



*The*  
**GOLDSMITHS'**  
*Company*

# Technical Journal

SUMMER 2012 / ISSUE 14  
**THE GOLDSMITHS'  
CENTRE OPENS**

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In this issue we report on the official opening of the new Goldsmiths' Centre, the Goldsmiths' Company Assay Office's Diamond Jubilee Commemorative Mark and BaselWorld 2012

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The purpose of this publication is to address technical issues relevant to the UK Craft and Industry and increase technical knowledge and understanding among those working within the industry.

#### Articles and submissions

The Goldsmiths' Company welcomes feedback and article submissions for inclusion in future editions. Please contact the Goldsmiths' Centre:

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#### Cover Image

Goldsmiths' Centre Director; Peter Taylor, HRH Princess Alexandra and Chairman of Trustees Martin Drury give the Goldsmiths' Centre a Royal seal of approval

**Cover Credit** Daniel Jones

## Editor's comment

# The Goldsmiths' Centre opens

We are delighted to announce that the new Goldsmiths' Centre and Institute are now open for business and looking forward to welcoming all through our doors!

In this issue we bring you all the news on the eagerly anticipated Goldsmiths' Centre Royal opening, give you an insight into the building and let you know the Goldsmiths' Institute's aims for the future. If you would like to find out more please see the new Goldsmiths' Centre website: [www.goldsmiths-centre.org](http://www.goldsmiths-centre.org)

The Technical Journal team have also been busy visiting BaselWorld and Vincenza in order to report back with the latest technological developments within the industry.

We hope you enjoy this bumper issue and please feel free to contact us with your thoughts and opinions. Feedback and suggestions are always greatly appreciated. You can contact us via email at [information@goldsmiths-institute.org](mailto:information@goldsmiths-institute.org) or by telephone on +44(0)207 566 7660. Alternatively please feel free to drop by the Centre in Clerkenwell.

*Helen Dobson*

Editor

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# Reflections on Ethical Gold

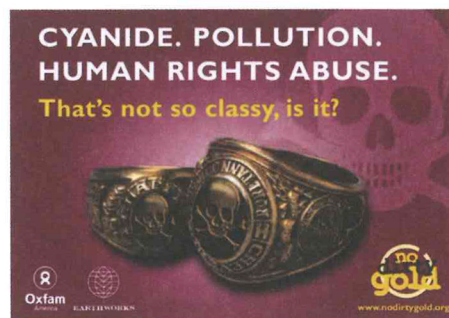
In this first Green Issues article Peter Oakley discusses the progress of ethical and Fairtrade gold over the last 12 months. Peter Oakley is currently reading for his PhD at University College London, focusing on the influence gold has on the perceptions and activities of professionals working with the material.

2011 could be described as the year of ethical gold; it saw the launch of UK 'Fairtrade and Fairmined Gold' and suppliers started offering 'recycled gold' in commercial quantities. Responsible Jewellery Council (RJC) members began completing their self-auditing processes, whilst the RJC's staff launched a consultation for chain-of-custody certification. June's Channel 4 documentary, *Dispatches broadcast The Real Price of Gold*<sup>1</sup>. Responses from jewellery companies, associations and development programmes mentioned, most of which felt they were misrepresented, displayed exasperation and dismay. By the end of the year, the only thing everyone could agree on was that ethical gold was proving to be a difficult substance to manage.

A major problem with ethical gold is a lack of agreement about what it actually is. In their 2001 essay, *Ethical Consumption in the Twenty First Century*, Melanie Howard and Michael Wilmott drew up 'the ethical checklist' of conflicting reasons used by promoters to claim products are ethical. They also identified that the use of ethical as an adjective: "implies a fixed moral standard, systematically held and applied, by which consumers can judge the provenance of any product or service"<sup>2</sup>. This uncritical acceptance by consumers of imposed standards to define a product's acceptability is paradoxical as it runs counter to the individual choice and active participation usually associated with consumption.

Amongst the most influential sets of standards used to define ethical gold are the Golden Rules<sup>3</sup>, drawn up by Earthworks and Oxfam America to

support their 'No Dirty Gold' campaign. 'No Dirty Gold' drew a direct link between gold mining and gold jewellery, a strategy followed by CAFOD's 'Unearth Justice'<sup>4</sup> campaign.



'No Dirty Gold' and 'Unearth Justice' both highlighted the complexity and lack of traceability in the gold supply industries. A basic assumption of the supply system; the belief that all gold is interchangeable, began to be presented as an issue. The established

## A major problem with ethical gold is a lack of agreement about what it actually is

system allows musters of scrap gold to be combined during refining without any regard to their prior histories and underpins the international gold clearing market. It also means traders and jewellers have no way of ascertaining where their gold comes from. Activists claimed all gold supplies were tainted because any batch could contain gold from anywhere, including morally reprehensible sources.

Unlike the physical properties of gold, which are always physically present and can be reconfirmed at any time by assaying, the ethical characteristics are what social scientists call intangible

properties. These include the extraction and processing locations, procedures and the circumstances of the workforce. As this history leaves no physical trace in the refined product, statements about provenance are usually presented in written documents. But these documents are only as good as the reputation of their creator.

Some of the most acrimonious debates over ethical gold have been about who is trustworthy enough to approve provenance claims. The RJC has adapted standard business procedures using established auditing companies. The intention is to facilitate incremental change in the outlook and practices of commercial organisations, reducing economic and structural shocks. This approach has been criticised by some activists as too incestuous, falling short of truly independent inspection. They demand

there should be full public disclosure, no matter how much this damages a business's commercial interests.

