



Routledge Studies in Hazards, Disaster Risk and Climate Change

THE ANTHROPOLOGY OF DISASTERS IN LATIN AMERICA

STATE OF THE ART

Edited by
Virginia García-Acosta



ROUTLEDGE

The Anthropology of Disasters in Latin America

This book offers anthropological insights into disasters in Latin America. It fills a gap in the literature by bringing together national and regional perspectives in the study of disasters.

The book essentially explores the emergence and development of anthropological studies of disasters. It adopts a methodological approach based on ethnography, participant observation, and field research to assess the social and historical constructions of disasters and how these are perceived by people of a certain region. This regional perspective helps assess long-term dynamics, regional capacities, and regional-global interactions on disaster sites. With chapters written by prominent Latin American anthropologists, this book also considers the role of the state and other nongovernmental organizations in managing disasters and the specific conditions of each country, relative to a greater or lesser incidence of disastrous events.

Globalizing the existing literature on disasters with a focus on Latin America, this book offers multidisciplinary insights that will be of interest to academics and students of geography, anthropology, sociology, and political science.

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9 An epistemological proposal for the Anthropology of Disasters

The Venezuelan school¹

Rogelio Altez

Introduction: the IDNDR effect

Like many other experiences, the Anthropology of Disasters in Venezuela was boosted by a catastrophe. Certainly, the landslides of 1999 that destroyed the central littoral (north of the country), represented a decisive opportunity for the development of research on the problem, both in applied and social sciences. Although the attention to the subject had existed for years, this event was a trigger for the study of disasters in Venezuelan Anthropology.

The 1999 disaster occurred in the closure of the International Decade for Natural Disaster Reduction (IDNDR),² the platform that stimulated institutions and researchers to specialize in the problem of risks. The UN decision came after evaluating the impact of disasters that previous decade, especially in affected countries with fewer resources. Precisely in Latin America, a series of disastrous events associated with natural phenomena produced great material losses and an elevated number of deaths.³ Everything happened in a context of global recession and in an indebted region; each disaster directly affected the GDP, generating greater indebtedness.

The IDNDR produced supranational financing and imposed an agenda for that issue. In 1999, the International Strategy for Disaster Reduction, ISDR, was created, from which the United Nations Office for Disaster Risk Reduction was born. The ISDR implemented resources to establish international links and agreements, such as the World Conference on Disaster Reduction, held in Kobe in 2005, where the Hyogo Framework of Action, 2005–2015, was adopted. Thus, the institutions dedicated to the study of potentially destructive natural phenomena relied on direct and preferential attention from the states, and on an international platform that connected them to each other and with the formation of researchers. The Venezuelan Foundation for Seismological Research (FUNVISIS) was among the prestigious Latin American institutions that were directly stimulated by the UN agenda, and it will play an important role in the development of the subject in social sciences.⁴

The role of Latin America was essential on the discursive transformation of the multiple problem presented by disasters. Latin American researchers proposed the most important statement in the interpretative turn of the problem: “disasters

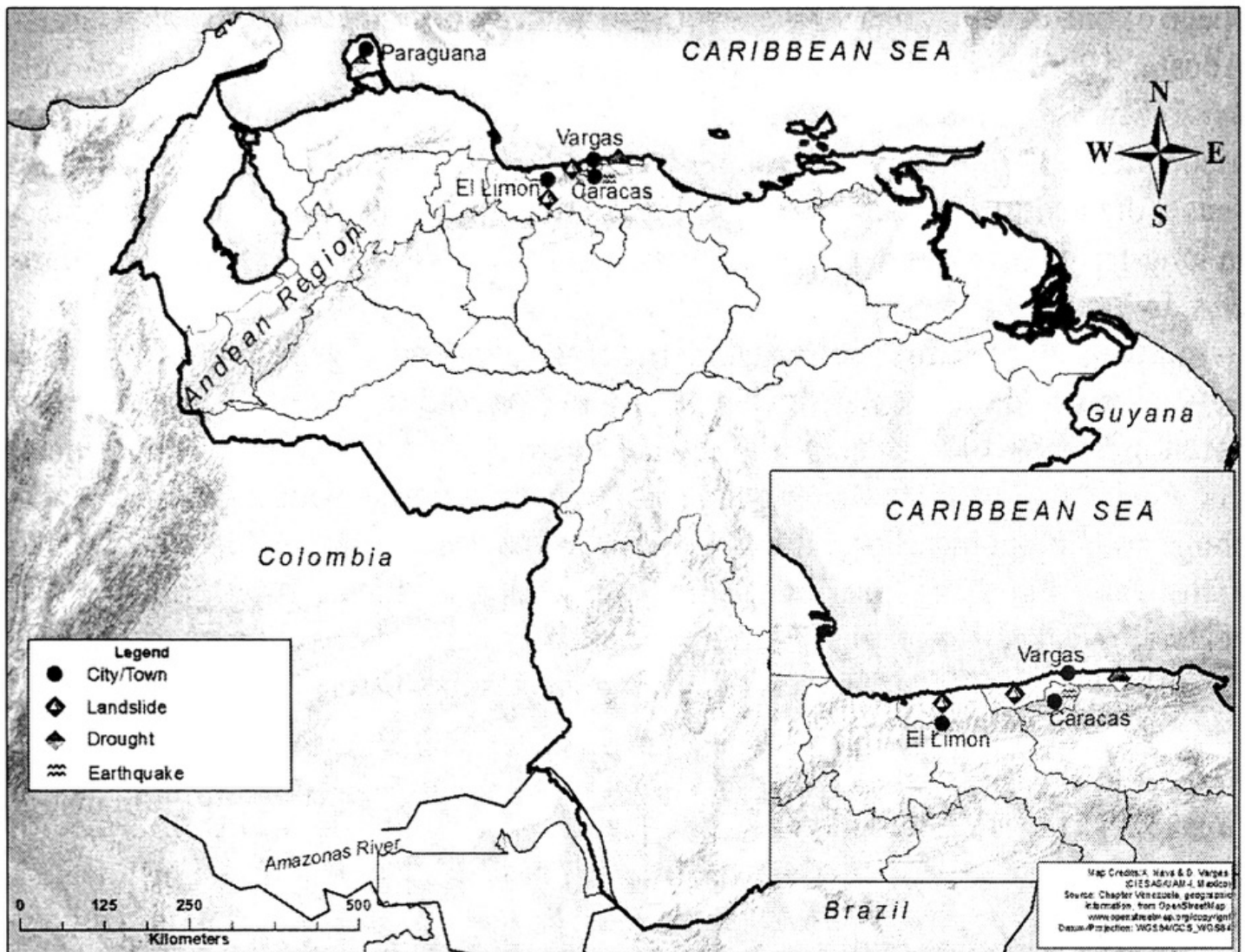
are not natural”, but are the catastrophic product of the intersection in time and space of one or several hazards with a vulnerable context (Maskrey, 1993; García-Acosta, 1996). This approach led to understand the study of hazards and vulnerability as a substantial element towards prevention. Technical expertise was associated with the comprehension of social and historical variables and, in that sense, the institutions dedicated themselves to the research of natural phenomena in long-term processes in order to estimate impacts on the return of these phenomena. In Venezuela, seismology set the tone.

