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KEY=NEW - LILLIANNA HAMMOND

The Dilemma of Boundaries Toward a New Concept of Catchment

Springer Science & Business Media Water circulates continuously and seamlessly on Earth with little regard for the boundaries we draw. There are natural boundaries as between land and ocean and surface and subsurface environments, as well as human or demographic boundaries between nations, cultures, and religions. Although considered necessary by societies, these human-created boundaries disrupt natural water circulation, leading to serious water-related environmental problems. The dilemma of how to manage water beyond our boundaries remains, and nations have different ways and means of controlling each form of water, whether as vapor, surface water, groundwater, or seawater. Recent findings on the interaction of water from land, oceans, and the atmosphere encourage researchers to undertake collaborative work that goes beyond the boundaries of each discipline, be it oceanography, surface and subsurface hydrology, climatology, or glaciology.

Drawing on all these fields, the book focuses on two major boundaries: that between surface water and ground water, and that between terrestrial water and ocean water. This comprehensive work is of great value to experts in academia, international organizations, consulting firms, water resources, fisheries, and urban development planning agencies.

Contesting Hidden Waters Conflict Resolution for Groundwater and Aquifers

Routledge The world increasingly relies on groundwater resources for drinking water and the provision of food for a growing population. The utilization of aquifer systems also extends beyond freshwater supply to include other resources such as heat extraction and the storage and disposal of substances. Unlike other books about conflict resolution and negotiations over water resources, this volume is unique in focusing exclusively on conflicts over groundwater and aquifers. The author explores the specific challenges presented by these "hidden" resources, which are shown to be very different from those posed by surface water resources. Whereas surface watersheds are static, groundwater boundaries are value-laden and constantly changing during development. The book describes the various issues surrounding the governance and management of these resources and the various parties involved in conflicts and negotiations over them. Through first-hand accounts from a practitioner skilled in both process and substance as a groundwater professional and professional mediator, the book offers options for addressing the challenges and issues through a transdisciplinary approach.

Decision Science for Future Earth Theory and Practice

Springer Nature This open access book provides a theoretical framework and case studies on decision science for regional sustainability by integrating the natural and social sciences. The cases discussed include solution-oriented transdisciplinary studies on the environment, disasters, health, governance and human cooperation. Based on these case studies and comprehensive reviews of relevant works, including lessons learned from past failures for predictable surprises and successes in adaptive co-management, the book provides the reader with new perspectives on how we can co-design collaborative projects with various conflicts of interest and how we can transform our society for a sustainable future. The book makes a valuable contribution to the global research initiative Future Earth, promoting transdisciplinary studies to bridge the gap between science and society in knowledge generation processes and supporting efforts to achieve the UN's

Sustainable Development Goals (SDGs). Compared to other publications on transdisciplinary studies, this book is unique in that evolutionary biology is used as an integrator for various areas related to human decision-making, and approaches social changes as processes of adaptive learning and evolution. Given its scope, the book is highly recommended to all readers seeking an integrated overview of human decision-making in the context of social transformation.

Complex Spatial Systems

The Modelling Foundations of Urban and Regional Analysis

Routledge A comprehensive core text from the expert in the field introducing students to the main issues of spatial systems modelling and analysis.

Ecology and Conservation of Southeast Asian Marine and Freshwater Environments including Wetlands

Springer Science & Business Media A major concern among ecologists in and outside the ASEAN region is the degradation of the environment, and the overexploitation of freshwater and marine resources. There is as yet no indication that freshwater and marine resources are being managed on a sustainable basis, and loss of wetlands, whether freshwater swamps or mangrove swamps, is a major problem in the ASEAN region. Reclamation of mangrove swamps for aquaculture and agriculture seems to be a continuous activity here and the status of marine parks should also be examined in the light of recent resort development activities on small islands. This volume contains numerous recommendations for the promotion of ecological studies and regional cooperation in marine, freshwater ecology and conservation, with special emphasis on the common water masses like the Strait of Malacca, Gulf of Thailand and the South China Sea.

