Therapeutic Landscape Design
Methods, Design Strategies and New Scientific Approaches
PoliMI SpringerBriefs

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Therapeutic Landscape Design

Methods, Design Strategies and New Scientific Approaches
After decades of viewing the outdoor space of a healthcare facility as an unimportant addition to the building, the therapeutic significance of these spaces is becoming more and more clear. Design practice and user research is increasingly demonstrating that outdoor spaces in cities and the garden spaces of healthcare facilities can have a significant effect on people’s health. In many nations of the developed world, an increasing proportion of older people are developing symptoms of Alzheimer’s disease and other forms of dementia. It is laudable that in this volume several chapters focus on designing for this particular patient group, for whom specific design elements can provide a prosthetic environment, thus ensuring peoples’ dignity and safety, and alleviating the concerns of the staff.

Children, like people with disabilities and the elderly, are particularly vulnerable to a mismatch between their needs and the design of the physical environment. Italy has experienced an alarming reduction in the proportion of children allowed to travel to school on their own, or to enjoy what has become known as a “free range childhood” in the city. It is particularly important that this concern is being documented and hopefully brought to the attention of city planners and politicians. Children deprived of experiencing a reasonable sense of independence at an early age may have trouble expressing themselves as fully creative adults in later years.

There are many ways of establishing a healthy relationship between human beings and the natural environment. One of these is through horticultural therapy, where benefits for those with physical or mental health problems can be facilitated through the simple act of gardening. Nurturing a plant that needs to be taken care, learning about the value of compost, experiencing a sense of time standing still—all of which can occur in the garden—bring benefits to a patient which may not be possible through medication alone. The design of spaces for horticultural therapy and the inclusion of relevant vegetation require the collaboration of those trained to work with patients together with botanists and ecologists.

In situations where outdoor space is not possible, and the practice of horticultural therapy is not feasible, natural elements can be brought into the environment through biophilic design. Such elements in a building might include views to greenery, indoor plants, adequate daylight to enhance circadian rhythms, nature-related artwork, and
architectural design details. Close collaboration must be established between architects, landscape architects, and interior designers to ensure the best possible solutions and outcomes of biophilic design.

Overall, this volume presents a significant collection of research findings and relevant design directives. The design of buildings and outdoor spaces undoubtedly affect the day-to-day lives and health of those who use them. The publication of this important book presents research-grounded information that will enable readers to influence, design, and build environments beneficial to those who live, work or play in them.

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The health status—as considered today—is not just an individual protection and promotion issue, but a collective condition, strongly influenced by the environmental context; the link between the morphological and functional features of urban contexts and places, and the Public Health outcomes, opening up to a new scientific and design scenario about Urban Health research topic.

Referring to this research field, the introduction of Nature-Based Solutions and Therapeutic Landscape Design approaches into the healthcare contexts, facilities, and architectures has assumed a considerable importance over the years. The recent period that saw the healthcare facilities fighting against the COVID-19 pandemic, highlighted the need, especially in complex periods of lockdown, to use green spaces to recover health and well-being both in hospitals and in public or private places. The COVID-19 pandemic is an important demonstration of the dual effects of urbanization on the environment, that is, the intrinsic capacity of the contemporary city to be a place of economic and social opportunities and, at the same time, places where multiple risk factors for Public Health and Health Welfare could be developed and disseminated.

Starting from the experience developed into the six editions of the Training Course in “Therapeutic Landscape Design”—which has been held since 2015 at the Department of Architecture, Built environment and Construction engineering (ABC) of Politecnico di Milano, where the multidisciplinary approach of the Lectures involved helps to provide scientific, technical, healthcare, social and design methodologies to over 120 attendees—the need to bring together, in a scientific monograph, the contribution of the Professors, Professions, and Practitioners, became crucial as much as relevant.

A more conscious design of therapeutic green spaces—especially referred to the Healing Gardens—can give texture and consistency to several unique elements in the treatment of specific pathologies, to support social discomfort, to develop healing processes and practices, and to improve the evolution of healthy lifestyle and accessible built environment for fragile users and people with disabilities.
This collection of insights and scientific experiences aims to provide the tools to plan and create therapeutic places and natural spaces aimed to support the care process, as well as giving an overview of national and international case studies, defining design approaches, analysis, and best practices.

Milan, Italy

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Erica Isa Mosca
Urban Health: Applying Therapeutic Landscape Design. Methods, Design Strategies and New Scientific Approaches

Gayle Souter-Brown

1 Research Outlook

Recent increased urbanisation and urban densification, coupled with corporate agriculture and horticulture, have changed the environment. Concurrently, digital lifestyles have disconnected people from nature. Stress levels are rising. Cities are increasingly impermeable, new developments often lack private gardens and public parks are shrinking. Young and old people spend less time outside as there is little to attract them outdoors. Although overwhelming evidence links positive outcomes for health and well-being with the stress reducing properties of the environment, a dose of nature, through views and time spent outdoors, is increasingly difficult to find. New research seeks to integrate theory and practice.

Therapeutic landscapes have been a feature of human settlement since ancient times. Intentionally richly planted, they offer serenity, contact with nature, space and a sense of refuge. Contemporary therapeutic landscapes are generally developed as gardens, on a human scale.

2 Why Do Towns and Cities Need Therapeutic Landscapes?

The health and wellbeing of people and planet is intimately linked. As urbanisation increases, so environmental pressures and human stress levels increase. Rising chronic stress levels across towns and cities affect community vitality. To ease the effect of these pressures, a new balance must be sought whereby the therapeutic properties of landscapes are prioritized within urban planning and design. Human scale landscapes are at the heart of healthy cities.
Historically, urban health was supplied with biodiverse tree-filled public parks and gardens providing clean air and somewhere to take gentle exercise. With reduced public budgets and an ongoing housing crisis many of these former ‘lungs’ of the city have been sold off to developers or neglected.

The recent global Covid-19 pandemic places new attention on health promotion as vital to ensure health systems are not overwhelmed. The protective nature of reduced stress and enhanced community wellbeing must be recognised in design research and practice. Therapeutic landscapes, supplied as a network across all parts of our towns and cities, address a need for mental health support, reducing stress to prompt and enable healthy lifestyles. Protecting existing greenspace, promoting new therapeutic landscapes and enhancing the health-giving qualities of urban nature will not only aid human health, but address issues around climate change, biodiversity loss, and aid economic recovery.

3 Evidence Base

The evidence base for the efficacy of therapeutic landscapes is significant [4–10]. Interest from mental and physical health, landscape and urban design professionals is growing, alongside diverse groups such as sociologists, urban foresters, housing providers and policy makers [11, 12].

3.1 Biophilia

E.O Wilson’s theory of biophilia [1], our innate love of living things, is fast becoming a key instrument in fashioning functional urban design. Taking an evolutionary approach, Wilson found that humans are wired to respond positively to nature contact.

3.2 Attention Restoration Theory

Kaplan’s Attention Restoration Theory [2] takes the biophilia hypothesis further and posits that time spent in nature is protective; it promotes and enhances health and well-being.

3.3 Salutogenesis

A shift towards a focus on health promotion and prevention of illness is captured by Aaron Anonovsky’s term salutogenesis [3]. Salutogenesis offers an alternative