

# “Because it is a Holy House of God”: Buildings Archaeology, Globalization, and Community Heritage in a Tanna Church

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**Abstract** Archaeological research on a prefabricated timber church on Tanna Island, Vanuatu (formerly the New Hebrides) has revealed details about site history, construction, use life, and current condition. This structure encapsulates two of the critical aspects of the New Hebrides missions, connecting these remote islands to wider global networks, while simultaneously being something that local communities made, and continue to make “their own.” In addition to being of interest to the indigenous community, buildings like the 1912 Tanna Church represent important examples of the tangible heritage created by the interplay of local and global forces in the modern world.

**Keywords** Buildings archaeology · Vanuatu · Churches · Globalization · Oceania

## Introduction

January 30, 1912: Disaster strikes on the island of Tanna in the southern New Hebrides (now Vanuatu, Fig. 1). The frame of a new prefabricated timber church had been recently erected by the growing Presbyterian Mission at Lenakel, on the west side of the island. Following a massive tropical cyclone, one observer awoke the next morning

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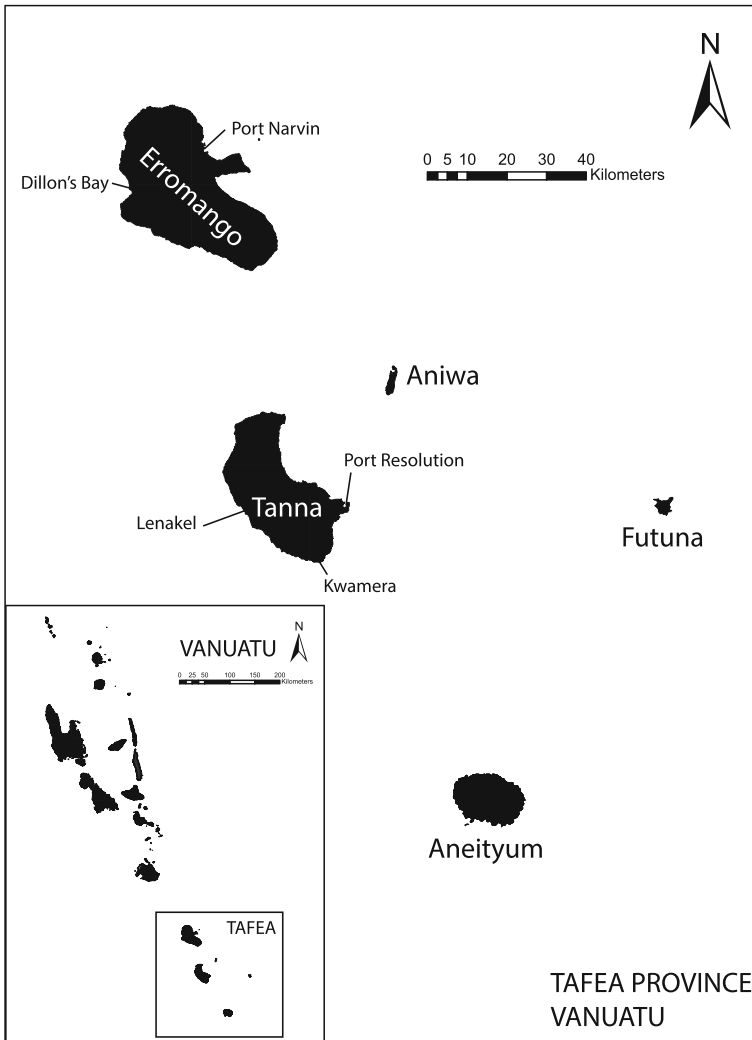
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**Fig. 1** Map of TAFEA province, comprising the southern islands of Vanuatu (inset), with mission stations surveyed as part of the Southern Vanuatu Mission Archaeology Project labeled

and upon finding the destruction exclaimed, “to my utter dismay, I found the new Church had been blown flat down!” (QJNH 1912 No. 77, p. 13). Once the Presbyterian missionaries and their friends on west Tanna got over the initial shock of the storm, they regrouped, determining that the roof could be altered and rebuilt without having to order more timber from Sydney, a proposition that would have set construction back by over three months. Just over a century later, the church at Lenakel is once more under serious threat. This time, the structure is suffering from a combination of slower destructive processes: weathering (particularly moisture damage from rain), termites, and simple neglect that are nonetheless just as dangerous to the survival of the structure. Recognizing this, a group of local Presbyterian Church elders and chiefs from the Lenakel area have enlisted the help of archaeologists working in partnership with the

Vanuatu Cultural Centre to document and if possible begin to arrange for conservation work to take place on this structure, which is significant both locally, and in the wider context of early twentieth-century globalization and industrialization.

The currently standing Lenakel Church (Fig. 2) was built in 1912, from a prefabricated timber kit manufactured by the Sydney firm Saxton and Binns, although there were earlier church buildings on this site (see below). Initial archaeological research on the structure was carried out as part of a larger survey of early Presbyterian mission sites and the surrounding landscapes on Tanna and Erromango (Flexner 2013a). The main goal of this research was to document as much detail as possible using a combination of archival sources, archaeological recording techniques, and oral histories to build a greater understanding of the building's significance. This was considered a necessary first step towards eventual conservation work. Using the Burra Charter (Australia ICOMOS 2000) and the New Zealand Charter for the Conservation of Places of Cultural Heritage Value (ICOMOS New Zealand 2010) as guidelines, we have identified a number of ways that the Lenakel Church is significant both locally for people in Vanuatu and regionally as a part of Australasian architectural heritage (Flexner et al. 2012; see below). One of the most important aspects of the significance of this building is its encapsulation of what Hall (2000, p. 197) calls “locality—the constitution of the global in the local, the relationship between widely held world-views and individual action.” The Lenakel Church was built primarily by locally organized laborers under the direction of foreign carpenters and missionaries from a prefabricated kit integrating materials from across the British Empire and North America. It is a nexus of local and global forces in one of the remote areas of the early twentieth-century colonial world.



**Fig. 2** Photograph of the north external elevation of the Lenakel Church

## Buildings Archaeology and Globalization

The interplay of global and local forces has become a major topic of study in twenty-first-century historical archaeology (e.g., Hall 2000; Hall and Silliman 2006; Orser 2010, pp. 116–120). Orser (2010, pp. 116–120) characterizes this dynamic as an issue of scale, as scholars attempt to connect micro-scale observations of households, activity areas, and artifacts to the larger, macro-scale networks that emerged during the period of globalization over the last five centuries or so. The study of buildings, including currently standing buildings of timber, masonry, and metal, as well as more ephemeral posthole patterns and other subsurface remains has likewise long been an important part of historical archaeology. Analyses of domestic architecture from across the Atlantic world, from the Hall-and-Parlor and Georgian houses of colonial Virginia (Bell 2002, pp. 268–275, Bell 2005, pp. 450–456; Deetz 1996, pp. 125–164) to the gabled houses of the South African Cape (Hall 2000, pp. 99–114) have pointed out that buildings are important reflections of the cultural values of early capitalists. In these case studies, buildings are seen as material statements about the aspirations of the builders as well as colonial ideals concerning order and hierarchy, though these are often contested statements that are undermined by the realities of everyday life.

These observations also apply to buildings in the British homeland, as Graves (2009) has observed for a block of bourgeois houses in Newcastle, England, dating to the time of Cromwell's Protectorate. The architectural details of these merchant houses contained symbolism that was interpreted in religious terms. Notably, pilasters with rod or staff-like objects are interpreted as references not only to classical architectural orders and symbols of authority but also to scripture, as these middle class merchants were asserting themselves as the keepers and enforcers of discipline and righteousness in an increasingly puritanical society (Graves 2009, pp. 399–403). Architectural developments in Europe can also be connected to the wider global networks that allowed for the great accumulation of wealth in the West from the 1500s onwards, and especially over the course of the seventeenth and eighteenth centuries. Johnson (2006, pp. 324–325) suggests a “contrapuntal” reading of European landscapes of the colonial period, interpreting William Beckford's great eighteenth century “Gothick” house, Fonthill Abbey, in terms of the new opportunities afforded a growing class of merchants whose wealth derived from slavery in the West Indies. In the colonies, meanwhile, elaborate rural estate houses reflecting the latest fashions from Europe were often more signs of ambition than reflections of actual wealth, as was the case for Lake Innes House in Australia (Connah 2007), and arguably, Thomas Jefferson's mansion at Monticello in central Virginia (Neiman 2008).

