Landscape Architecture And Digital Technologies Re Conceptualising Design And Making

Teaching Landscape: The Studio Experience gathers a range of expert contributions from across the world to collect best-practice examples of teaching landscape architecture studios. This is the companion volume to The Routledge Handbook of Teaching Landscape in the two-part set initiated by the European Council of Landscape Architecture Schools (ECLAS). Design and planning studio as a form of teaching lies at the core of landscape architecture education. They can simulate a professional situation and promote the development of creative solutions based on gaining an understanding of a specific project site or planning area; address existing challenges in urban and rural landscapes; and often involve interaction with real stakeholders, such as municipality representatives, residents or activist groups. In this way, studio-based planning and design teaching brings students closer to everyday practice, helping to prepare them to create real-world, problem-solving designs. This book provides fully illustrated examples of studios from over twenty different schools of landscape architecture worldwide. With over 250 full colour images, it is an essential resource for instructors and academics across the landscape discipline, for the continuously evolving process of discussing and generating improved teaching modes in landscape architecture.

Strategies for Landscape Representation discusses a variety of digital and analogue production techniques for the representation of landscape at multiple scales. Careful consideration is required to represent time, and to ensure accuracy of representation and evaluation in the landscape. Written as a guide for making appropriate selection of a wide variety of visualisation tools for students and built environment professionals with an interest in landscape, the book charts emerging technologies and historical contexts whilst also being relevant to landscape legislation such as Building Information Modelling (BIM) and Landscape Assessment. This book is an innovation-driven text that encourages readers to make connections between software, technology and analogue modes. The management, choice and combination of such modes can arguably narrow the unknown of landscape character, address the issues of representing time and change in landscape and engage and represent communities' perceptions and experience of landscape. Showcasing international examples from landscape architecture, planning, urban design and architecture, artists, visualisers, geographers, scientists and model makers, the vitality of making and intrinsic value of representational work in these processes and sites is evidenced. An accompanying companion website provides access to original source files and tutorials totalling over a hundred hours in mapping and GIS, diagrams and notation, photomontage, 3D modelling and 3D printing.

How do people avoid the stresses of the digital age? Urban dwellers must now turn to nature to recover, restore and rebalance after the stresses brought on by relentless digital connectivity. It is easy to task nature as the cure, with technology as the ailment. In Network Nature, Richard Coyne challenges the definitions of both the natural and the artificial that support this time-worn narrative of nature's benefits. In the process, he attacks the counter-claim that nature must succumb to the sovereignty of digital data. Covering a spectrum of issues and concepts, from big data and biohacking to animality, numinous spaces and the post-digital, he draws on the rich field of semiotics as applied to natural systems and human communication, to enhance our understanding of place, landscape and architecture in a digital world.

Outstanding explorations of design concepts, principles, and processes This Second Edition of Introduction to Landscape Design offers even broader coverage of the environmental, human, technological, and aesthetic issues associated with landscape design than the first edition. Beginning with the way we perceive, manage, and design the landscape, it moves on to explore the forces that influence land design. An overview of landscape management, planning, and design includes a discussion of the roles and integration of the professions involved, modes of professional practice, and site scale design processes. The book explores the ecology of design and the integration of land design decisions into dynamic systems. This fully updated new edition: * Presents landscape design as a synergism of art and science * Addresses the interplay between buildings and sites * Provides insights into the breadth of people-environment relationships * Places special emphasis on our growing understanding of interrelationships between the landscape and human decisions A superb introduction for students as well as a useful reference for practicing professionals, this book is an excellent guide for anyone who wants to develop a better understanding of landscape design.

Multiple intelligences (MI) as a cognitive psychology theory has significantly influenced learning and teaching. Research has demonstrated a strong association between individual intelligences and their cognitive processes and behaviors. However, it remains unknown how each of or a combination of these intelligences can be effectively optimized through instructional intervention, particularly through the use of emerging learning technology. On the other hand, while efforts have been made to unveil the relationship between information and communication technology (ICT) and individual learner performance, there is a lack of knowledge in how MI theory may guide the use of ICTs to enhance learning opportunities for students. Examining Multiple Intelligences and Digital Technologies for Enhanced Learning Opportunities is an essential reference book that generates new knowledge about how ICTs can be utilized to promote MI in various formal and informal learning settings. Featuring a range of topics such as augmented reality, learning analytics, and mobile learning, this book is ideal for teachers, instructional designers, curriculum developers, ICT specialists, educational professionals, administrators, instructors, academicians, and researchers.

