"Unifying Geography sees a distinguished cast of scholars addressing "big" questions about the scope, structure, distinctiveness and purpose of geographical thinking. It will prove essential reading for core courses on the theory, practice and role of geography." Robert Mayhew, Institute of Geography, University of Wales, Aberystwyth

"This book tackles the main challenge facing Geographers today – that of Unification. The authors are to be congratulated on a wide-ranging forward-looking approach that must form the basis for modern geographical teaching and innovative research agendas."
Sue Brooks, Birkbeck, University of London

It is argued that the differences in content and approach between physical and human geography, and within its subdisciplines, are often overemphasized. The result is that Geography is often seen as a diverse and dynamic subject, but also as a disorganized and fragmented one, without a focus.

Unifying Geography focuses on the plural and competing versions of unity that characterize the discipline, give it cohesion and differentiate it from related fields of knowledge. To ensure a balanced approach, almost all of the chapters are co-authored by a leading physical and a human geographer. Space, place, environment and maps are identified as the essential core components of Geography derived from its common heritage. Their importance for the future of Geography is addressed through a wide range of unifying themes. Topics covered include: fieldwork, geographical information systems, environmentalism, sustainability, globalization, landscape and culture, natural hazards, conservation and heritage, science and policy.

In its identification of unifying themes, the book provides students with a meaningful framework through which to understand the nature of the geographical discipline. Unifying Geography will give the discipline renewed strength and direction, thus improving its status in an increasingly interdisciplinary world.

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HUMAN VULNERABILITY, PAST CLIMATIC VARIABILITY AND SOCIETAL CHANGE

David Taylor and Anna R. Davies

NATURAL HAZARDS AND HUMAN VULNERABILITY

Coping with environmental changes as a result of the occurrence of natural hazards such as earthquakes, landslides and climatic variability is part of human existence. The ability to cope with a hazard, otherwise known as adaptive capacity, varies across environmental and socio-economic gradients and is one component of vulnerability (the others being the levels of exposure to and magnitude of hazards). Often adaptive capacity is most tested by the indirect effects of hazards, e.g. disease and shortages of food. In the case of food shortages associated with one or two years of anomalous weather conditions, successful adaptation may involve little more than being able to find adequate shelter and alternative sources of nutrition, utilize famine stores, or trading labour or other commodities for the required food staples. Under more pronounced or prolonged periods of famine, humans may resort to different and in some cases new technologies and, if opportunities exist, migrate to more suitable areas. If these coping strategies are generally unsuccessful or not possible then widespread starvation is likely to follow (D’Souza, 1988).

Building adaptive capacity is not entirely risk free, as is evident in the large losses of life and high level of economic devastation associated with the worst environmental disasters today. However, because of the complex interactions involved, understanding why adaptive capacity can, on occasion, fail requires a shift in emphasis away from natural hazard outcomes, or impacts, to causation. This in turn requires a mode of explanation that accommodates the openness (i.e. non-deterministic nature) of human–environment interactions and the presence of emergent phenomena (i.e. having different properties to those of their constituents) as products of these interactions. Such a mode of explanation and the subject matter of human vulnerability deserve consideration as core elements of a unified discipline of Geography, owing to their interdisciplinary

CLIMATE CHANGE AND HUMAN HISTORY

According to the Annales historian Fernand Braudel (1993: 10), the environment has provided the stage on which humanity’s endless dramas are played out (that) partly determines their storyline and explains their nature. Of key relevance to understanding current and anticipating future vulnerability is the extent to which this storyline has been influenced by environmental variability in the past, and the nature and range of interactions between natural hazards and human societies.

Unravelling the role of natural hazards in human history has long attracted the attention of academics from a range of disciplinary backgrounds. Most of this interest has focused on empirical studies involving climatic variability, largely because of the prospect of providing important information on the impact of future climate changes. For example, on the basis of a broad range of evidence, Winkless and Browning (1975) proposed the existence of a link between societal collapse in the past and periods of abrupt climate change arising from massive volcanic eruptions. Their work was followed by several published cases of claimed synchronous environmental (mainly climatic) and social transformations, and associated empirical evidence (e.g. Fang and Liu, 1992; Schwartz, 1992; Wright, 1993; Brown, 1994; Hoddell et al., 1995; Buckland et al., 1996; Van Geel et al., 1996; Binford et al., 1997; Hassan 1997a, b, 2002; Haberle and Chepstow-Lusty, 2000; Liu, 2000; Weiss, 2000; de Menocal 2001, Bird et al., in press), and by the publication of several major texts, including Lamb (1995). Groves (1997), Fagan (2000a, b), and Davis (2001).