Buildings of all types are an important class of evidence for understanding the process of globalization as it was experienced at the micro-scale, and as it emerged at the macro-scale. Vernacular architecture, especially domestic architecture, reflects the movement and adaptation of folk-building methods and ideas throughout the world, as can be seen in Acadian buildings from Louisiana (Maygarden 2006). Architectural style was used as an intentional signal of connection between far-flung areas of the world, as with Scottish buildings from Argyll that influenced Elizabeth Macquarie's design preferences for early colonial buildings in New South Wales, Australia (Casey 2010). New architectural forms sometimes emerged from the development of colonial settler societies, one notable example being the widespread “bungalow” form that

became prevalent in the tropical Pacific, notably at the British capital of Levuka, Fiji (Purser 2003), and widespread in Australia and New Zealand (Ashford 1994; King 1995). Colonial buildings could also become heavily localized. At Levuka, Nasova House served as the government residence both for the indigenous Cakombau government from 1871 to 74, and for the British Crown Colony of Fiji from 1875 to 82. Chatan 2003 has interpreted this structure as a traditional Fijian *vale levu* (big house or chief's house), a characteristic of the architecture that the British colonial governor, Gordon, used to his advantage. Inhabiting the house helped to solidify Gordon's place as both colonial agent and local paramount chief through the hybrid architecture of this building.

### Prefabricated Buildings in Oceania

Prefabrication was an important development in the history of global architecture, as it allowed for the production of a mass-produced, commoditized, standardized suite of buildings that could be exported throughout expanding empires and beyond their fringes (King 1990, 1995). Many of the prefabricated buildings in Oceania were built from kits produced by firms in Australia. One such firm was Saxton and Binns, which created the kit used for the Lenakel Church. Saxton and Binns was a major industrial enterprise, with a factory at Pymont, Sydney, covering over five acres and employing some 300–400 men (TN August 16 1902, p. 10; SMH July 15 1905, p. 9; *Advertiser* February 13, 1908, p. 6). The company was primarily involved in milling and finishing timber products for export to destinations outside New South Wales. In the early 1900s, the firm sent its products “throughout the [Australian] Commonwealth, to New Zealand, Noumea, Fiji, New Guinea, Samoa, and the other islands” (TN August 16 1902, p. 10). It started manufacturing prefabricated portable cottages by 1897 (EN September 6 1897, p. 1), and by 1900 had branched out into the manufacture of churches (SMH February 12 1900, p. 10). Its products were advertised through illustrated catalogues that offered standard designs (Saxton and Binns 1910). Other companies in Australia and North America became involved in the manufacture of prefabricated timber buildings around the same time, following the expansion of the wholesale timber industry, development of improved transport networks (Lewis 1985b, p. 287; Reiff 2000, pp. 118–120, 150–202), and possibly also increased efficiencies through standardized industrial production.

Unfortunately, there has never been a systematic study of historical or extant prefabricated timber architecture in Oceania, so much of what is known comes from word-of-mouth or online sources, highlighting a need for further research on these kinds of buildings. Some of the oldest and most significant standing buildings in New Zealand are partly or completely prefabricated, including the Treaty House at Waitangi, built in 1833, and Old All Saints Church in Howick, Auckland, which was erected in 1847 (Heritage New Zealand n.d.a, n.d.b). The more formal work that has been done, especially outside of Australia and New Zealand, tends to consist of individual case studies involving either a single building or a handful of buildings, such as O'Neill and Spenneman's (2003) study of the de Brum plantation house on Likiep Atoll, Purser's (2003) work on Levuka bungalows, and this study of the Lenakel Church. A broader systematic survey of historical and extant prefabricated timber structures around Oceania would be a valuable contribution to our knowledge of colonial architectural

heritage in the region. A notable exception to the focus on a single building or settlement in this line of research is Rodman 2001 survey of British colonial architecture in the New Hebrides. While this study was not primarily about architectural or archaeological data, it does provide useful historical details on prefabricated buildings in the New Hebrides, and stands out as a significant example of the kinds of cultural insights that can be gained from examining the ways that buildings can serve as nodes connecting the global to the local.

Turning specifically to structures produced by Saxton and Binns, the company is reported to have exported churches to New Guinea, at Vatorata in 1900, and at Tureture in 1908 (SMH, February 12 1900, p. 10; Queenslander January 11 1908, p. 29), as well as a mission house in 1902 (SMH April 16 1902, p.5). A photograph from 1903 of a London Missionary Society mission house inhabited by a Samoan pastor on Kwato in Papua New Guinea (Wetherell 1977, plate 11) depicts a building nearly identical to the “Export Cottage for Hot Climate” from Saxton and Binns (1910, p. 38). While we cannot be sure that this was definitely a Saxton and Binns cottage, it is likely another example of prefabricated timber architecture from a mission station in Melanesia. A brief, informal survey of anthropologists doing fieldwork across the region turned up memories of many old buildings which are or were recently extant, some of which were fully or partly prefabricated. Examples include an Anglican church on Samarai Island, Papua New Guinea, which has apparently lost its roof in the last few years (Cass 2013); a London Missionary Society house and church in the Kikori area of Gulf Province, Papua New Guinea (Latu Latai, pers. comm.); an Anglican church at Fiu, Malaita Province, Solomon Islands (Brown 2001); and a Catholic Church on Likiep Atoll in the Marshall Islands (O’Neill 2002). Among secular buildings, the Old Court House in Samoa (Archifact 2011) and the Royal Palace on Rarotonga in the Cook Islands (Albert Refiti, pers. comm.) have been restored recently.

In Vanuatu, early examples of prefabricated buildings include Mission House, Nguna, prefabricated in New Zealand and built in 1870 (Miller 1981, pp. 101–104); the Martyr’s Memorial Church, Dillon’s Bay, Erromango, prefabricated in Sydney, built in 1880, and restored in 1969 (Miller 1981, p. 61), later destroyed in Tropical Cyclone Uma in 1987; Nguna church, completed in 1885 and still standing in 1981 (Miller 1981, p. 102); and Mission House, Lenakel, built in 1896 (Paton 1903, pp. 22–23). A number of prefabricated buildings were constructed in Port Vila. Churches of the models known as “Paul” and “Manna,” prefabricated by Saxton and Binns or its successor A. C. Saxton and Sons, were built on Espiritu Santo and Malakula, respectively. From the 1920s through the 1940s, additional prefabricated houses in the New Hebrides included the British and French district agents’ houses at Isangel, Tanna, from A. C. Saxton and Sons, and the British agents’ house, Venui and The “White House” in Port Vila, prefabricated by George Hudson Pty. Ltd (Rodman 2001). Local informants on Tanna noted that a similar church to the one at Lenakel was present in the White Sands area on the eastern part of the island, but it was dismantled several decades ago. While not from a prefabricated structure, the fabric of John Geddie’s original mission church and house at Anelcauhat, Aneityum are still standing, though like the Tanna Church, these are in serious need of stabilization and conservation (Jones 2013). Finally, a surviving Catholic church on Espiritu Santo from the early twentieth century is still standing and reported to be in excellent condition (Stuart Bedford, pers. comm.).