In May 1997, the first Historical Seismology Workshop was held in Trujillo, at the Universidad de Los Andes (University of Los Andes).⁵ The sessions revealed the importance of historical research of earthquakes for physical and social knowledge of its effects. Among the most important consequences of those workshops was the publication of three seismological catalogs when, up to that date, there was only one (Grases et al., 1999; Altez & Rodríguez, 2009). Since 1997, seismological cataloging has been a specialty in Venezuela, and the investigations carried out in this regard expanded the known seismic history.⁶

Thanks to this impulse, approaches, concepts, and methodologies on the study of risks were transformed, and new instances were founded. In 1992, the Foundation for Seismic Risk Reduction was created at the University of los Andes, with headquarters at the Geophysics Laboratory. In 1996, the Commission for Risk Mitigation was founded at the Universidad Central de Venezuela (Central University of Venezuela, UCV). In the Universidad Pedagógica Experimental Libertador (Libertador Experimental Pedagogic University) developed the National Project for Research, Education, and Risk Management in 2002. In the Universidad del Zulia (Zulia University) the research line Historical and Social Study of Disasters was assigned to the Center for Historical Studies and the Laboratory of History of Architecture since 2005 (Altez & Barrientos, 2008).

In Mérida, in 2007, the Research Center for Integral Risk Management was created and dedicated to multidisciplinary projects on disaster risk management, adaptation to climate change, and local sustainability. In 2010, at the Environmental Studies Center of the UCV, the course on Professional Improvement in the Reduction of Socionatural and Technological Risks in Environmental Management was created. All these initiatives have contributed knowledge, methodologies, and, above all, researchers to the field of disaster prevention and the transversal study of their problems.

In this context, we created the Anthropology of Disasters course at the School of Anthropology of the UCV in 2009: “The first university to offer a course on disasters anthropology was in Latin America”, as García-Acosta said (2018: p. 6). To understand its place within the discipline in Venezuela it becomes necessary to go back in time and then return to the present. This chapter aims to explain the meaning of that subject, its results for this school, and especially its epistemological proposal, based on a critical distancing with functionalist empiricism (Godelier, 1976) and while being closer to a historical materialism without ideologies (Altez, 2016a).



Map 9.1 Map Venezuela. Case studies and main areas mentioned

Anthropology becomes a school

The first ethnographers in Venezuela approached the indigenous realities according to the epistemological context of the 19th century. Positivists and evolutionists left us their thoughts on ethnology and “folklore” in a reality split among “caudillos” and liberalism. Gaspar Marcano (1850–1910), Lisandro Alvarado (1858–1929), Arístides Rojas (1826–1894), Tulio Febres Cordero (1860–1938), and Julio C. Salas (1870–1933) rode between costumbrism and science. Along with the German Adolfo Ernst (1832–1899), who was maybe the most qualified, they made great efforts in understanding the reality from an anthropological glance.

Only Rojas, Febres Cordero, and Ernst incorporated the observation of natural phenomena to their most passionate activities. We owe to that impulse of totalizing reality their chronologies and articles on earthquakes, climate, or geology, subjects that were mixed with reasoning about colonial society or the pre-Columbian past. They were polyhedral thinkers, without a unique field of study. However, their work vanished in time due to the absence of continuity, because the Venezuelan anthropology did not have an uninterrupted line from the 19th century to the present. The transversal view of phenomena ended up engulfed in the technical specialization, finally capitalized by the natural sciences.

Without a formal academic space, Venezuelan anthropologists developed scarce activity during the first half of the 20th century. Those who continued the ethnographic path dedicated their work to indigenous communities. A few interested in paleontology would exchange experiences with geologists, using archeological techniques and methods. Nevertheless, natural phenomena did not find space among their interests. They cannot be blamed: the phenomena and its effects were never a notable subject of the discipline.

Towards 1952–1953, in the boom of US oil investment in the country, the Department of Sociology and Anthropology was founded in the UCV, afterwards a School since 1957. Amidst the growing influence of the United States in the region, the anthropology of the north crossed glances with the institutionalization of the discipline in Venezuela. The emblematic publication of the Smithsonian Institution edited by Julian Steward (1940–1947), where he noted the absence of large studies on the ethnic groups of this territory (Torrealba, 1997), stimulated the development of an indigenist vocation still persists. Along with the professionalization of anthropology, the contemporary ethnology in Venezuela was also born (Margolies & Suárez, 1978), consolidating the descriptive archeology begun by the influential work of Cruxent and Rouse (1958, 1963).

The – almost global – university whirlwind of the 1960s found Venezuelan anthropology at the height of the Cold War. Descriptive archeology was disregarded, and Marxist Social Archeology burst with force (Vargas, 1998). In the same way, populist indigenism flourished. The anthropological practice, in any case, demonstrated a subsidiary character in relation to foreign theories (Torrealba, 1984). The professional pressure from the anthropologists ended up forcing their separation from the School of Sociology, and in 1986 it started its own life with four emblematic departments: Ethnology and Social Anthropology, Linguistics, Archaeology, and Physical Anthropology. All of them focused on traditional subjects of study: indigenous communities, descendants of enslaved, pre-Columbian societies, aboriginal languages, and forensic areas, among others. Fieldwork has been – and still is – the methodological identity of the discipline for most Venezuelan anthropologists. In none of these areas were natural phenomena involved as an analytical interest, beyond – of course – being treated as circumstantial aspects concomitant to archaeological objects of study.

In many ways, the Cold War and its ideological effects left a mark on the Venezuelan society. Academically speaking, its most distinctive trait can be found in the influence Marxism had on the development of social sciences. By way of example, the School of Sociology promoted the creation of the Department of Socio Historical Analysis, where a subject by the name of “Venezuelan Social Formation” was introduced from a materialistic point of view. Its name is eloquent. This subject, which is in the School of Sociology, is also shared between both schools up to the present, preparing anthropologists and sociologists in that perspective.

