

Understanding Landscape Visualisation For Visual Impact

This major reference presents the challenges, issues and directions of computer-based visualization of the natural and built environment and the role of such visualization in landscape and environmental planning. It offers a uniquely systematic approach to the potential of visualization and the writers are acknowledged experts in their field of specialization. Case studies are presented to illustrate many aspects of landscape management including forestry, agriculture, ecology, mining and urban development. Landscape is a vital, synergistic concept which opens up ways of thinking about many of the problems which beset our contemporary world, such as climate change, social alienation, environmental degradation, loss of biodiversity and destruction of heritage. As a concept, landscape does not respect disciplinary boundaries. Indeed, many academic disciplines have found the concept so important, it has been used as a qualifier that delineates whole sub-disciplines: landscape ecology, landscape planning, landscape archaeology, and so forth. In other cases, landscape studies progress under a broader banner, such as heritage studies or cultural geography. Yet it does not always mean the same thing in all of these contexts. The Routledge Companion to Landscape Studies offers the first comprehensive attempt to explore research directions into the many uses and meanings of 'landscape'. The Companion contains thirty-nine original contributions from leading scholars within the field, which have been divided into four parts: Experiencing Landscape; Landscape Culture and Heritage; Landscape, Society and Justice; and Design and Planning for Landscape. Topics covered range from phenomenological approaches to landscape, to the consideration of landscape as a repository of human culture; from ideas of identity and belonging, to issues of power and hegemony; and from discussions of participatory planning and design to the call for new imaginaries in a time of global and environmental crisis. Each contribution explores the future development of different conceptual and theoretical approaches, as well as recent empirical contributions to knowledge and understanding. Collectively, they encourage dialogue across disciplinary barriers and reflection upon the implications of research findings for local, national and international policy in relation to landscape. This Companion provides up-to-date critical reviews of state of the art perspectives across this multifaceted field, embracing disciplines such as anthropology, archaeology, cultural studies, geography, landscape planning, landscape architecture, countryside management, forestry, heritage studies, ecology, and fine art. It serves as an invaluable point of reference for scholars, researchers and graduate students alike, engaging in the field of landscape studies.

"Papers presented at the Training Programme on Mathematical Modelling in GIS/GPS and Digital Cartography, held at Jaipur during 1st February to 2nd March 2005".--[Source inconnue].

Forests are an important component in the visual appeal of landscapes. There is an increasing recognition of the importance of this subject among foresters and environmental scientists. Increasingly, forest resource managers must consider the aesthetic consequences of timber harvesting operations and management plans. This book is the first to address this subject area. It consists of 15 chapters and is divided into four parts. It brings together not only foresters and ecologists, but also landscape architects, psychologists and philosophers. It should therefore attract a wide readership. Contributors are leading research workers in their subjects, from Canada, the USA and UK.

The volume deals with the effects of digitization on spatial and especially landscape construction processes and their visualization. A focus lies on the generation mechanisms of 'landscapes' with digital tools of cartography and geomatics, including possibilities to model

and visualize non-visual stimuli, but also spatial-temporal changes of physical space. Another focus is on how virtual spaces have already become part of the social and individual construction of landscape. Potentials of combining modern media of spatial visualization and (constructivist) landscape research are discussed.

In many enterprises, the number of deployed applications is constantly increasing. Those applications - often several hundreds - form large software landscapes. The comprehension of such landscapes is frequently impeded due to, for instance, architectural erosion, personnel turnover, or changing requirements. Furthermore, events such as performance anomalies can often only be understood in correlation with the states of the applications. Therefore, an efficient and effective way to comprehend such software landscapes in combination with the details of each application is required. In this thesis, we introduce a live trace visualization approach to support system and program comprehension in large software landscapes. It features two perspectives: a landscape-level perspective using UML elements and an application-level perspective following the 3D software city metaphor. Our main contributions are 1) an approach named ExplorViz for enabling live trace visualization of large software landscapes, 2) a monitoring and analysis approach capable of logging and processing the huge amount of conducted method calls in large software landscapes, and 3) display and interaction concepts for the software city metaphor beyond classical 2D displays and 2D pointing devices. Extensive lab experiments show that our monitoring and analysis approach elastically scales to large software landscapes while imposing only a low overhead on the productive systems. Furthermore, several controlled experiments demonstrate an increased efficiency and effectiveness for solving comprehension tasks when using our visualization. ExplorViz is available as open-source software on www.explorviz.net. Additionally, we provide extensive experimental packages of our evaluations to facilitate the verifiability and reproducibility of our results.

