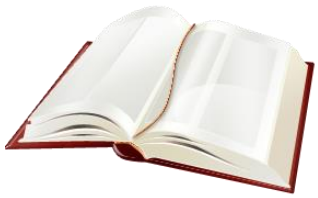
BOOK REVIEWS



Urban Wildscapes
Anna Jorgensen and Richard Keenan (Editors) (2011). 272 pages. Paperback. Published by Routledge: Abingdon
ISBN 978-0415581066

Urban Wildscapes, a new book launched at a well-attended symposium of the same name at the Garden Museum in London in March 2012, celebrates and highlights the concept of urban wilderness landscapes where, for a while at least, Homo sapiens do not have the upper hand. These 'wildscapes' may be quite different from real wilderness and can be found by anyone, often at easily accessible locations, though they are not infrequently undervalued as wasteland, given a bad press and proposed for redevelopment. Some people find negative connotations in the terms 'urban' and 'wild', but this is an exploration of the potential and the positive.

The Urban Wildscapes project began in 2007 as a partnership between the University of Sheffield and freelancers Richard Keenan and Katy Mugford, and it is claimed that this book is one of the first edited collections of writing on this topic. Although many of the ideas it explores have a long history, this new evaluation of the current cultural and environmental role of unplanned and abandoned spaces is welcome, coming at a time when the importance of urban ecosystems and local landscapes is increasingly recognized and when faith in the imposition of large-scale shiny new developments with little regard for sense of place or the natural world is waning (apart from the London 2012 Olympics site where the 'demolish, dig, design' approach has been at least temporarily vindicated by the success of the event).

With its academic provenance the book is likely to appeal most to those with a professional, academic, or management interest in the relationships between place and people, but it succeeds in being readable by a wider public. Graphically it is a well-produced volume with a cover that invites further investigation. Chris Baines, environmentalist and broadcaster and a well-known champion of the wild spaces within towns, provides the Foreword. The contents are a miscellany, illustrated with colour photographs, of sixteen different perspectives on the topic of urban wildscape, edited by Anna Jorgensen from the University of Sheffield's Department of Landscape and Richard Keenan, freelance communicator on environmental and social issues. Contributions are grouped in three parts, beginning with theoretical aspects, moving onto case studies, and finishing with the 'implications for 'wildscape practice', 'practice' in this context meaning landscape architectural practice and the planning and design of the urban public realm.

One definition of 'urban wildscapes' is 'any area, space, or building where the city's normal forces of control have not shaped how we perceive, use and occupy them' (Dougal Sheridan in chapter 15: Disordering public space). However the scope of the contributions extends beyond this, and in particular it is recognised that 'wildscape' is a state of mind as much as a spatial description. The book encompasses discussions of the concept in children's literature and in art, including the iconography and aesthetics of ruins, and generally has a refreshing range of case studies of different scales and themes from around the world.

Shifting balances between nature and culture are investigated, as is the separation between control and laissez-faire, and between surveillance and non-surveillance. Offering liberation, wildscapes can allow people to behave in new ways. These include heightened creativity, as in colonisation of vacant sites in post-war Berlin or Christiana in Copenhagen where new forms of social order were established, or they may be in the form of more imaginative and adventurous children's play. Writers from varied and international backgrounds 'take us for a walk on the wild side' sharing en route their experiences and thoughts, searching for meaning and illuminating different facets of the subject.

In the chapter on the restoration of opencast brown coal mines in Lusatia, Germany, Renee de Waal and Arjen de Wit conclude that it is the ephemeral nature of urban wildscapes which defines them and confers their extraordinary qualities. By their very nature they will be difficult to pin down. Robert Macfarlane, who has similarly discovered wildscapes in unexpected urban locations and written evocatively about them in 'The Wild Places' (2007) and other publications might like to comment on whether the process of revealing their qualities inevitably dispels some of the wildness.

A minor criticism of the book could be that the multiple viewpoints don't easily mesh together to provide a coherent understanding of the topic, though Anna Jorgensen's introduction is very helpful as an overview. The 'landscape architecture' lens through which the themes are examined is focused in the final chapter on 'exploring alternative ways of making future urban landscapes', where it is hoped that greater understanding of the dynamic character and processes of wildscapes will lead to more sustainable solutions. Unpredictability and an edge of risk are however inherent in the concept of urban wildscape which makes it a particularly fascinating topic.