## Presbyterian Missions in the New Hebrides

Turning to the Presbyterian Church in the New Hebrides, mission architecture, and indeed mission life became heavily localized, both because of missionary reliance on local labor and building materials, and because of the ways that Melanesians interacted with mission space. There are multiple photographs and descriptions of mission buildings with native-style thatched roofing (e.g., F. Paton 1903, p. 30; Robertson 1902, pp. 207, 251–254; Watt 1896, p. 75). Lime mortar for building foundations was made with local materials and labor. Excavations at mission houses on the islands of Tanna and Erromango, as well as archaeological reading of archival sources and oral traditions, show that mission space was, by necessity, permeable. Local objects, including dress, foods, and “curiosities” collected by the missionaries are all included in mission assemblages, infusing the global project of missionization with Melanesian flavors (Flexner 2013a, pp. 16–20).

The church at Lenakel was built at the end-point of a trajectory of early mission work in the southern part of the New Hebrides. Beginning in the 1840s on Aneityum, where the first mission foothold was established by John Geddie, and working doggedly to establish missions on more islands, the Presbyterian Church was able to eventually open mission fields on the neighboring islands of Tanna, Erromango, Aniwa, and Futuna. There were major setbacks in the first 70 years of missionary endeavors, including numerous failed attempts to settle on Tanna, and more dramatically, the martyrdom of a number of missionaries on Erromango. However, eventually the persistence of missionaries from Scotland, Canada, and New Zealand, aided by Polynesian teachers from Samoa and the Cook Islands and native teachers from Aneityum, paid off, resulting in widespread conversion to Christianity by the middle of the twentieth century, especially in the southern islands (e.g., Gordon 1863; Gunn 1914; Miller 1978, 1981, 1986; F. Paton 1903; J. Paton 1907; Patterson 1886; Robertson 1902; Watt 1896). On Tanna, this was by no means a universal experience, and in fact the emergence of a political movement centered on *kastom* (traditional cultural practices) was arguably a native response to abuses of mission power in the first few decades of the 1900s (Bonnemaison 1994, pp. 201–219).

West Tanna was one of the last areas of the island to convert, at the very end of the nineteenth century. A crucial observation is that the establishment of missionaries in the area depended completely on the acquiescence of local chiefs, notably Lomai and Iavis, something remembered both in missionary accounts (Paton 1903), and local oral traditions. In local reckoning, the appeal of the Presbyterian Church stemmed from high levels of endemic violence, notably because of fights over chiefly titles between chiefs from the different districts in the area. It could be argued that the Lenakel-area chiefs saw an opportunity to simultaneously reduce the prevalence of fighting, and increase their own prestige by aligning themselves with powerful outsiders. This dynamic appears to be quite common throughout the New Hebrides missions, where local people at least initially held the upper hand, structuring the nature of colonial interactions. After the establishment of the Lenakel mission, the Presbyterians shifted the focus of their operations on Tanna from early centers in the south of the island to the west, engaging in major building operations, including not only churches, but also a major hospital compound, and “model villages” for natives wishing to settle around the mission (Miller 1986, pp. 246–425). The Lenakel Church was built during this more

intensive period of mission construction activities, as a symbol of the prestige and long-term ambitions of what was seen as a successful project of native conversion. Notably, the nearby model village was named “Isini,” a localization of “Sydney” (Miller 1981, pp. 361–362), connecting the place name on Tanna to the location from which the mission derived many of its resources, including the prefabricated church from Saxton and Binns.

### Archaeology of the Lenakel Church

Like much of historical archaeology in Oceania, mission archaeology in Vanuatu, despite pioneering early work on Aneityum in the 1970s and 1980s (Spriggs 1985, 2007), is still in something of an exploratory phase. Current research is largely focused on a broad survey of mission sites and their surrounding landscapes in the southern islands of Erromango and Tanna (Flexner 2012, 2013a, 2013b), alongside recent work on Aneityum focused on John Geddie’s first mission station at Anelcauhat (e.g., Jones 2013). The Lenakel Church was first recorded as an archaeological site in 2011 as part of the initial survey work for this project on west Tanna, alongside the mission hospital, schools, nun’s quarters, and other related features in the area (Flexner 2012, pp. 54–64). It had been mentioned previously as part of Rodman’s (2001, pp. 131–134) survey of British colonial buildings in the New Hebrides. Notably, comparing Rodman’s photograph of the church taken just over a decade ago with its current condition indicates the amount of recent deterioration that has taken place.

Because of the significance of this particular building to the local community in Lenakel, and its accelerating deterioration, additional fieldwork was carried out in 2012 and 2013, to document as much information as possible and to begin planning for possible conservation work in collaboration with the Presbyterian Church of Vanuatu, the Vanuatu Cultural Centre, and the Lenakel community. Jones and Flexner produced copious notes, photographs, and measured sketches and drawings during fieldwork. In the 2013 field season, we used a total station (EDM) to take more precise measurements of the church itself as well as the surrounding topography. Samples of building materials were collected from the church structure, including timber and mortar. Artifacts were recovered when removing sediment from the interior to expose the footings. Overall, this detailed recording of the building and its surroundings has given us valuable insights into the early site history of this area, the fabric and construction details of the church, its use-life and eventual abandonment, and current condition. Site condition will, however, ultimately have to be assessed by qualified heritage architects if building conservation is to go ahead in the future.

### *Early Site History*

The 1912 Lenakel Church is the third one on the site, a terrace cut into a hillside overlooking the village of Lenakel and its harbor, then beyond to the Pacific Ocean. The local land-holding group, the Louweniu, were spread across this part of west Tanna among gardens and hamlets clustering near clearings called *nakamal* in Bislama (Vanuatu pidgin) where people gathered to dance and drink *kava* (an intoxicating beverage made from the root of the *Piper methysticum* plant; Bonnemaïson 1994, pp. 105–191). Initial mission work involved traveling to local people’s places of residence

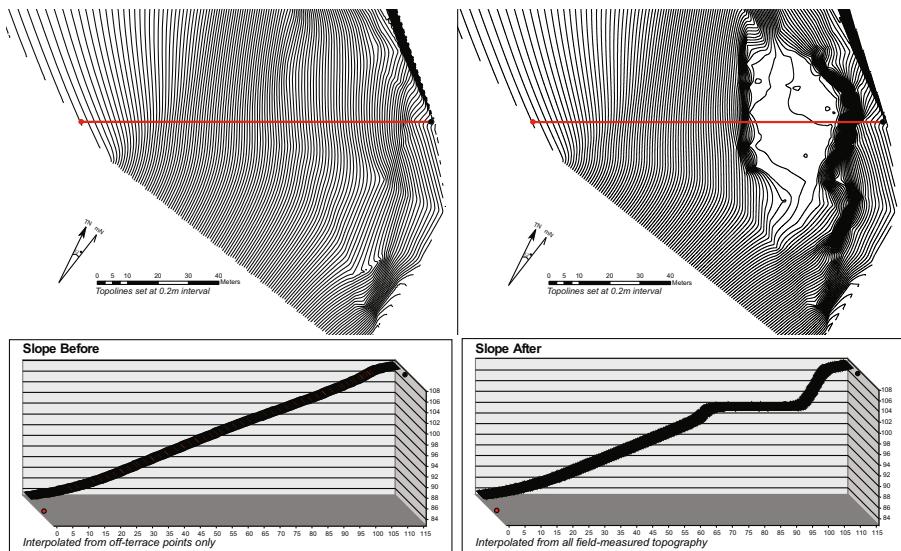


and performing services in the open (e.g., Paton 1903, pp. 19–21). In November 1896, “a native building with reed walls and a thatch roof, but large enough to hold sixty or seventy people” was constructed as a temporary school for potential converts (Paton 1903, p. 30). The next year, missionaries built a small church at Lenakel, which was a rectangular structure of 45×25 ft (14×8 m) (Paton 1903, p. 98). Very little information about this structure has been found in archival sources. The only archaeological remains that local people remember as the location of this early church building are a few lime mortar stumps with metal brackets and bolts, located up the hill from the current church site.