GEOGRAPHY 4.0 Fundamentals, Concept, and Method

Book Rivers Praise and gratitude for the writers to pray to Allah SWT because of His grace and guidance. The book entitled "Fundamental of Geography 4.0" can be completed on time. This book was created to be included based on research,

modification of scientific publications, and the application of technology and technology-based innovation according to the needs of the industrial revolution 4.0. The contents in this concern the philosophy and history of geography science, scientific approaches in geography science, information technology used in geography science as needed in the industrial revolution 4.0, and introduction to the concept of logarithms in Indonesia.

Ecological Restoration of Aquatic and Semi-Aquatic Ecosystems in the Netherlands (NW Europe)

Springer Science & Business Media This work presents the state of the art of aquatic and semi-aquatic ecological restoration projects in The Netherlands. Starting from the conceptual basis of restoration ecology, the successes and failures of hundreds of restoration projects are described. Numerous successful projects are mentioned. In general ecological restoration endeavours greatly benefit from the progressive experience achieved in the course of the years. Failures mainly occur through insufficient application of physical, chemical or ecological principles. Spontaneous colonization by plants and animals, following habitat reconstruction, is preferred. However, sometimes the re-introduction of keystone species (e.g. eelgrass, salmon, beaver) is necessary in case the potential habitats are isolated or fragmented, or if a seed bank is lacking, thus not allowing viable populations to develop. Re-introducing traditional management techniques (e.g. mowing without fertilization, low intensity grazing) is important to rehabilitate the semi-natural and cultural landscapes that are so characteristic for The Netherlands.

Emerging Perspectives on Gesture and Embodiment in Mathematics

IAP The purpose of the book is to establish a common language for, and understanding of, embodiment as it applies to mathematical thinking, and to link mathematics education research to recent work in gesture studies, cognitive linguistics and the theory of embodied cognition. Just as in past decades, mathematics education experienced a "turn to the social" in which socio-cultural factors were explored, in recent years there has been a nascent "turn to the body." An increasing number of researchers and theorists in mathematics education have become interested in the fact that, although mathematics may be socially constructed, this construction is not arbitrary or unconstrained, but rather is rooted in, and shaped by, the body. All those who engage with mathematics, whether at an elementary or advanced level, share the same basic biological and cognitive capabilities, as well as certain common physical experiences that come with being humans living in a material world. In addition, the doing and communicating of

mathematics is never a purely intellectual activity: it involves a wide range of bodily actions, from committing inscriptions to paper or whiteboard, to speaking, listening, gesturing and gazing. This volume will present recent research on gesture and mathematics, within a framework that addresses several levels of mathematical development. The chapters will begin with contributions that examine early mathematical and proto-mathematical knowledge, for example, the conservation of volume and counting. The role of gesture in teaching and learning arithmetic procedures will be addressed. Core concepts and tools from secondary level mathematics will be investigated, including algebra, functions and graphing. And finally, research into the embodied understanding of advanced topics in geometry and calculus will be presented. The overall goal for the volume is to acknowledge the multimodal nature of mathematical knowing, and to contribute to the creation of a model of the interactions and mutual influences of bodily motion, spatial thinking, gesture, speech and external inscriptions on mathematical thinking, communication and learning. The intended audience is researchers and theorists in mathematics education as well as graduate students in the field.

Landscape Evolution

Denudation, Climate and Tectonics Over Different Time and Space Scales

Geological Society of London The morphology of Earth's surface reflects the interaction of climate, tectonics and denudational processes operating over a wide range of spatial and temporal scales. These processes can be considered catastrophic or continuous; depending on the timescale of observation or interest. Recent research had required integration of historically distinct subjects such as geomorphology, sedimentology, climatology and tectonics. Together, these have provided new insights into absolute and relative rates of denudation, and the factors that control the many dynamic processes involved. Specific subject areas covered are sediment transport processes and the timescales of competing processes, the role of the geological record and landscapes in constraining different processes, the nature of landscape evolution at different spatial scales and in contrasting geological environments.