Other subjects were decisive as well for the education of anthropologists with a materialistic base, such as “Political Anthropology” or “Economic Anthropology”, where the reading of Eric R. Wolf, Georges Balandier, Maurice Godelier,

Marvin Harris, Claude Meillasoux, Ángel Palerm and Josep Llobera, among others, complement the look already offered by the classical texts of Marx, Engels, and Gramsci, or the Frankfurt School. However, it is necessary to make an epistemological precision that is not always warned: Marxism is an ideology and historical materialism is an interpretative proposal; thus, are not the same. As an ideological perspective, Marxism has been highly significant in social sciences, and Venezuelan anthropology has not been immune to such influence. Latin American social archaeology represents, indeed, one of the most conspicuous examples; its ideological commitment has led them to political militancy and their arguments confirm it literally, with greater emphasis in the 21st century (see Sanoja & Vargas, 2004; Vargas, 2007).⁷

This School of Anthropology, of course, has certain peculiarities in comparison with other centers of anthropological training in the Western world. On one hand, it is a “school”, and not a department or a research center. This marks a substantial difference, especially when compared to the teaching of anthropology in many European universities, where each one of the areas that constitute our school represent independent departments there. The place that each education center occupies in relation to the distribution of knowledge at each academic instance (school, research center, or department), also reveals the different conceptions of anthropology and where it is anchored epistemologically, according to the criteria that conceives it as a career or field of study.⁸

Our school developed its own way to teaching the discipline, focused only in its profession profile, without proposing to assist with its knowledge the rest of the faculty to which it is ascribed. It conceives anthropology as an independent and exclusive field, and under that conviction it was separated from the School of Sociology. It constituted the formation of anthropologists assuming the area of each department as indivisible parts of the discipline, and not as different specialties. Its success or departure from the original plan can be discussed; however, that was its most ambitious goal.

This possesses a peculiar interest for the epistemological problems of the discipline, perhaps as a legacy of its connection with sociology for several decades. Moreover, in its current conformation there are seven subjects that are common to both schools, taught in sociology until 1998. This marked interest in the theories and their most significant contents has been directly inherited and is a clear concern for our proposal on the Anthropology of Disasters.

The teaching of the discipline, without a doubt, is a heterogeneous reality that leads to equally heterogeneous results in its understanding and application. Anthropology is not a megalithic science, but a way of understanding social, historical, and symbolic processes from a broad theoretical, methodological, and interpretative basis. From this we can understand the differences between approaches, authors, currents, perspectives, techniques, concepts, theories, methods, and many other aspects that, instead of being common to all educational centers, are substantially different. Disasters will arrive at the school and to its peculiarities by the end of the 20th century.

A biographical matter

At the beginning of 1996, and thanks to the experience in documentary research, FUNVISIS commissioned us to investigate the Venezuelan 1812 earthquakes, the more devastating in the history of the country.⁹ The approach to the context of 1812, the most critical moment of the independence process, allowed the development of a series of studies that combined the use of new and complementary interpretative tools for the historiography on that period. What we started then cultivated us in the field of historical seismology, the “semiology of earthquakes”, as Guidoboni would say (1997).

This experience was, certainly, a transdisciplinary opportunity. This process initiated in 1996 in the midst of the IDNDR, the same year in which the first volume of *Historia y desastres en América Latina (History and disasters in Latin America)* was published, a book coordinated by Virginia García-Acosta that contributed to place our work within a specific line of research: the historical and social study of disasters.

Reading this work, it was possible to focus our research about 1812 as an historical analysis of a disaster, rebuilding its context to understand as the results of social and economic processes, where disasters constitutes a common thread (García-Acosta, 1996: p. 20). The extensive documentary investigation contributed on the one hand to seismology by concluding that on the afternoon of 26 March 1812, there happened not one, but two and even three earthquakes almost simultaneously (Altez, 2006; Choy et al., 2010). On the other hand, the investigation allowed us to define this conjuncture within the independence process as “the disaster of 1812” (Altez, 2006), and in this way to contribute to a new historiographical debate about the period.¹⁰

The transversal comprehension of disasters did not develop solely from our academic and professional training. Direct experience was equally decisive. In 1999, we experienced it when the whole region was devastated by one of the most important disasters in the history of Venezuela: “The Tragedy”, as it is known by Venezuelan society since its impact by December of that year in the state of Vargas.

Up to 240 km² of affectation, 25% of the population displaced, US\$ 2,069 million in losses, more than 20,000 homes damaged or destroyed, and the qualification as a “mass death disaster”, represented its most evident impact (Altez, 2007). In the research activity, it produced effects as sensitive as in our own biography. The “Vargas case” ended up being an open school that allowed studies, theses, field works, and several specialized publications.

About this experience there was developed the proposal about an “unavoidable ethnography” (Altez & Revet, 2005; Altez, 2010; Altez & Osuna, 2018), a methodological resource that attempts to turn daily life into an object of study from an inevitable approach to everydayness from an anthropological perspective. Sandrine Revet proposed the *ethnologie des catastrophes* (Revet, 2008, 2013; Langumier & Revet, 2011; Langumier, 2008), an interpretative relationship that starts from the problem “d’ethnographier un événement auquel on n’a pas

participé” (Revet, 2008: p. 3). Revet’s research moreover contributed decisively to the founding of the anthropological studies about disasters in France. There is also the study by Paula Vásquez (2009) about the 1999 disaster; although far from the *Anthropology of Disasters*, it is a critical analysis of the event focused on power relations. The effects of this catastrophe, whose impact directly benefited researchers from all sciences and from different countries which provide a large amount of funding at all levels (institutional, national, international, and supranational), have reached unsuspected academic projections.

Regarding the long-range studies of this problem, at the School of Anthropology, we directed the theses of Klein (2007) and Vásquez (2011), and also accompanied Revet from the beginning of her formation as an anthropologist (Revet, 2004, 2006), till the development of her doctoral thesis (Revet, 2007). As an inhabitant of the area, we lived there from 1980 until 2011. As a survivor, the 1999 disaster was a biographical disruption that represented a critical impulse in the consolidation of the transversal studies on disasters.

Disaster arrives at the school

The foundation of the subject *Anthropology of Disasters* does not mean that it has been accepted since its first proposal. In fact, in 2003 we suggested it in the same department but it was rejected because it was understood that it did not represent a line of research in the discipline. Perhaps the advances of the discourse on disasters in the social sciences allowed a change of opinion on this matter.

On the first stage (2009–2011) four bachelor theses were produced. In its second stage (2015–2019) nine more theses were initiated; three were recently finished and the rest are expected to conclude soon. The works already provided a range from case studies (Padilla, 2011; Rodríguez, 2011), processes (Klein, 2007; Noria, 2011), to collective memory (Vásquez, 2011). Some of these works have reached bibliographic editions (Padilla, 2012; Rodríguez, 2018). Within the studies on development, there are investigations on anthropic disasters, the production of vulnerability, and disasters of mass deaths.

These investigations represent significant contributions to anthropological interpretations of disasters, not only having Venezuela as case studies. The work by María Victoria Padilla (2011, 2012) demystifies the disaster and famine that occurred in Paraguaná, in western Venezuela, between 1911 and 1912, an event that had never been formally investigated before. Emma Klein (2007, 2009) proposes conceptual contributions: the “distorted perception of risk”, a category that calls for a debate and becomes useful in the critical perspective of risk production analysis. María N. Rodríguez (2011, 2018) conducted an in-depth investigation about the plague of locusts in Venezuela during the last decades of the 19th century, analyzing the material and social context of the disaster. This work is a transversal study over an unattended process in Venezuelan historiography.