The first permanent church building on the hillside at Lenakel was built in 1904 (QJNH 1905 No. 48, pp. 1–2). This pattern, from open-air worship, to temporary structure, to permanent building was not only typical of the New Hebrides missions, but also apparent in the “home missions” of nonconformist churches in Great Britain (Petts 2011). As part of the preparations for the 1904 church, the hillside at Lenakel was substantially leveled, with a massive terrace cut by local laborers, organized by the chiefs Lomai, Iavis, and Titonga (QJNH 1905 No. 47, p. 9). With the wide, flat terrace in place, local people began mixing lime mortar for the church footings. Timber for the church frame arrived, and “Mr. Mackenzie,” an Australian carpenter, directed the construction of the frame. As money for materials was scarce, the timber frame was covered with native thatch and reeds (Miller 1986, pp. 353–354; QJNH 1905 No. 47, pp. 11–12). Eventually another £157 was raised, mostly with money from local converts, and the original native materials were replaced with imported weatherboard and roofing iron (QJNH 1905 No. 48, pp. 1–2, No. 51, p. 12).

As the congregation grew, missionaries perceived a need to enlarge the church building at Lenakel once again. As part of the expansion, the hillside terrace was further enlarged by local laborers. Based on topographic models, we estimate that in total somewhere between 3,500 and 4,000 m<sup>3</sup> were moved by native people by hand to construct a flat surface for the church in 1904 and 1908 (Fig. 3). Materials had arrived in August 1908, and notably, Mr. Mackenzie had “consulted with the builders in Sydney” about them, possibly indicating the involvement of Saxton and Binns or another purveyor of prefabricated timber structures at this point (QJNH 1909 No. 64, pp. 8, 13). However, the missionaries lamented having to let Mackenzie go, as he was taken to Port Vila, the colonial capital, to work on British government projects. With the help of Mr. Thompson, another foreign carpenter, the second church was formed by appending a large extension to the earlier structure. It opened in August 1909, evidently in front of a congregation of 1,200 to 1,500 people (QJNH 1909 No. 66, pp. 11, 14; No. 67, p. 6; Miller 1986, p. 367). Photographic evidence shows this church was a T-shaped structure, with rectangular windows on the extension (QJNH 1910 No. 68, inset).

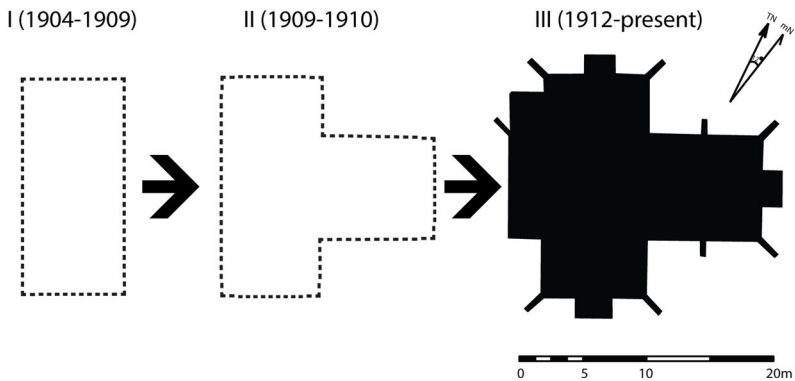
Archaeologically, the evidence for the two earlier churches can be seen in stratigraphic relationships between the different lime mortar footings extant on the site today, which come from all three phases of church construction. Later churches were built on top of the earlier footings, which were expanded in each phase. This is most obvious in the current sanctuary footing, which sits on the foundations of the transepts built in the first and second phases of construction. Also suggestive of these relationships are cracks in the mortar floor underlying the current timber floor. These cracks follow the outlines of the earliest footing around the transepts, expansion in the second phase



**Fig. 3** Digital elevation models of the hillside and slope at Lenakel before (left) and after (right) cutting the terrace

of construction when the nave was added, and a final phase of further expansion that saw the addition of the west sanctuary and buttresses (Fig. 4). Mortar samples from throughout the church footings indicate a degree of variability, which likely also reflects change through time (Table 1). Mortar interpreted as from the earlier phase foundations (samples B, D, G, H, I) appears to be softer, consisting of a very light grey lime mortar matrix with fine black sand inclusions. The later samples (A, C, E, F) contain coarser inclusions, such as small pebbles, tend to be slightly darker in color, and are extremely hard. The hardness of these samples suggests use of modern ingredients, specifically Portland cement, in the mortar matrix. Further analysis might help to establish finer distinctions among these samples, especially those poured for the 1904 church and the 1909 church, though given these were all mixed locally without formal recipes, a degree of variability is likely, even for different mortar samples from the same foundation.

A tropical cyclone on Good Friday, 1910 completely leveled the T-shaped church, along with a number of other mission buildings, leaving behind “a tangled mess of trees and wreckage” (QJNH 1910 No. 69, pp. 14–15). Collections were immediately sought for a new church building on the site. In the first half of 1911, Dr. John Campbell Nicholson, the missionary at Lenakel, went on furlough in Sydney and Melbourne (*Advertiser* March 6, 1911, p. 23). During this time, it is likely that Dr. Nicholson made arrangements with Saxton and Binns for the shipment of a new prefabricated church for west Tanna. Nicholson and his colleagues did not have luck as builders because the frame of this church was likewise blown down in yet another tropical cyclone during construction (Miller 1986, p. 386; QJNH 1911 No. 73, p. 9). The design for the church was modified, and the structure that stands on the hillside at Lenakel today was erected under the supervision of Mr. Robertson, another Australian carpenter (Miller 1986, p. 367). Eventually, the church was opened in front of a congregation estimated at 800 to 1,000 people in April 1912, although its walls and ceiling remained unlined (Miller



**Fig. 4** Footings stratigraphy and phasing in the Lenakel Church. Above: **(a)** the north sanctuary footing overlying the earlier mortar from the transept footing, **(b)** the relationship between layers of mortar along the south wall of the nave, and **(c)** two layers of mortar on the east wall of the southern transept. Below: basic model of the development of the Lenakel Church footprint in three construction phases

1986, p. 387; QJNH 1912 No. 78, p. 6–8). The building was finally completed by July 1912 (QJNH 1913 No. 79, pp. 6–7).

#### Fabric and Construction Details of the 1912 Church

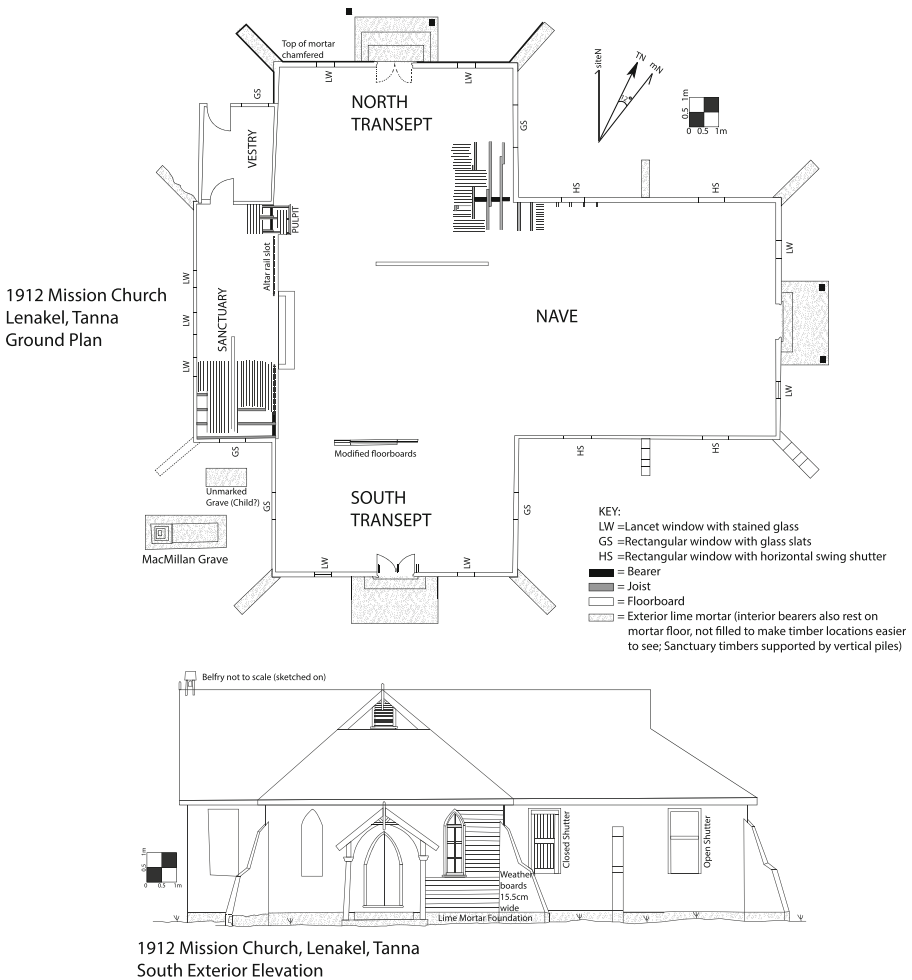
The 1912 Lenakel Church consists of a prefabricated timber frame structure, with rusticated weatherboard cladding and a corrugated iron roof. In plan, it contains a sanctuary, two transepts, a large nave and a small additional room in the angle between