Landscape is a stimulating introduction to and contemporary understanding of one of the most important concepts within human geography. A series of different influential readings of landscape are debated and explored, and, for the first time, distinctive traditions of landscape writing are brought together and examined as a whole, in a forward-looking critical review of work by cultural geographers and others within the last twenty to thirty years. This book clearly and concisely explores 'landscape' theories and writings, allowing students of geography, environmental studies and cultural studies to fully comprehend this vast and complex topic. To aid the student, vignettes are used to highlight key writers, papers and texts. Annotated further reading and student exercises are also included. For researchers and lecturers, Landscape presents a forward-looking synthesis of hitherto disparate fields of inquiry, one which offers a platform for future research and writing.

On behalf of the NDT 2010 conference, the Program Committee and Charles University in Prague, Czech Republic, we welcome you to the proceedings of the Second International Conference on 'Networked Digital Technologies' (NDT 2010). The NDT 2010 conference explored new advances in digital and Web technology applications. It brought together researchers from various areas of computer and information sciences who addressed both theoretical and applied aspects of Web technology and Internet applications. We hope that the discussions and exchange of ideas that took place will contribute to advancements in the technology in the near future. The conference received 216 papers, out of which 85 were accepted, resulting in an acceptance rate of 39%. These accepted papers are authored by researchers from 34 countries covering many significant areas of Web applications. Each paper was evaluated by a minimum of two reviewers. Finally, we believe that the proceedings document the best research in the studied areas. We express our thanks to the Charles University in Prague, Springer, the authors and the organizers of the conference.

Climate change communication is a topical and relevant issue, and it is widely acknowledged

that public communication about causes, impacts and action alternatives is integral to addressing the challenges of the changing climate. Climate visualization concerns the communication of climate information and data through the use of different information technologies and different modes of visual representation. In the context of climate change communication, climate visualization is highlighted as a potential way of increasing public engagement with climate change. In particular, developments within information technology have provided significant advancements that are claimed to be transformative in engaging lay audiences with issues relating to the mitigation of and adaptation to climate change. Nevertheless, there is a lack of research exploring climate visualization from an audience perspective. This thesis addresses this gap. The overarching aim is thus to explore the role of climate visualization in climate change communication from an audience perspective, focusing specifically on how lay audiences make meaning of climate change as represented in two examples of climate visualization. In addition, the thesis discusses the potential contributions and/or limitations of climate visualization from a communication perspective. Based on a social semiotic theoretical framework, this thesis employs focus group interviews to study participants' meaning-making related to two cases of climate visualization: a dome theatre movie developed for Swedish high school students with the aim of encouraging reflection on climate change causes, impacts and mitigation alternatives, and a web-based tool for climate change adaptation developed to assist Nordic homeowners in adapting to the local impacts of climate change. The results of this thesis show that climate visualization can help audiences concretize otherwise abstract aspects of climate change, and that the localized focus can make climate change appear more personally relevant and interesting for targeted audiences. Nevertheless, despite these communicative qualities, the analyses also show that participants' interpretations are shaped by their preconceptions of climate change as a global and distant issue to be solved by other actors, such as national governments, or through international policy negotiations. Although climate visualization can enhance a sense of proximity with climate change, the localization of climate risk can also lead to participants downplaying the significance of climate impacts. In addition, despite the intentions of inducing a sense of agency in both cases of climate visualization, participants critically negotiated messages concerning their roles as individuals in mitigating or adapting to climate change, and assigned this responsibility onto other actors. These findings show that although climate visualization presents certain communicative qualities, it is not a panacea for engaging lay audiences with climate change. This also underlines the importance of considering cultural and social aspects of the communicative event when studying and developing climate visualization tools as a means of communication.

