

Un-natural Hazards: The Cultural Geography of Risk

Professor Iain Stewart's Keynote Address: A Summary

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As presenter of a number of TV series such as *Earth: The Power of the Planet*, and most recently, *The Climate Wars*, Iain Stewart's keynote address was unsurprisingly well attended, with barely a free seat in the house.

Iain began his presentation by introducing us to the ancient city of Bam, Iran, which was devastated by an earthquake in 2003. A number of PowerPoint slides (slides 2 – 6) revealed the extent of the damage that this beautiful but largely mud-brick built city suffered as a consequence of this earthquake. Slide 6, which showed before and after shots of the castle, was particularly striking.

Is the fact that the city of Bam was so badly struck by the earthquake merely a matter of chance, to be put down to nature's fateful capriciousness? Iain compellingly argued that this was not the case, and that, moreover, this was 'a disaster waiting to happen', for Bam lies right on top of a fault line. This leads inevitably to the question: why then build in this spot and not elsewhere? To answer this, Iain explained how (though a geological process shown in diagrammatic form in slide 9), it is this fault that provides the city with its water in what is otherwise a notoriously dry region. The city's location can be explained by this ready reserve of water, and indeed, this is a characteristic that occurs all over Iran- the country is riddled with fault lines and all have settlements built upon them (slides 10 and 11).

Iain estimated that Bam, which is about 3000 years old, had probably undergone five or six such earthquakes over its history. Yet its inhabitants repeatedly rebuild the city in the same place (as, indeed, they are doing now). As such, humans have formed a kind of 'Faustian Pact' with the fault line - even though these catastrophic events occur with some regularity, the benefits of having ready access to water continually outweigh the disruption and grief caused by the disasters.

Following this, Iain made what was probably the defining statement of the lecture- that, 'hazards emerge from nature, disasters are made in society' (slide 12). That is, although earthquakes, tsunamis and hurricanes are all fully natural phenomena, these only become 'disasters' when as a consequence they adversely affect humans and human settlements. Slides 13 and 14 referred to the dawning realization of this fact in early modern history, an age when people began to realise that disasters were not divine retributions, and instead began to understand their physical causes and the fact that humans could change their behavior patterns to minimize the destruction (i.e. risk reduction).

Slides 15 to 18 presented a selection of graphs showing how disasters are in fact becoming more numerous. Iain then presented us with a quandary: hazards are predictable and recurring events, often returning to the same region, and yet knowledge of this fact does not stop people from continuing to rebuild in the same place. Therefore, there must be another factor, or a multitude of factors, that are resistant and that compel people to remain in areas of high risk.

Iain went on to provide us with several illustrative examples of where such a state of affairs exists. He began with the region in Indonesia surrounding Mount Merapi, a young and very active volcano that

produces frequent eruptions, the most recent one of notable size being in 2006 which resulted in the evacuation of many thousands of people. Despite this activity, many people choose to continue cultivating and dwelling upon the land surrounding this volcano. According to his conversations with locals, this was chiefly due to the widely held opinion that their gods inhabited the volcano. However, Iain suggested that there was yet another, more 'sensible' explanation for the people's resoluteness in staying put and this is down to the fertility of volcanic areas and the fact that such areas make unrivaled pasture area for cattle. According to Iain, the people of the Merapi region have performed a simple cost / benefit analysis in their decision to remain on the land. (Slides 25 and 26 contained images of the area).

Slides 27 and 28 were from the second example that Iain showed us, that of La Conchita, a small Californian town that is particularly vulnerable to landslides. The people Iain talked to in this town were unequivocal about remaining, despite the fact that many had friends or families who had perished in the landslides - no obvious explanation except pure place attachment was evident to justify this behavior. Another, much more widely known, example was that of Hurricane Katrina, which struck New Orleans in 2005. The costliest disaster in history, Iain explained how Hurricane Katrina caused 'institutional meltdown in a first world country' and how it was the poorest sections of New Orleans society that faced the greatest difficulty in vacating the city. Though we can easily recognise why the poorer and thus less mobile citizens of any society are destined to remain in marginal and vulnerable areas, it is more perplexing as to why the affluent and mobile classes continue to build in such areas. As Iain himself writes,

"Indeed, it is often the wealthy that choose to live in physically hazardous settings, convinced that it is safe to build palatial homes on hurricane-prone shores, perched precariously on steep unstable slopes or amidst incendiary scrub. They do so, partly because their affluence can buy superior engineering, which affords some degree of protection, but more because the social and economic resilience of the owners offsets their acute physical vulnerability." (from PowerPoint slide 34)

Thus it is that the wealthy may be vulnerable to physical factors but they are not so vulnerable to social ones. An image from the China earthquake in 2008 further epitomised this point (slide 38). In the image, a school lies in ruins, whilst the surrounding office blocks remain relatively intact. Iain posed the difficult question of why this should be the case, and what are the factors that decide who lives and who dies in a disaster situation. He concluded that it is society, rather than nature, that has the last word on this matter.

This was the note on which the lecture ended. It would seem that there is something deeply engrained in human nature that makes us wish to push down the recognition of risk and instead choose to ignore it. At all times, and all over the world, people have made lives for themselves in high risk areas. Sometimes this can be accounted for through poverty (people having little choice as to where they live), or, at the other end of the spectrum, prosperity (having such financial means that loss or damage of property is insignificant). Sometimes, however, it would seem that pure place attachment alone is the key.

Ben Major