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Pasta) -- Chapter 3. A plant sociological procedure for the ecological design and enhancement of urban green infrastructure (Chiara Catalano, Salvatore Pasta & Riccardo Guarino) -- Chapter 4. Functional and phylogenetic characteristics of vegetation: effects on constructed green infrastructure (Amy Heim, Garland Xie & Jeremy Lundholm) -- Chapter 5. Green Infrastructure within urban and rural landscapes following Landscape Bionomics (Vittorio Ingegnoli) -- Chapter 6. Roof greening with native plant species of dry sandy grasslands in northwestern Germany (Kathrin Kiehl, Daniel Jeschke & Roland Schröder) -- Chapter 7. Nature-Based Solutions as Tools for Monitoring the Abiotic and Biotic Factors in Urban Ecosystems (Federica Larcher, Chiara Baldacchini, Chiara Ferracini, Monica Vercelli, Martina Ristorini, Luca Battisti & Carlo Calfapietra) -- Chapter 8. Anthosart Green Tool: selecting species for green infrastructure design (Patrizia Menegoni, Riccardo Guarino, Sandro Pignatti, Claudia Trotta, Francesca Lecce, Federica Colucci, Maria Sighicelli & Loris Pietrelli) -- Chapter 9. Stewardship innovation: the forgotten component in maximising the value of urban nature-based solutions (Caroline Nash, Heather Rumble & Stuart Connop) -- Chapter 10. Nature as model: Evaluating the mature vegetation of early extensive green roofs (Christine Thuring & Nigel Dunnett) -- Chapter 11. Less is more: soil and substrate quality as an opportunity for urban greening and biodiversity conservation (Francesca Vannucchi, Francesca Bretzel, Roberto Pini & Heather Rumble) -- Part II: Planning and Implementation of Green Infra-structure -- Chapter 12. Public Nature: The Contribution of Urban Agriculture to New Green Infrastructure in Japan (Noriko Akita) -- Chapter 13. Anticipating an Urban Green Infrastructure Design for the Turkish Mediterranean City of Antalya (Meryem Atik, Veli Ortaçesme & Emrah Yildirim) -- Chapter 14. Multifunctional ecological networks as framework for landscape and spatial planning in Italy (Serena D' ambrogi & Matteo Guccione) -- Chapter 15. The foodscape as ecological system. Landscape resources for r-urban bmetabolism, social empowerment and cultural production (Sara Favargiotti & Angelica Pianegonda) -- Chapter 16. Policies and planning of urban Green Infrastructure and sustainable urban drainage systems (Daniele La Rosa & Viviana Pappalardo) -- Chapter 17. Soil and Water Bioengineering as Natural Based Solutions (Paola Sangalli, João Paulo Fernandes & Guillermo Tardío) -- Chapter 18. Guided by Water: Green Infrastructure Planning and Design Adapted To Climate Change (Camila Gomes Sant'anna, Ian Mell & Luciana Bongiovanni Martins Schenk) -- Chapter 19. Abandoned Lands on Lower Danube's Urban Front as Opportunity to Enhance the River Corridor and the Urban Green Infrastructure (Angelica - Ionela Stan & Mihaela Hrmnescu) -- Chapter 20. The Collserola Special Protection Plan (PEPNat): a bid for coresponsibility in agricultural and forest management (Eugènia Vidal-Casanovas, Laura Cid, Antoni Farrero, Patricia García-Rodríguez & Kyriaki Ilousi) -- Part III: Nature-Based Solutions and Innovative Design Approaches -- Chapter 21. Exploring Regenerative Co-benefits of Biophilic Design for People and the Environment (Maria Beatrice Andreucci, Angela Loder, Beth Mcgee, Jelena Brajkovi & Martin Brown) -- Chapter 22. Design the Urban Microclimate: Nature-based Solutions and Technology at Nexus (Silvia Coccolo, Marco Delli Paoli, Alessandro Stracqualursi & Maria Beatrice Andreucci) -- Chapter 23. Evolution of the Approaches to Planting Design of Parks and Gardens as Main Greenspaces of Green Infrastructure (Maria Ignatieva) -- Chapter 24. Environment in megacities: Tehran Waterscapes (Manfredi Leone, Ayda Alehashemi & Giuditta Lo Tauro) -- Chapter 25. Cities facing the Wild (Annalisa Metta & Maria Livia Olivetti) -- Chapter 26. Biodiverse Cities:

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Sommario/riassunto

The aim of this book is to bring together multidisciplinary research in the field of green infrastructure design, construction and ecology. The main core of the volume is constituted by contributions dealing with green infrastructure, vegetation science, nature-based solutions and sustainable urban development. The green infrastructure and its ecosystem services, indeed, are gaining space in both political agendas and academic research. However, the attention is focused on the services that nature is giving for free to and for human health and survival. What if we start to see things from another perspective? Our actions shall converge for instance to turn man-made environment like cities from heterotrophic to autotrophic ecosystems. From landscape ecology to urban and building design, like bricks of a wall, from the small scale to the bigger landscape scale via ecological networks and corridors, we should start answering these questions: what are the services that are we offering to Nature? What are we improving? How to implement our actions? This book contains three Open Access chapters, which are licensed under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0).