Provenance is also fundamental to the Fairtrade and Fairmined Gold Standards<sup>6</sup>, developed by the Fairtrade Licensing Organisation (FLO) and the Alliance for Responsible Mining (ARM). This programme, developed by the Fairtrade Foundation (the Fairtrade labelling organisation in the UK) and ARM, focuses on artisanal and small-scale mining (ASM). The intention of the initiative is to benefit subsistence miners working in cooperatives in developing countries.

health and financial situation of Chocó mining communities. A combination of integrity and astute marketing has given Oro Verde gold a distinct identity and strong reputation amongst 'ethically focussed' consumers.

Fairtrade and ARM's intention has been to extend the Oro Verde approach, creating an alternative, international gold supply chain monitored by Fairtrade and supplied by ASM cooperatives that are paid premium rates for their product.

Fairtrade and Fairmined Gold was launched in February 2011, though issues with mine certification and export licences meant the first 20 licensed jewellers could not capitalise on the launch to make sales. Supply restrictions continued to affect Fairtrade and Fairmined jewellers throughout 2011<sup>8</sup>. The problem of balancing supply and demand for the raw material remains pressing. Since the launch Fairtrade has taken active steps to expand the number of Fairtrade and Fairmined gold suppliers. It recently secured a grant from Comic Relief which will enable it to start preparing ASM communities in Africa to become accredited suppliers. The Fairtrade Foundation now has 40 licensee jewellers in the UK and predicts that 350kg of Fairtrade and Fairmined gold per year will soon be available<sup>9</sup>.

As well as being required to manage supply issues, Fairtrade jewellers have been subject to additional expectations. An ARM representative claimed that unlike tea or coffee, jewellery is a designed product and jewellers have built up brand names so "there is greater room for the jeweller to absorb this premium and not necessarily pass it on to the consumer"<sup>10</sup>. It is evident that the Fairtrade licensees, who are predominantly small, design-led, cash-poor businesses, have shown remarkable commitment in supporting the ASM miners.

Considering this, the Fairtrade Foundation is beginning a review of their Standards with the aim of removing anomalies created by applying previously successful Fairtrade principles to their first non-agricultural and high value product. The review is intended to address problems such as the way the

1.7% fee is calculated which currently discriminates against Fairtrade jewellers who use precious stones in their designs.

As well as Fairtrade's approach ethical gold includes the opposite perspective. Recycled gold is championed as a means of reducing the need for gold mining and the social and environmental risks and hazards it entails. 'Cookson Ecogold' and Hoover and Strong's 'Harmony' gold are both promoted on this basis<sup>11,12</sup>. Detractors claim that using the word recycling to cover common practices of gold recovery is a cynical attempt at green-washing. Applying the term recycling to gold does stretch established use as gold jewellery is never considered to be valueless. Gold recovery comes closer to the usual meaning of recycling in the reclamation of gold from sweeps, lemel and electronic circuit boards. Currently this distinction is not being recognized, with scrapped jewellery being promoted as an equally acceptable raw material.

So what does the future hold for 2012 and beyond? I expect branded ethical gold programmes will continue to proliferate. Newer initiatives, such as Green Leaf Gold and Goldlake's Honduran and Argentinean traceable gold, will start to penetrate the UK market, creating an even more diverse and complicated ethical sector. The question will change from "is it ethical?" to "what sort of ethical is it?" Difficulties encountered by other overtly ethical programmes will affect customer sentiment. Whatever happens, ethical gold will again be subject to periods of spotlighting by the media.

**Cookson**  
**ecogold**  
MADE FROM RECYCLED GOLD

Up until 2011 ethical gold was a niche market, populated by consumers whose ethical beliefs were core values and jewellers who used alternative gold sourcing as a major unique selling point. Direct and repeated jeweller-client contact was common and a means of reinforcing shared values and retaining customer loyalty. If hard-core 'emerald green' consumers choose to seek out

new and more esoteric types of sourcing, whilst the average consumer refuses to buy in, ethical gold initiatives may find they never become securely established. Activists believe everyone should care, but it is not inevitable that everyone will. Instead of looking to the vague notion of ethical gold to stop sales being eroded, businesses need to identify which specific ethical values they believe they should be championing and what gold sourcing initiatives and projects they can realistically support and promote as part of their overall development strategy.

#### References

1. Channel 4, Dispatches, 2011. Dispatches: The Real Price of Gold. Broadcast 27/06/2011
2. Howard, M. and Willmott, M. 2001. Ethical Consumption in the Twenty First Century. in: Tom Bentley and Daniel Stedman Jones. The Moral Universe. London: Demos.
3. Earthworks and Oxfam America, 2007. Golden Rules: making the case from responsible mining.
4. CAFOD, 2006. Unearth Justice: Counting the Cost of Gold.
5. Earthworks, 2010. Tarnished Gold? Assessing the Jewellery industry's progress on ethical sourcing of metals.
6. Fairtrade Foundation and ARM 2011. Fairtrade and Fairmined Gold: Empowering responsible artisanal and small-scale miners.
7. Oro Verde website.  
[www.greengold-oroverde.org/loved\\_gold](http://www.greengold-oroverde.org/loved_gold)
8. National Association of Goldsmiths, 2011. A Question of Ethics. The Jeweller. Aug/Sept 2011
9. The Fairtrade Foundation, 2012. Press release: Fairtrade Foundation to certify African gold. 13/03/2012
10. BBC Radio 5, Up All Night, 2011. Bolivian Fairtrade gold gets royal seal of approval Broadcast 15/02/2011
11. Cookson Precious Metals Ltd., 2011. Gold that doesn't cost the earth.
12. Hoover and Strong website.  
[www.beta.hooverandstrong.com/the-refining-process](http://www.beta.hooverandstrong.com/the-refining-process)