The all-inclusive reference to starting and operating a landscape architecture firm The Professional Practice of Landscape Architecture, Second Edition is completely revised to keep up with the latest developments driving the day-to-day operation of a successful private-practice landscape architecture office. Whether helping a landscape architecture student identify a career track, providing direction on starting a new office, guiding an owner seeking to jumpstart a stagnant or fledgling business, or assisting a landscape

architect-in-training study for the national Landscape Architecture Registration Exam (LARE), this single-source blueprint is the key to prospering in this dynamic field. This new edition features: Indispensible information for practicing landscape architects, including professional ethics, finances, office administration, marketing and promotion, and project management An updated look at government regulatory laws, federal tax administration, sustainable design, and LEED certification Strategies for using the Internet, computer software, and technology to market and manage a firm Examples of professional contract templates Case study profiles of landscape architecture firms Requirements for professional registration and criteria for taking the national exam This comprehensive and practical reference combines real-world experience with the highest professional standards to instruct the reader on business concepts. Expertly organized and easy to follow, The Professional Practice of Landscape Architecture, Second Edition continues to be the one source that landscape architects need to direct all facets of their practice.

This book brings together Sociologists, Computer Scientists, Applied Scientists and Engineers to explore the design, implementation and evaluation of emerging technologies for older people. It offers an innovative and comprehensive overview, not only of the rapidly developing suite of current digital technologies and platforms, but also of perennial theoretical, methodological and ethical issues. As such, it offers support for researchers and professionals who are seeking to understand and/or promote technology use among older adults. The contributions presented here offer theoretical and methodological frameworks for understanding age-based digital inequalities, participation, digital design and socio-gerontechnology. They include ethical and practical reflections on the design and evaluation of emerging technologies for older people, as well as guidelines for ethical, participatory, professional and cross-disciplinary research and practice. In addition, they feature state-of-the-art, international empirical research on communication technologies, games, assistive technology and social media. As the first truly multidisciplinary book on technology use among ageing demographics, and intended for students, researchers, applied researchers, practitioners and professionals in a variety of fields, it will provide these readers with insights, guidelines and paradigms for practice that transcend specific technologies, and lay the groundwork for future research and new directions in innovation.

Models are an essential component of the architect's design process. As tools of translation, models assist the exploration of the possible and illustrate the actual. While models have traditionally served as representational and structural studies, they are increasingly being used to suggest and solve new spatial and structural configurations. Models, the eleventh volume of the highly regarded journal 306090, explores the role of the architectural model today in relation to the idea, the diagram, the technique, and the material. Models includes contributions from engineers, scientists, poets, painters, photographers, historians, urbanists, and architects both young and experienced.

At the dawn of the twenty-first century, digital technologies have enabled new techniques for the development of architecture. In Catalytic Formations, Ali Rahim suggests that these digital design techniques have the potential to affect the wider cultural landscape in profound ways. Digital technologies allow architecture to engage in a feedback loop with its context -- to absorb influences and produce concrete effects on its users. This book offers both a philosophy and specific techniques for how architects can catalyze cultural advancements. Also included are provocative examples from Rahim's work at Contemporary Architecture Practice and projects by Zaha Hadid, Greg Lynn, FORM, and other cutting edge architects.

This book reflects and expands on the current trend in the building industry to understand, simulate and ultimately design buildings by taking into consideration the interlinked elements and forces that act on them. Shifting away from the traditional focus, which was exclusively on building tasks, this approach presents new challenges in all areas of the industry, from material and structural to the urban scale. The book presents contributions including research papers and case studies, providing a comprehensive overview of the field as well as perspectives from related disciplines, such as computer science. The chapter authors were invited speakers at the 7th Symposium "Impact: Design With All Senses", which took place at the University of the Arts in Berlin in September 2019.