This book is important because urban wildscape is shown to be both valuable and vulnerable. It is a recommended read for practitioners and students of sustainable landscape and urban planning and design, and will be of interest to many others.

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BIM Handbook: A Guide to building information modelling for owners, managers, designers, engineers, and contractors (2nd Edition)

Chuck Eastman, Paul Teicholz, Rafael Sacks & Kathleen Liston (2011). 626 pages. Hardback. Published by Wiley: New Jersey. ISBN: 978-0470541371

The BIM (Building Information Modeling) Handbook functions as an in-depth reference for multi-disciplinary stakeholders involved in construction projects. It is designed to reinforce the truths, and confront the myths, surrounding BIM by guiding the readers to a successful understanding of the subject. The book is well written in a way that serves practitioners as well as students, and aims to further the understanding of BIM across the construction industry. It is important to acknowledge that the book addresses different stakeholders' perspectives of BIM, for example owners, architects, managers, with BIM's relevance explored for each of these stakeholders.

The book's first chapter provides a very clear explanation as to why BIM is preferred over traditional approaches for planning and implementing construction projects (for example, 2D drawings, Gantt charts etc.). This is evidenced through the introduction of BIM's tools and its unique processes which flow right from BIM's terminology, concepts and functional capabilities. On the other hand, the author's clarification of what BIM technology is not is very important, as this helps avoid any misunderstanding or confusion as to the purpose of BIM. Furthermore, towards the end of the first chapter some of BIM's key challenges are identified - as with every technology it has its short comings. On the other hand, the authors have enhanced the value of the book through providing explicit details of BIM's main basis in the second chapter. I believe this will have a great impact, especially for readers who are not familiar with the concept of modelling.

The third chapter, which discusses interoperability, would be more useful if it was placed after the chapters discussing BIM's impact and relevance for different stakeholders. This is because, in most cases (exceptions being engineers and architects), BIM software formats will not be as of interest to readers as introducing concepts and processes of BIM will be. On the other hand, the usefulness of interoperability chapter could be presented through the different data formats acquired by different stakeholders as this can develop a clearer image of possible difficulties when exchanging BIM files and their limitation (for example, standardisation). In chapter four, it is a good to state the benefits which BIM has for building owners in as they are probably the group of stakeholders who are the least convinced concerning the positive aspects of BIM. However, including facility managers within the same chapter is more subjective and theoretically based rather than practice based. It may be that the author has included the facility managers in this chapter as they present vital concerns for building owners, whose main concerns are time, cost, quality and reliability.

Chapters five and six provide critical insights into BIM from the perspective of engineers, architects and contractors. The author has succeeded in presenting the potential of BIM in terms of an information modelling concept for architects and engineers. This provides clarity, portraying BIM as more than just a 3D representation. To support this, several BIM-based processes and diagrams are included to clarify many application areas (for example, BIM-based quantity take-off) where BIM fits, which reflects its potential application for different aspects in the construction process. Furthermore, it is quite sensible to show the benefits of BIM for subcontractors and fabricators as concerns regarding cost reduction and detecting design errors are the main foci for these stakeholders. However, it would have been useful to have a concluding framework stating the role of BIM for all the stakeholders mentioned in the book, as this would be more digestible especially for students (who are less aware of the obstacles and issues for each stakeholder than most practitioners will be).

To conclude, the book is a good reference for the BIM implementation process for a multitude of stakeholders. However, looking at the current practices of BIM, it should be realised that the future of BIM is yet to be fully implemented as there are issues regarding interoperability, what information is needed at which stage of the process, and how to get structured data from BIM. However, and by looking at the current practices and research in BIM, I believe there is a promising potential in BIM to be effectively more involved in construction industry.

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The Essential Guide to Telecommunications (5th Edition)
Annabel Z. Dodd (2012). 600 pages. Paperback. Published by Prentice Hall: New Jersey. ISBN: 978-0137058914

Author, Annabel Z. Dodd is Adjunct Professor at Northeastern University's School of Professional Studies in the USA where she teaches postgraduate modules in wireless mobile services and data communications for the master's degree in Informatics. Previous academic appointments have included Adjunct Professor at the State University of New York at Stony Brook as well as positions in Industry at companies such as New England Telephone (now Verizon).