Kommunikation kring klimatförändringar är ett aktuellt och relevant ämne, och många bedömare anser att kommunikation kring orsaker, effekter och åtgärdsalternativ är en viktig del i arbetet med att möta klimatutmaningarna. Klimatvisualisering är en process för att åskådliggöra klimatinformation och klimatdata med hjälp av olika tekniker och metoder för visuell framställning. I forskningslitteraturen om klimatkommunikation lyfts visualisering fram som ett möjligt sätt att öka allmänhetens engagemang i klimatfrågan. I synnerhet har utvecklingen inom informationsteknik lett till betydande framsteg som kan ses som omvälvande när det gäller att engagera lekmän i frågor som rör utsläppsminskningar och klimatanpassning. Det råder dock brist på forskning om klimatvisualisering ur ett mottagarperspektiv. Denna avhandling adresserar denna kunskapslucka. Det övergripande syftet är således att utforska visualiseringens roller i klimatkommunikation ur ett mottagarperspektiv, med särskilt fokus på hur lekmän tolkar innebörden av klimatförändringar så som de representeras i två exempel på klimatvisualisering. Avhandlingen behandlar även klimatvisualiseringens möjliga bidrag och/eller begränsningar ur ett kommunikationsperspektiv. Med utgångspunkt i ett teoretiskt ramverk som inspirerats av socialsemiotiska teorier genomfördes fokusgruppsstudier för att studera deltagarnas meningsskapande i relation till två

exempel på klimatvisualisering: en film som visas i en domteater, framtagen för svenska gymnasieelever med målsättningen att uppmuntra till reflektion kring klimatförändringarnas orsaker, effekter och alternativ för utsläppsminskning, samt ett webbaserat verktyg för klimatanpassning, som utvecklats för att stödja husägare i Norden att anpassa sig till klimatförändringarnas lokala effekter. Resultaten av denna avhandling visar att klimatvisualisering kan stödja mottagarna att konkretisera annars abstrakta aspekter av klimatförändringar och att ett lokalt fokus kan få klimatförändringarna att framstå som mer personligt relevanta och intressanta för målgruppen. Dock visar analyserna även, trots dessa kommunikativa kvaliteter, att deltagarnas tolkningar formas av deras förförståelse om klimatförändringar som ett globalt och avlägset problem som ska lösas av andra aktörer, såsom nationella regeringar, eller genom internationella politiska förhandlingar. Även om klimatvisualisering kan förstärka känslan av närhet till klimatförändringar, kan lokaliseringen av klimatriskerna även leda till att deltagare tonar ned de lokala klimatriskernas betydelse. Dessutom, trots att båda fallen av klimatvisualisering avsåg att skapa en känsla av att kunna påverka, blev ansvaret för klimatåtgärder föremål för kritisk förhandling från deltagarnas sida – de förlade ansvaret för att hantera klimatutmaningarna till andra aktörer. Dessa resultat visar att klimatvisualisering visserligen har vissa kommunikativa kvaliteter, men inte är någon patentlösning för klimatkommunikation. Detta understryker även vikten av att ta hänsyn till kulturella och sociala aspekter av den kommunikativa händelsen när man studerar och utvecklar verktyg för klimatvisualisering.

Landscape and Visual Impact Assessment (LVIA) can be key to planning decisions by identifying the effects of new developments on views and on the landscape itself. This fully revised edition of the industry standard work on LVIA presents an authoritative statement of the principles of assessment. Offering detailed advice on the process of assessing the landscape and visual effects of developments and their significance, it also includes a new expanded chapter on cumulative effects and updated guidance on presentation. Written by professionals for professionals, the third edition of this widely respected text provides an essential tool for landscape practitioners, developers, legal advisors and decision-makers. Agriculture increasingly faces the challenge of balancing its multiple functions in a sustainable way. Integrated assessment and modelling (IAM) can provide insight into the potential impacts of policy changes. However, concepts to address the wide range of issues and functions typical for agriculture are still scarce. Environmental and Agricultural Modelling reviews and presents our current understanding of integrated and working tools to assess and compute, ex-ante, alternative agricultural and environmental policy options, allowing: 1. Analysis at the full range of scales (farm to European Union and global) whilst focusing on the most important issues emerging at each scale; 2. Analysis of the environmental, economic and social contributions of agricultural systems towards sustainable rural development and rural viability; 3. Analysis of a broad range of issues and agents of change, such as climate change, environmental policies, rural development options, effects of an enlarging EU, international competition, and effects on developing countries.

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 architecture 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.