Many of the published studies refer to sophisticated techniques of acquiring and analysing data, quantifying qualitative information, developing chronologies and establishing synchrony between environmental and societal change parameters.

Establishing synchrony between sets of variables is not the same as confirming a causal link, however. Nor is it alone likely to provide explanations that are resistant to deeper analysis or the inclusion of new data. Two examples highlight these weaknesses. First, many archaeologists have long accepted a climatic explanation for agrarian collapse in Andean prehistory (e.g. Shimada et al., 1991). The idea has gained greater acceptability of late, as a result of increased awareness of climate variations associated with the El Niño Southern Oscillation (ENSO). Erickson (1999: 641) provides an alternative explanation: rather than a sudden climate-induced collapse following a long period of relative stability, Pre-Columbian states were 'ephemeral, rising and falling with some regularity'. Williams (2002) argues in favour of Erickson's interpretation, viewing cultural transformation in the Andes as the product of complex interactions between environment and human society. Second, recent improvements
The LTTA was the most recent period of global climate change when ecosystems were the primary driver of species extinction and climate change.

**From Cause and Effect to Causation**

1. Environmental determinism and reduced agricultural productivity (Waller, 1970). The introduction of environmental determinism into the study of human-environment relationships has been accompanied by a shift from a focus on cause to effect. This shift has been characterized by a move from the study of causes to effects, and from a focus on how human behavior and environmental conditions interact to produce specific outcomes. The result is a shift from a focus on how human behavior and environmental conditions interact to produce specific outcomes to a focus on how human behavior and environmental conditions interact to produce specific outcomes.

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The North Atlantic Oscillation (NAO) is an important mode of climate variability in the North Atlantic region. It is characterized by a seesaw effect between the atmospheric pressure over the North Atlantic, with higher pressure over the Azores and lower pressure over Iceland. This pressure pattern can influence weather patterns across Europe and the North Atlantic, affecting temperature and precipitation.
CLIMATIC VARIABILITY AND SOCIOECONOMIC CHANGE

David Taitor and Anna R. Davies

MULTI-LEVEL PERSPECTIVES...

If would be easy to be seduced by apparent simplifications between decades, but the reality is more complex and nuanced. The relationship between climate variability and socioeconomic outcomes is not straightforward. It involves a variety of factors, including historical, political, and institutional contexts. The impact of climate variability on socioeconomic outcomes can vary significantly depending on the specific region, the resilience of local communities, and the adaptability of policies and institutions. The challenge is to develop frameworks and strategies that can effectively address the multifaceted nature of this relationship.

It is clear that climate variability has significant implications for socioeconomic outcomes. However, the extent to which these relationships are influenced by other factors cannot be overlooked. The complex interactions between climate, economy, and society require a holistic approach to understanding and addressing the challenges posed by climate variability. This approach must incorporate a range of perspectives and methodologies, including empirical research, policy analysis, and stakeholder engagement, to ensure that the needs and priorities of different communities are considered.

This book aims to contribute to the ongoing conversation about the role of climate variability in shaping socioeconomic outcomes. It seeks to provide a platform for researchers, policymakers, and practitioners to share insights, experiences, and best practices. By doing so, it hopes to foster a more comprehensive understanding of the challenges and opportunities associated with climate variability and to inspire innovative solutions that can help communities to thrive in a changing climate.

Acknowledgments

This book is the result of collective efforts. We would like to express our gratitude to all those who contributed to its creation. We are grateful to the reviewers who provided valuable feedback and suggestions. We also acknowledge the support of the editorial team and the publishers for their commitment to this project. Finally, we extend our thanks to the families, friends, and colleagues who provided encouragement and support throughout the writing process.

References


CONCLUSION

The combination of severe environmental and social factors during the
years 2000-2002 resulted in increased fluctuations in agricultural production and
prices, including disruptions between agricultural production and
consumption. The response to these disruptions was a series of government
interventions aimed at stabilizing prices and ensuring food security. These
interventions included direct financial support to farmers, price
controls, and trade restrictions. The effectiveness of these measures was
mixed, with some countries experiencing stabilization and others continuing
to face food shortages.

In the aftermath of the crisis, there was a focus on enhancing food security
through increased investment in agriculture and improving the resilience
of food systems. This involved strategies such as diversifying crop
production, improving access to agricultural technologies, and enhancing
infrastructure to support food distribution.

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Climatic Variability and Social Change