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Researching disasters and disaster management in China: Persistent questions and emerging trends

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Abstract

This article offers an introduction to the *China Information*'s special issue on disasters and disaster management. It is argued here that studying disasters and disaster management should not only improve our understanding of them as social phenomena and thereby increase our ability to manage disasters better, but also that disasters offer unique windows for researchers to study Chinese society and explain social and political changes therein. The article further argues that although research in natural disasters in China has developed rapidly both in terms of disciplinary approaches and topics, such research has still to overcome its narrow event-based nature and embrace more cross-disciplinary and comparative approaches geographically and historically, and disaster studies should investigate different types of disasters.

China suffers from almost all known types of natural disasters. Its geographic location renders it vulnerable to the caprices of the monsoon climate with its cyclical droughts and floods. Typhoons ravage its southern and eastern coasts regularly. The country is located in the vicinity of a number of tectonic plates which cause frequent earthquakes. Indeed, more than half of the Chinese population is situated in areas where serious natural disasters can occur. Floods, for example, threaten two-thirds of China's land area, and all the country's provinces have been struck at least once by earthquakes of magnitude 5 or more on the Richter scale.[1] Of all the major natural hazards, only volcanic activity is

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missing in China. Unfortunately for China, the high occurrence of natural disasters offers a lot of material for disaster research.

Knowing the environmental and geophysical factors behind China's vulnerability to natural hazards, however, is not enough to allow us to understand how and why disasters occur as they do in China. A 'natural' disaster is always first and foremost a complex social phenomenon,[2] a violent sociophysical upheaval, which destroys things that support our lives, production and health. It causes dislocation, devastation, death, sickness, carnage and injury on a scale that can lead to the annihilation of whole communities and, if destructive enough, the breakdown of societies.[3] This alone makes disasters a highly relevant topic of inquiry for social scientists, and the first task in disaster research should be to enable us to improve our ability to withstand them.

Second, studying disasters also enables us to better understand how societies work. Indeed, disasters also function as great revealers of socio-economic and political relations in society.[4] They open windows to social and governance structures, and studying disasters can therefore tell us a great deal about the society where they happen, in addition to the mechanisms whereby disasters themselves occur. Third, disasters change societies. They are game changers or 'focusing events', which affect economies, legislation, social institutions and policies.[5] Traditionally, the Chinese have been quite aware of this connection. In classical China, disasters were seen as portents of Heaven's displeasure with the ruler, and might lead to his undoing. This notion still informs the way researchers and commentators think about disasters in China. For example, the severe acute respiratory syndrome (SARS) epidemic in 2003 was seen as 'China's Chernobyl',[6] and research today regards disasters as the potential triggers for regime-changing social unrest.[7] However, even if we do not take our analysis that far, in studying national- or local-level social development in a country struck by disasters of different sizes and types as frequently as China is, the impact of disasters should always be included in any inquiry.

While a natural disaster can be understood as a huge and essentially violent upheaval, which has its origin in natural processes, disaster management in turn can be understood as a combination of governmental and societal processes aiming to prevent the hazards that can trigger disasters, to respond to them, mitigate their impact and help communities recover afterwards.[8] While such hazards may be produced by the powerful and largely uncontrollable forces of nature, disaster management is human activity and occurs in widely different forms, which can be anything from the government spending billions of renminbi on building large dams for water control purposes, to something as commonplace and small-scale as households purchasing insurance. Broadly understood, any activity that people engage in as individuals or collectively to cope with hazardous conditions can be seen as forms of disaster management. Disaster governance also has long institutional roots in China – perhaps longer than anywhere else in the world. Indeed, the first bureaucratic institution to have dealt with disasters is recorded as having been established as early as the Western Zhou era (1046–771 BC), and all China's dynasties and regimes since then have assumed disaster governance as one of the state's principal tasks. Therefore, a full comprehension of how disasters occur in China and how they are connected to society and politics requires an examination of Chinese disaster management.