Carbon dioxide and global climate change are largely invisible, and the prevailing imagery of

climate change is often remote (such as ice floes melting) or abstract and scientific (charts and global temperature maps). Using dramatic visual imagery such as 3D and 4D visualizations of future landscapes, community mapping, and iconic photographs, this book demonstrates new ways to make carbon and climate change visible where we care the most, in our own backyards and local communities. Extensive color imagery explains how climate change works where we live, and reveals how we often conceal, misinterpret, or overlook the evidence of climate change impacts and our carbon usage that causes them. This guide to using visual media in communicating climate change vividly brings to life both the science and the practical solutions for climate change, such as local renewable energy and flood protection. It introduces powerful new visual tools (from outdoor signs to video-games) for communities, action groups, planners, and other experts to use in engaging the public, building awareness and accelerating action on the world's greatest crisis.

In high-realism landscape visualization, the information visualized from 3D scenes is subjective and abstracted to a large extent unless there is a tool to help describe the landscape under visualization. The author established rules in GIS for allocating a proper level of detail to 3D object models before integration to the terrain for scene rendering. In addition, semantic zoom tools were designed and implemented in GIS for rule-based landscape visualization. The concept and implementation of the semantic zoom technique was assessed and evaluated in terms of their ease of use and additional knowledge of the landscape. The book provides explains how the approach provides landscape viewers a better understanding and good visual perception of the landscape. The result can be applied to the design of built environments.

The basic problem is to what extent we can know past and mainly invisible landscapes, and how we can use this still hidden knowledge for actual sustainable management of landscape's cultural and historical values. It has also been acknowledged that heritage management is increasingly about 'the management of future change rather than simply protection'. This presents us with a paradox: to preserve our historic environment, we have to collaborate with those who wish to transform it and, in order to apply our expert knowledge, we have to make it suitable for policy and society. The answer presented by the Protection and Development of the Dutch Archaeological-Historical Landscape programme (pdl/bbo) is an integrative landscape approach which applies inter- and transdisciplinarity, establishing links between archaeological-historical heritage and planning, and between research and policy.

The question of how to live in the city and increase the quality of urban life creates new challenges for both urban policies and academic research. Urban parks are important keys for achieving a broader understanding of the urban landscape. Open green spaces in every form are essential for life in our ever more urbanised society and are becoming a vital issue for the liveability of the urban environment. The purpose of the present research is to acquire a more thorough knowledge of the evaluation of urban parks. The study uses statistical analysis methods combined with landscape planning and visualisation methods. The research provides an innovative and sophisticated point of view along with the means to improve the comprehension of people's preferences for alternative urban park scenarios. The results are expected to create an advanced discussion platform and make a contribution towards improving knowledge of the public's perception of urban parks. The investigation was conducted with empirical experiments on two parks in Zurich. The functional component of the research is the visualisation of spatial data using powerful visualisation tools. The theoretical prospect is the achievement of broader knowledge about individuals' perception of open green spaces, focusing on previously unexplored experimental research combining conjoint analysis and visualisation methods. The experiments created for the research are effective for modelling and explaining the significance that people assign to specific dimensions characterising different park scenarios. Two motivations are at the base of the research: exploring the use of

conjoint analysis methods to study virtual urban parks and evaluating the use of visual stimuli with conjoint analysis.

A revision of Openshaw and Abrahart's seminal work, *GeoComputation*, Second Edition retains influences of its originators while also providing updated, state-of-the-art information on changes in the computational environment. In keeping with the field's development, this new edition takes a broader view and provides comprehensive coverage across the field of *GeoComputation*. See *What's New in the Second Edition*: Coverage of ubiquitous computing, the GeoWeb, reproducible research, open access, and agent-based modelling Expanded chapter on Genetic Programming and a separate chapter developed on Evolutionary Algorithms Ten chapters updated by the same or new authors and eight new chapters added to reflect state of the art Each chapter is a stand-alone entity that covers a particular topic. You can simply dip in and out or read it from cover to cover. The opening chapter by Stan Openshaw has been preserved, with only a limited number of minor essential modifications having been enacted. This is not just a matter of respect. Openshaw's work is eloquent, prophetic, and his overall message remains largely unchanged. In contrast to other books on this subject, *GeoComputation: Second Edition* supplies a state-of-the-art review of all major areas in *GeoComputation* with chapters written especially for this book by invited specialists. This approach helps develop and expand a computational culture, one that can exploit the ever-increasing richness of modern geographical and geospatial datasets. It also supplies an instructional guide to be kept within easy reach for regular access and when need arises. This book explores expertise relevant for two working groups of NeDiMAH, a European Science Foundation (ESF) funded Research Networking Programme. It examines mapping methods, procedures, tools, criticism, awareness, challenges and solutions around the concepts of "Space and Time" and "Information Visualization". The chapters explore digital methods in the representation of natural disasters, industrial design, cultural, and the history of architecture. The conclusions link to related research and present suggestions for further work including representing landscape not just as another 3D model but as historic evolution with specialised tools.

