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# The Making of Catastrophe

Mark Kammerbauer



## Mark Kammerbauer: Curriculum Vitae

Mark Kammerbauer is a German-American Master of Science [Urban Studies, IfEU, Bauhaus University Weimar] and Diplom-Ingenieur [Architecture, TU Munich]. He has founded the interdisciplinary project platform [www.nexialist.com](http://www.nexialist.com), an environment for sound art, architectural acoustics, live action and using buildings as sound devices. He is currently a PhD student at the Bauhaus University Weimar researching the influence of natural disasters and catastrophe on cities in connection to social vulnerability.



2008-2010 PhD Studies, Bauhaus University Weimar  
2007 Field research in New Orleans and Houston, Master Thesis  
2006 Stagiair for DRO Amsterdam  
2005-2007 Postgraduate studies at IfEU Bauhaus University Weimar  
2003-2005 Freelance Collaboration for M Link Architekt BDA, Munich  
2003 Relocation to Germany, Media and Sound Art Production  
2000 Founding of [www.nexialist.com](http://www.nexialist.com) Online Project Platform  
1999-2003 Architectural designer for Poskanzer Skott Architects AIA, NJ  
1999 Diploma, Thesis, Design Studio Prof. Deubzer, TU Munich  
1993 Traveling in Singapore, Malaysia, Indonesia  
1992 Studies in Architecture, TU Munich  
1991 Abitur, Dingolfing Germany, Civilian Corps Social Service, Munich  
1979 Location to Germany  
1971 Born in Ridgewood, NJ USA

### Interdisciplinary Projects:

2007 The Making Of Catastrophe [New Orleans, Katrina, social vulnerability]  
2007 Urban Evolution [with J. Barona + A. Löper]  
2004 Nexialist Operation Mimesis

### Urbanistic Collaboration [for DRO Amsterdam]:

2006 Presentation + Study: The IJmeer Region

### Architectural Collaboration [for M Link Architekt BDA, Munich]:

2005 Rischarts Backhaus, Marienplatz 18+19, Munich  
2004 Salon Kirchberger, Luitpoldblock, Munich  
2003 Tierarzpraxis Haas + Link, Germering, Munich

### Architectural Collaboration [for Poskanzer Skott Architects, NJ, USA]:

1999-2003 [selection]  
Saddle River Executive Centre, NJ  
SREC Nike Office, NJ  
Ridgewood Village Hall, NJ  
Grodnick Residence, NY

### Press | Lectures | etc.:

2007 TU Munich: Lecture "New Orleans, Katrina und Raumproduktion"  
2004 ARCHPLUS 166 "Off-Architektur 1: Szenen": Nexialist  
2002 EDA @ UCLA Los Angeles: Lecture "Theory of hardcore in design"

Mark Kammerbauer - Prenzlauer Allee 217 - 10405 Berlin - Germany  
0049-0160-96645062 [info@transarchitecture.org](mailto:info@transarchitecture.org) [www.transarchitecture.org](http://www.transarchitecture.org)

**This edition is an excerpt of the original Master Thesis and features the table of contents, the introduction, and the bibliography. The complete version may be obtained by request.**

THE MAKING OF CATASTROPHE

HURRICANE KATRINA, NEW ORLEANS, THE LOWER NINTH WARD

AUTHOR:

MARK KAMMERBAUER, DIPL.-ING. (ARCH.) TU

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BAUHAUS UNIVERSITY WEIMAR

SUPERVISORS:

PROF. DR. DIETER HASSENPFUG (BAUHAUS UNIVERSITY WEIMAR)

PROF. RICHARD CAMPANELLA (TULANE UNIVERSITY NEW ORLEANS)

DR. BERNHARD STRATMANN (BAUHAUS UNIVERSITY WEIMAR)

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*Abbreviations and dimensions used in the text*

ACORN	Association of Community Organizations for Reform Now
BFE	Base Flood Elevation
BNOB	Bring New Orleans Back Plan, Commission
DHS	Department of Homeland Security
DOD	Department of Defense
EMAC	Emergency Management Assistance Compact
FEMA	Federal Emergency Management Agency
FRP	Federal Response Plan
H. Rpt.	House of Representatives
HUD	Department of Housing and Urban Development
IEM	Innovative Emergency Management, Inc.
INS	Incident of National Significance
IPCC	International Panel on Climate Control
IPET	Interagency Performance Evaluation Task Force
LANG	Louisiana National Guard
LDC	Less developed country
MDC	More developed country
NEMA	National Emergency Management Association
NFIP	National Flood Insurance Program
NHC	National Hurricane Center
NOPD	New Orleans Police Department
NORTHCOM	Northern Command
NRP	National Response Plan
NRP-CIA	National Response Plan Catastrophic Incident Annex
NWS	National Weather Service
USACE	U.S. Army Corps of Engineers