**Table 1** Mortar samples taken from the Lenakel church, which fall generally into two types, reflecting different techniques in earlier and later phases of footing construction

Mortar Sample	Weight (g)	Location	Construction Period
A	33.77	Newest footing, Sanctuary	Late (post-1912)
B	18.31	Older footing, Sanctuary	Early (1904–1909)
C	3.14	Newer layer, E. Wall of S. Transept	Late (post-1912)
D	7.28	Older layer, E. Wall of S. Transept	Early (1904–1909)
E	3.96	S. Wall of Nave	Late (post-1912)
F	44.67	W. face of S. Nave Buttress	Late (post-1912)
G	7.11	E. Wall of Nave, towards SE corner	Early (1904–1909)
H	4.43	E. of N-S running crack, Nave/Transept Intersection	Early (1904–1909)
I	6.38	W. of N-S running crack, Nave/Transept Intersection	Early (1904–1909)

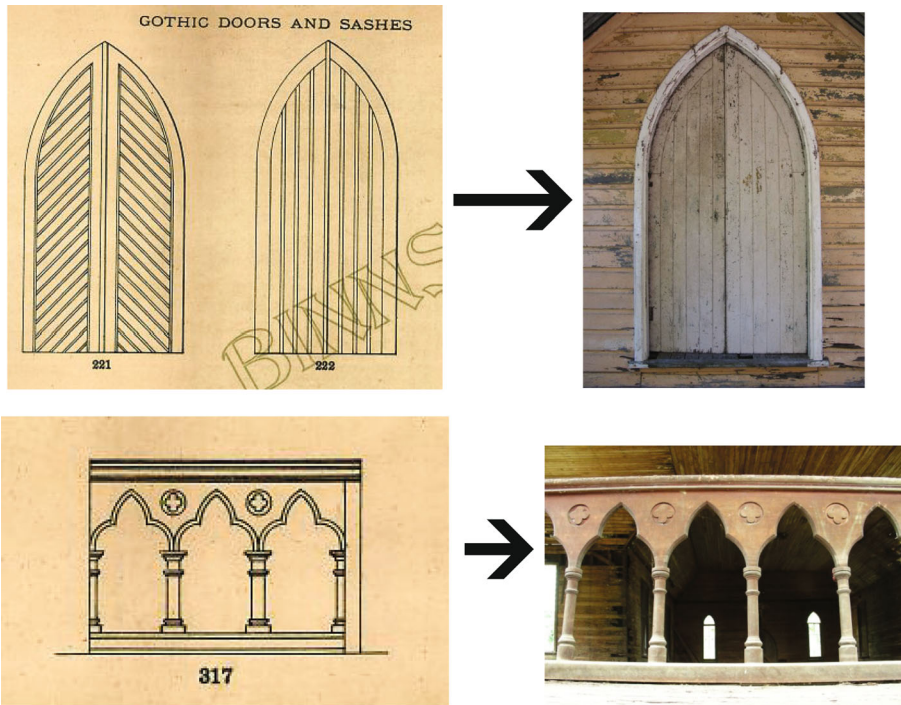
the north transept and sanctuary, which likely served as a vestry (Fig. 5). In style, it melds traditional Gothic elements such as lancet windows, stepped buttresses and a gable-ended sanctuary wall with aspects that are more rooted in turn-of-the-century Arts and Crafts design, notably gablet arrangements in the roof of the transepts and nave. Key documentary evidence indicates that the church was prefabricated by the Sydney firm of Saxton and Binns, and was specifically based on a top of the line model known as “Peter”—promoted in a mail-order Saxton catalogue (Rodman 2001, p. 133). Prefabrication raises interesting questions about the interface between the communities that created and exported such structures, and the communities that not only received and used but also commissioned them. Archaeological work at Lenakel Church consequently sought to specifically examine issues surrounding the design, production and dispatch of the building within its industrial context, as well as its construction in a very different environment in Tanna and its use by the local community. In terms of design, archaeological work confirmed that the building was predominantly composed of catalogue items produced by Saxton and Binns. The internal floor plan was virtually identical to that of “Peter” in both its measurements and outline. Numerous elements—from Gothic door designs to moldings and even items of furniture—were also directly taken or derived from catalogue examples (Saxton and Binns 1910, pp. 17, 25–26, 36; Fig. 6). Slight deviations in some instances may suggest that a greater range of architectural elements was available than actually advertised.

Industrial production methods were indicated by machine-saw marks; and stenciled dispatch or consignment marks in regular positions on numerous elements bore the words “JCN TANNA.” Although these kinds of consignment marks are not automatically diagnostic for prefabricated structures (Lewis 1985a, pp. 56–7), they do suggest mass transportation from the same source, especially when found on a variety of elements. At Lenakel Church, such marks were on main structural elements such as studs, joists and piles, as well as on claddings and linings that included weatherboards and floorboards. J. Campbell Nicholson was the local missionary at Lenakel who is believed to have commissioned the building while on furlough in Sydney (TN June 3 1911 p. 23). A similar form of mark with a different recipient’s name was noticed on roofing timbers in a nearby nuns’ house dating to the 1920s, though it is not yet clear



**Fig. 5** Ground plan and south exterior elevation, 1912 Lenakel Church

whether the building was prefabricated. Six piles under the church sanctuary were identified using the stencil “P,” five of which also had the “JCN TANNA” stencil. Other factory marks found in the Lenakel Church were to assist on-site assembly, such as numbering on door and window jambs (Fig. 7). The main Gothic doorways of the building were respectively numbered “1,” “2,” and “3” in a systematic and anticlockwise fashion around the church. One of the windows was similarly numbered “5.” The numerals appeared to have been machine-created, contrasting with earlier traditions of Roman numeral “marriage marks” employed by artisan carpenters to guide the construction process when timbers were squared off-site, or a building was moved (Maygarden 2006, pp. 224–225). Most framing elements at Lenakel Church appeared likely to have been pre-cut at the factory, but sawn-through dispatch or consignment marks on the underside of flooring indicated that floorboards and perhaps other linings were delivered in standard lengths and cut to size on site.