Infinite Suburbia is the culmination of the MIT Norman B. Leventhal Center for Advanced Urbanism's yearlong study of the future of suburban development. Extensive research, an exhibition, and a conference at MIT's Media Lab, this groundbreaking collection presents fifty-two essays by seventy-four authors from twenty different fields, including, but not limited to, design, architecture, landscape, planning, history, demographics, social justice, familial trends, policy, energy, mobility, health, environment, economics, and applied and future technologies. This exhaustive compilation is richly illustrated with a wealth of photography, aerial drone shots, drawings, plans, diagrams, charts, maps, and archival materials, making it the definitive statement on suburbia at the beginning of the twenty-first century.

This volume represents the proceedings of the 3rd Eurasian Conference on Educational Innovation 2020 (ECEI 2020). Thes conference is organized by the International Institute of Knowledge Innovation and Invention (IIKII), and was held on February 5-7, 2020 in Hanoi, Vietnam.ECEI 2020 provides a unified communication platform for researchers in a range of topics in education innovation and other related fields. This proceedings volume enables interdisciplinary collaboration of science and engineering technologists. It is a fine starting point for establishing an international network in the academic and industrial fields.

This book presents human factors research focused on achieving and assessing sustainability in the built environment and architecture. It reports on advanced engineering methods for architecture and design, and on assessments of the social, environmental, and economic impacts of various designs and projects. The book covers a broad range of practical studies relating to ergonomic design and assessment of public and private places, urban ecological constructions, and urban planning for smart city. Further topics include green area planning, environmentally-responsive architecture, and conservation and adaptation of vernacular architectures in modern design. Based on the AHFE 2020

Virtual Conference on Human Factors in Architecture, Sustainable Urban Planning and Infrastructure, held on July 16–20, 2020, this book offers a wealth of perspectives on sustainability and ergonomics in architecture and urban planning. As such, it represents a timely source of inspiration for designers, architects, urban planners, as well as civil and environmental engineers, and other professionals, including policy-makers, seeking for developing sustainable buildings and infrastructure.

Landscape Architecture and Digital Technologies explores how digital technologies are reshaping design and making in landscape architecture. While the potentials of digital technologies are well documented within landscape planning and visualisation, their application within design practice is far less understood. This book highlights the role of the digital model in encouraging a new design logic that moves from the privileging of the visual to a focus on processes of formation, bridging the interface of the conceptual and material, the virtual and the physical. Drawing on interviews and projects from a range of international designers -including , Snøhetta, Arup, Gustafson Porter, ASPECT Studios, Grant Associates, Catherine Mosbach, Philippe Rahm, PARKKIM, LAAC and PEG office of landscape + architecture among others, the authors explore the influence of parametric modelling, scripting, real-time data, simulation, prototyping, fabrication, and Building Information Modelling on the design and construction of contemporary landscapes. This engagement with practice is expanded through critical reflection from academics involved in landscape architecture programs around the world that are reshaping their research and pedagogy to reflect an expanded digital realm. Crossing critical theory, technology and contemporary design, the book constructs a picture of an emerging twenty-first century practice of landscape architecture practice premised on complexity and performance. It also highlights the disciplinary demands and challenges in engaging with a rapidly evolving digital context within practice and education. The book is of immense value to professionals and researchers, and is a key publication for digital landscape courses at all levels.

A general upgrade, with good external works site cost models, strong on composite items and more measured works. Now in its 36th edition, Spon's External Works and Landscape Price Book 2017 offers the only comprehensive source of information for detailed external works and landscape costs. It covers all the items to be found in hard and soft landscape contracts, and forms an indispensable reference book for quantity surveyors, landscape architects, contractors and local authority managers – essential for compiling estimates, specifications, bills of quantities and works schedules – no matter what the size of the project being undertaken. Use the access code inside the front cover of the book to get set up with internet access to this 2017 edition until the end of December 2017. We now provide a VitalSource® ebook, giving a versatile and powerful online data viewing package. This NRM edition includes the following new and significantly developed items: Acoustic fencing Architectural metalwork Block and beam systems Culverts Deep Concrete manholes to 3 m Headwalls Pre-cast steps New retaining walls And green roofs and sportsfields have now been broken down into details, rather than presented as a lump sum. All the standard features that you expect from SPON'S EXTERNAL WORKS AND LANDSCAPE PRICE BOOK remain: material and measured work prices covering contract items from preliminaries and site clearance and encompassing the core external works activities with full breakdowns into labour, materials and other components detailed guidance on wage rates, landscape consultants' fee scales an extensive Approximate Estimates section for rapid spot estimating updated, free of charge, two or three times a year – see inside for registration details. Updates are available online at www.pricebooks.co.uk.

