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Result!!!

Christchurch Earthquakes Test Canterbury Museum's Quake-Proofing

Sasha Stollman

Presented as a poster at the 2013 AIC & ICOM-CC Photographs Conservation Joint Meeting in Wellington, New Zealand.

This poster describes recent unprecedented seismic activity in New Zealand’s South Island, highlighting building strengthening efforts and collection installation techniques which contributed to the survival of the majority of the decorative arts objects on exhibition in Canterbury Museum’s Mountfort Gallery.

The Canterbury region of New Zealand’s South Island has been in recovery mode ever since the magnitude 7.1 earthquake struck at 4.35am on 4 September 2010. Thousands more followed over the next couple of years, including the far more destructive M6.3 on 22 February 2011.

Canterbury regional heritage institutions have long been anticipating significant activity from the 650 kilometer Alpine fault, and had been preparing accordingly. However the astonishing forces behind the previously unknown shallow fault network directly under the Canterbury Plains had not been anticipated and the term ‘earthquake’ had not been perceived as an ongoing series of events.

Fig. 1 Canterbury Museum’s Mountfort Gallery Ceramics Bay following the 22 February 2011 earthquake. Photograph © Sasha Stollman.
Canterbury Museum, established in Christchurch, New Zealand in 1867 by German geologist Julius von Haast, designed in Gothic Revival style by architect Benjamin Mountfort, is the oldest purpose-built museum still in use in New Zealand. The original building, a single room typical of Victorian museums, has come to be known as the Mountfort Gallery and currently exhibits an extensive European Decorative Arts collection.

When Canterbury Museum’s archaeologist Michael Trotter became Director in 1983, the 19th century buildings were in dire need of significant maintenance, and to be brought up to current earthquake standards. Following extensive engineering surveys and research into the buildings’ original fabrication, the Canterbury Museum Trust Board developed a strengthening program to address several key structural failings. Consent for building works was hard-won as the proposal appeared heavy-handed. Impressively however, these buildings were some of the few 19th century examples to survive the 2010-11 earthquakes.

In 1995, Sasha Stollman was appointed by Michael Trotter to establish the Museum’s first Conservation Laboratory and develop the preventive conservation approach for over 2 million collection items. The Mountfort Gallery of European Decorative Arts, opening in 1997, was the first Museum exhibition to be prepared and installed with a Conservator on staff. The range of earthquake mitigating methodologies incorporated provided a rewarding opportunity to document successes and failures following the 2010-11 seismic activity. Notably, amongst 200+ ceramic objects, only the tallest vessel sustained a hairline crack at the narrowest point of the base. The rest of the monumental ceramics were successfully protected by form-fit brass mounts, and the smaller ceramics were stabilized using Rhoplex N-580 acrylic emulsion sticky dots.

Following this unprecedented series of devastating earthquakes, the Canterbury Museum undertook an organizational review resulting in the disestablishment of half the staff, mostly collection-related positions, including the one conservator. Contract conservation was considered more cost effective. Regretfully the golden opportunity to examine the immediate post-quake condition of the collection stores to document successes and failures did not eventuate prior to Sasha’s departure from the Museum in September 2012.

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