



## **Extreme Events - Building Climate Resilient Societies**

**“Cultural memory for coping with and adapting to recurrent natural hazards”**

**Herrenhausen Palace, October 2019**

**Virginia García-Acosta**  
**CIESAS, Mexico**



All forms of human  
organisation  
represent a  
particular way of  
interacting with  
nature

**This complex relationship between  
nature and society has, over the course  
of human existence, created diverse  
cultures and knowledges**

**And**

**Multiple and diverse ways to cope,  
prevent and adapt to adversity.**

The background features a light orange gradient with several thin, curved lines in a darker shade of orange. A prominent red speech bubble with a white border is positioned on the left side, containing the main title. The text within the bubble is white and bold.

## **Historical disaster research, from a social perspective**

**The historical perspective in the study of disasters, that is by using information from the past, has shown that disasters are processes.**

**Natural hazards may act as triggers and, as well, play the role of revealers or disclosers of pre-existing critical conditions**

**The study of disasters as processes constitutes a thread on which one can weave several histories**

## Historical Disaster Experiences

### Towards a Comparative and Transcultural History of Disasters Across Asia and Europe

Gerrit Jasper Schenk, *Editor*



## NATURAL DISASTERS, CULTURAL RESPONSES

CASE STUDIES TOWARD A  
GLOBAL ENVIRONMENTAL HISTORY



EDITED BY  
CHRISTOF MAUCH  
AND CHRISTIAN PFISTER

## Historical Disasters in Context

Science, Religion, and Politics

Edited by  
Andrea Janku, Gerrit J. Schenk,  
and Franz Mauelshagen



**Not only looking at events identified as disasters or catastrophes, but mainly seeking to understand the context in which they occurred.**

**Disasters have to be understood as major forces shaping historical processes and therefore need to be studied not as isolated events but in their historical context.**





## The Routledge Handbook of Hazards and Disaster Risk Reduction

Edited by Ben Wisner, JC Gaillard and Ilan Kelman

**G. Bankoff**

**“Historical concepts of disaster and risk”**

### CULTURES OF DISASTER Society and natural hazard in the Philippines

Greg Bankoff

**The past challenges our notions that contemporary ways are always better than techniques and practices developed by peoples and communities centuries ago to cope with the hazards that beset them.**

**G. Bankoff, 2012**



Virginia García Acosta  
(coordinadora)

## LA CONSTRUCCIÓN SOCIAL DE RIESGOS Y EL HURACÁN PAULINA

PUBLICACIONES DE LA CASA CHATA

## Social construction of risks

A process developed by groups or communities, which places them at different stages or levels of vulnerability.

Virginia García-Acosta

Social Construction of Risks and Hurricane  
Pauline



**Societies have never been  
passive entities in facing natural  
hazards**

Estrategias sociales  
de prevención y adaptación

Social Strategies  
for Prevention and Adaptation



Virginia García Acosta, Joel Francis Audefroy & Fernando Briones  
Coordinadores/Coordinators

**TERRES  
(DÉS)HUMANISÉES :  
RESSOURCES  
ET CLIMAT**

Charlotte Bréda,  
Mélanie Chaplier,  
Julie Hermesse  
et Emmanuelle Piccoli  
(dir.)



Investigations d'Anthropologie Prospective

**“De la construction sociale  
des risques a la construction  
sociale de la prévention”  
V. García-Acosta**

HARLAN KOFF (ed.)

**Social Cohesion in  
Europe and the Americas**

Power, Time and Space

**Cohesión social  
en Europa y las Américas**

Poder, tiempo y espacio



3

**REGIONAL INTEGRATION  
AND SOCIAL COHESION**

P.I.E. Peter Lang

**V. García-Acosta  
“Disaster prevention,  
adaptive strategies and  
social capital”**

The background features a light orange gradient with several thin, curved lines in a darker shade of orange, creating a sense of movement and depth. A large, solid red shape, resembling a speech bubble or a stylized arrow pointing downwards, is positioned on the left side of the image. It contains the text 'Social construction of prevention' in white, bold, sans-serif font.