Following these starting points, the articles in this special issue of *China Information* address a variety of issues in contemporary China. These include not only China's disaster governance regime and its ability to generate recovery after major disasters, but also the current relationship between the authoritarian state and emerging civil society, the importance of new communication technologies to the growth of civic activism, the issue of social vulnerabilities, as well as the themes of trauma, memory, heritagization and ethnic relations. Along the way, the articles also offer examples of how disasters have changed Chinese society and how, at the same time, a changing society requires changes to disaster management.

Paltemaa's article in this special issue analyses the different disaster governance regimes in Chinese history up to the present day. As argued in the article, disaster management in China has always been organized based on the more general governance principles and practices of the given era. Extraordinary as disasters are, their governance has never been so. Historical disaster governance models include the pre-modern model with an active but minimal state that delegated much of the actual implementation of disaster management policies to local levels. The late-Qing and Republican periods saw the rise of a civil society- and foreign actor-dominated mixed model, while the Maoist period witnessed a highly state-centred, campaign-based model. Finally, during the reform period, there has been a notable movement away from the Maoist model with an active drive to establish state-led and semi-professional local disaster governance structures. As the article argues, the present inadequate conceptualization of the role of civil society in governance at large also prevents the regime from making full use of civil society's potential in the field of disaster management.

State–society relations are also analysed in the article written by Sun Taiyi. Sun looks further into this problem by using the 2008 Wenchuan earthquake as a case for developing a typology for the different kinds of relations between state and civil society organizations in disaster relief work. As the article shows, the relationship is dynamic and depends at least on a civil society organization's ability to deliver services in certain areas vis-à-vis the state. The relationship can thus range from competition to co-opting, with the party-state reacting to civil society organizations accordingly. Disasters are therefore opening windows of opportunities for Chinese civil society organizations to develop their activities and organizations, but only under certain conditions. In a more general sense, however, this means that disasters can create conditions for a dynamic process of evolving state–society relations in China.

The same theme of state–society relations is also studied by Lin Peng, whose article focuses on the development of ICT-enabled crisis crowd-sourcing and disaster management-related civic activism in China. Lin's starting point is important because, as he points out, while the Wenchuan earthquake triggered extensive short-term research interest on the role of civil society organizations and other civic activists in disaster relief efforts, a follow-up is largely missing in research. As Lin argues, the 2010 Yushu and 2013 Lushan earthquakes marked a further milestone in the co-evolution of ICT-enabled crisis information crowd-sourcing and thereby civic disaster management in China. On those occasions, online crisis mapping conducted by ordinary Net users became an important component of disaster management. The growth and formalization of crisis information crowd-sourcing and crisis mapping have therefore created new spaces for

more extensive civic participation in China's disaster management, even in the form of extensive cross-regional civil society organization networks, which can only make disaster management more effective in general. ~~However, once again,~~ the role of disasters as triggering events for sociopolitical change is ~~also~~ clear in the study.

Trauma, memory and heritagization are other themes that are currently attracting growing interest in disaster studies. In their article, Katiana Le Mentec and Zhang Qiaoyun show how the top-down heritagization approach, which the party-state adopted in dealing with the Wenchuan earthquake, had many shortcomings in the handling of trauma and ethnic relations. As Le Mentec and Zhang argue, the reconstruction of the disaster-stricken areas in Sichuan relied partly on the heritagization of disaster sites and the commodification of the local Qiang minority culture as a means of engendering economic recovery through a heritage protection campaign that was the first of its kind in terms of funding and territorial scope in China. This relied in part on investing in promoting 'dark tourism' by turning many disaster sites into tourist attractions. As the article argues, such a top-down approach to heritagization has had some positive economic outcomes, but has worked poorly in supporting disaster victims' psychological recovery, since it has excluded them from decision-making on how to deal with the physical reminders of the traumatic event. The 'rescue' of Qiang culture has also implicated the heritagization of Qiang minority cultural practices through the promotion of ethnic heritage tourism which has commodified and banalized much of them. The article therefore shows how studying disaster governance can give insight into ethnic relations and cultural heritage policies in China, while at the same time asking how this work could be carried out better in the future.