The fifth edition of this industry guide is a major improvement over previous versions as it now includes an updating of technologies, for example, Mobile Networks, LTE, Spectrum, and Cloud Computing amongst others. This book is essentially a glimpse into the world of telecommunications and computing networks.

The big question I felt I had to ask is '*'who would read this book and why?*'' According to the 'blurb' on the book's back cover, the intended market is business persons and non-technical professionals; however I think it is more suited as an overview to help communication systems students understand the field of telecommunications as a whole. Even though it is written in plain language, non-technical and business people would have to constantly use the glossary, as the book is littered with abbreviations and subjects that require further explanation or previous knowledge. It is a short overview of just about everything telecommunication orientated, and would maybe best be treated like a concise encyclopaedia of communication equipment, systems, history, and markets.

I can only assume this book has been aimed at telecommunications companies non-technical management personnel (for example, marketing, HR etc.). It is wide ranging and informative and marketing minded with information on various big international Telco's *(sic)*, however I fear at this level the knowledge may be slightly too deep and some details therefore unnecessary.

Although, in the latter sections, this text tries to cover most geographical market areas and explain different company systems worldwide, I did find it mostly very USA centric both history and system-wise. It also contains a mix of both American English and British English spellings (Fiber vs. Fibre) that may be confusing to non-native speakers of the English language.

It does provide a good overview of current technology and as a bonus Annabel Dodd provides a view on which technologies are in the pipeline for the next few years like the 17 terabits per second Google fibre optic cable. Coming away from this book my lasting impression is that the author has tried to fit too much information into the book for what it is attempting to cover. It appears, therefore, a 'jack of all trades but master of none' publication without a firm demographic target. It must be remembered that the operative word here is guide and it is actually quite useful though as an overview/encyclopaedia to the industry for introduction to terms.

I would thoroughly recommend this book for a generalist communication introductory course use; however I would not rely solely on it as it may not be

technically deep enough for some engineering courses.

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Programming F# 3.0: A comprehensive guide for writing simple code to solve complex problems (2nd Edition)
Chris Smith (2012). 476 pages. Paperback. Published by O'Reilly Media: Sebastopol**.** ISBN: 978-1-449-32029-4

The main goal of this book is to show that F# (Pronounced F Sharp) is not just another functional programming language, but rather that F# is a general-purpose, multi-paradigm programming language ideal for solving real-world problems and seamlessly integrating functional, imperative and object-oriented programming styles which allow students, programmers and scientists to solve problems flexibly. The author encourages programmers to look at functional programming in general and F# in particular from their own object-oriented perspective. In this comprehensive book, Chris Smith (a former F# team member at Microsoft), gives readers a head start on the fundamentals of this type of programming and walks the reader through advanced concepts of the F# language.

Smith has subtitled the book, *"A comprehensive guide for writing simple code to solve complex problems"*, and he provides simple yet powerful code examples in all chapters. Some of these examples are shown in C#, some in F# and many in both which help readers to learn forms types of functional programming and not just F#.

Before discussing the book's chapters, I will briefly describe how I moved from object-oriented programming, C# and Java in particular, to F#. For many years I developed software applications using object-oriented languages, such as Object-Pascal, Java, C++, and C#. However, during my postgraduate studies, I started to develop complex problem-solving parallel and asynchronous systems and began to realise that my code was becoming unreadable, complex and very hard to maintain. Fortunately, whilst having a discussion with my institution's Professor of Information Security, he suggested I take a look at F#. After doing some research into it, I discovered that this book was the most appropriate for me as a programmer with object-oriented background, and as a postgraduate research student working with both simple prototypes and complex systems.

The book is divided into three parts and fifteen chapters containing a densely written overview of the complete F# language. The writing follows a systematic approach from the simple to the advanced, and each section has a short introduction of a feature, followed by an extensive example, which is explained by further comments.

In the first section, *"Multiparadigm Programming"*, the author introduces F# as a first class 'citizen' in Microsoft Visual Studio, and discusses its characteristics and fundamentals. He then gives condensed, yet very useful introductions, about utilizing functional, imperative, object-oriented, and .NET programming in F#.