Engineering Geology for Society and Territory - Volume 3

River Basins, Reservoir Sedimentation and Water Resources

Springer This book is one out of 8 IAEG XII Congress volumes and deals with river basins, which are the focus of many hydraulic engineering and hydrogeological studies worldwide. Such studies examine river systems as both a resource of the fluvial environment, and also explore river-related hazards and risks. The contributions of researchers from different disciplines focus on: surface-groundwater exchanges, stream flow, stream erosion, river morphology and management, sediment transport regimes, debris flows, evaluation of water resources, dam operation and hydropower generation, flood risks and flood control, stream pollution and water quality management. The contributions include case studies for advancing field monitoring techniques, improving modeling and assessment of rivers and studies contributing to better management plans and policies for the river environment and water resources. The Engineering Geology for Society and Territory volumes of the IAEG XII Congress held in Torino from September 15-19, 2014, analyze the dynamic role of engineering geology in our changing world and build on the four main themes of the congress: environment, processes, issues and approaches. The congress topics and subject areas of the 8 IAEG XII Congress volumes are: Climate Change and Engineering Geology. Landslide Processes. River Basins, Reservoir Sedimentation and Water Resources. Marine and Coastal Processes. Urban Geology, Sustainable Planning and Landscape Exploitation. Applied Geology for Major Engineering Projects. Education, Professional Ethics and Public Recognition of Engineering Geology. Preservation of Cultural Heritage.

Fresh Surface Water - Volume II

EOLSS Publications Fresh Surface Water theme is a component of Encyclopedia of Water Sciences, Engineering and Technology Resources in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. The occurrence of surface water in abundance is unique to planet Earth among the inner or terrestrial planets. This is only one of the environmental consequences of the anomalous properties of water. Water has been central to human life and human thought throughout history. The availability of fresh surface water varies between continents, between regions within any given continent, between countries in a given region, and between catchments in a given country. Five key topics have been identified under the theme of Fresh Surface Water. These are: Origin, Resources and Distribution of Rivers and Streams; Characteristics of River Systems; Transport Processes in River Systems; River Ecosystems; The Uses of River Water and Impacts, which are then expanded into multiple subtopics, each as a chapter. These three volumes are aimed at the

following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, Managers, and Decision makers and NGOs

Water System Science and Policy Interfacing

Royal Society of Chemistry Recent discussions among scientists and policy-makers have highlighted that knowledge generated by many research and demonstration projects is not reaching policymakers in an efficient way. Conversely, the consideration of research results by the policy making community is not straightforward, and difficulties arise in integrating the latest research developments in legislation. The difficulty is enhanced by the fact that the policy-making community is not defining its role as "client" sufficiently well and the dialogue and communication channels are far from ideal to ensure an efficient flow of information. An increasing number of experts consider that improvements could be achieved through the development of a "science-policy interface" so that R&D results are synthesised in a way to efficiently feed policy implementation and that short, medium and long term research needs may be identified. This book examines the issue of integrating science into policy, with an emphasis on water system knowledge and related policies. An important feature of the book is the discussion of science-policy interfacing needs, illustrated by examples from authors from different countries in relation to water system management. This publication is timely in that the science-policy interfacing is now identified as a key challenge worldwide with regard to integrated water resource management, and therefore the book will be of great interest to scientists, water managers and stakeholders. Readers will also benefit from a better understanding of the needs, benefits and drawbacks of an established transfer mechanism of scientific outputs to policies.

Open Source Technology: Concepts, Methodologies, Tools, and Applications

Concepts, Methodologies, Tools, and Applications

IGI Global The pervasiveness of and universal access to modern Information and Communication Technologies has enabled a popular new paradigm in the dissemination of information, art, and ideas. Now, instead of relying on a finite number of content providers to control the flow of information, users can generate

and disseminate their own content for a wider audience. Open Source Technology: Concepts, Methodologies, Tools, and Applications investigates examples and methodologies in user-generated and freely-accessible content available through electronic and online media. With applications in education, government, entertainment, and more, the technologies explored in these volumes will provide a comprehensive reference for web designers, software developers, and practitioners in a wide variety of fields and disciplines.