Vulnerability is one of the key concepts and research topics in sociological disaster studies. Understanding how vulnerabilities are formed and distributed in a given society should help us find ways to reduce them and thereby improve disaster governance. Da-wei Hsu's article addresses vulnerability and the Chinese disaster management regime's ability to promote social recovery in the wake of the 2008 Wenchuan earthquake. His ethnographic study tells a story of how successful physical rebuilding was accompanied by less successful economic and social reconstruction after this and shows how physical rebuilding in itself is insufficient for community recovery, even if it may be a necessary condition for it. Post-disaster community rebuilding can be a very long and profoundly disruptive process in itself. When people moved to newly reconstructed and often relocated towns after the Wenchuan earthquake, their original social networks were dislocated. They no longer lived with their former neighbours, some of whom died in the earthquake, and had to try to re-establish their social contacts and networks on their own. Hsu's article analyses this process and also shows how the proximity of disaster victims to the state affected their vulnerability.

Finally, this issue contains one research dialogue written by Pierre Fuller, which offers a general introduction to the development of historical disaster literature on China. According to Fuller, 2008 was an important year in many ways for disaster scholarship because it also created new interest in research on disasters in Chinese history. Another factor that supports this development is the 'spurt in famine studies in the 2000s', as Fuller calls it, which is related to the opening of the Great Leap Forward period archives. Disaster studies on China are also increasingly connecting with other fields of study such

as environmental history, which serves as a good example of how almost any human or natural science can be connected to disaster studies and is relevant to them and vice versa. Most importantly, Fuller introduces an ongoing online project called DisasterHistory.org (http://www.disasterhistory.org/), an innovative new initiative which brings together disaster researchers on China and also offers their insights and collaboration to wider audiences online.

There are, however, also a number of challenges which disaster research faces today, both concerning China and in general. The irony is that for disaster studies to be relevant researchers need disasters, even if nobody wishes them to happen. The reliance of disaster studies on actually occurring disasters also often makes disaster research too focused on randomly occurring major natural disasters. This makes such research largely event-based, creating notable peaks and gaps in research. For example, there is a scarcity of English-language research comparing Chinese disaster management over time with different types of disaster, or with other countries, while some single large disaster events have received excessive attention. This also means that research tends to neglect much of the routine disaster management work, as well as less spectacular and slower, so-called creeping, disasters and crises and events in-between major natural disasters.

The event-based nature of disaster studies can be easily seen in the way disasters in contemporary Chinese history are researched. For example, research on disasters during the Mao era is almost exclusively dominated by the Great Leap Forward famine.[9] The same phenomenon is repeated during the reform period, where we find that the SARS epidemic of 2003[10] and the 2008 Wenchuan earthquake dominate Western research; the latter is also visible in this special issue.[11] Although, as argued, disaster research is always inevitably connected to disasters at some level, the phenomenon also represents the ephemeral nature of disaster studies for many researchers in the social sciences. Nevertheless, DisasterHistory.org is an example of how researchers can expand their perspectives. I therefore end this introduction with a direct quotation from Fuller, since he compellingly captures the challenges and opportunities ahead for Chinese disaster studies: 'advantages of data-sharing and cross-disciplinary collaboration in the area of disaster studies are legion; they foster research projects less prone to narrow case studies, while facilitating comparative analysis over time or space in a range of areas related to environmental catastrophe'. It is hoped that this special issue on disaster management in China will also help in this process.