**Fig 6** Items advertised in the *Saxton and Binns 1910 Illustrated Catalogue* (p. 17 upper left, p. 25 lower left; Source: National Library of Australia Microform Nef 674.88 S273) matching elements found in the Lenakel Church (right)

There was ample evidence of the global networks underpinning aspects of prefabrication. Rimlocks on the main doors were made by H & T Vaughan of Willenhall, in the West Midlands “Blackcountry” of England. A few surviving sheets of original corrugated iron roofing are of Lysaght Orb type, which are probably also British-made (Fig. 8). Samples were taken to identify the types of wood used in the manufacture of the Tanna Church, which when combined with documentary evidence can be used to determine the likely geographic origin of the wood (Table 2). Planer sections, 20 to 50 microns thick were cut from wood samples using a hand-held razor blade and the sections mounted in water on glass slides and covered with a cover slip. Sections were viewed at different magnification using a light microscope and the woods were identified to the generic and occasionally species level using diagnostic microscopic features (Heady et al. 2002; Heady and Evans 2005; International Association of Wood Anatomists 1989, 2004). Of the 25 wood samples collected, 17 were identified with varying degrees of certainty. This research revealed that samples were mainly derived from Australian, North American, and New Zealand timbers, as well as what is most likely European spruce (see below). Lower framing elements, such as studs, floor joists, and bearers, were *Eucalyptus* (*Eucalyptus* sp.) from Australia. Upper framing elements, including rafters, ceiling joists, and purlins, as well as the bargeboards, were Douglas fir (*Pseudotsuga menziesii*), sometimes known as Oregon pine. Exterior elements, including the doors and weatherboards and also interior skirting boards were Californian redwood (*Sequoia sempervirens*), a timber that is resistant to decay (Wallis 1963).



**Fig. 7** Consignment and assembly marks on Lenakel Mission buildings, clockwise from top left: “3” assembly mark, Lenakel Church; “JCN TANNA” consignment mark (note also machine saw marks), Lenakel Church; “P” possible consignment or assembly mark, Lenakel Church; “REID-LENAKEL” consignment mark, from later nuns’ house



**Fig. 8** Artifacts of Empire: H & T Vaughan Manufacturers Draw Back Lock, from Willenhall, England (left), and Lysaght “Orb” galvanized roofing iron, probably from Bristol, England

**Table 2** Timber samples from the Lenakel Church

Wood Sample	Material	Weight (g)	Description	ID (Common)	ID (Latin)	Probable origin
1	Wood	4.93	Pile sample (Nave/Transept Crossing)	Eucalyptus	Eucalyptus sp.	Australia
2	Wood	2.13	Beamer sample (N. Beamer in Nave, E. End)	Eucalyptus	Eucalyptus sp.	Australia
3	Wood	0.78	Floor Joist sample (S. Transept, by E. Door Jamb)	Eucalyptus	Eucalyptus sp.	Australia
4	Wood	1.04	Base Plate sample (W. Wall, Sanctuary)	unid.	unid.	unid.
5	Wood	0.48	Stud sample (S. Transept, W. Wall, 8th Stud from South)	Eucalyptus	Eucalyptus sp.	Australia
6	Wood	0.16	Top Plate sample (N. Transept, E. Wall at S. End)	unid.	unid.	unid.
7	Wood	0.19	Crossing Rafter sample (Attic, NE Rafter of Crossing)	Douglas fir	<i>Pseudotsuga menziesii</i>	N. America
8	Wood	0.38	Rafter sample (Attic, above N. side of Nave)	Douglas fir	<i>Pseudotsuga menziesii</i>	N. America
9	Wood	1.67	Ceiling Joist sample (Attic, E. Jamb of Central Vent)	Douglas fir	<i>Pseudotsuga menziesii</i>	N. America
10	Wood	0.22	Purlin sample (Attic, 2nd from top, N. side above Nave)	unid.	unid.	unid.
11	Wood	0.56	Ridge Piece sample (Attic, above Nave)	Douglas fir	<i>Pseudotsuga menziesii</i>	N. America
12	Wood	4.93	Weatherboard sample (Loose, beside S. Wall of Sanctuary)	Californian redwood	<i>Sequoia sempervirens</i>	N. America
13	Wood	0.81	Floorboard sample (Nave/N. Transept Crossing)	Spruce/White Baltic	<i>Picea</i> spp.	Europe
14	Wood	0.85	Skirting Board sample (W. Wall, N. Transept)	Californian Redwood	<i>Sequoia sempervirens</i>	N. America
15	Wood	1.11	Wall Lining sample (E. Wall, N. Transept)	Cypress	Cupressaceae	N. America
16	Wood	0.62	Bargeboard sample (Loose, beneath W. Wall of Sanctuary)	Douglas fir	<i>Pseudotsuga menziesii</i>	N. America
17	Wood	0.36	Door sample (N. Transept)	Californian redwood	<i>Sequoia sempervirens</i>	N. America
18	Wood	0.28	Altar Rail sample (Loose, S. end of Sanctuary)	Kauri	<i>Agathis</i> sp.	New Zealand
19	Wood	0.16	Pew sample (Loose, in N. Transept)	Kauri	<i>Agathis</i> sp.	New Zealand
20	Wood	0.64	150x100mm Stud sample (N. Wall of Nave)	unid.	unid.	unid.
21	Wood	0.67	Diagonal Brace sample (S. Wall of Nave)	Eucalyptus	Eucalyptus sp.	Australia
22	Wood	0.24	Nogging sample (S. Wall of Nave, midway along)	unid.	unid.	unid.
23	Wood	1.25	Exterior Window Sill sample (S. Wall of Nave, midway along)	Hardwood	unid.	unid.
24	Wood	0.1	Lancet Window Glazing Bar sample (W. Window, S. Wall of S. Transept)	unid.	unid.	unid.
25	Wood	0.04	Architrave sample (E. Door of Nave, upper S. side)	unid.	unid.	unid.



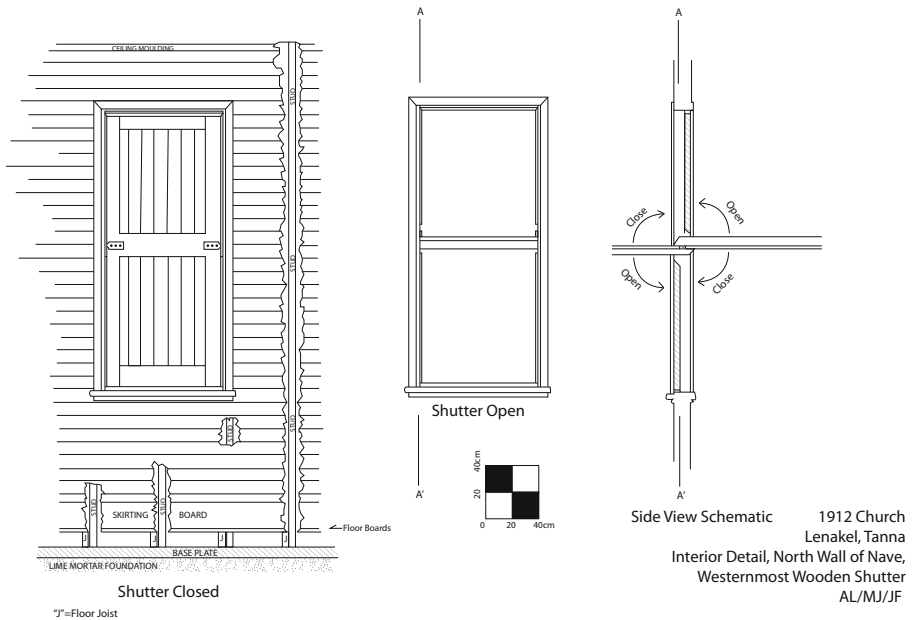
Both Douglas fir and Californian redwood would have come from the west coast of North America. Church furniture, including the altar rails and pews, were identified as Kauri (*Agathis* sp.), most likely New Zealand Kauri (*Agathis australis*), which was commonly available in Sydney in the late nineteenth century and early part of the twentieth century. However, there is also the possibility that other Kauri species, for example Queensland Kauri (*Agathis palmerstoni*) or Vanikoro Kauri (*Agathis macrophylla*) from the southwest Pacific were used.