# **Social construction of prevention**

**The diversity of coping mechanisms, the different modes of disaster management, and the assorted systems of adaptation and prevention that aim to seek and achieve a better relationship between nature and people.**



# **Adaptation/ Coping**

**Changes in belief and/or behavior in response to altered circumstances to improve the conditions of existence, including a culturally meaningful life.**

**An adaptation is part of a lifeway.**

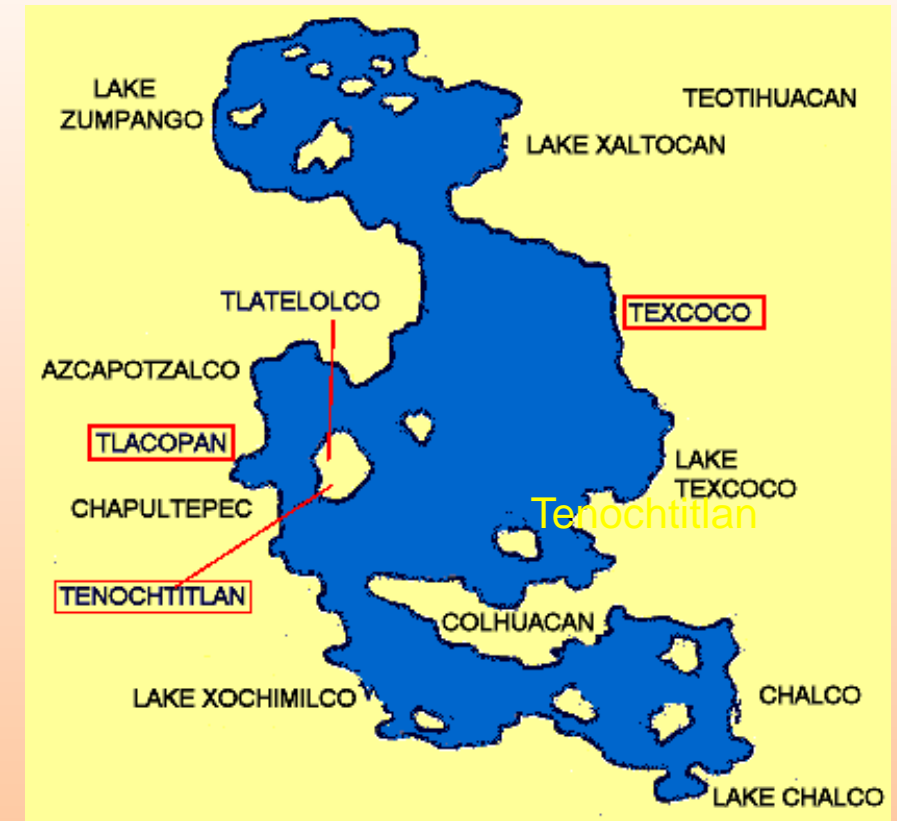
**Coping behavior involves immediate problema-solving and decisión-making, including improvisation and creativity**

**A. Oliver-Smith, 2017**

# Tenochtitlan, nowadays Mexico City



Source: <https://pbs.twimg.com/media/C9EUVNVYAAz9T.jpg>



Source:

<https://i.pinimg.com/originals/38/ca/99/38ca99627aba0e06ebc56097290ce551.gif>

**Tenochtitlan-Tlatelolco Island  
1325-1521 AC**

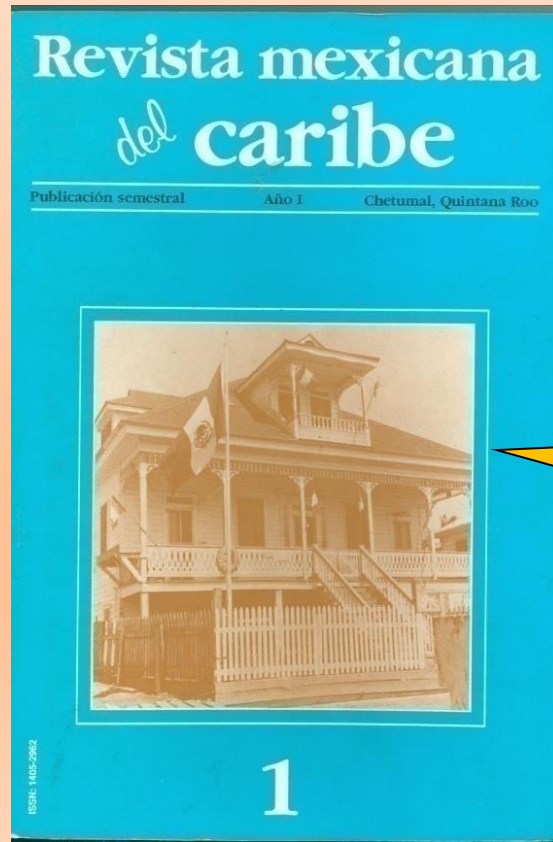
**Knowledge of the topography of the lake and its  
environmental characteristics, as well as a team  
of trained divers.**

**Flooding was controlled.**



# Herman W. Konrad

**“Ecological implications for pre-Hispanic and contemporary Maya subsistence on the Yucatán