Notes

1. Information Office of the State Council of the People's Republic of China, China's actions for disaster prevention and reduction (May 2009), in *White Papers of the Chinese Government* (2009–2011), Beijing: Foreign Languages Press, 2012, 113–40.
2. This approach is best developed in Ben Wisner et al., *At Risk: Natural Hazards, People's Vulnerability and Disasters*, 2nd edn, London and New York: Routledge, 2004.
3. For different definitions of disaster, see Enrico L. Quarantelli, Patrick Lagadec, and Arjen Boin, A heuristic approach to future disasters and crises: New, old, and in-between types, in Havidán Rodríguez, Enrico L. Quarantelli, and Russell R. Dynes (eds), *Handbook of Disaster Research*, New York: Springer, 2007, 16–41; Anthony Oliver-Smith, Theorizing disasters: Nature, power, and culture, in Susanna M. Hoffman and Anthony Oliver-Smith A. (eds)

Catastrophe & Culture: The Anthropology of Disaster, Santa Fe, NM: School of American Research Press, 2002, 24; and Anthony Oliver-Smith and Susanna M. Hoffman, *The Angry Earth: Disaster in Anthropological Perspective*, New York: Routledge, 1999.

4. This aspect of disasters is discussed, for example, in J. Charles Schencking, Catastrophe, opportunism, contestation: The fractured politics of reconstructing Tokyo following the great Kantô earthquake of 1923, *Modern Asian Studies* 40(4), 2006: 833–73; Oliver-Smith, Theorizing disasters, 24; David Bray, Designing to govern: Space and power in two Wuhan communities, *Built Environment* 34(4), 2008: 392–407; and Yi Kang, *Disaster Management in China in a Changing Era*, London: Springer, 2015, 13–15.

5. See e.g. Thomas A. Birkland, *Lessons in Lessons of Disaster: Policy Change after Catastrophic Events*, Washington, DC: Georgetown University Press, 2007.

6. Tony Saich, Is SARS China's Chernobyl or much ado for nothing?, in Arthur Kleinman and James L. Watson (eds) *SARS in China: Prelude to Pandemic?*, Stanford, CA: Stanford University Press, 2006, 74–97.

7. Andrew Nathan, Foreseeing the unforeseeable, *Journal of Democracy* 24(1), 2013: 21.

8. Greg Bankoff, A history of poverty: The politics of natural disasters in the Philippines, 1985–95, *Pacific Review* 12(3), 1999: 394. For further reading on China's contemporary disaster management institutions, see for example Chung Jae Ho (ed.), *China's Crisis Management*, London and New York: Routledge 2012; Kang, *Disaster Management in China in a Changing Era*; and Guo-Liang Luo, A research and defects analysis of the disaster relief system of China, *Journal of Risk Research* 17(3), 2014: 383–404.

9. See, for example, Roderick MacFarquhar, *The Origins of the Cultural Revolution, Vol. 2: The Great Leap Forward 1958–1960*, New York: Columbia University Press, 1983; Frederick C. Teiwes and Warren Sun, *China's Road to Disaster: Mao, Central Politicians, and Provincial Leaders in the Unfolding of the Great Leap Forward 1955–1959*, Armonk, NY: M. E. Sharpe, 1999; Frank Dikötter, *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958–62*, London: Bloomsbury, 2010; Jasper Becker, *Hungry Ghosts: China's Secret Famine*, London: John Murray, 1996; Jisheng Yang, *Tombstone: The Untold Story of Mao's Great Famine*, London: Allen Lane, 2012; Thomas P. Bernstein, Mao Zedong and the famine of 1959–1960: A study in willfulness, *The China Quarterly* 186, 2006: 421–45; and Felix Wemheuer, *Famine Politics in Maoist China and the Soviet Union*, New Haven, CT: Yale University Press, 2014.

10. See, for example, Kleinman and Watson (eds), *SARS in China*.

11. For more literature on the Wenchuan earthquake, the reader is directed to the references listed in all of the articles in this special issue.

References

Bankoff, Greg (1999) A history of poverty: The politics of natural disasters in the Philippines, 1985–95. *Pacific Review* 12(3): 384–411.