In this section's chapters, the reader learns that white space matters; in order to create hierarchies of scope in code, new lines and indentations are used instead of curly braces and semicolons as in C# for example. Functions can easily be nested in other functions which can be nested again

in other functions endlessly. Each sub-function has its own narrow scope which eliminates an important source of bad programming design. Most of the time parameter types do not have to be declared because the compiler infers them automatically. Thus, there is no need for typing parentheses () for the parameters. Accordingly, the F# language has a self-documentary logical structure that can be understood from the tense, clear-cut, indented shape of the code. In my opinion, by offering the feature of function nesting, functional languages promote the object-oriented principle of encapsulation in a more sophisticated and fine-grained way than object-oriented languages do. The more reading into this the more and more the thinking adapts to the fact that functions are just like other values. Smith, in this section, explains the concepts of currying, pipes, chains of functions, tuples, discriminated unions and patter matching in a simple and clear way. The last three chapters of this section deal with imperative, object-oriented, and .NET programming in F#, for example, altering data already in memory. Moreover, the author discusses some of pure object orientation shortcomings, for example, forcing the developer to formally implement certain design patterns which are implicit in functional languages. The last chapter of this section explains the .NET framework again. It is understandable that the book states that *"no previous experience with functional programming or .NET is required"* (p. xii) but, in my opinion, this should be noted somewhere on the cover.

The second section, *"Programming F#"*, deals with applied functional programming, applied object oriented programming, asynchronous and parallel programming, scripting, and data processing. It introduces units of measure and explains the usage of active patterns. Active patterns allow using functions inside the pattern matching. Smith explains the three kinds of active patterns: single-case, partial-case, and multi-case, and how they can be nested. He also explains how to use F# lists in recursions. Amazingly, the F# compiler automatically generates code that avoids a stack overflow when the recursion is implemented in the "tail-recursive" style. This section provides clear explanations and examples of function currying and the forward pipe operator, closures, memoising, and lazy evaluation, which should be familiar to C# programmers. The applied object-oriented programming chapter is short, as it should be, and summarizes type constraints for delegate, enumeration, comparison, equality conditions, and how to define, compose, transform, merge and map events using the F# Observable module. Next, the author explains how to how to speed up computation in F# using asynchronous and parallel programming, executing code in different contexts (threads), how to use the F# asynchronous workflows library for mastering asynchronous programming, and how to take advantage of the Parallel Extensions to .NET. Asynchronous and parallel programming in F# are very important aspects and the author manages to explain them in a structured and simple way. After that, the author demonstrates how F# can be used as a scripting language and notes that F# is faster than regular scripting languages because it is always compiled first. Additionally, he talks briefly about Microsoft Office automation with F#. After exposing the reader to nearly every core function of the F# language, the author then shows the reader how to create a simple search engine in order to develop a deeper understanding of the F# language. In this context, Smith explains indexing, querying, MapReduce-style data processing, and the use of Lex and Yacc for generating parsers.

In the last section of the book, *"Extending the F# Language"*, Smith explains more advanced F# concepts. He starts with

reflection and declarative programming in F#. Then, he explains, using computation, expression builders which allow developers to redefine the behaviour of keywords such as 'while', 'return', 'yield', and 'try'/'finally'. Next, the author tries to explain using F# code quotations which give access to the compiler's internally used abstract syntax tree (AST) besides the static type information such as in classical reflection. This is conceptually similar to 'expression trees' known from lambdas in C# 3.0 however Smith elaborates more. The last chapter of this book explains the importance of type providers in F#, why they are needed, and how connecting to an SQL database or retrieving data from a web service is different in F#, such as using mechanism F# uses for connecting to data providers which sets it apart from other languages by the use of a type providers.

Although, the audience Smith is targeting do not need to read all the way about how to implement an inverted index search engine. A few sections about how it is implemented would do the job. The *".NET Programming"* chapter in the first part should have been fitted in section instead of explaining the .NET framework again. Instead, it would have been more helpful, informative and up-to-date if the author dedicated a chapter for web and service-oriented programming using functional programming and F#.