Andrea Noria (2011) developed an investigation on the transformations of thought between colonial and republican society in Venezuela. Her study analyzes the interpretation of earthquakes among the scientists of the context, noticing the

formalization of that thought in the institutionalization of sciences. It is an archeology of seismological thought carried out with the analytical tools of philosophical anthropology.

More recent theses reveal a preoccupation toward social problems strictly under the influence of the current context in Venezuela. These include the works by Diana Osuna (2019) about the mass deaths that occurred during the *Caracazo*,¹¹ and the study by Pedro Abreu (2019) on the disaster of shortages in Venezuela between 2000 and 2017.

On the other hand, it has also been possible to consolidate institutional relations thanks to the consolidation of the topic at the School of Anthropology. With CIE-SAS (Centro de Investigaciones y Estudios Superiores en Antropología Social, Center for Research and Advanced Studies in Social Anthropology), we founded two international research networks in 2015 and 2016.¹² With the Universidad de Sevilla (Sevilla University) a Permanent Seminar on Historic and Social Studies about Nature and Environment was created in 2011.

A long hiatus may be observed between the ethnographers of the 19th century and the arrival of the studies of disasters as a discipline in Venezuela. However, the proposal of transversal interpretation of the processes leading to catastrophes does not focus solely on phenomena. Other processes exclusively human also produce disasters, so the analytical focus is on historical, social, material, and symbolic processes, regardless of whether the phenomena intervene in them.

As can be seen, the Anthropology of Disasters has not been a subject created in isolation. Its process also shapes the biography of the discipline and our school, as much as our own biography. They are biographies that intertwine and determine each other. The establishment of this field of study has shown evolutions in its consolidation process as a field of anthropological research in Venezuela. Part of that process evinces the production of an approach based on materialism, but in a sustained dialog with other currents, and not necessarily in a belligerent way. In this evolution the discourse was conceptually transformed, and from there on a theoretical revision of the interpretative perspectives in this field of study was proposed as a space to share experiences and reasoning.

Paths to a materialistic approach

The epistemological precision that lies in the origin of our research about disasters begun with García-Acosta (1996). It is important to notice this because the path on the building our own theory is never independent from other theories or ways of interpreting. The process on this matter, the very sequence of that path, accounts for the epistemological resources that are used and chosen. To this effect, it should be mentioned that the education in anthropology and history, which had already provided a materialist interpretive platform, guarantees the understanding of disasters as processes. However, the fact that it became an object of study scarcely handled in the discipline, initially posed some methodological difficulties. The introduction by García-Acosta (1996) of the historical study of disasters placed the research on an incipient but solid field of study.

We are not Marxists, and we are neither orthodox nor excluders; therefore, work is not done from ideology, but from research. This starts from the possibility of reconstructing theories and advancing on the hermeneutical sedimentation produced through the epistemological articulation between theories. This materialistic foundation never excluded other currents; it has also borrowed from the structuralism of Lévi-Strauss or the semiotic frameworks of Geertz; from Koselleck's historicity; the revolutions of Hobsbawm; or the *longue durée* of Braudel. We are not tributaries of any ideology. The construction of a critical view about historical processes can only be achieved from the analysis, which means that it is from a theoretical formation and not from political commitments. Historical materialism, as with any other interpretative proposal, must not be treated as an obtuse logic. It could help to understand it in this way if we assume that materialism has long ceased to be only what Marx wrote in the mid-19th century.

Theories evolve once researchers stop taking them as a mandate. They also evolve because they feed on new ideas and reconstitute theirs. This is certainly the result of a permanent exercise of reading and debate, and of dialog and discussion. On the basis of these premises in the Anthropology of Disasters – as in every field of research – there must be theoretical debate; stop meeting to know “what” is being done, and start to reasoning about “what we think we are doing” when we do anthropology.

For all these reasons, it is pertinent to explain the epistemological basis for the understanding of disasters and all their variables. Moreover, in this explanation of course, there is discussion with other perspectives. However, everything starts from an undoubted recognition: the Anthropology of Disasters is the result of an equally theoretical positioning whose most decisive promoter is Anthony Oliver-Smith. If the subject has an analytical space it is because of his research. Thanks to his proposal, anthropology has understood that disasters evinces “the intersection between nature and culture [which have a] multidimensional condition [and that] in themselves include the process and the event” because they are, in any case, the result of processes (Oliver-Smith, 2002). The epistemological basis of this proposal, as has been explained many times, is founded upon political ecology (García-Acosta, 2004; Sökefeld, 2012; Díaz-Crovetto, 2015; Faas & Barrios, 2015; Faas, 2016; Baez Ullberg, 2017).

Along with Susanna Hoffman, Oliver-Smith has provided to the subject with the necessary continuity to make it a field of study of its own. Other colleagues, such as William Torry, Herman Konrad, or Mary Douglas, did not have the same intention, despite their influential works. However, the notable transversality of disasters has produced an interpretative field and a discourse that is equally transversal, and not exclusively anthropological (Faas, 2016). Conceptually, disasters and their variables have become more complex as a problem from diverse discursive contributions, as has happened with the case of La Red de Estudios Sociales en Prevención de Desastres en América Latina (Social Studies Network for Disaster Prevention in Latin America, LA RED), founded in Costa Rica in 1992.

LA RED was constituted by professionals from different areas of knowledge. Together with Oliver-Smith and García-Acosta, there are geographers, lawyers, philosophers, and engineers, all concerned and dedicated to the problem of

disaster risk as researchers or consultants. Their original proposals transformed the interpretation and action on the subject, both in the academic space and on the institutional sphere. Perhaps that is why a conceptual mixture that does not clearly show any epistemological unity can be detected. However, it was through this effort that the entire world began to understand, finally, that disasters are not natural (Maskrey, 1993).

A great functionalist presence may be identified in this discursive mixture (Altez, 2009, 2016a), especially in relation to its most conspicuous conceptual proposals: risk and vulnerability. We distance critically from those proposals, so far as the process of evolution of an interpretative base has progressively transformed the discourse. That is why our work, for example, from the first moment used the term “social construction” at the same time as “production” (see Altez, 2006, 2009, 2010), searching to settle the perspectives with this object of polyhedral and multidimensional study. Social production and social construction, of course, are not synonyms, and it has been a methodological misuse to use them in that way. The difference between both terms is essentially epistemological, which leads analytically to conform different ways of interpretation of the processes that try to understand both concepts.