Changing Humanities and Smart Application of Digital Technologies is a collection of research articles relevant to digital humanities (the use of technology to advance our understanding of the humanities). A key aim of this volume is to demonstrate the potential of using computer technology to creating new humanistic knowledge-based systems through innovative applications. Readers will learn about applications in digital humanities through 11 chapters which explore a variety of computer applications in education and social research. Topics covered in the volume range from the role of internet in understanding, to the more technical domains of GIS and mobile device applications in studying religion, literature, geography, history and games. This volume is a useful reference for scholars and graduate students involved in humanities and social science research, as it provides readers with creative insights into digital technology applications to build on their research goals.

This conference proceeding contains papers presented at the 6th International Conference on Machinery, Materials Science and Engineering Applications (MMSE 2016), held 28-30 October, 2016 in Wuhan, China. The conference proceeding contributions cover a large number of topics, both theoretical and applied, including Material science, Electrical Engineering and Automation Control, Electronic Engineering, Applied Mechanics, Mechanical Engineering, Aerospace Science and Technology, Computer Science and Information technology and other related engineering topics. MMSE provides a perfect platform for scientists and engineering researchers to exchange ideas, build cooperative relationships and discuss the latest scientific achievements. MMSE will be of interest for academics and professionals working in a wide range of industrial, governmental and academic sectors, including Material Science, Electrical and Electronic Engineering, Information Technology and Telecommunications, Civil Engineering, Energy Production, Manufacturing, Mechanical Engineering, Nuclear Engineering, Transportation and Aerospace Science and Technology.

A single-source guide to harnessing the power of 3D visualization tools for analysis and representation of landscapes Current technology allows designers to model environmental phenomena and space in new and exciting ways that go beyond the two-dimensional plane. The models, illustrations, and animations that can be created usher in a new paradigm of landscape representation that can become analytical tools as well as beautiful imagery. The text focuses on digital modeling methods that can be used to express rich environments using digital tools to develop, composite, and animate scenes. This full-color book provides coverage of 3D visualization tools for land planning and landscape architecture. The methods and theories in Modeling the Environment present landscape representation around a core set of ideas—scene, object, terrain, environment/atmosphere, time/dynamics, and the composite—that centers representation on human experience. Supported by www.lab.visual-logic.com, a website offering tutorials and forums, the text shows you how to use Autodesk 3ds Max to create dynamic landscape environments while also referring to a range of other tools including Google SketchUp, Autodesk Maya, and AutoCAD Civil 3D. It also demonstrates how to integrate 3D visualization tools into existing workflows, and offers critical coverage of intelligent drawings and representations, giving you a glimpse at the future of the profession. This book: Includes sections intended to build upon one another in order to understand the environment as a composite representation of multiple systems interacting Shows

how to integrate 3D visualization tools into existing workflows, as opposed to offering an entirely new workflow Emphasizes modeling, animation, and simulation as both design analysis tools and presentation tools Modeling the Environment is essential reading for professionals in landscape architecture, urban planning and design, architecture, and related disciplines who are looking to be at the forefront of technology.

Basics Landscape Architecture 03: Visual Communication will enable landscape architects to understand why a range of visual communication skills are essential to inform a design process.

