

## THESIS / THÈSE

### DOCTOR OF HISTORY

#### **A History of Earthquakes in the Luzon Island, Philippines during the 19th and 20th Centuries**

**Historical seismology, bureaucratic responses, and socio-cultural interpretations of disasters**

ALVAREZ, Kerby

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# **A History of Earthquakes in the Luzon Island, Philippines during the 19<sup>th</sup> and 20<sup>th</sup> Centuries: Historical seismology, bureaucratic responses, and socio-cultural interpretations of disasters**

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by

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## ABSTRACT

This dissertation discusses a history of earthquakes in the Philippines during the 19th and 20th centuries. It presents narratives of six major earthquakes that occurred in the island of Luzon: the 03 June 1863, 18-20 July 1880, 20 August 1937, 02 August 1968, 17 August 1983, and the 16 July 1990. This study used government records, newspaper reports, scientific studies, and local accounts as sources to reconstruct the story of the Filipino people's experiences and post-disaster responses during calamities.

The six earthquake disasters discussed in this work coincided with significant political and economic events and periods in Philippine History: from the late Spanish era to the period of American rule and Commonwealth Government, and the postwar Philippine Republic decades. These earthquake disasters further reveal the social fabric of Filipino society; the catastrophic events caused by geological hazards complicated the way Filipinos cope with social upheavals, such as colonial rule and independence, and political experiments on self-governance.

There is a pattern of continuity and change in the ways Filipinos responded to the challenges posed by earthquakes both as an environmental and social hazard. The government and the local population manifested a wide-range of post-disaster responses to rescue and provide relief to affected communities, and they as well implemented risk reduction mechanisms to mitigate the adverse effects of earthquakes. The agony of collective suffering and adherence to religious worldviews prevail during calamities. These are not mere sordid reactions to social emergencies, but more of coping mechanisms of people to get a foothold in dealing with catastrophic situation. The use of scientific knowledge and modern disaster response and rehabilitation programs provided safeguards for people living in a perennially hostile environment. The state used instrumental science and modern architecture and engineering as tools to create better infrastructures, and viable and resilient communities. In particular, measures such as rehabilitation and reconstruction of towns, as well as corresponding policy reviews were done to create safe and livable communities for people.

This story of earthquakes in the past 150 years is a story of a relentless journey for resilient communities. Aside from identifying the different bureaucratic and political mentalities in disaster response, these earthquake experiences illustrate the commendable values and deplorable acts of people in times of calamities. In the historical materials analyzed in this work, the people in power frequently acted and portrayed as saviors, scientists and experts as the intellectual minority, and the ordinary people as perpetual victims - helpless, hapless, and hopeful.

This work provides a portrait of Filipino society in times of catastrophes – a sketch of the tedious cycle of reactive responses from the government, exasperated scientific community, and continuously evolving disaster mitigation and rehabilitation projects, programs, and initiatives.

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