In any case, some premises were always clear to our point of view: we never shared the notion of “vulnerability angles” (Wilches-Chaux, 1993, 1998), a skillful methodological resource that, in its comfortable fragmentation of reality, does not help to understand it critically. Nor do we assume the common synonymy between vulnerability and poverty, which understands vulnerability as a diagnosis of reality (Altez, 2016b). As it demonstrated in Vargas 1999, disasters do not shock only one part of society: they impact all of it, and its effects are heterogeneous as the society itself is. What disasters show after its occurrence is the specific inequality within a specific society, which is not a universal reality. This is why poverty is not always the most affected part or the less resilient one; disasters impact without distinction of class, and the Vargas case is a good example of it (Altez, 2010).

Our approach found stability with the doctoral research and from the development of a long-term work over an extended period, which allowed us to approach in detail a deep analysis of vulnerability within a specific society: the colonial one in Venezuela (Altez, 2016a). Thanks to this investigation, a particular perspective on disasters analysis has been consolidated in our work.

Concepts and essential analytical categories

The materialistic approach in the Anthropology of Disasters can be explained from the following concepts, which are decisive to understanding disasters and their underlying variables – risk, vulnerability, hazards – from our perspective.

Production

The epistemological starting point is founded on the synonymy assumed between “society, history, and existence”.¹³ Following Godelier (1989) human beings are

social animals, but unlike other species they “produce the society” and do not rely on it solely as a form of survival and biological reproduction. Production of society, as a human condition, supposes a different thing from associating by pure instinct or gonadal impulses. In the production of society through time the different forms of social organization of humanity are observed. Had these forms not transformed throughout their existence then humans would be like the rest of the social animals: they would have survived over the centuries with the same association structure and would have only developed some difference in relation to the distinct environmental constrictions, according to the place of settlement.

The production of human societies is the crystallization of different forms of solving the problem of survival and the domination of nature. As these do not happen in the same way in every society, nor has it been invariable in time, they do not operate through biological mechanisms. If so, they would have been transformed by adaptation, and not by social conflicts as in fact it has happened. The successive transformations of the different societies through time are – therefore – socially produced, and not biologically driven. Therein lies the difference between social animals with other species. The production of society and its transformations over time are the very history of humanity.

Materiality and totality

In the different ways of solving the problems imposed by nature before societies, we observe “materiality” (Godelier, 1989: pp. 20–22), All while understanding that the nature external to human beings operates on them as much as it does the other way around. This relationship, moreover, has not been unique over time nor between each society. The material production of our species is existence itself: the particular form to solve the problems imposed by nature, as well as the equally particular form deployed to transform nature in benefit of the different forms of social organization produced by humanity.

Those particular forms of social production of materiality are “the first premise of all human existence and, therefore, of all history” (Marx & Engels, 1974: p. 48). History is the human way to pass through time, and its existence, that social production which in turn produces society itself, is part of our nature. Existence is, therefore, history itself. To understand human existence means to comprehend history and, with it, society.

Humans produce society, materiality, and the relationship with nature. On doing so, they operate simultaneously on concrete and symbolic plans. “To the extent that man through this movement acts on the nature outside him and changes it, at the same time he changes his own nature” (Marx in Schmidt, 2014: p. 78). It is observed there the epistemological principle that gives meaning to the notion of “totality”, a different interpretative sense from that of approaching reality by parts, or understanding that reality through a methodological segmentation of the existing relations between species and nature. The species is indivisible from nature, since it shapes it. The understanding of its relationship with nature, which is physically different to it, underlies the analysis of the historical production of materiality.

Human production results from “socially organized humankind in a double sense-active in changing nature, and in creating and re-creating the social ties that effect the transformation of the environment” (Wolf, 1982: p. 74). The social organization deployed to face nature is historically created and re-created to transform the natural environment; thus, changes in the ways of transforming nature produces changes in social organization.

Within these essential premises, we found coincidences and distances with political ecology in the Anthropology of Disasters. According to Oliver-Smith (2002: p. 24), “Disaster occur[s] at the intersection of nature and culture and illustrate, often dramatically, the mutuality of each in the constitution of the other”. This “intersection” coincides with Godelier’s concept of materiality. For the French anthropologist, material reality is found in the border between nature and culture (1989: p. 21). Therefore, it could be said that disasters take place in materiality, or they occur because of problems, inefficiencies or waste in these materialities. Understanding of this lead, of course, to the analysis of historical and social processes underlying such problems.

However, political ecology is only focused on disasters associated with natural phenomena, preferably, or those that result from technological hazards (Hoffman & Oliver-Smith, 2002: pp. 4–5; Oliver-Smith, 2002: p. 25). Society, with or without “intentionality” (Hoffman & Oliver-Smith, 2002: p. 4), can become its own threat and trigger abrupt or slow disastrous processes, leading to serious losses of all kinds. Here we find the concept of “production” in all senses, and not only as something which operates in the intersection of nature and culture. Human society is in itself a product, and its conflicts and problems also evince processes that may crystallize in disasters.

Social construction

The concept of production, on the other hand, differs substantially from the concept of social construction proposed by García-Acosta (2005), which takes up, outlines, and extends with methodological clarity what was originally proposed by Mary Douglas, Niklas Luhmann, or Denis Duclos. It is not a simple semantic matter; the difference between production and construction is epistemological. Its proximity as words only match etymologically, not theoretically. Social construction of risk and cultural perception of risk, as theoretical proposal, go hand in hand, as García-Acosta explains, but in social construction underlies “the base itself that explains the disaster processes” (2005: p. 23).

As Mary Douglas said (2003: p. 38), “It seems that social construction and consensus greatly influence human perceptions”. So, it is inferred that the specific forms of consciousness, of coding, and of “interpreting the event” are essential to understand the contextual relation with the disaster, that are in turn a decisive aspect in the social explanation that is given to it: “Whether disaster ensues depends to a large extent on how the event is interpreted”. In this approach to the problem more attention is paid to the cognitive field, to the specific relationship between a society and an event or process. The concept of production, meanwhile,

became an interpretive abstraction rather than an aspect of the process: it is the process itself.

Following Douglas, perception of risk is a social construction; following LA RED, material construction of risks is, as well, a social construction. Both approaches are complementary and come from different theoretical bases. In disaster's investigation, the notion of construction uses history as a resource, the ambitus where the construction takes place. Production, on the other side, is a concept indivisible from history because they are synonymous: history of human societies is the production itself of the species' existence. Here lies an epistemological difference; in the materialistic approach, it is not a methodological resource, it rather becomes part of an indivisible unity interpreted in that sense and understood that way.

There is no doubt about the usefulness of social construction as a key concept to understand problems about risks, vulnerability, and hazards. However, the concept, which could be understood as a "metaphor", like Hacking said, "once had excellent shock value, but now it has become tired" (1999: p. 35).¹⁴ From a materialistic point of view, production is not a metaphor: it is a category with conceptual and methodological functions, and contains a double sense, as Marx proposed and Wolf explains: "active in changing nature, and in creating and re-creating the social ties that effect the transformation of the environment" (Wolf, 1982: p. 75).