1 foot	=	0.3 meters
1 mile	=	1,609 meters
1 meter	=	3.28 foot
1 kilometer	=	0.621 miles

## 1.0 INTRODUCTION

In August 2005, Hurricane Katrina struck the Gulf Coast of the United States of America and severely impacted the states of Louisiana, Mississippi, and Alabama. A major population center, the New Orleans Metropolitan area, was affected and submerged by flood in the wake of the hurricane. New Orleans, to a large extent below sea level, ceased to operate as a metropolitan center after being flooded. A week-long response effort was necessary to provide help for stranded citizens inside the city, and human suffering was conveyed worldwide through the media.

Katrina appeared and exposed the social problems of the city of New Orleans with a single blow. These problems played a role during and after the crisis in regard to how citizens were affected. As observations show, particular groups of people were and are hit harder by a disaster than others. They are more vulnerable. How does this condition come into being and what are the reasons for it? Not all citizens did evacuate before the storm. All citizens had to be evacuated in the aftermath of the storm. Until today, not all have returned.

In researching causes for vulnerability rooted in social conditions, vulnerability to a disaster, and a particular location, it is important to understand the location, the society that inhabits it, the nature of the disaster, and the organizational response to it. Also, the unfolding of the catastrophe, as well as the plans and organizations involved in disaster management, are important in this regard.

Mobility in disaster in the form of evacuation is based on the existence of a plan which details the procedure of evacuation, whom to evacuate, when, and to where. For many, the question of how becomes relevant. It is tied to various issues which are in turn partial to vulnerability. Vulnerability science deals with inequality that emerges during disaster. It is an interdisciplinary way of researching disasters, the event that causes them, the locations they take place in, and the societies that are affected by them. Particular social conditions are viewed as reasons for the varying impact of disasters.

Mobility is further based on the creation of a condition post-crisis, which enables the return of those who evacuated. This is also based on planning – return needs to be planned in the face of post-disaster destruction, involving issues such as who can return, when, and where to. The question of who is or is not mobile in disaster and why is connected to the question on who plans mobility in disaster and how this is implemented.

In New Orleans following Katrina, the media showed images of mostly poor, black people waiting for help in despair within a destroyed city. Why weren't these people in safety? Were they unable to leave the city? Was the Katrina disaster "natural"? Or did human agency in form of faulty or absent planning contribute to a catastrophic situation? How are vulnerability and planning connected? The question is raised why people could or could not leave the city and how this has affected them, and why or why not they are returning.

Mobility prior, during, and after the disaster is a central aspect of these questions, as it shows how planning influences vulnerability. **Answering these questions serves to investigate whether the catastrophe was not "just" a natural disaster – but instead a catastrophe that was "made" by human agency, due to deeply rooted social conditions, with mobility serving as an indicator for social vulnerability in a disaster, caused by failure of institutional planning and response.** This viewpoint incorporates vulnerability science and disaster management in the theoretical framework, within the context of Hurricane Katrina and New Orleans, and a particular quarter in the city, the Lower Ninth Ward, as case study.

The analytical framework of this thesis includes an explanation of vulnerability. If the concept of disaster comes into question, it also needs to be defined. Disaster management as well as its organizations and plans in the U.S.A. need to be introduced. These theoretical tools are used in order to examine the context and case study according to the following steps:

- The situation before Hurricane Katrina.
- The period in time in which the disaster unfolded.
- The situation after the passing of Hurricane Katrina up until today.

Vulnerability encompasses social and physical aspects relevant to the thesis. The causes for vulnerability may be rooted in situations and conditions far removed from the actual disaster in terms of space and time. The reason for this approach lies in the fact that the causes for vulnerability, established in history, continue to affect vulnerable people until today. The limited effectiveness of response and the problems and slowness of recovery have riddled many. People asked, "is this America?" The answer is obvious, it is indeed America, but an understanding of historic processes is nevertheless necessary.