Climate change and the pressures of escalating human demands on the environment have had increasing impacts on landscapes across the world. In this book, world-class scholars discuss current and pressing issues regarding the landscape, landscape ecology, social and economic development, and adaptive management. Topics include the interaction between landscapes and ecological processes, landscape modeling, the application of landscape ecology in understanding cultural landscapes, biodiversity, climate change, landscape services, landscape planning, and adaptive management to provide a comprehensive view that allows readers to form their own opinions. Professor Bojie Fu is an Academician of Chinese Academy of Sciences and Chair of scientific committee at the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, China. Professor K. Bruce Jones is the Executive Director for Earth and Ecosystem Sciences Division at Desert Research Institute, University of Nevada, Las Vegas, USA.

Visual communication through graphical and sign languages has long been conducted among human beings of different backgrounds and cultures, and in recent decades between human and machine. In today's digital world, visual information is typically encoded with various metaphors commonly used in daily life to facilitate rapid comprehension and easy analysis during the communication process. Visual information communication generally encompasses information visualization, graphical user-interfaces, visual analytics, visual languages and multi-media processing. It has been successfully employed in knowledge discovery, end-user programming, modeling, rapid systems prototyping, education, and design activities by people of many disciplines including architects, artists, children, engineers, and scientists. In addition, visual information is increasingly being used to facilitate human-human communication through

the Internet and Web technology, and electronic mobile devices. This manuscript provides the cutting-edge techniques, approaches and the latest ongoing researches in the context of visual information communication. It is a collection of 24 chapters selected from more than 60 submissions to the VINCI'09 - 2009 Visual Information Communications International Conference, that is held in Sydney Australia, September 2009. These chapters were selected through a stringent review process to ensure their high standard in quality, significance and relevance. Each chapter was reviewed by at least two international Program Committee members of VINCI'09. The book covers a broad range of contents in five key sub-areas of visual information communication, including.

Geographic Visualization: Concepts, Tools and Applications is a 'state-of-the-art' review of the latest developments in the subject. It examines how new concepts, methods and tools can be creatively applied to solve problems relevant to a wide range of topics. The text covers the impact of three-dimensional displays on user interaction along with the potentialities in animation and clearly explains how to create temporally sensitive visualizations. It also explores the potential for handling mobile data and representing uncertainty; as well as the role of participatory visualization systems and exploratory methods. **Hallmark Features:** An introduction to the diverse forms of geographic visualization which draws upon a number of theoretical perspectives and disciplines to provide an insightful commentary on new methods, techniques and tools. Richly illustrated in full colour throughout, including numerous relevant case studies and accessible discussions of important visualization concepts to enable clearer understanding for non-technical audiences. Chapters are written by leading scholars and researchers in a range of cognate fields, including, cartography, GIScience, architecture, art, urban planning and computer graphics with case studies drawn from Europe, North America and Australia. This book is an invaluable resource for all graduate students, researchers and professionals working in the geographic information sector, computer graphics and cartography.

Climb a mountain and experience the landscape. Try to grasp its holistic nature. Do not climb alone, but with others and share your experience. Be sure the ways of seeing the landscape will be very different. We experience the landscape with all senses as a complex, dynamic and hierarchically structured whole. The landscape is tangible out there and simultaneously a mental reality. Several perspectives are obvious because of language, culture and background. Many disciplines developed to study the landscape focussing on specific interest groups and applications. Gradually the holistic way of seeing became lost. This book explores the different perspectives on the landscape in relation to its holistic nature. We start from its multiple linguistic meanings and a comprehensive overview of the development of landscape research from its geographical origins to the wide variety of today's specialised disciplines and interest groups. Understanding the different perspectives on the landscapes and bringing them together is essential in transdisciplinary approaches where the landscape is the integrating concept.

An overview of issues involved in visualization technologies used in landscape and environmental planning. Covers a classification of the technology as well as a number of specialized applications across agricultural, industrial and urban planning.

