Plants and People: How Plant Collections can Connect Artefacts and Culture

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Abstract

The identification of plant materials used to make artefacts is often problematic due to the changes made to them during processing into textiles, such as retting, dying and stripping. However, the ability to identify these plant materials can provide essential provenance information, as well as information about the lifeways and inter-relationships (such as trade and plant procurement methods) among groups of people. In a New Zealand context, the ability to identify plants used to make Māori textiles reveals the diversity of plants used, the importance of plants in pre-European society, and the creativity of textile makers.

This paper will discuss the methods developed at the University of Otago, Dunedin to enable the identification of plant materials in Māori artefacts, as well as how access to collections of plant materials held at herbaria have contributed to this project. Over a 15 year period researchers at the Centre for Materials Science and Technology, University of Otago, have explored numerous methods of plant materials identification in artefacts (development of Atlas of Plant Materials and Fibres in New Zealand and Pacific He Rāringi Whakaaturanga o Ngā Taonga Rākau; micro computed tomography; Polarised Light Microscopy, PLM) with different levels of success. We will provide an overview of the development of a PLM identification method that has had the greatest success in application to plant identification in artefacts, and the kinds of connections this has brought about between founder cultures and their objects in museums collections. In doing so we will discuss how herbarium collections have contributed to the development of these
methods, and what kinds of plant materials and botany collections have value for connecting people to their artefacts in cultural institutions.

**Keywords**

Plant materials identification, Polarised Light Microscopy, Māori textiles

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