In brief, this book is aimed at experienced developers seriously interested in F#. Nevertheless, it will be of interest to computer science students, researchers and data scientists. Readers without a functional background should not expect to understand everything immediately. Functional programming is not easy or trivial; however this book does a good job of explaining 'what it is all about', especially in the *"Applied Functional Programming"* chapter in the second part. The content is quite condensed and, most importantly, many concepts will be new to object-oriented developers. Finally and despite the criticisms, readers will learn how F# can offer an enormous productivity boost through functional programming, while letting developers use their object-oriented and imperative programming skills.

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Privacy and Big Data

Terence Craig and Mary E. Ludloff (2011). 82 pages. Paperback. Published by O'Reilly Media: Sebastopol**.** ISBN: 978-1-449-30500-0

The authors, Terence Craig (CEO and CTO) and Mary E. Ludloff (Vice President) both come from PatternBuilders, a company providing analytics services and solutions for 'big data', aiming to help enterprises of any size to understand and implement advanced analytics. In this book, the authors have tried to encourage the readers (or specifically their customers) to be proactive about the privacy issues while dealing with *big data* and sharing sensitive information.

This book comes in two versions paperback and digital, the former helps the reader to understand the big picture about the recent hot topics 'Privacy and Big Data' in few pages, but the digital version provides links (i.e. URLs and other references) to the related materials and helps the reader to get additional information. This book is divided into five chapters. Before coming to the chapters, it must be considered that the references used in this book relate to organisational views and the privacy issues are more

USA-centric. However, a brief introduction about the policy requirements in Europe is given in every chapter, but it rarely touches other countries such as Australia, Canada, etc.

In the first chapter, the authors introduce the meaning of big data, later to some extent they discuss user's personal data collection methods and techniques used by organisations, for instance cookies, web scrapping, and tracking mobile devices (or GPS chips). In the next part of the chapter they discuss privacy issues which relate to the methods mentioned above, involvement of third parties, and at the end they state that the major risk to the user's privacy can be the government's security measures for crime and terrorism prevention.

Subsequently, in the second and third chapters, the authors highlight two topics: 1) *The Right to Privacy in the Digital age*, where privacy policies of user's in different countries are highlighted, and 2) *The Regulators*, where the authors argue that different countries' government agencies have different laws on privacy, which require various aspect of privacy regulatory enforcement. In the next chapter *The Players* (i.e. the organisations involved in data collection, data selling, data marketing, data users, and data monitors), the authors have used past privacy violation stories, supported by links (i.e. URLs and other references), for further investigation. The stories manage to create a better impact on readers because the accounts mainly relate to big, well-known organisations such as, Facebook, Yahoo, LinkedIn, Apple, and so on. Therefore, after discussing privacy rights and laws of different countries and later supporting it with the past privacy violation stories related to big companies, the authors have managed to make their views and opinion about privacy requirements agreeable to the reader.

Lastly, chapter five focuses more specifically on the importance and need of personal privacy preservation, while dealing with big data. Moreover, throughout the book the authors frequently conclude most of the sections by emphasizing that privacy in big data will be more crucial and an unavoidable issue in the near future. Nevertheless, they have not mentioned any appropriate approaches or actions to be taken into consideration to avoid such privacy issues in future. The authors have used big phrases in the book to attract the reader, yet the content is relatively weak and some sections have been repeated. To conclude, the book's content provides brief ideas about the topic, which give an insight into privacy in big data. However, it does not provide any extensive technical information. Consequently, the 'technical person' might not find this book very useful, however other readers, such as lawyers and legal academics or early readers trying to understand the hot topics 'Privacy and Big Data', may find this book more useful.

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Environment, Media and Communication

Anders Hansen (2010), 256 pages. Paperback. Published by Routledge: Abingdon. ISBN: 978-0415425766

Environmental issues have always been an interesting topic of discussion for the media. With the increasingly alarming rate of global climatic changes and severe weather conditions experienced, it has become essential to provide a balance between the scientific reasons and explanations for such changes by ensuring they do not lose their value, or become exaggerated when they finally reach the

general public through the media. This book by Anders Hansen, which is a part of Routledge's 'Introductions to the Environment series', tries to explore the critical understanding of socio-economic, political and cultural processes and structures to understand environmental problems. The book offers short, topic-centred chapters which are relevant to contemporary society-environment relations mainly for the students of undergraduate level with the educational context of the social sciences and humanities. Since the authors and editors are established teachers in the higher education field, the chapters in the book would be useful inclusions in a flexible modular program for an undergraduate course dealing with environmental topics. However, the pedagogic tools used in the book, for example, case studies, diagrams, summary charts, and self-check questions and exercises will be extremely useful for readers from all ranges and disciplines and will enhance the student's experiences of the book.