The importance of visual data mining, as a strong sub-discipline of data mining,

had already been recognized in the beginning of the decade. In 2005 a panel of renowned individuals met to address the shortcomings and drawbacks of the current state of visual information processing. The need for a systematic and methodological development of visual analytics was detected. This book aims at addressing this need. Through a collection of 21 contributions selected from more than 46 submissions, it offers a systematic presentation of the state of the art in the field. The volume is structured in three parts on theory and methodologies, techniques, and tools and applications.

Michael Batty Centre for Advanced Spatial Analysis, University College London Landscapes, like cities, cut across disciplines and professions. This makes it especially difficult to provide an overall sense of how landscapes should be studied and researched. Ecology, aesthetics, economy and sociology combine with physiognomy and deep physical structure to confuse our understanding and the way we should react to the problems and potentials of landscapes. Nowhere are these dilemmas and paradoxes so clearly highlighted as in Australia — where landscapes dominate and their relationship to cities is so fragile, yet so important to the sustainability of an entire nation, if not planet. This book presents a unique collection and synthesis of many of these perspectives — perhaps it could only be produced in a land urbanised in the tiniest of pockets, and yet so daunting with respect to the way non-populated landscapes dwarf its cities. Many travel to Australia to its cities and never see the landscapes — but it is these that give the country its power and imagery. It is the landscapes that so impress on us the need to consider how our intervention, through activities ranging from resource exploitation and settled agriculture to climate change, poses one of the greatest crises facing the modern world. In this sense, Australia and its landscape provide a mirror through which we can glimpse the extent to which our intervention in the world threatens its very existence.

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.

Provides a survey of the approaches used and the problems encountered in the model of real geophysical data.

The idea for this book grew out of: (1) the realisation that development of the theory of landscape ecology has now reached the point where rigorous field work is required to validate models, test assumptions and ideas of scaling theory, and refine our understanding of landscape features and their delineation; (2) the relative scarcity of compilations that have examined the role of field research or interdisciplinary management applications in advancing the science of landscape ecology; and (3) the increasing amount of information coming out of the Chequamegon Integrated Field Project (CIFP) on relevant topics. This book synthesises the experiences and lessons learned from the CIFP project and other relevant landscape studies in an attempt to demonstrate the utility of field studies and emerging technology to the advancement of the science. This book

is organised to synthesise and update knowledge on research topics mentioned previously, with an emphasis on ecological consequences (i.e., implications for ecological function) of the approach to and understanding of these topics across levels of the ecological hierarchy.

An examination of how visual and aesthetic dimensions amplify the functional interpretation of cultural landscape.

Defining a research question, describing why it needs to be answered and explaining how methods are selected and applied are challenging tasks for anyone embarking on academic research within the field of landscape architecture. Whether you are an early career researcher or a senior academic, it is essential to draw meaningful conclusions and robust answers to research questions. Research in Landscape Architecture provides guidance on the rationales needed for selecting methods and offers direction to help to frame and design academic research within the discipline. Over the last couple of decades the traditional orientation in landscape architecture as a field of professional practice has gradually been complemented by a growing focus on research. This book will help you to develop the connections between research, teaching and practice, to help you to build a common framework of theory and research methods. Bringing together contributions from landscape architects across the world, this book covers a broad range of research methodologies and examples to help you conduct research successfully. Also included is a study in which the editors discuss the most important priorities for the research within the discipline over the coming years. This book will provide a definitive path to developing research within landscape architecture.

This book is the most comprehensive and up-to-date treatment of computer applications in forestry. It is the first text on software for forest management to emphasize integration of computer applications. It also offers important new insights on how to continue advancing computational technologies in forest management. The authors are internationally-recognized authorities in the subjects presented.

If landscape visualizations are applied as tools for participation, they should provide a high level of interactivity to facilitate planning process and outcomes. This book presents evidence for this hypothesis through demonstrative case studies in the Entlebuch UNESCO Biosphere Reserve in Switzerland. In collaborative workshops, interactive real-time visualizations were used to respond directly to the dialogue, and long-term climate change impacts were illustrated through collapsing time animations. The author, Dr. Olaf Schroth, is a researcher at the University of British Columbia and has studied both geodesy and planning in Hanover, Hamburg and Newcastle upon Tyne. Since then, he has been working at the interface of planning and 3D visualization, and the book summarizes his work in the EU project VisuLands (2003-2006) and his PhD at ETH Zurich. His research is not technology-driven but rather raises critical issues from a planning perspective. Therefore, the results and hands-on