Frontiers in Urban Water

Management

Deadlock Or Hope

IWA Publishing The book presents the state-of-the art in urban wa

The Ecological Bases for Lake and Reservoir Management

Proceedings of the Ecological Bases for Management of Lakes and Reservoirs Symposium, held 19–22 March 1996, Leicester, United Kingdom

Springer Science & Business Media The Ecological Bases for Lake and Reservoir Management provides a state-of-the-art review of the range of ecologically-based techniques necessary for the holistic management of lakes and their catchments. Most of the methods, case studies and national policies reviewed are directed towards management of the largest problem - eutrophication - with the emphasis on the multiple-scale approach needed for successful management and restoration. Case studies come from the USA and ten European countries, and range from single lakes through to lake districts and national inventories. Several essays precede the practical chapters with thought-provoking comments on the political, social and economic climate of water management.

Coping with Floods

Springer Science & Business Media Floods are natural hazards whose effects can deeply affect the economic and environmental equilibria of a region. Quality of life of people living in areas close to rivers depends on both the risk that a flood would occur and the reliability of flood forecast, warning and control systems. Tools for forecasting and mitigating floods have been developed through research in the recent past. Two innovations currently influence flood hazard mitigation, after many decades of lack of significant progress: they are the development of new technologies for real-time flood forecast and warning (based on weather radars and satellites) and a shift from structural to non-structural flood control measures, due to increased awareness of the importance of protecting the environment and the adverse impacts of hydraulic works on it. This book is a review of research progress booked in the improvements of forecast capability and the control of floods. Mostly the book presents the results of recent research in hydrology, modern techniques of real-time forecast and warning, and ways of controlling floods for smaller impacts on the environment. A number of case studies of floods in different geographical areas are also presented. Scientists and specialists working in fields of hydrology, environmental protection and hydraulic engineering will appreciate this book for its theoretical and practical content.

Progress in Modern Hydrology Past, Present and Future

John Wiley & Sons Hydrology is vital to human civilisations as well as to natural ecosystems, yet it has only emerged as a distinct scientific discipline during the last 50 years or so. This book reviews the development of modern hydrology primarily through the experiences of the multidisciplinary team of scientists and engineers at Wallingford, near Oxford, who have been at the forefront of many of the developments in UK hydrological research. These topics include: * The development of basic understanding through the collection of data with specialised instrumentation in experimental basins * The study of extreme flows - both floods and droughts * The role moisture in the soil * Studies of the processes controlling evaporation * Water resource studies * Modelling and prediction of the extremes of flow improved * Understanding of water quality issues * A widening recognition of the importance of an ecosystem approach * Meeting the challenges of climate change, * Data handling * Future developments in hydrology and the pressures which generate them. Readership: hydrologists in both academia and a wide range of applied fields such as civil engineering, meteorology, geography and physics, as well as advanced students in earth science, environmental science and physical geography programmes worldwide.

Classic Concepts and New Directions

Exploring 125 Years of GSA Discoveries in the Rocky Mountain Region

Geological Society of America "This guide's 14 chapters, which span the Rocky Mountain region's 1.7-billion-year history, give a retrospective glimpse of early geologic ideas being forged, bring the latest mapping and analytical results from classic locations, and introduce techniques that will form the bedrock of our geologic understanding in the years to come"--

Assessing the Ecological Integrity of Running Waters

Proceedings of the International Conference, held in Vienna, Austria, 9–11 November 1998

Springer Science & Business Media The assessment of the ecological integrity of running waters is a prerequisite to an understanding of the effects of human alterations. The evaluation of degradation processes provides key information on how to avoid further negative impacts. The success of future conservation, mitigation and restoration activities will rely on sound assessment methodologies and their ecological relevance and applicability. Assessment methodologies are therefore an integral part of sustainable river management. This book synthesizes and discusses state-of-the-art experiences in assessment methodologies. Including the latest knowledge on structures, processes and functions of running waters as a fundamental basis for developing adequate assessment methods, the book focuses on method development, application, and in particular on integrated assessment methods. This book is directed at scientists and managers with the aim of more effective preservation, restoration and maintenance of the ecological integrity of running water ecosystems.