Peninsula”**



**1996**

**“Caribbean tropical storms. Ecological implications for pre-Hispanic and contemporary Maya subsistence practices on the Yucatán peninsula”**

**2003**





## Social Strategies for Prevention and Adaptation



# Vernacular housing in hurricane/flooding prone areas

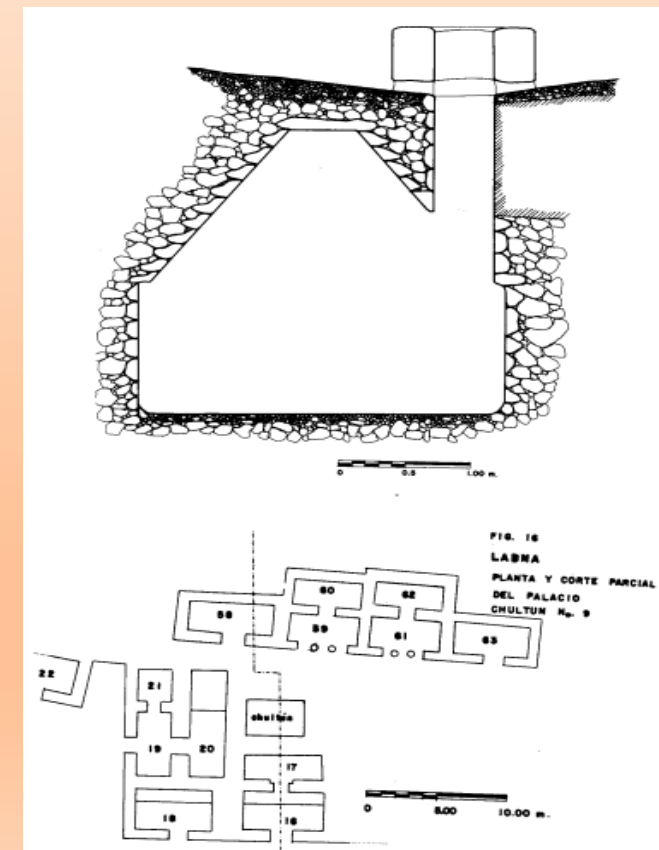
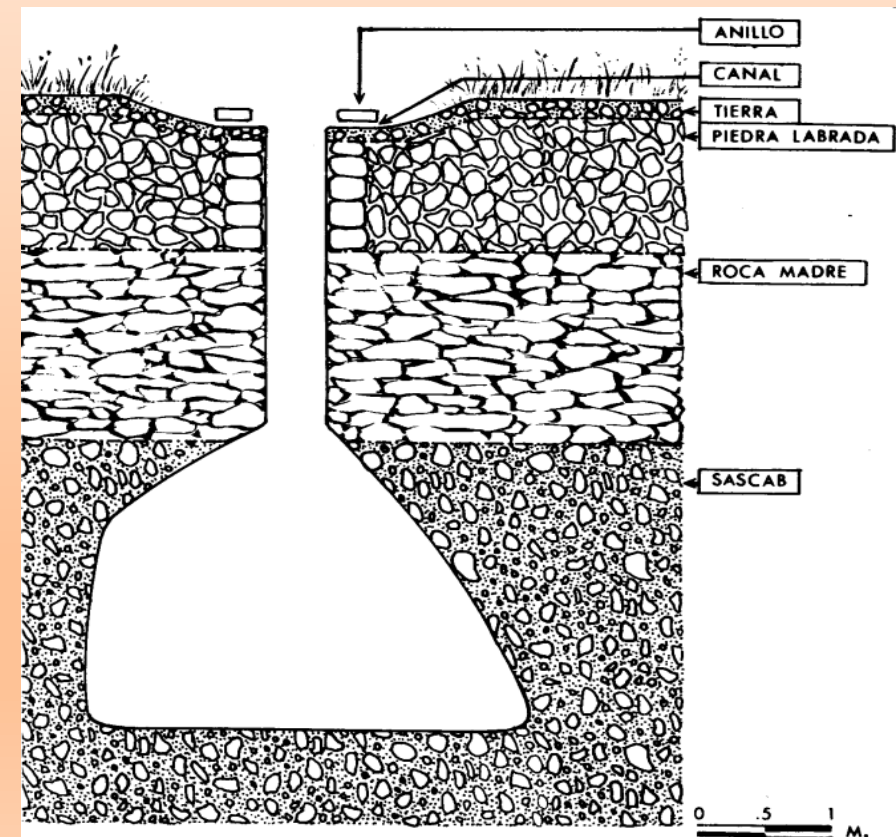
# Technological adaptive responses in face of water scarcity.

