

RECONSTRUCTION OF HISTORICAL JEWELLERY AND ITS SYMMETRY WITH THE CONTEMPORARY DOCUMENT

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Publications and/or Exhibitions: Baines, R. G. (1992) The significance of double row granulation from Palestrina, *Jewellery Studies*, No. 5.

Baines, R. G. (1993) Technical decisions in the gold cylinders from Praeneste, In: *Outils et Ateliers D'Orfèvres 500-1600 AD*, Saint-Germain-en-Laye: Musée des Antiquités, 39-44.

Baines, R. G. (1993) Technical antecedents of early Hellenistic disc and pendant ear ornaments, In: Williams, D., *The Art of the Greek Goldsmith*, London: British Museum, 122-126.

Exhibition (1997) *The Intervention of Red*, Part 3 of AAA.....REDEVENT, Munich: Galerie Biró.

Exhibition (2000) *REDEVENT: Bloodier than black*, Philadelphia: Helen Drutt.

Exhibition (2000) *Bloodier than Black*, Munich: Galerie Biró.

Abstract: Jewellery is not only adornment but also a cultural, archaeological and technological document. Technology applied by the ancient goldsmith leaves characteristic traces investigated by archaeometallurgy. Historical jewellery can be analysed and copies constructed based on the known technology of the era. This tests the assumptions and theoretical strategies of working by the historical goldsmith and the findings of new knowledge become available to the contemporary goldsmith. This symmetry results in laboratory test pieces that are artefact and available for reworking to convey both a contemporary visual relevance and a restatement of history.

Man can arbitrarily do the shaping of metal on a large scale, but on a very fine scale the goldsmith has little latitude. On the scale just visible to our senses makers have generally striven for balance and harmony and the complex gold works under discussion in this paper with their complex granulation and wireworks brilliantly exemplify this.

Under close examination, the minute effects due to the gold and heat are seen to be just as dependent upon the relations between parts and wholes as the aesthetic quality of the entire work on the scale at which they are intended to be viewed. In this harmony both are ultimately structural, but the relevant structure of the gold is on a scale that is not resolved by the naked eye, or only marginally so. It may be a structure on a microcrystalline level as in the texture of metal.

1 VISIBLE SIGNS OF INNER THINKING

A main theme of this work is that the application of technology and experience with the properties of gold is part of human history alongside other cultural statements of politics, society, ideas and art. Jewellery is the capsule, the document that holds these things. Although it is not possible to take readings of fingerprints from the gold works under discussion it is possible to see and identify outward marks which mirror the (inner) thinking of the makers. Mental planning and jotting is evident in some works. In some cases these are purposefully applied with the expectancy that in a later sequence the process will erase or cover over any such indication. On other occasions such preliminary markings in a later sequence provide a facility for the addition of further construction, for example a scribed line becomes a location for a row of granules. Almost nothing has been written of these expressions of preliminary design thinking. They have been generally overlooked or disregarded, but signage of planning and designing can identify them as the visible working out of an idea. This offers a window into the design thinking or strategies of the maker identifying methodologies that are principally invisible. In particular ancient gold jewellery the decorative configurations that accumulatively mark their style can also be regarded as a consequence of technology. Their placement and relationship to each other is in part a testimony to the joining technology carried out by the goldsmith.

2 OBSERVING THE TECHNOLOGY OF STYLE

Jewellery artefacts are selected that appear to confirm this argument, and by observing them through the microscope working drawings are constructed. Series of drawings of selected artefacts develop the method and strategies of analysis and can also depict possible sequence of assemblage of the gold jewellery. The detailed drawings of surfaces and structures describe the geography of the jewellery and these are used as maps while in the chamber of the Scanning Electron Microscope (SEM). The drawn maps facilitate an orienteering through the complex jewellery landscape. The drawings highlight locations and areas of interest for observation and analysis. The SEM identifies manufacturing idiosyncrasies and attains surface and sub surface analyses of alloys using energy-dispersive x-ray fluorescence spectrometer (EDS). Elemental analyses of artefacts and samples offer readings of surface and subsurface alloys. SEM imaging of markings and structures indicating manufacture of the

decorative components is observed and photographed and this visual information can reveal sequence of assemblage and identify goldworking methods.