Documentary sources confirm that Saxton and Binns imported timber from New Zealand and the west coast of North America as well as using native Australian species (TN August 16 1902 p.10). Interior floorboards were made of spruce (*Picea* sp.), a timber that is widely produced in both North America and Europe. Intriguingly, there is some evidence that European spruce was imported for the Australian timber industry, including by Saxton and Binns, who advertised the wood under the trade name “Baltic” (SMH December 8 1909 p. 4). White Baltic (*Picea abies*), also commonly known as Norway spruce was more commonly imported into Australia than spruce species from North America, and it was widely used as a flooring timber. For example, Bootle (1983) noted that many floors were laid in white Baltic in eastern Australia in the first half of the twentieth century. Therefore we consider Europe to be a more likely source for the spruce wood used for interior flooring in the Tanna Church. Another interior element, the wall lining, was made from a timber derived from the family Cupressaceae (cypress), but it is not possible to provide a more precise identification for this timber. Overall, our wood identifications confirm the cosmopolitan sourcing of timbers for the Tanna Church. However, irregular piles under the floor bearers in the nave and transepts that are fashioned from parts of tree trunks are most likely of local manufacture. Similar piles were used in other mission buildings in the area (Paton 1903, p. 25). These were a local hardwood, but the small size of the pile samples from the Tanna Church and their decayed state prevented more precise identification. The use of such a hardwood reflects a need to use local materials, possibly to adapt the prefabricated structure to specific local conditions or situations. An unidentified hardwood from a window sill may also be a local timber, or one imported from south-east Asia; the latter potentially suggesting more recent repair or modification of the structure.

There are other more tangible signs of local decision-making contributing to the design and construction process. Divergences from the “Peter” prototype included pairs of rectangular horizontal-swing shutters rather than Gothic windows in the nave—enabling a cross-breeze to ameliorate the tropical heat (Fig. 9). Changes during the course of construction were also indicated by broken pieces of top plate that were utilized in the roof and floor structure. These relate to the cyclone in January 1912 that damaged the partly-erected structure (QJNH 1912 No. 77, p. 13). Consequent modifications by the mission carpenter involved a redesign of the roof—intended gabled ends were replaced by hips and gablets, which used shorter lengths of, occasionally salvaged, wood.

The low pitch of this redesign was later lauded in commentary on the church opening as contributing to the building being more cyclone-proof (QJNH 1913 No.80, p. 2).

There are also suggestions of local community involvement in construction. Documentary information about earlier church-building at Lenakel mentions the important contribution made by local villagers, including lime production for floors and other activities (QJNH 1905 No.47, p. 9–12; 1906 No.51 p.12; 1909 No.63, p. 8; 1910 No.67, p. 6). It is also important to recognize that funding for the structure had, in part,



**Fig. 9** Elevation drawing of horizontal swing shutter from the nave of the Lenakel Church, and schematic showing the movement

come from community members (QJNH 1910 No.69, p. 19). Irregular laying out marks, such as chiseled incisions on vertical studs imply that certain aspects of construction were measured and marked on-site to be carried out by a labor force that was not overly-familiar with Western construction processes (Fig. 10). This building was envisioned by the missionaries as a statement of the permanence and prestige of the Presbyterian Church, referred to as the “Cathedral of the New Hebrides” (QJNH 1912 No. 78, p. 8). The Lenakel Church incorporated materials from around the British Empire and beyond, and connected local worshippers on Tanna to a global church. At the same time, the design was adapted to local conditions, and as we will demonstrate, was used in distinctly local ways.

*Use-Life and Abandonment*

The concept of “use-life” is an important one for archaeological approaches to architecture. Buildings are not simply a neutral or functional part of the cultural environment, but are constructed, maintained, and inhabited within the realm of everyday social interaction (McGuire and Schiffer 1983; Tringham 1995). As the primary users of the church, the local community continued to engage with the structure, both immediately after construction and throughout the remainder of the twentieth century. At times, the ritual life of the church involved negotiations between Melanesian and Western sensibilities, notably in the gendered use of space. While seating by nuclear family would have been the norm in most European and white colonial churches, people in the New Hebrides generally separated by gender, with men sitting on one side and women on the other, a pattern that can still be observed in contemporary churches throughout the archipelago. An early observer noted that on rare occasions, this pattern



**Fig. 10** Example of laying-out marks on vertical studs to assist placement of horizontal wall boards

might be broken to fit more people into a crowded church (QJNH 1906 No. 54, p. 7), but generally, a spatial separation of male and female space within the sacred architecture of the church seems to have been the historical norm (Miller 1978, p. 165). One informant on Tanna remembered that for most services in the Lenakel Church, men sat in the nave, married women in the north transept, and children and unmarried women sat in the south transept. This is a prime example of Melanesian people taking a foreign architectonic system, and imposing their own meanings upon the proper way to inhabit the space, at least in terms of gender.

Further evidence concerning the use-life of the Lenakel Church was revealed during the removal of sediment from underneath the rotting floorboards and joists to uncover the footings and interpret stratigraphic relationships relevant to site history (see above). The sediment, a dark brown to black greasy mixture of rotting wood and termite remains, was not screened because of time limitations, but a number of artifacts were recovered at the tip of the trowel. A total of 14 artifacts from across the use-life of the structure were recovered, including rose-colored window glass from the lancet windows of the church, shells, glass marbles, a button, and several coins (Fig. 11, Table 3). The coins are all Vanuatu Vatu pieces dating between 1983 and 1990, possibly indicating the approximate era when the floor of the church had rotted significantly, increasing the likelihood that intended donations for the collection plate would roll between the floorboards. It is notable that almost all of the artifacts related to children's activities from the survey and excavation work done so far on Tanna and Erromango have come from the Lenakel Church. Evidence for the daily lives of children is notoriously hard to find archaeologically, and mission sites are no exception to this pattern (Middleton 2008, pp. 219–220). The children's artifacts recovered in the Lenakel Church probably relate to the building's use as a Sunday School throughout the twentieth century. These artifacts are all of very



**Fig. 11** Artifacts found during removal of sediment from beneath the floor joists in the northeast Transept-Nave intersection, including coins and a child’s marble

recent origin, including the glass marbles mentioned above, and a plastic “rubber duck” toy found in the attic, possibly thrown through a damaged ceiling grate by a child, or an aggravated Sunday school teacher!

On occasion, significant events for the local community, as well as other unofficial acts of memory have been commemorated in physical form on the building. Graffiti on the walls of standing buildings can be an important line of evidence for understanding the values of people who inhabited and used these spaces, especially given that such artifacts usually come from non-dominant classes of people, such as prison inmates (Casella 2005) or farm laborers (Giles and Giles 2007). While a systematic recording of graffiti was not possible in the limited time available for documentation of the Lenakel Church, we can talk about some initial impressions of this part of the building’s fabric (Fig. 12). Most graffiti appear to be individual names, predominantly scratched into the exterior timbers (doors and weatherboards), though also on the interior. One notable piece of graffiti related to the first harvest of the new millennium, perhaps expressing a belief in the efficacy of sacred places to influence Tannese garden fertility magic (Bonnemaïson 1994, pp. 172–176). What this may reflect is the incorporation of mission sites into the more general pantheon of *tabu* places on Tanna (traditionally these include things like sacred stones, trees, and springs). The piece of graffiti from which this paper derives its title is written in blue chalk on the internal east wall of the north transept. It reads, “Please respect this old church and take care of it/Do not drop your name on the timbers because it is a holy house of God.” This is likely a recent addition to the church fabric, reflecting the growing concern about the condition of the building among some members of the local community in response to a perceived lack of respect among others.