Collection of selected, peer reviewed papers from the Second International Conference on Green Building, Materials and Civil Engineering (GBMCE 2013), August 21-23, 2013, Taiwan. Volume is indexed by Thomson Reuters CPCI-S (WoS). The 401 papers are grouped as follows: Chapter 1: Architecture and Landscape Design, Residential, Regional and Urban Planning, Sustainable City and Ecological Planning; Chapter 2: Environmental Energy, Protection, Technologies and Engineering, Emission Control; Chapter 3: Outdoor, Indoor Engineering and Design, HVAC Technologies; Chapter 4: Materials Engineering and Technologies, Materials in Industrial Processes; Chapter 5: Building Materials and Technologies; Chapter 6: Green Building and Engineering; Chapter 7: Energy Saving Building and Technologies, Photovoltaic and Solar Energy Applications, Energy Control; Chapter 8: Civil Engineering Technologies; Chapter 9: Construction Dynamics, Stability and Strength, Geotechnical and Seismic Engineering; Chapter 10: Modelling and Simulation Technologies; Chapter 11: Project Management and Marketing, Assessment and Safety.

Research in and on architecture is as complex as the discipline itself with its different specialist fields, and therefore the results often remain unconnected. Research Culture in Architecture combines digital and analog research issues and demonstrates how important cross-disciplinary cooperation in architecture is today. The complexity and increasing specialization are elaborated on in the various chapters and then linked to the core of architecture, i.e. design. Scientists from the theoretical and practical fields present research results in the following subjects: "design methodology", "architectural space, perception, and the human body", "analog and digital timber construction", "visualization", "robotics", "architectural practice and research", and "sustainability".

The use of innovative new materials is an important trend in landscape architecture today. These materials include biodegradable geotextiles, super-absorbent polymers, and plants that react to changing soil conditions. This book presents the available materials and technologies in the context of practical applications.

Landscape Architecture and Digital TechnologiesRe-conceptualising design and makingRoutledge

The Routledge Research Companion to Landscape Architecture considers landscape architecture's increasingly important cultural, aesthetic, and ecological role. The volume reflects topical concerns in theoretical, historical, philosophical, and practice-related research in landscape architecture – research that reflects our relationship with what has traditionally been called 'nature'. It does so at a time when questions about the use of global resources and understanding the links between human and non-human worlds are more crucial than ever. The twenty-five chapters of this edited collection bring together significant positions in current landscape architecture research under five broad themes – History, Sites and Heritage, City and Nature, Ethics and Sustainability, Knowledge and Practice – supplemented with a discussion of landscape architecture education. Prominent as well as up-and-coming contributors from landscape architecture and adjacent fields including Tom Avermaete, Peter Carl, Gareth Doherty, Ottmar Ette, Matthew Gandy, Christophe Girot, Anne Whiston Spirn, Ian H. Thompson and Jane Wolff seek to widen, fuel, and frame critical discussion in this growing area. A significant contribution to landscape architecture research, this book will be beneficial not only to students and academics in landscape architecture, but also to scholars in related fields such as history, architecture, and social studies.

Today, designers are shifting the practice of landscape architecture towards the need for a more complex understanding of ecological science. Constructed Ecologies presents ecology as critical theory for design, and provides major ideas for design that are supported with solid and imaginative science. In the questioning narrative of Constructed Ecologies, the author discards many old and tired theories in landscape architecture. With detailed documentation, she casts off the savannah theory, critiques the search for universals, reveals the needed role of designers in large-scale agriculture, abandons the overlay technique of McHarg, and introduces the ecological and urban health urgency of public night lighting. Margaret Grose presents wide-ranging new approaches and shows the importance of learning from science for design, of going beyond assumptions, of working in multiple rather than single issues, of disrupting linear design thinking, and of dealing with data. This book is written with a clear voice by an ecologist and landscape architect who has led design students into loving ecological science for the support it gives design.

Combine traditional techniques with modern media for more communicative renderings Digital Drawing for Landscape Architecture: Contemporary Techniques and Tools for Digital Representation in Site Design, Second Edition bridges the gap between traditional analog and new digital tools by applying timeless concepts of representation to enhance design work in digital media. The book explores specific techniques for creating landscape designs, including digitally rendered plans, perspectives, and diagrams, and the updated second edition offers expanded coverage of newer concepts and techniques. Readers will gain insight into the roles of different drawings, with a clear emphasis on presenting a solid understanding of how diagram, plan, section, elevation, and perspective work together to present a comprehensive design approach. Digital rendering is faster, more efficient, and more flexible than traditional rendering techniques, but the design principles and elements involved are still grounded in hand-rendering techniques. Digital Drawing for Landscape Architecture exploits both modalities to help designers create more beautiful, accurate, and communicative drawings in a professional studio environment. This second edition contains revised information on plan rendering techniques, camera matching workflow, and color selection, along with brand new features, like: Time-based imagery and tools Workflow integration techniques Photoshop and Illustrator task automation Over 400 updated images, plus over 50 new examples of award-winning work The book takes a tutorial-based approach to digital rendering, allowing readers to start practicing immediately and get up to speed quickly. Communication is a vital, but often overlooked component of the design process, and designers rely upon their drawings to translate concepts from idea to plan. Digital Drawing for Landscape Architecture provides the guidance landscape designers need to create their most communicative renderings yet.