3 HISTORICAL LOCATION OF TECHNOLOGY

The SEM provides detailed examination imaging and high quality photography with clear depth of field resolution. This allows for identifying and recording characteristics of manufacture; the sequential mode of assembly of the various components, characterising of wires can be attained and the observing of granulation with its diverse configurations and possibilities of joining are accurately recorded. The first objective in such methodology is to articulate metal analysis and define its contextual meaning with regard to the period of gold technology in the historic sequence. The second objective is to identify worked surfaces and structures and place them in a technological and chronological context. Such evidence can also develop theories of the source and location of manufacture.

Generally the mode of joining by the goldsmith can be identified first by visual inspection, for observation of contact points reveal the characteristics of particular heat systems of fusion. However visual perception can quite often be misleading. Metal surfaces can vary considerably according to diverse combinations of heat, atmosphere and chemical contexts. More comprehensively, comparing the joined core can make identification by qualitative analysis with the substance of the joining material using EDS. Finally, scanning electron micrographs of cross sections can be compared with the surface and the core material of heat joined regions. This qualitative analysis and comparison of regions using the EDS clearly shows the application of copper in the diffusion bonding system. Further to this can now be added in some instances the observation of stylistic configurations of gold works.

The identifying of stylistic configurations and recording of workers idiosyncrasies has been part of ongoing research. This has enabled the author to group previously unlinked work as having same source of manufacture. This acquired knowledge also provides a vantage to authenticate ancient goldworks and the placing of those artefacts in their chronological location. Fakes having same stylistic mistakes might suggest a same source of manufacture. Style and technology have their own chronological and cultural location and their combinations have their variance affected by social and geographic eccentricities.

4 ASYMMETRICAL DEVELOPMENTS FROM HISTORICAL METALWORK

Jewellery offers a view into history of cultural descriptions in stylistic, chemical and methodological correctness. The data identified becomes the basis for authentication for curators/conservators/jewellery historians. For diagnostic purposes there is the

expectation of an archaeological correctness within the fabric and manufacture of the jewellery document.

From the vantagepoint of a contemporary goldsmith, this has provided the author a basis for applying contemporary jewellery forms and these as inclusions become a stumbling block and an upheaval within orthodox classification. There is in this dissymmetry an intervention with contemporary ephemeral materials into the jewellery artefact that has a diagnosed historic correctness by the orthodox classifier. Substances of glass, plastic, foil, paint and found objects become a confrontation and a vehicle for colour and this disharmony offers new vantages for signage of an interfered history.

5 THE INTERVENTION OF RED

The symmetry of the orthodox paradigm is upset by the intrusion / inclusion / intervention of the colour red and furthermore by the possibility of its substance. *The Intervention of Red* is the body of jewellery by the author that offers a viewing into cultural descriptions of history. Jewellery pieces have their own historical/cultural location, possessing a style, which is in accord with its chemical and methodological basis. Each work is “authenticated” by its stylistic and material data. The archaeological “correctness” is upset in *The Intervention of Red* by the impediment of red, and furthermore by the possibility of its substance. The material condition of red is not located within any historical period. The substance of red has no specificity. Remnant materials and found objects becomes vehicle for colour and becomes a confrontation, an intrusion and physically distorts the previously historically correct jewellery document. In the new dissymmetry a perceived genre or style is challenged.

A pseudo history this is not and neither is it the formulating of a new myth, but it does ask the question what if? There is a new instruction of what if. The invasive red changes the form of the object as it contorts in order to house the red. With the implant comes exaggeration. Is this the invention of a new tradition or merely the instruction of what if? The history remains, unchanged, but played with.

It is a confrontation of what is initially alien, which then leads to an accommodation, bringing a new configuration and harmony. A rearrangement with changed structures occurs in order to comply with what was once an impediment. Surviving history becomes a vehicle for the contemporary planting of a new ideal from another time, and this places the past within the reach of a vicarious now. In the new symmetry the history remains, unchanged, but played with. Making jewellery is expansive, and ‘to make it new’ does not mean to erase the past, but to transport the work of the past into the present. The jewellery object generates symmetry with historical objects through an asymmetrical approach.

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