Maya inhabitants in the Yucatán Peninsula had three sources of water supply: natural, built by man and adapted.

Among the latter were the *chultunes*, which have been fundamental and original strategies to cope and recover from so long periods of drought.

*Chultun* (Maya language):  
storage tanks.

Source: Zapata Peraza, Renée Lorelei, 1989, Los chultunes, sistemas de captación y almacenamiento de agua pluvial, Mexico: Instituto Nacional de Antropología e Historia, pages. 69, 70.



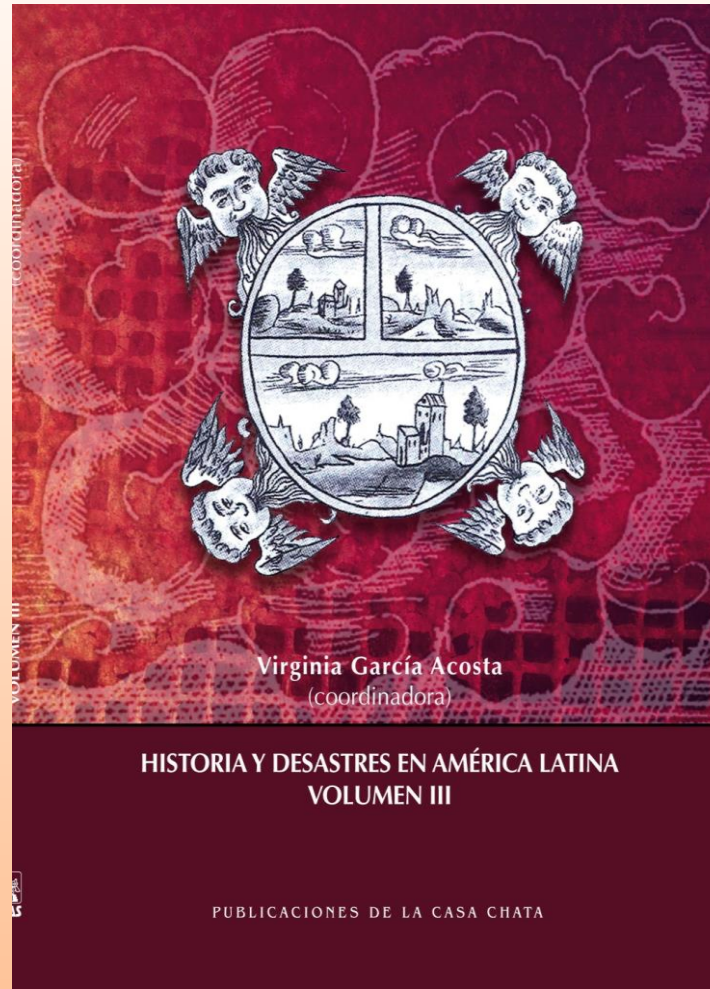
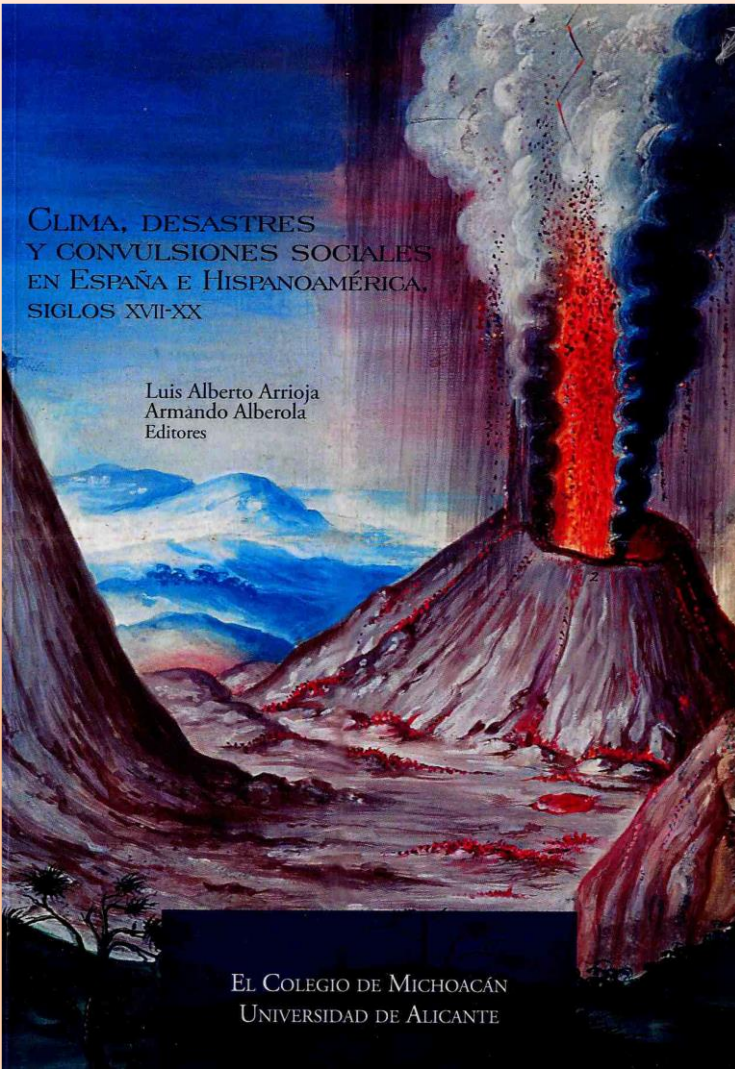
## Andean region

**The frequent incidence of climatic disturbances associated with the *El Niño* phenomenon brought:**

**demographic rearrangements,  
changes in settlement patterns,  
variations in food practices,  
architectural reconstructions,  
control flooding,  
agricultural intensification,  
and indeed ideological alterations**