This book explores the emergence and development of data in cities. It exposes how Information Communication Technology (ICT) corporations seeking to capitalize on cities developing needs for urban technologies have contributed to many of the issues we are faced with today, including urbanization, centralization of wealth and climate change. Using several case studies, the book provides examples of the, in part, detrimental effects ICT driven 'Smart City' solutions have had and will have on the human characteristics that contribute to the identity and sense of belonging innate to many of our cities. The rise in Artificial Intelligence, Big Data, and technologies like social media, has changed how people interact with and in cities, and Allam discusses of how these changes require planners, engineers and other urban professionals to adjust their approach. The main question the book seeks to address is 'how can we use emerging technologies to recalibrate our cities and ensure increased livability, whilst also effectively dealing with their associate challenges?' This is an ongoing conversation, but one that

requires extensive thought as it has extensive consequences. This book will be of interest to students, academics, professionals and policy makers across a broad range of subjects including urban studies, architecture and STS, geography and social policy.

The Journal of Digital Landscape Architecture addresses all aspects of digital technologies, applications, information, and knowledge pertaining to landscape architecture research, education, practice, and related fields. The journal publishes original papers in English that address theoretical and practical issues, innovative developments, methods, applications, findings, and case studies that are drawn primarily from work presented at the annual international Digital Landscape Architecture conference. Its intent is to encourage the broad dissemination of these ideas, innovations, and practices.

This book charts the path toward high performance sustainable buildings and the smart dwellings of the future. The volume clearly explains the principles and practices of high performance design, the uses of building information modelling (BIM), and the materials and methods of smart construction. Power Systems, Architecture, Material Science, Civil Engineering and Information Systems are all given consideration, as interdisciplinary endeavours are at the heart of this green building revolution.

Dynamic Patterns explores the role of patterns in designed landscapes. Patterns are inherently relational, and the search for and the creation of patterns are endemic to many scientific and artistic endeavors. Recent advances in optical tools, sensors, and computing have expanded our understanding of patterns as a link between natural and cultural realms. Looking beyond the surface manifestation of pattern, M'Closkey and VanDerSys delve into a multifaceted examination that explores new avenues for engagement with patterns using digital media. Examining the theoretical implications of pattern-making, they probe the potential of patterns to conjoin landscape's utilitarian and aesthetic functions. With full color throughout and over one hundred and twenty images, Dynamic Patterns utilizes work from a wide range of artists and designers to demonstrate how novel modes of visualization have facilitated new ways of seeing patterns and therefore of understanding and designing landscapes.

Design, plan, and simulate landscapes with computer modeling tools If you want to model how waterflows will be affected by an upstream dam, or how vegetation growth will respond to irrigation, state-of-the-art Landscape Modeling is for you! Developed by pre-eminent Harvard landscape architects Stephen Ervin and Hope Hasbrouck, it's the first-ever guide to integrating the two-dimensional capabilities of geographic information systems (GIS) and three-dimensional CAD systems in landscape planning. This resource brings together all the technical tools you need to analyze and manipulate landforms digitally, together with the contextual information needed to apply these tools for small- and large-scale land uses, from gardens to regional plans. You get: Techniques for analyzing, evaluating, designing, planning, and simulating specific landscape types and elements such as water, terrain, and vegetation A CD loaded with interactive modeling formulas and algorithms, plus demo versions of key GIS and CAD softwares for land elements, together with how-to instructions Full color international case studies with site plans, photographs, simulations, sound and other landscape effects, and virtual environments

Codify: Parametric and Computational Design in Landscape Architecture provides a series of essays that explore what it means to use, modify and create computational tools in a contemporary design environment. Landscape architecture has a long history of innovation in the areas of computation and media, particularly in how the discipline represents, analyses, and constructs complex systems. This curated volume spans academic and professional projects to form a snapshot of digital practices that aim to show how computation is a tool that goes beyond methods of representation and media. The book is organized in four sections; syntax, perception, employ, and prospective. The essays are written by leading academics and professionals and the sections examine the role of computational tools in landscape architecture through case studies, historical accounts, theoretical arguments, and nascent propositions.