It seems, according to the materialistic approach, that the notion of social construction could not be enough to explain long processes in human history, as production does. To understand analytically how a society produces and reproduces conditions that underlie vulnerability, materialistic theory could work better. Social construction, as an epistemological resource, offers limitations when facing long-term studies where the object to be interpreted has to be, essentially, how the existence of that society produces and reproduces its conditions of vulnerability.

Finally, where social construction sees a process (risk, vulnerability, hazards), it understands the verification of the construction of itself, the constructed object.¹⁵ Production, on the other hand, is the nature of the social process, underlying history, the fate of the existence of society, and therefore is beyond crystallized forms of existence. It is also a continuum, the dynamics itself of the process.

Historicity and reproduction

The fundamental object in the Anthropology of Disasters is society, not the disaster itself. Certainly, a case study is as relevant as a long-term research; nevertheless, in both ways of analysis, societies must be regarded as an object, and not the specific fact that is observed. In this sense, the concept of "historicity" operates here with great methodological utility, and goes hand in hand with another essential category: "reproduction".

García-Acosta has raised it, even with the very concept of social construction: "The social construction of risks refers to the production and reproduction of vulnerability conditions" (García-Acosta, 2005: p. 23). The most characteristic object of study in the Anthropology of Disasters is centered there, and in our

study of colonial society in Venezuela, it has been made clear (Altez, 2016a). Because of this, and in agreement with García-Acosta, it has been concluded that vulnerability is produced, but also reproduced, which can be noticed through the historicity of its most conspicuous indicators.¹⁶

The production of vulnerability is socially and materially determined, that is, it is historically determined. Therefore, we can observe its manifestations through time as indicators of its reproduction. However, these indicators (disasters, adversities, losses), although they reiterate certain aspects for centuries – the destruction of the same building by the impact of earthquakes, for example – do not mean the repetition of the problem, but the reproduction of the conditions that allow its manifestation. The historicity of the indicators should not be confused with the indicator itself. History does not repeat itself or repeat anything; and what is seen as facts associated with the same problem demonstrates its persistence and expounds its variability, as well as its transformation over time.

Repetition and reproduction do not mean the same, nor is the case with construction and production. In the reproduction of the conditions of vulnerability of a society we may also observe its transformation, since everything transforms, especially the human forms of existence. Such conditions of vulnerability, although they show some “durability” in history, contain in themselves their process of transformation in time. They run hand in hand with the transformation of society itself. In the words of Godelier (1976: p. 295), “the central problem of a science of history is to explain the appearance of the different social structures articulated in a determined and specific form, and the conditions of reproduction, transformation and disappearance of these structures and their articulation”. As Wolf explains

It is not the events of history we are after, but the process that underlie and shape such events. By doing so, we can visualize them in the stream of their development, unfolding from a time when they were absent or incipient, to when they become encompassing and general. We may then raise questions about proximate causation and contributory circumstances, as well as about the forces impelling the process toward culmination or decline.

(Wolf, 1999: p. 8)

Critical windows

Disasters are “critical windows” that allow us to observe underlying processes. Looking through these windows societies are understood and events are explained. A disaster is not only what it is seen as the result of the confluence in time and space of hazards and vulnerable contexts; it is the empirical manifestation of a process, and that is why it is not enough to describe that manifestation: “how” the product came about must be analyzed, because its “why” is clear – the confluence mentioned previously. Hence, the analytical journey must lead to an understanding of the processes behind the event, and not only to the verification of the “why”.¹⁷

Transformation

It may be observed in this analytical approach that the underlying process continues its movement. If a disaster manifests critically the production of conditions of vulnerability, by analytically traversing its manifestation, then the reproduction of those conditions can also be noted. For such conditions to disappear from history they must be perceived in the long-term nature of the event and corroborate that it is so. If a change has occurred in that society, it certainly does not happen because of the event, but rather through the dynamics of the process. That change is the most obvious form of “transformation”.

Change must not be confused with transformation. Change is the crystallization of a process where the transformation occurs. This does not happen in generational speeds, or, as Geertz say (1995: p. 4): “apparently, [it] is not a parade that can be watched as it passes”. Everything that changes in human processes is produced by transformation, and in the existence of societies this is historically produced. Changes in human societies are not substitutions, but expressions of structural transformations. Therefore, they cannot be assessed empirically or in fieldwork, but only through the analysis of long-term processes, or by deepening in critical junctures that reveal strong indicators of this process. We believe our latest study on the 1812 disaster in Venezuela (Altez, 2015) has contributed to this.

Phenomena and facts

Societies change because they are transformed, and this is manifested always through facts. The development of societies, their relations, representations, material, or objective conditions of existence, are “facts”, never phenomena. A phenomenon simply “is”, which means that it is something from itself.¹⁸ That is why natural phenomena operate by causalities different to society, while everything that is socially human is also historical, that is to say: it does not exist simply by itself, but rather it is a historical and social product. In this epistemological difference it must be assumed that facts should not be confused with phenomena, and that social and historical facts will never be nor have they ever been phenomena. Human society can only produce facts, not phenomena. If phenomena are “the self-showing in itself”, cannot be historically or socially produced: they can only be natural. That is why phenomena must always be “natural phenomena”.

However, when natural phenomena intersect with societies they are incorporated into history; it is part of their process, or, together with society, form the process itself, because all this represents an indivisible unit. As Godelier says (1989: p. 21), this nature outside man is not outside of culture, society, or history. What the phenomenon drives in a context is a product of the historical, material, and social process which appear, and since its emergence is already a part of that historical process, thus becomes a fact. A phenomenon which does not interact with human society is only a phenomenon, and nothing more. When humans interact with phenomena, passively or actively, both are conforming a process and

producing a greater one. Therefore, everything that is produced by the interaction with the phenomenon becomes a fact, as the phenomenon itself from that moment.

These facts, moreover, transcend their moment and shape history. In this way, in the material or subjective effects which are produced by the emergence of a potentially destructive phenomenon, the fact is found beyond its moment, of its instance, of the event. The concept of fact in here is articulated epistemologically with history, society and existence.

Relations and power relations

All social facts are “relations” as well. And every relation in human existence is social, therefore it has content. Such content, in turn, is contextually determined. This means that these relationships have symbolic, subjective, historical, and affective contents such as all kinds of human conditions that are historically and culturally produced. Hence, societies produce these relationships with nature as with other societies: between individuals, with the past, with the present, with time, and with the universe.