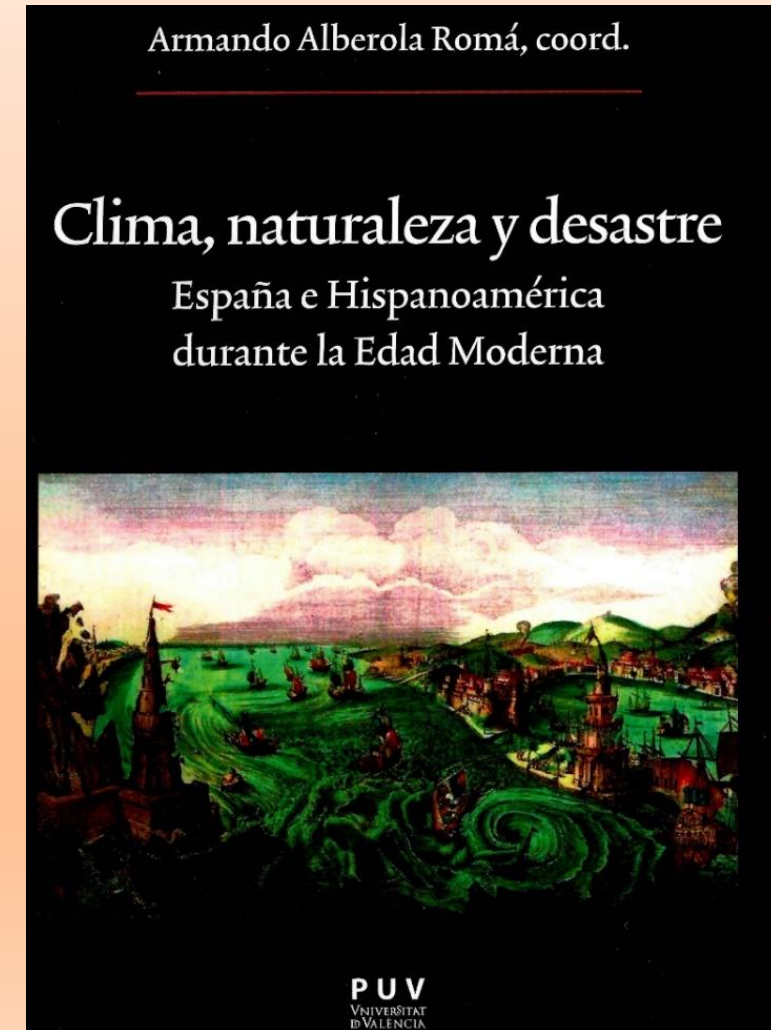


**Climate, disasters and social convulsions in Spain and Hispanic America.  
16th to 19th Centuries**



**History and Disasters in Latin America.  
3 volumes**

**Nature and Disaster.  
Spain and Hispanic America  
along the Modern Age**





Clues  
to understand...

**How through different mechanisms, communities have developed collectively strategies, actions and practices of prevention that have resulted in increasing resilience.**

**Resilience: a constantly evolving process of learning and adaptation to new and accumulated knowledge**

To open, deepen,  
reinforce,  
strengthen...

**New horizons about historical and contemporaneous disaster experiences.**

**Comparative and transcultural history of disasters, social construction of risks and mainly social construction of prevention**