Hybrid and mixed media create a huge variety of diagramming and drawing options for landscape representation. From Photoshop mixed with digital maps, to hand drawings overlaid with photos and modelling combined with sketches, the possibilities are endless. In this book, Amoroso curates over 20 leading voices from around the world to showcase the best in contemporary hybrid design. With over 200 colour images from talented landscape architeture students, this book will explore the options, methods and choices to show the innovative approaches that are offered to students and practitioners of landscape architecture. With worked examples in the chapters and downloadable images suitable for class use, this is an essential book for visual communication and design studios.

This book brings together diverse voices from across the field of sustainable human computer interaction (SHCI) to discuss what it means for digital technology to support sustainability and how humans and technology can work together optimally for a more sustainable future. Contemporary digital technologies are hailed by tech companies, governments and academics as leading-edge solutions to the challenges of environmental sustainability; smarter homes, more persuasive technologies, and a robust Internet of Things hold the promise for creating a greener world. Yet, deployments of interactive technologies for such purposes often lead to a paradox: they algorithmically "optimize" heating and lighting of houses without regard to the dynamics of daily life in the home; they can collect and display data that allow us to reflect on energy and emissions, yet the same information can cause us to raise our expectations for comfort and convenience; they might allow us to share best practice for sustainable living through social networking and online communities, yet these same systems further our participation in consumerism and contribute to an ever-greater volume of electronic waste.By acknowledging these paradoxes, this book represents a significant critical inquiry into digital technology's longer-term impact on ideals of sustainability. Written by an interdisciplinary team of contributors this book will be of great interest to students and scholars of human computer interaction and environmental studies.

Two areas of special interest in the future are geographic information systems, and three dimensional modeling in design and presentation as well as in construction. Data structure is of utmost importance for the further development of computer tools. As communication and digital information retrieval increases, standards must be agreed upon. This is a complex and slow process. Digital product modeling will be equally slow in acceptance. The range of software today covers much of the information processing that takes place in planning and design. Up till today, they have had its largest impact on communication and presentation. As a design tool, the computer has yet to prove its use to most landscape architects. Still, it use can in some respects strengthen the professional role, and give opportunities to new fields of expertise. Acquiring the ability to evaluate computer support, and to use it in a professional situation, is largely

up to the individual. The parties surrounding the landscape architect provide the framework in terms of possibilities and expectations. Customers demands for the use of digital methods are rising. All these changes show the importance of IT strategies. First of all, the organizations employing the landcape architects need dynamic and up-to-date documents. However, since the choices of methods and tools have a large bearing on how individuals can and will function in planning and design systems, the choices must in the end be made individually. If the decisions are based on knowledge and insight, they can increase the possibilities for the profession to adapt to a changing society, and enhance its role as an active and creative part of this development.

This inspiring and thought-provoking book explores how recent innovations in landscape architecture have uniquely positioned the practice to address complex issues and technologies that affect our built environment. The changing and expanding nature of "landscape" make it more important than ever for landscape architects to seek innovation as a critical component in the forward development of a contemporary profession that merges expansive ideas and applications. The editors bring together leading contributors who are experts in new and pioneering approaches and technologies within the fields of academic and professional landscape architecture. The chapters explore digital technology, design processes and theoretical queries that shape the contemporary practice of landscape architecture. Topics covered include: Digital design Fabrication and prototyping Emerging technology Visualization of data System theory Concluding the book are case studies looking at the work of two landscape firms (PEG and MYKD) and two academic departments (Illinois Institute of Technology and the Rhode Island School of Design), which together show the novel and exciting directions that landscape is already going in.

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