That is why a natural hazard, for example, is not an entity external to the society that suffers it, but has been shaped historically, materially, and symbolically as a hazard, as a feasible adversity. A hazard is the result of a relationship, and, like all human relations, it is contextually determined and its content is not invariable in history nor is its meaning universal. It is transformed like all human relationships, and, in this case, because it is a natural phenomenon, it is transformed symbolically and materially. The phenomenon may be the same, but its meaning is historically susceptible; therefore, it is not eternal. That is why hazards do not mean the same thing over time or culturally, and their condition of feasible adversity may also be transformed historically. Hence, some hazards that were once fearsome have now disappeared; while, on the other hand, societies have been able to produce new hazards that did not exist before.

A hazard is equally an abstraction that fulfills methodological functions, which means that it should not be understood as a “factor” whose nature is adversity. Nor do hazards derive exclusively from relationships produced within nature. Societies, no doubt, can stand as hazards either before other societies or even before themselves.

When a society objectively produces its interests in relation to other societies, it is able to satisfy them concretely. This can lead to many forms of exchanges, but also invasions, subjugations, exploitations, wars, and exterminations. Thus, society is in itself a hazard, not a natural one, but a hazard socially produced. On the other hand, a sector within a society can also erect itself as a hazard to the rest of society, producing crises and adversities of serious losses. A society transformed into a hazard, to other societies or to itself, is also the product of a historically and socially produced relationship. Everything which produces a hazard is directly proportional to the conditions of vulnerability. Therefore, there must always exist a relation between hazard and vulnerability.

Social relations are also “power relations”, especially in class societies (Poulantzas, 1986); however, in that sense, it is a rule in every kind of human society: castes, lineages, highly stratified societies, bands, or any other. Power is a structure of social relations, which means it is a structure of human society. There is no society without power.

Following this argument, power relations and all its effects in society become an analytical course, essentially, in front of a case study, since power relations underlie the interests that produce materiality, for example, and with it the material conditions of vulnerability in a society (Altez, 2010). In modern societies and with proven evidence in the case of Latin America, for example, power relations have also deepened and exacerbated vulnerability conditions in every sense, especially in ideological and subjective levels, capitalizing these conditions basically for the benefit of the reproduction of political interests. Behind the analysis of these relationships will undoubtedly be found the most conspicuous causalities of disasters.

Finally, our analytical perspective is based on the epistemological articulation of the categories that have been presented here. Every one of them (materiality, totality, production, reproduction, historicity, transformation, facts, relations, and power relations), contained as well within the synonymy society-history-existence, leads to a critical understanding of the proper variables of disasters. Disasters, as we understand them, are critical windows that allow to observe underlying processes, social, and historical.

Behind a disaster also underlies its meaning. Following what became proposed by Lévi-Strauss (1987: p. 32), every apparent disorder has an underlying order; therefore, in the characteristic shudder of a disaster, in that disruptive disorder, its meaning can be found: “it is absolutely impossible to conceive the meaning without order” (p. 33). Every meaning is contextually determined, so that the meaning of a disaster must be understood as well in the context in which it takes place. The context, no doubt, gives sense to meaning. In correspondence with this, when it is proposed to understand a disaster, it will be developing a semiological analysis. Anthropologists go in search of that meaning, which occurs during its manifestation, as well as that which happens afterwards in memories or forgetfulness. In its contextual determination, when the sense of meanings is symbolically articulated, it is also historically, materially and socially conditioned.

The vulnerable context of the Anthropology of Disasters in Venezuela

Our approach has been based upon a reflection on a process that is still growing. Not only because the Anthropology of Disasters is a new field of study and still in consolidation, but because it is being conformed; it is not finished, but in process. However, this epistemological and academic process is threatened; Venezuelan society has produced itself as a vulnerable context and as its own hazard. We live in a disastrous conjuncture in full force, with effects that can be observed in the medium and long term.

The development of the field has not survived undamaged from the context of the country in recent years. The deterioration of universities and research is directly proportional to the economic and structural deterioration of society. Students trained in the subject have continued their profession in other countries or flee very quickly, or they have not been able to develop their career in any way. There are no possibilities for academic or material growth in a country without opportunities for university life.

The survival of the subject depends on isolated studies, without institutional funding, and sustained by personal efforts. Every day it becomes more difficult to publish due to the lack of resources and the disappearance of private publishers. Journals have been discontinued and libraries are dramatically unattended for years. Our connection with the outside academic world is reduced to individual achievements.

In spite of everything, our analytical approach continues growing; it does such in a reality that surrounds and presses it as a vulnerable context and object of study at the same time. The analytical deployment is a permanent exercise in this catastrophic daily life. We live practicing an “inevitable ethnography” applied to the understanding of processes that produce and reproduce vulnerability in front of our eyes.

However, the Anthropology of Disasters in Venezuela, its subject and its field of study, continues its journey. Everything is taking its place, since its inception and its consolidation in the School of Anthropology, in dialog and epistemological articulation with other currents and tendencies, such as that of Oliver-Smith, which has given rise to this field of study in the discipline. Within the theoretical debate lies the evolution of theories and methods, of reasoning and discourses in general. If it is assumed that we have a particular approach, then this primarily means an invitation for debate, and not a ditch that marks frontiers. We are the product of a similar invitation, the one that Virginia García-Acosta extended in 1996 when she presented to Latin America the historical study of disasters. It is thanks to the privilege of having read her work, as well as her unparalleled academic generosity, that we are here today.

Notes

- 1 The author would like to express his gratitude to Diana Osuna for her contribution in the translation of this work, and to Virginia García-Acosta, for the extraordinary editing work and her always-wise advice.
- 2 Resolution 44/236 of 1989, whereby the General Assembly of the United Nations proclaims the IDNDR as of 1 January 1990.
- 3 Between 1982 and 1983, the Andean region was severely affected, due to the ENSO phenomenon, with floods, landslides and droughts. In 1983 took place the earthquake that destroyed Popayán, and in 1985 the city of Armero, also in Colombia, was devastated by the eruption of the Nevado del Ruiz volcano, leaving more than 20,000 dead. That same year a big earthquake shook Mexico City and Chile suffered one of great magnitude as well. There were also disasters due to natural phenomena in 1986 in El Salvador, and Nicaragua and Costa Rica were affected by hurricane Joan in 1988; see Lavell (2005). To Lavell's summary, we can add the Gilberto hurricane, with serious

consequences in Central America in 1988, or the landslides in El Limón, Venezuela, in 1987. Gilberto alone, for example, caused losses up to US\$ 5 billion to the Central America countries.