**Concepts as cultures of disaster, cultures of risk, cultures of prevention**

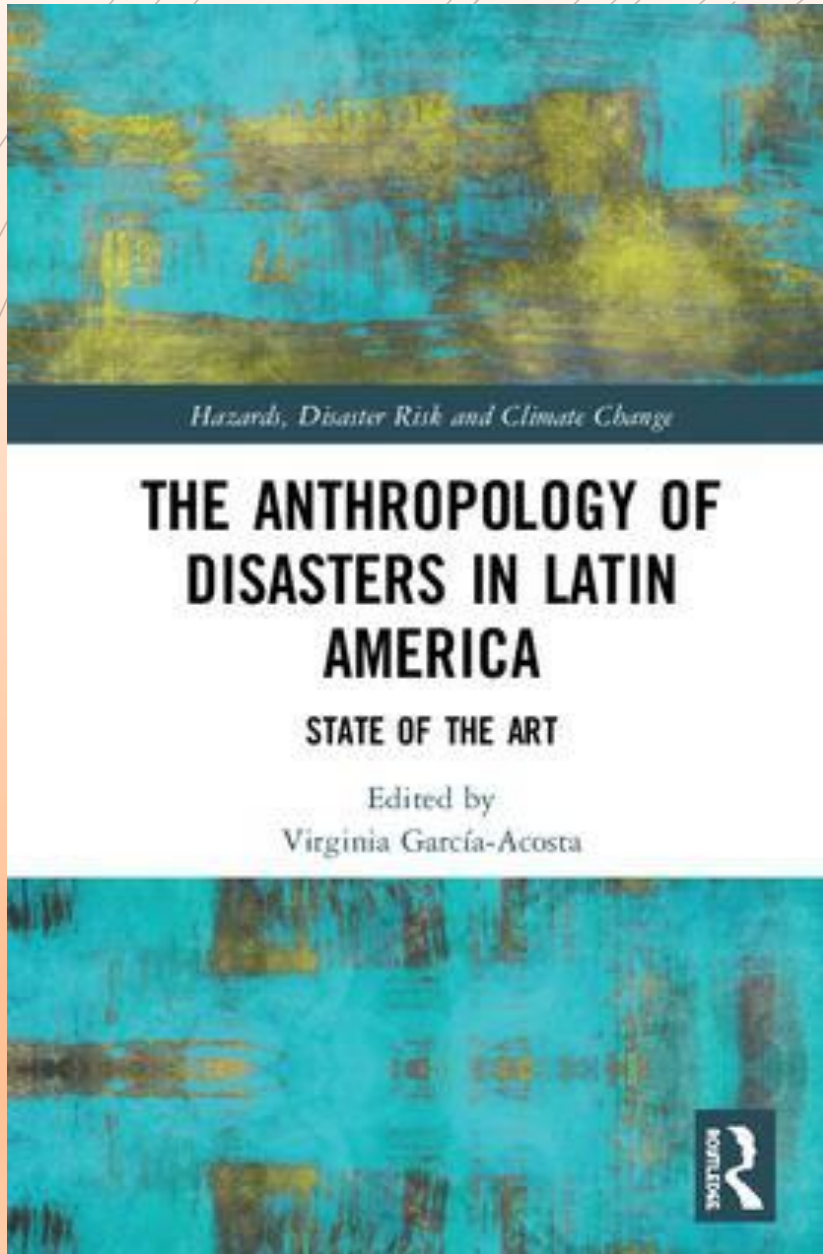
**Examples and reflections that already exist across Asia and Europe with Latin American examples**



The background of the slide features a series of thin, curved lines in shades of grey and orange, creating a sense of movement and depth. A large, solid red rectangle is positioned on the left side, containing the text 'On-going research projects' in white. To the right of this rectangle, there is a list of three research projects, each preceded by a red square bullet point.

## On-going research projects

- **“History and Memory of Hurricanes in Mexico during the last 5 Centuries”**
- **“Climate, risk, disaster and crisis on both sides of the Atlantic during the Little Ice Age”**
- **“Public administrations against natural hazards in the Bourbon monarchies: 18th to early 19th Centuries”**



- **Including cases in 9 Latin American countries/regions.**
- **Preface by Anthony Oliver-Smith**
- **Foreword by Ilan Kelman**

**Routledge Series Studies in Hazards,  
Disaster Risk and Climate Change**



**THANKS**  
**GRACIAS**  
**DANKE**