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A NOTE ON NAILS

Jill Hamel
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One of the commonest artefacts on historic sites, wherever there have been buildings, are nails. Usually they are heavily corroded but it is generally possible to tell whether or not they are square nails cut from a sheet or round nails cut from lengths of wire. Though I knew that wire nails appeared in New Zealand some time in the nineteenth century, I had never concentrated on finding out just when they were imported into the country in commercial numbers. A brief search of encyclopaedias and technology books provided only the general information that machinery for producing wire nails commercially was developed in the United States in the nineteenth century. For once, a search of the internet provided more detail.

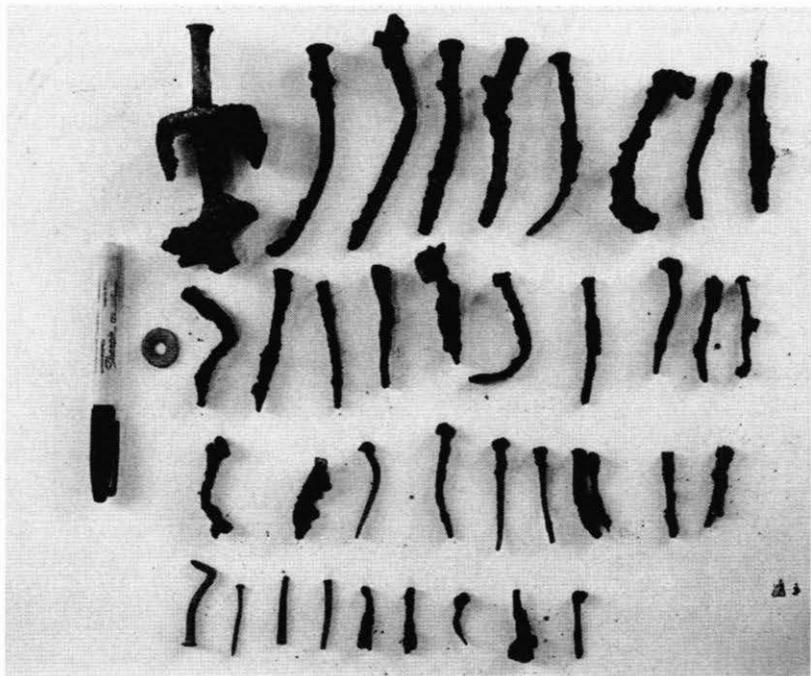
Under anthro.utah.edu/IMACS, I found the crucial information that in the United States small round nails began to be imported in the 1850s but they did not dominate the market until the 1890s. Six American manufacturers were making wire nails in 1884 but over 8 million kegs of square nails were also made in that year. This had declined to about 1.5 million kegs by 1900 when nearly 7.25 million kegs of wire nails were manufactured. The writer suggests as a tentative dating scheme:

Pre 1886	cut nails
1890	50% cut, 50% wire nails
1895	25% cut, 75% wire nails
Post 1895	greater than 75% wire nails.

It is highly likely that New Zealand imported large quantities of nails from the United States, and that the proportions of cut and wire nails in this country would have reflected the United States pattern, with possibly a few years lag.

Certainly it is worth testing sites which have other dateable materials to see if the pattern is similar.

At Queenstown this year, I excavated some old cottage sites, which produced collections of nails from discrete rubbish pits. I was able to roughly date the material in the pits from ceramic marks and bottle glass. I tallied up the nails from a group of pits lying along a boundary between two cottages - the Williams and Archer cottages - built between 1864 and 1870. The pits included post-holes, rubbish pits and possibly a disused latrine filled in with rubbish. Cut nails were more numerous than wire nails in all the pits and the proportion overall was 80% cut to 20% wire nails. This suggests an 1880s date for the infilling of the pits. This date fits well with the bottle glass, where all the tops were applied, but they did not include any very early types, such as pig-snout gin. The ceramics in these pits were all nineteenth century in style, and a Pinder Bourne Rouen-pattern plate would have been made in the period prior to 1882.



Collection of square nails and two wire nails (bottom left) from Aspinnall rubbish pit, Queenstown, dated about 1880.

Like all dating materials, nails will need to be used cautiously. When a house is built, plenty of nails get discarded at the time. When a house is pulled down, the number of the old nails which stay on site will depend on a variety of factors, such as whether or not the timber was carted away or burnt on site. The "working life" of a nail can be quite complicated - half a minute plus a curse as it bends under the hammer, or a 100 years of steadfastly holding true to end up on a bonfire. It will be interesting to assemble case histories to see if the above table generally matches the dates derived from other associated materials.