In the wake of the Katrina catastrophe, a multitude of articles, papers, and books was and is being published, each with its own focus and aims. Within the established fields of

disaster research and vulnerability science, scholars observed, analyzed, and elaborated on various aspects of the catastrophe. Newspapers, television, Internet blogs all contributed to a massive amount of reporting.

The goal of this thesis is to provide a nexus of observations, taking into account the larger historic context, yet not neglecting the individual perspective, providing an overview without sacrificing the detail. Not only the event itself, Hurricane Katrina, but also the time before and the time after the event were, are, and become relevant. Systemic causes for vulnerability need to be identified as well as individual motivation which influences mobility. Only a thorough analysis can provide a useful basis for future planning, offering an opportunity to avoid the problems which became apparent in the wake of Katrina and which continue to trouble the city until today. This thesis intends to provide this analytical basis and also point out how the use the knowledge gained for future planning and policy.

The complexity of the issue calls for an anatomic principle, dissecting the strands of information in order to piece them together again. The procedure is to advance from the general level of theory, to the object of choice in the context, to the detail level within the case study.

The thesis consists of the following components. After this introduction, a theoretical background is provided. The topic of vulnerability is explained, and specifically, physical and social vulnerability. This deals directly with the different degree to which people are affected by disaster. What is a disaster? An introduction to disaster research and management serves to answer this. Further, plans and organizations in the U.S.A. as part of planning and preparing for, responding to, and recovering from disasters are introduced.

In conclusion to this theoretical basis, the context of the catastrophe is examined. Where did the disaster occur? A brief portrait of the city of New Orleans features the city's history, geography, and physical as well as demographic and social characteristics. How did the disaster unfold? A timeline of the crucial week during which Katrina occurred provides a temporal framework. What happened after the disaster, how did organizations perform, and how were plans implemented?

The contextual section is followed by a case study. A particular quarter in the city of New Orleans, the Lower Ninth Ward, was selected in order to research the questions raised in this thesis. A description and evaluation of empirical research conducted by the author in

June 2007 in this part of New Orleans provides information on the Lower Ninth Ward and its citizens.

A conclusion attempts to combine these theoretical, contextual, and empirical aspects, intended to identify deeply rooted causes for social vulnerability in New Orleans. In closing, an outlook provides suggestions in connection to the catastrophe and the findings in the thesis, and relevant for the city from the viewpoint of urban studies. These are intended to offer points of discussion to reduce vulnerability in the future, within a local, regional, and national context.

A site visit between May and July 2007 in the city and the case study area enabled visual and audible documentation. Interviews were conducted with survivors, activists, and observers, first on an ad-hoc basis, then informal, and then formally, recorded audio-visually. A questionnaire survey was held among survivors who have or have not returned. For this purpose, survivors in both New Orleans and Houston were interviewed. Participant observation in seminars, education events and citizens meetings deepened insight into the subject.

Further, existing and recently published literature, plans, maps, and official statistics were used as secondary information sources. Sources range from literature on the catastrophe, the locale, culture, and history, as well as institutional approaches to dealing with social problems. These are used to provide a theoretical framework, to explain the contextual background, and to compare and validate the information gathered in the case study.

As Warner points out, losses caused by hazards are rising globally. Hazard protection proves inefficient, and an increase of vulnerability is the result. In the case of New Orleans, the failure of protective installations resulted in city-wide flood. Also, authorities failed to protect citizens from the hazard because they failed to deal with the social situation, which also determines how people will recover after the disaster (Warner, 2007: 16).

Vulnerability studies are intended to provide policy makers with a basis for better policies in order to counter vulnerability. But if the tools themselves that are available to them are flawed, how can this countering of vulnerability be achieved? There needs to be a two-fold awareness: Of the vulnerability of people in the light of natural disaster (and the deeply rooted causes for vulnerability) and the nature of the policy instruments available to decision-makers. The operational paradigm of these policy instruments

themselves comes under scrutiny when it is their immanent structure that has been partial to policy measures of the past that actually created conditions of vulnerability in the first place.

The long-term goal must be to reduce vulnerability. Losses due to natural disasters are rising world wide. Climatic changes may result in an increased occurrence of natural disasters. People are exposed to these risks by living in hazardous areas. To tackle all these goals, it is necessary to understand why certain conditions come into being that create disaster – that make catastrophe.

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