The authors explain that due to most of the traditional and integrated environmental studies and specialised texts often failing to meet student requirements, more focus is given on the fact that students should be able to use and share the information provided in this book. This is done by the authors leading into every topic by giving some necessary basic foundation and concluding by pointing towards areas for further development and study. The role of communication and media in relation to the environment and connecting issues is studied by examining the ways in which mass media and associated communication processes has contributed to making environmental problems issues for public and political concern. Major focus is drawn to the highly constructed nature of the public communication with regards to environmental issues to show that there is no accidental or natural way by which we, as members of the public, come to learn about the issues and therefore the complexity of the process of communicating the environment is to throw light upon the central significance of language, imagery, and cultural values in these processes rather than just imparting the information. In the chapters an effort is made to answer the main areas of concern, for example, how far mass media has contributed to the rise of the environment in the political agenda, how much politically influenced is the media coverage of environmental issues or the media itself influenced by economic pressures, how do the stakeholders get to debate this issue on the basis of the news, who gets to define what the issues are and how they are to be resolved, and lastly how do mediated images contribute to the formation of a public opinion. The book clearly brings out that all these questions demonstrate the centrality of media and communication in environmental debate.

Providing a brief introduction to analysing the role of media and communication, the book creates the notion that the environment doesn't 'speak for itself' and emphasises the fact that environmental issues have become so only through the claims making and communication done through media which reaches out to the public and to policy makers. The book throws light on the communication strategies deployed in the media and states that even the news about natural disaster can be understood in a positive constructive way rather than spinning the environmental news to their own benefits, be it mass media itself or the government. Relevant criteria of media success, examples of both successful and unsuccessful communication strategies and campaigns are given for avid readers. The book interestingly addresses the increasing research evidence of key 'claims makers' exploiting the current internet information and communication methods for their image management in the public sphere. The emphasis on the newsmakers

themselves are expressed by examining how environmental correspondents are fundamentally different from general reporters and explain that those journalists have to face limitations of the sociology of the news framework to secure credibility and deal with scientific uncertainty while reporting a controversial topic and they are addressed by focusing on the cultural resonances in the discursive construction of environmental issues. The foci of the book also ventures to the images and the scripts used to deliver the news and suggests that nature and environment are ideologically constructed in media genres like television programmes and continuously makes use of key cultural narratives and stories which are often evoked by special trigger words. The book explains through examples of historical studies of film genres that the vocabulary chosen in the mass media are reflections of deep seated cultural interpretations of both nature and environment and it has to be carefully handled as to protect the changing dominant views. Environment related advertising in media is also explored and clearly shows the picture that it is used as a means to promote the 'green', 'environmentally friendly', products by large corporations or industries for a consumption basis and how nature imagery is used to sell those products. It also investigates variations in the images and how they are varied across different cultures or increasingly global or universal. Finally the holy grail of how media influence public and political perceptions and action is answered positively by claiming that media indeed play a role in shaping and influencing public understanding or opinion and political decision making in society either explicitly or implicitly. The author claims that rather than having a linear perspective on media roles in relation to public understanding of environmental issues, emphasis should be placed upon the 'circulation of claims' perspective as it would help unravel the complex and multiple ways in which media coverage interacts with other so called 'forums of meaning creation' in the current society.

The book is self-explanatory in terms of the title, but since we are living in a fast paced, ever changing society with major developments in information technology services, further editions of the book definitely ought to include updates from social media services like Twitter and Facebook which also play an important role these days in formation of public opinion. Though the book is published in 2010, no examples are cited from influential blogs of environmentalists or even media channels which outreach most of the public through internet. This book provides a basis for understanding the different terms and theoretical approaches for a media student, but is less useful for an environmental sciences student other than for the case studies and examples which also has minimal examples from Africa where environmental problems are experienced but can be viewed as less exposed by the media. The book could have included comparisons between mass media coverage to individual contributions via Twitter and RSS feeds, YouTube videos as they are also very significant these days with anyone interested in environmental issues being considered as environmentally responsible spokesperson for 'their' problems.

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