Indian Journal of Regional Science

The Riverine Ecosystem Synthesis

Toward Conceptual Cohesiveness in River Science

Elsevier This book presents the most comprehensive model yet for describing the structure and functioning of running freshwater ecosystems. Riverine Ecosystems Synthesis (RES) is a result of combining several theories published in recent decades, dealing with aquatic and terrestrial systems. New analyses are fused with a variety of new perspectives on how river network ecosystems are structured and function, and how they change along longitudinal, lateral, and temporal dimensions. Among these novel perspectives is a dramatically new view of the role of hydrogeomorphic forces in forming functional process zones from headwaters to the mouths of great rivers. Designed as a useful tool for aquatic scientists worldwide whether they work on small streams or great rivers and in forested or semi-arid regions, this book will provide a means for scientists to understand the fundamental and applied aspects of rivers in general and includes a practical guide and protocols for analyzing individual rivers. Specific examples of rivers in at least four continents (Africa, Australia, Europe and North America) serve to illustrate the power and utility of the RES concept. Develops the classic, seminal article in River Research and Applications, "A Model of Biocomplexity in River Networks Across Space and Time" which introduced the RES concept for the first time A guide to the practical analysis of individual rivers, extending its use from pristine ecosystems to modern, human-modified rivers An essential aid both to the study fundamental and applied aspects of rivers, such as rehabilitation, management, monitoring, assessment, and flow manipulation of networks

Social Learning in Environmental Management

Towards a Sustainable Future

Taylor & Francis Social Learning in Environmental Management explores and expands the approaches to collective learning most needed to help individuals, communities, experts and governments work together to achieve greater social and ecological sustainability. It provides practical frameworks and case studies to assist environmental managers in building partnerships that can support learning and action on issues arising from human impacts on the life-support systems of our

planet. In this book, social learning frameworks and case studies address the three areas of collaboration, community, government and professional, in some detail. The resulting guidelines and their practical applications provide key source material for undergraduate and postgraduate professional education in the fields of social and environmental sciences, political science, planning, geography and urban studies, and also for professionals in environmental management.

De-Segregatn Mentl III IIs 260

Routledge First published in 1998. Routledge is an imprint of Taylor & Francis, an informa company.

Scientific and Legal Aspects of Biological Monitoring in Freshwater

Proceedings of the Workshop Held
in Pallanza, 4-5 September 2000

Sediment Routing Systems

The Fate of Sediment from Source
to Sink

Cambridge University Press This cutting-edge summary combines ideas from several sub-disciplines to provide an understanding of sediment routing systems and Earth surface dynamics.

Protecting Groundwater for Health

Managing the Quality of Drinking-
water Sources

World Health Organization This publication provides a structured approach to analyzing hazards to groundwater quality, assessing the risk they may cause for a specific supply, setting priorities in addressing these, and developing management strategies for their control. This book summarizes which pathogens and chemicals are relevant to human health, how they are transported, reduced, removed or retarded; provides practical guidance on characterizing the drinking-water

catchment area and assessing potential health hazards; provides guidance on prioritising both hazards and management responses; presents key information on potential management actions and explains their integration into a comprehensive Water Safety Plan from catchment to consumer; and describes policy, land-use planning and implementation of pollution prevention, groundwater, with overviews of specific management approaches applicable to agriculture, sanitation, industry, mining, military sites, waste disposal and traffic.--Publisher's description.

Land and Water

Water and Soil Conservation and Central Government in New Zealand, 1941-1988

Historical Branch Department of Internal Affairs The history of soil and water conservation in New Zealand and the role played by central government until the 1988 devolution of responsibility to regional government is addressed. The development of the Resource Management Act is outlined.

Arid Zone Newsletter

From Landscape Research to Landscape Planning

Aspects of Integration, Education and Application

Springer Science & Business Media This book provides guidelines for those pursuing landscape projects based on integrative concepts - interdisciplinarity and transdisciplinarity - whether they are members of an integrative research team or individuals working on a problem that demands integration. They must define terminology, choose appropriate methodologies, overcome epistemological barriers and cope with the high expectations of some stakeholders while encouraging others to participate at all.

Tropical Ecosystems and Ecological Concepts

Cambridge University Press An introductory textbook on tropical ecology, unique in its international scope and balanced coverage of both aquatic and terrestrial systems.

