

METAL 98

PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON METALS CONSERVATION



ACTES DE LA CONFÉRENCE INTERNATIONALE SUR LA CONSERVATION DES MÉTAUX

EDITORS/EDITEURS:

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Analysis and restoration of Chilean silverware of the colonial period

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Abstract

This paper presents a basis for the study and analysis of the composition and quality of Chilean colonial silverware. It also reports on the restoration of the collection of Araucanian silverware of the Museo de Arte Popular Americano, which is part of the Faculty of Arts of the University of Chile.

Keywords

Metal restoration, silverware restoration, Chilean colonial silverware, Araucanian silverware, silverware composition, silverware quality.

Introduction

In Chile silver has been worked since colonial times. Travellers of that period said that in the houses of the rich one could find silver furniture and that the natives used a great quantity of silver objects as ornaments or decoration. In the war of independence, Bernardo O'Higgins ordered the melting down of domestic silverware to fund his battles. In later centuries, Chile continued working silver mines located in the north of the country, given this metal's great importance to the nation.

Analysis of types of Chilean colonial silverware

As Chile has beautiful collections of silver, several times in recent years I have had the chance to handle precious collections of colonial *platería* (silverware). I was surprised to find oxidations of different colours (red and green); red iron oxide came to mind.

In 1996, the Museo de Arte Popular Americano asked me to restore a collection of Araucanian *platería* (manufactured by natives of the south of Chile) that had been damaged during the transport and assembly of a temporary exhibition. I thought this would be an excellent opportunity to analyse Chilean colonial silverware as a whole. With this objective, I divided Chilean silverware collections into three categories corresponding to three human or institutional groups that worked or used silverware:

- 1 the Araucanians (in the south of Chile)
- 2 the *huasos* (Chilean cowboys)
- 3 religious organizations (church silverware).

As microscopic studies of metals had never been carried out here, I requested help from Dr Ian MacLeod, of the Western Australian Museum, Fremantle, who kindly offered me his support. I sent him for analysis small samples of the three types of Chilean silver:

- 1 Araucanian: two samples from a necklace with medallions (Fig. 1), which was damaged in a temporary exhibition; property of the Museo de Arte Popular Americano
- 2 *huaso*: sample from a spur
- 3 religious: a) sample from a silver flowers; and b) sample from a silver heart, taken from an altar belonging to the Museo Histórico Nacional.

Results of analysis

The results are shown in Table I.

Araucanian silverware

Sample taken from a large medallion on the necklace (A^a in table): the medallion was composed mainly of silver with a minor amount of copper. The backscattered image (Fig. 2) showed an Ag-rich phase (composed mainly of silver and traces of copper) and a Cu-rich phase (composed mainly of copper, with a minor amount of silver). The surface was quite pitted.

Second sample from the necklace (A^b): mainly composed of silver with a minor amount of copper. The backscattered image showed an Ag-rich phase (composed mainly of silver and a trace of copper) and a Cu-rich phase (composed mainly of copper, a minor amount of silver and a trace of nickel). Nickel occurred only in the Cu-rich phase. The surface was quite pitted. Traces

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Following the success of previous triennial meetings, the ICOM-CC Metals Working Group again organised a conference to discuss progress on the conservation of metals. Held in Figanières-Dranguignan, France in May 1998 over 70 papers were presented at the meeting. They reported on a wide range of techniques and materials, objects and locations.

The Proceedings contain an edited selection of 60 of the best papers from the meeting. They represent a significant update to the understanding of this important field of conservation science and cover a full range of topics including:

- Metals and cultural heritage
- Conservation and restoration interventions
- Characterization and properties of metals
- Protection of metals in both indoor and outdoor environments
- Soil and corrosion
- Corrosion products and deterioration processes

The volume will be essential reading for all those whose work involves the conservation of metal objects or structures. It will be a valuable addition to any collections covering wider aspects of conservation in museums, architecture or archaeology and also of interest to all those involved with metallurgy and the degradation of materials.

Suite au succès de la réunion triennale précédente, le groupe de travail métal de l'ICOM-CC a organisé une nouvelle conférence pour présenter les dernières évolutions dans la conservation des métaux. Lors de cette réunion qui s'est tenue à Figanières-Dranguignan (France), en mai 1998, il y a eu plus de 70 communications qui présentaient une grande variété de techniques et de matériaux, d'objets et de sites.

Pour ces actes les 60 meilleurs articles présentés lors de la réunion ont été sélectionnés. Ils font le point sur les connaissances dans ce domaine important de la conservation et couvrent un large éventail de sujets comprenant :

- Les métaux et le patrimoine culturel
- Les interventions de conservation et de restauration
- La caractérisation et les propriétés des métaux
- La protection des métaux en intérieur ou en extérieur
- Les sols et la corrosion
- Les produits de corrosion et les processus d'altération

Cet ouvrage est essentiel pour tous ceux qui travaillent pour la conservation des objets ou des structures métalliques. Il s'intégrera naturellement dans toutes les collections qui couvrent des aspects généraux de la conservation dans les musées, l'architecture ou l'archéologie et il intéressera aussi tous ceux concernés par la métallurgie et l'altération des matériaux.

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