- 4 Lavell (2005: p. 7) lists those institutions: “FUNVISIS in Venezuela, the Peruvian Institute of Geophysics and the Regional Center for Seismology for South America, CERESIS, in Peru; the Institute of Geosciences at the University of Panama, the School of Geology at the University of Costa Rica, nowadays the Central American School of Geology; the National Institute of Seismology, Volcanology and Meteorology in Guatemala, the Faculties of Engineering at the University of Costa Rica, the University of Chile, the National Autonomous University of Mexico and the National University of Engineering of Peru”.
- 5 There are already five editions since then: 1997, 2000, 2002, 2009, and 2012.
- 6 Between the 1999 and 2009 catalogs, up to 398 new earthquakes were discovered in the 20th century.
- 7 Latin American Social Archeology is formed in the 1960s with a Marxist approach of critical manifestation to North American schools, dedicated to the reconstruction of social contexts of the observed past, either pre-Columbian or colonial. Its interpretations are close to the Latin American dependency theory, with scientific nuances. They take on the direct influence of European researchers, such as Gordon Childe and Andre Leroy-Gourham, as well as theoretical linkage with Leslie White and Betty Meggers, or with André Gunder Frank. The most representative authors of this line are as follows: Venezuela, Mario Sanoja and Iraida Vargas; Peru, Luis Lumbreras; Chile-Mexico, Luis Felipe Bate; Dominican Republic, Marcio Veloz Maggiolo; and Mexico, Manuel Gándara.
- 8 Some examples in Ibero-American spaces: in the Universidad de Granada (Granada University), Physical Anthropology is taught in the Faculty of Medicine, and Social Anthropology in the Faculty of Philosophy and Literature; in the Universidad Complutense de Madrid (Complutense University of Madrid) the degree in Archeology belongs to the Faculty of Geography and History, while the degree in Social and Cultural Anthropology is in the Faculty of Legal and Political Sciences; in the Universidad de Los Andes (University of Los Andes) of Colombia, the Department of Anthropology is located in the Faculty of Social Sciences, as a Bachelor’s Degree; the Universidad de Chile (Chile University) has a Department of Anthropology in its Faculty of Social Sciences that offers specializations in Social and Physical Anthropology and Archeology; in the Universidad de Buenos Aires (University of Buenos Aires), the Department of Anthropological Sciences is located in the Faculty of Philosophy and Literature, where is possible to follow the sociocultural orientation or the archeological one. The closest program to that of the School of Anthropology of the UCV is offered by the degree in Anthropology of the Universidad Nacional Autónoma de México (National University of Mexico), anchored to the Faculty of Political and Social Sciences.
- 9 FUNVISIS was carrying out since 1995 a seismological investigation on the 1812 earthquake effects, and needed the expertise of a documentary researcher; this is the reason why they hired me. The project was titled *Neotectonic study and geology of active faults in the foothills of the southern Andes of Venezuela*, and thanks to this research it was possible to determine, as we will comment later, that on 26 March 1812, there was not one earthquake, but two, at least, a scientific result that changed the history of seismicity in the country. This research determined my training in the subject of disasters.
- 10 The relation with seismologists and geologists also led to a production of multidisciplinary works that contributed with transversal results over problems that – until then – had not been treated this way by Venezuelan scientists.
- 11 “Caracazo” is the name by which is known the social outbreak that took place in February and March of 1989 in Caracas and other cities of the country when a wave of looting represented the largest social manifestation in contemporary Venezuelan history against

- the imposed economic measures by the Carlos Andrés Pérez government. The armed response to the protests ended the lives of hundreds of people in acts of generalized violence, extrajudicial executions, covert assassinations, and repression with firearms. Most of the corpses were buried in mass graves with no major formality, and the identification processes of the victims were flawed from the beginning until the exhumation of the remains located in those graves was decided under the Chávez government in 2009. Analytical attention to the case from the tools of the Anthropology of Disasters supposes, among other things, the application of the definition of “disaster of mass deaths” to the event, as well as the analytical and critical reconstruction of the process.
- 12 In 2015 we created the International Network of Seminars on Historical Studies on Disasters at CIESAS headquarters, Mexico City, with researchers from Spain (Armando Alberola, University of Alicante), Mexico (Isabel Campos Goenaga, National School of Anthropology and History; Luis Arrijoja, El Colegio de Michoacán, Raymundo Padilla Lozoya, University of Colima); Chile (Andrea Noria, Autonomous University of Chile); and Venezuela (Rogelio Altez, UCV). Among its objectives was the development of a larger project dedicated to the analysis of risk, vulnerability, and disasters from a historical perspective. With this support, it was possible to create in 2016 the Thematic Network of Interdisciplinary Studies on Vulnerability, Social Construction of Risk and Natural and Biological Hazards, funded by the Consejo Nacional de Ciencia y Tecnología, CONACYT, of Mexico. This network achieved several collective publications (Arrijoja & Alberola, 2016; Altez & Campos, 2018).
 - 13 Facing possible epistemological confusions, it is convenient to specify the meaning which we observe in “production” as a category and its analytical influence on our approach. Marx took “social production” as a starting point for the analysis of “man” history (see: Marx, 1989: p. 6); thus, he observed the material production of existence itself as “making history” (Marx & Engels, 1974, I: p. 26). That is why Wolf explains the importance of the term when Marx indicates that he used it to designate “this complex set of mutually dependent relations among nature, work, social labor and social organization” (Wolf, 1982: p. 74). Continued Wolf: “The term *production* expressed for him [Marx] both this active engagement with nature and the concomitant ‘reproduction’ of social ties”. The epistemological synonymy that we propose, “history-existence”, contains itself the production and the reproduction of everything which is human, and for that reason we assume it as an interpretative articulation. Human production is unfailingly social, and therefore historical. When we said “human production”, we also said “historical, social, symbolic, material production”, and everything that results of the existence of our species: “to the contrary to other social animals, men are not happy with living in society, they produce society for living” (Godelier, 1989: p. 17). In that sense, we think that vulnerability, risk, and hazards are human products, social relations, and historical results, and are not disabilities associated to poverty or exclusively determined for inequalities.
 - 14 “Construction has been trendy. So many types of analyses invoke social construction that quite distinct objectives get run together” (Hacking, 1999: p. 35).
 - 15 “Process and product are both part of arguments about construction. The constructionist argues that the product is not inevitable by showing how it came into being (historical process), and noting the purely contingent historical determinants of that process” (Hacking, 1999: p. 39).
 - 16 In this work we propose, for example, that when the same church is destroyed by regular manifestations of the same phenomenon for several centuries, certainly, history is not “repeating” itself, but the historicity of a condition is being demonstrated. The church becomes an indicator of a process in which conditions of vulnerability are produced and, above all, reproduced. This indicator becomes, therefore, the demonstration of the historicity of that vulnerability. The research, focusing on the current Venezuelan regions between the 16th and 19th century, provides documented information about the problem on all the major cities and regions.

- 17 For most researchers in Anthropology of Disasters, this process is in itself the social and material construction of risks; for our approach, in the historical and social process that underlies the causality of that result, it is not a deductible aspect of reality, it is the real logic behind the apparent (following Godelier, 1976).
- 18 Or, as Heidegger described, “the self-showing in itself” (2010: p. 31).

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