Selected Water Resources

Abstracts

Models in Archaeology

Routledge This major study reflects the increasing significance of careful model formation and testing in those academic subjects that are struggling from intuitive and aesthetic obscurantism toward a more disciplined and integrated approach to their fields of study. The twenty-six original contributions represent the carefully selected work of progressive archaeologists around the world, covering the use of models on archaeological material of all kinds and from all periods from Palaeolithic to Medieval. Their common theme is archaeological generalisation by means of explicit model building, testing, modification and reapplication. The contributors seek to show that it is the use of certain models in particular ways that defines archaeology as the practice of one discipline, with a set of general tenets that are as applicable in Peru as in Persia, Australia as Alaska, Sweden as Scotland, on material from the second millennium B.C. to the second millennium A.D. They assert that careful model formulation within archaeology and the cautious exchange and testing of models within and beyond the discipline provides the only route to the formation of the common, internationally valid body of theory which defines a vigorous and coherent discipline and distinguishes it from being a collection of merely regionally applicable special cases.

Pain Management

A Practical Guide for Clinicians, Sixth Edition

CRC Press This authoritative reference, the Sixth Edition of an internationally acclaimed bestseller, offers the most up-to-date information available on multidisciplinary pain diagnosis, treatment, and management. *Pain Management: A Practical Guide for Clinicians* is a compilation of literature written by members of The American Academy of Pain Management, the largest multidisciplinary society of pain

management professionals in North America and the largest physician-based pain society in the United States. This unique reference covers both traditional and alternative approaches and discusses the pain of children as well as adult and geriatric patients. It includes approximately 60 new chapters and each chapter is written to allow the reader to read independently topics of interest and thus may be viewed as a self-contained study module. The collection of chapters allows an authoritative self-study on many of the pressing issues faced by pain practitioners. Regardless of your specialty or medical training or whether you are in a large hospital or a small clinic, if you work with patients in need of pain management, this complete reference is for you.

Petroleum Geoscience

New Techniques for Old Times, CAA 98

Computer Applications and Quantitative Methods in Archaeology ; Proceedings of the 26th Conference, Barcelona, March 1998

British Archaeological Reports Limited What has been the impact of computerisation on archaeology, and is it a good or bad thing? The papers in this volume derive from the 26th conference held in Barcelona in March 1998. Overall, papers deal with the advent of new techniques to overcome existing problems in archaeological analysis or data archiving.

Industrialising Economy and Labour Market in India

A Study of Bharuch District

Mittal Publications

Community Mental Health Myth and Reality Handbook of Community Psychology

Springer Science & Business Media This comprehensive handbook, the first in its field, brings together 106 different contributors. The 38 interrelated but at the same time independent chapters discuss key areas including conceptual frameworks; empirically grounded constructs; intervention strategies and tactics; social systems; designs, assessment, and analysis; cross-cutting professional issues; and contemporary intersections with related fields such as violence prevention and HIV/AIDS.

Source-to-Sink Fluxes in Undisturbed Cold Environments

Cambridge University Press Provides the first quantitative overview of global source-to-sink fluxes in cold climate environments for graduate students and researchers.

Ecohydrology Processes, Models and Case Studies : an Approach to the Sustainable Management of Water Resources

CABI Linking biological and physical processes at the river basin scale: the origins, scientific background and scope of ecohydrology; Patterns and processes in the catchment; Nutrient processes and consequences; Lotic vegetation processes; Processes influencing aquatic fauna; Ecohydrological modelling for managing scarce water resources in a groundwater-dominated temperate system; The benefits and risks of ecohydrological models to water resource management decisions; Nutrient budget modelling for lake and river basin restoration; Ecohydrology driving a tropical savannah ecosystem; The mid-european agricultural landscape: catchment-scale links between hydrology and ecology in mosaic lakeland regions; The ecohydrological approach as a tool for managing water quality on large South American rivers; Ecohydrological analysis of tropical river basin development

schemes in Africa; Ecohydrological management of impounded large rivers in the former Soviet Union; Paleohydrology: the past as a basis for understanding the present and predicting the future; Ecohydrology: understanding the present as a perspective on the future - global change.