Becker, Jasper (1996) *Hungry Ghosts: China's Secret Famine*. London: John Murray.

Bernstein, Thomas P. (2006) Mao Zedong and the famine of 1959–1960: A study in willfulness. *The China Quarterly* 186: 421–45.

Birkland, Thomas A. (2007) *Lessons of Disaster: Policy Change after Catastrophic Events*. Washington, DC: Georgetown University Press.

Bray, David (2008) Designing to govern: Space and power in two Wuhan communities. *Built Environment* 34(4): 392–407.

Chung, Jae Ho (2012) *China's Crisis Management*. London and New York: Routledge.

Dikötter, Frank (2010) *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958–62*. London: Bloomsbury.

Hoffman, Susanna M. and Oliver-Smith, Anthony (2002) *Catastrophe & Culture: The Anthropology of Disaster*. Santa Fe, NM: School of American Research Press.

Information Office of the State Council of the People's Republic of China (2012) China's actions for disaster prevention and reduction (May 2009). In: *White Papers of the Chinese Government (2009–2011)*. Beijing: Foreign Languages Press, 113–40.

Kang, Yi (2015) *Disaster Management in China in a Changing Era*. London: Springer.

Kleinman, Arthur and Watson, James L. (2006) *SARS in China: Prelude to Pandemic?* Stanford, CA: Stanford University Press.

Luo, Guo-Liang (2014) A research and defects analysis of the disaster relief system of China. *Journal of Risk Research* 17(3): 383–404.

MacFarquhar, Roderick (1983) *The Origins of the Cultural Revolution, Vol. 2: The Great Leap Forward 1958–1960*. New York: Columbia University Press.

Nathan, Andrew (2013) Foreseeing the unforeseeable. *Journal of Democracy* 24(1): 20–5.

Oliver-Smith, Anthony (2002) Theorizing disasters: Nature, power, and culture. In: Hoffman, Susanna M. and Oliver-Smith, Anthony (eds) *Catastrophe & Culture: The Anthropology of Disaster*. Santa Fe, NM: School of American Research Press, 23–47.

Oliver-Smith, Anthony (2009) Anthropology of the political economy of disasters, in Jones, Eric C and Murphy, Arthur D (eds) *The Political Economy of Hazards and Disasters*. New York: Altamira Press, 11–28.

Oliver-Smith, Anthony and Hoffman, Susanna M. (1999) *The Angry Earth: Disaster in Anthropological Perspective*. New York: Routledge.

Quarantelli, Enrico L., Lagadec, Patrick, and Boin, Arjen (2007) A heuristic approach to future disasters and crises: New, old, and in-between types. In: Rodríguez, Havidán, Quarantelli, Enrico L., and Dynes, Russell R. (eds) *Handbook of Disaster Research*. New York: Springer, 16–41.

Saich, Tony (2006) Is SARS China's Chernobyl or much ado for nothing? In: Arthur Kleinman and James L. Watson (eds) *SARS in China: Prelude to Pandemic?* Stanford, CA: Stanford University Press, 2006, 71–104.

Schencking, J. Charles (2006) Catastrophe, opportunism, contestation: The fractured politics of reconstructing Tokyo following the great Kantô earthquake of 1923. *Modern Asian Studies* 40(4): 833–73.

Teiwes, Frederick C. and Sun, Warren (1999) *China's Road to Disaster: Mao, Central Politicians, and Provincial Leaders in the Unfolding of the Great Leap Forward 1955–1959*. Armonk, NY: M. E. Sharpe.

Wemheuer, Felix (2014) *Famine Politics in Maoist China and the Soviet Union*. New Haven, CT: Yale University Press.

Wisner, Ben, et al. (2004) *At Risk: Natural Hazards, People's Vulnerability and Disasters*. 2nd edn. London and New York: Routledge.

Yang, Jisheng (2012) *Tombstone: The Untold Story of Mao's Great Famine*. London: Allen Lane.