate the behavior and the expectations of the users. It discusses some methods that can be useful to address the designers.

The paper “Exploring the relationship between outdoor and indoor environments in the hospital design process” (by F. Giofrè) discusses the relationship between the city, the hospital and its indoor and outdoor environments. It contends that the outdoor spaces need to be integrated as part of the design process through a multidimensional design approach that involves the user groups. The paper introduces new categories in relation to the different levels of usability – public, semi-public, private. The design of these spaces is of great importance insofar as it potentially influences and alters the behavior of the people that use it, even more so if those same people are involved in its design.

The paper “Hospital outdoor environments on dualities and contradiction” (by R. Božović-Stamenović) closes the first part of the book. It discusses a number of dichotomies and paradoxes intrinsic to the nature of the hospital outdoor spaces. The outdoor realm is put in perspective with the urban, social and personal domains. The paper argues that the healthfulness of the outdoor hospital environment is deeply imbedded in design’s qualitative substance rather than in its formal appearance. In that sense narrative strategies and exploration of indeterminacy and multifaceted character of outdoor spaces seem more opportune for achieving the lasting positive effects on users.

The second part of the book is opened by the paper “Health facilities and open spaces: integrated policies at the landscape and territorial level” (by R. D’Onofrio, E. Trusiani). It examines the relationship between health facilities and open spaces from a landscape and the territorial point of view, considering not just the hospital closest surroundings, but also more distant areas. It argues that the open spaces’ network is a connection system of different green areas and natural amenities, inside and outside the city, and comprises a variety of functions at very different levels. The paper discusses some national and international examples in order to show how a different use of natural parks and other protected areas could represent a precious opportunity, still unexplored, for human health and social wellbeing.
The paper written by A.M. Giovenale illustrates an Italian case study “A Master Plan for regeneration: Piacenza Hospital complex, Italy” as the result of the synergy of different skills and different specializations. It examines the design of a hospital building, in particular the prevalence of functionality rather than architecture, highlighting how the Master Plan represents a possible solution which is ‘outside the box’. The paper discusses as the master plan reinterpreted the hospital in Piacenza as a place where citizens should be able to meet, in order to recover the sense of the hospital being an ‘urban site’.

What are the types of barriers between hospitals and city in Italy? The paper “Barriers between hospital and city: seven Italian case studies” (by F. Giofrè) analyses six university hospital complexes with more than 950 beds. The study applies a quantitative research method and its aim is to offer a reading, also photographic, of the current situation of those hospital complexes and their relationships with the city and also to analyze the data collected in order to understand the redevelopment potential of the external spaces of the hospital complexes.

The paper “Image of a hospital city: clinical center of Serbia” (by I. Miletić), discusses the open spaces within the Clinical Center in terms of the urban environment. The analysis shows a very varied and confusing conglomeration of buildings that passed through different social systems and therefore constantly changes its organization, methods of management and urban planning with significant repercussions on the physical layout.

Another interesting case study is analyzed in the paper “The role of outdoor public space in a pavilion university hospital. Case study: Policlinico Umberto I of Rome, Italy” (by V. Napoli, G. Primiceri). The paper investigates the outdoor space of the Policlinico Umberto I of Rome, through the analysis of its phases of evolution from the original project to current day proposals. The analysis of the external space in its current state is based on considerations and also on the basis of understanding the relationship with its urban surroundings. Along with the study, a questionnaire on the use and perception of the space was submitted by different categories of users. Through the process the possibilities that could be linked to the use of outdoor space are highlighted, especially in large university pavilion hospital situations.

The paper “Hospital open spaces. Healing or threatening environments. Case study: Clinical Centre of Niš and Clinical Centre of Vojvodina in Novi Sad, Serbia” (by V.
Mandić and T. Stanisavljević), analyses the existing open space in the two Clinical Centers. Methodology of research process includes desk and internet research, field research, site surveys and interviews with patients, local inhabitants and employees of the Clinical Centers. The goals of the study are to present the emerging need for developing integrated healthcare systems focused on overall well-being of patients and other users.

The last paper “Analysis of some renovation projects indoor and outdoor. Case study: Policlinico Umberto I of Rome, Italy” (by R. Belibani and M. Cardi), shows some of the several renovation projects of the hospital, particularly focusing on the one regarding the re-functionalization of Pediatrics and Obstetrics Clinics. The paper investigates also the tools for the design of green spaces pertaining to a hospital, in order to satisfy a high quality of the hospital landscape.

Matching and putting in order the key words written by each author, it’s possible to give to the readers a word map of the book (see Figure 1).
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The aim of this book is not to compile a set of guidelines with systematic discipline, nor to act as a manual to be added to the already numerous publications on the design of Healing Gardens, rather it has attempted to extract - from experiences, projects and research - some principles aimed at highlighting the contribution offered by designers in treating, with equal dignity and equal purpose, the outdoor spaces as interior spaces in healthcare facilities.” - Foreword by Romano Del Nord, Director of TESIS, Inter-University Research Centre “Systems and Technologies for Healthcare Buildings”, University of Florence, Italy

“The book provides a narrative summary for urban planners and designers and, especially, health policy-makers and demonstration that consideration of health becomes an element of high importance in city planning. Presented findings of the relationship between physical and social dimensions of urban spaces and their association with health protection sought to pull together clear relevance public outdoor spaces have for public health and to encompass the wider social and economic determinants of public health. - Vladan Đokić, Dean of the Faculty of Architecture, University of Belgrade, Serbia

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