**Table 3** Artifacts recovered from sediment under the floorboards during cleaning of footings

Location	Material type	Object name	Count	Weight (g)	Description
N. Entrance	Plastic	Button	1	0.31	Clear plastic four-hole button
N. Entrance	Glass	Marble	1	3.57	One hemisphere of a colourless glass marble with yellow and orange swirl
N. Sanctuary	Glass	Shot glass	1	29.42	Hand-blown colourless shot glass
N. Sanctuary	Copper alloy	Coin	1	5.91	1983 Vanuatu 10 Vatu Coin
SE Transept/Nave Intersection	Shell	Shell	1	5.44	Bivalve shell (Bivalvia?)
SE Transept/Nave Intersection	Glass	Window	1	12.69	Rose-coloured window glass from lancet window
SE Corner, Nave	Copper alloy	Coin	1	10.11	1983 Vanuatu 20 Vatu Coin
SE Corner, Nave	Glass	Window	1	36.79	Rose-coloured window glass from lancet window, glue residue on intact corner
NE Transept/Nave Intersection	Glass	Window	1	21.00	Rose-coloured window glass from lancet window
NE Transept/Nave Intersection	Iron	Screw	1	8.71	Iron flathead screwdriver-adapted screw
NE Transept/Nave Intersection	Shell	Shell	1	8.20	Conus-like shell (Comidae?)
NE Transept/Nave Intersection	Copper alloy	Coin	1	9.85	1988 Vanuatu 20 Vatu Coin
NE Transept/Nave Intersection	Copper alloy	Coin	1	3.91	1990 Vanuatu 5 Vatu Coin
NE Transept/Nave Intersection	Glass	Marble	1	5.38	Slightly damaged colourless glass marble with yellow, green, and orange swirl

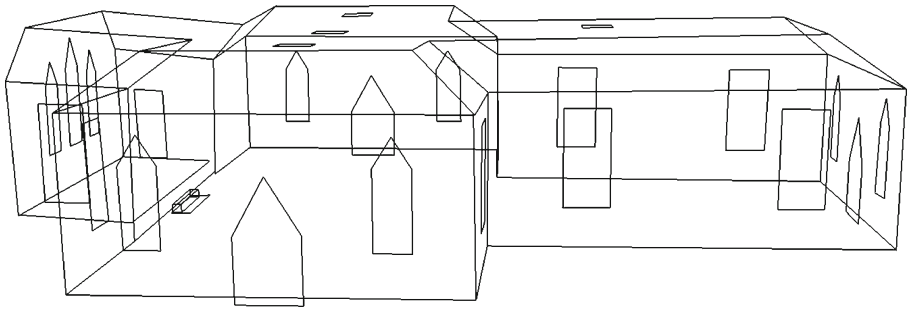


**Fig. 12** Examples of graffiti from the walls of the Lenakel Church

Throughout the building's use-life, the Lenakel Church was used for regular Sunday worship and other sacred rituals such as baptisms, marriages, funerals, and the annual holiday cycle, from Easter through Christmas. It also hosted local harvest celebrations, at least in the early part of its history (QJNH 1912 No. 78, pp. 6–8). The Lenakel Church was also the site of some significant conversations relating to more secular matters, notably during the turbulent period when Tannese people were discussing the matter of national independence for the New Hebrides in the late 1970s (Bonnemaison 1994, pp. 257–285). By the 1990s, the fabric of the Lenakel Church had deteriorated, and services were disrupted by the sound of boards cracking and pews falling. The condition of the building had become a safety issue. The last ceremony was a wedding that took place in late 2000. On New Years Eve 2000, the local Presbyterian elders gave a final service before ending regular use of the Lenakel Church, ritually sealing the building by nailing a diagonal board over the main entrance of the nave, to the east. The pulpit and remaining salvageable pews were moved to the Imanarlakene Presbyterian Church, just over 1 km away toward the northeast, where they are still used in regular worship. Since 2000, the Lenakel Church's condition has continued to worsen, and the pace of deterioration has accelerated in the last few years, as growing holes in the roof have allowed in rainwater, which is leading to rot and water damage of not only the cladding, but alarmingly, the timber frame of the building. If conservation of the building's fabric is not carried out very soon, Vanuatu will lose a significant piece of its heritage. (Fig. 13).

### Community Heritage in Lenakel

It has often been remarked that traditionally, Pacific Island cultures view time as “cyclical,” in contrast to the “linear” time of the West, which is sometimes said to



**Fig. 13** Three-dimensional digital schematic model of the interior space of the Lenakel Church; note the way that the ceiling is sagging towards the transept crossing, reflecting a weakening of the building's frame (details, such as apertures do not reflect actual shapes, but are only placed for reference purposes)

have been introduced by Christian missionaries (e.g., Perkins 2007; Sillitoe 2000, pp. 217–218; Silverman 1997). Without wading into the complexity underlying this observation, there is a remarkable amount of the past in the present for living people in Vanuatu, and both tangible and intangible heritage are significant for this constant presence of what is referred to in Bislama as “taem blong bifo,” which can be roughly translated as “the past.” In an oral history recorded during fieldwork in August 2013, the informant moved back and forth between talking about the traditional structures and social problems that existed at the time the missionaries arrived on Tanna; mission history from published sources; lineage history of people long deceased mixed with chronicle of recent baptisms, marriages, and such; political history, notably the independence movement of the 1970s; and hopes and dreams of rebuilding the 1912 church. We see this not as a matter of randomly shifting subjects in the course of an interview, but as a reflection of the continuing co-presence of living people, the spirits of the ancestors, and stories about the past in places that play an active role in social memory and everyday life.

In the community at Lenakel, people are interested in conservation of the 1912 Church not because of the kinds of Western concerns with “heritage” with which most archaeologists will be familiar. Rather, our initial impression is that people in Lenakel, as elsewhere in Vanuatu, see mission sites as a living part of their community. In other words, hopes about carrying out buildings conservation do not so much stem from notions about historical significance, as about having a place to connect past and future generations through ritual practice. Further, it has become clear in survey work on Tanna and Erromango that mission sites are *not* seen as part of “white man’s history,” but are typically included in the category of *kastom* or traditional sites (Flexner and Spriggs 2015). As seen above, people on Tanna appropriated Christianity and its sacred architecture, adapting it to local purposes and beliefs as it suited them. This building still serves as a node in a global network connecting past with present through the legacies of historical actors including missionaries and local chiefs, and local with global through the ongoing relationships between living people in the local community and foreign archaeologists, among others. It is a testament to the power of buildings that even in its decaying state, the Lenakel Church continues to forge such relationships.

## Local and Global, Past and Present

The significance of the 1912 Lenakel church stretches beyond the local community on west Tanna. To the best of our knowledge, this building is a rare surviving structure of its type not only in Vanuatu, but also potentially in a broader Pacific context. Other prefabricated timber churches and other mission buildings are known to have been built throughout the Pacific, but their condition is generally unknown (see above). The Lenakel Church comes from an important period of architectural history, which saw significant increases in the standardization and industrialization of building technology (see King 1990, 1995). Perhaps most importantly, this building encapsulates the interplay between global and local that is so central to the world's history of the last five centuries.

Places like west Tanna are, by orthodox standards, “peripheral,” that is to say they are on the fringes of the parts of the world system said to matter, the “centers,” originally in Europe (see Wallerstein 1974), but by the 1900s also encompassing North America and Australia. Anthropologists, of course, have long challenged these views on the grounds that all of the world's people “have history” (Wolf 1985; it should also be noted that Wallerstein 2004 has updated ideas on “world systems” analysis). Perhaps, though, we need to move beyond simply asserting this fact, and begin to pull apart what this means, especially given the observations above that would create an intersection not only for global and local dynamics, but also for past and present. Buildings like the 1912 Tanna church are nodes in which these phenomena come together, and provide an important means of remembering, which will become increasingly important as the global entanglements with which Melanesians live grow over the course of the twenty-first century. World systems are not only constructed through trade networks and political alliances, but through places, both sacred and secular, which are inhabited, reconstructed, and remembered during the course of everyday life. It is in such contexts that we can start to draw the connections between the global and the local.

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