

## 23. Ethical Section:

### 23.1 Why is ASM Different? The fourth in the series of articles written by Peter Oakley

*In the fourth of his articles written especially for benchpeg, Peter Oakley continues to de-mystify ethical issues in the jewellery industry.*

Artisanal and small-scale mining (ASM) is the name given to mining carried out by lone individuals or small groups, using minimal technology. As alluvial deposits of gold and gemstones can be extracted with simple processing equipment, these form a large part of ASM activity. The term 'small-scale mining' first appeared in the 1972 report *Small-Scale Mining in the Developing Countries*, published by the United Nations. The use of the adjective 'artisanal' was commonly used as a synonym in reports written in the 1970s and 80s. By the late 1990s ASM was in common use to describe all such mining in developing countries. So ASM has an implicit geographical as well as an explicit technological aspect.

The earliest commentaries on ASM considered it to be an entrepreneurial activity. This perspective was challenged by reports in the 1990s that claimed ASM was predominantly poverty driven. During this period much of the discussion centred on ASM in Africa, with a special emphasis on the sub-Saharan nations. It was thought the issue was primarily lack of investment and inadequate technology which could be solved through aid provision and education programmes.

Since the late 1990s events and research have proved ASM is a far more complex phenomenon than it first appeared. Firstly, it began to be recognised that some form of ASM was occurring or beginning in some form in almost every developing country which had suitable gold deposits. Secondly, the number of people engaged in ASM was not only far larger than initially thought, but the numbers were rapidly rising. Thirdly, observers began to appreciate ASM had



significant cultural, social and political components; it was far more than a collection of entrepreneurial businesses following the western mining industry model in miniature. Some of the political components were also potentially embarrassing to governing regimes and policies being advocated by international organisations. The sensitivity and unpalatability of these aspects means they are ignored in official policy decisions, reports and programmes.

The complexity of ASM has led to a number of questions. ASM was originally considered a simple problem to be eradicated through aid. Commentators are now divided on whether it is a specific problem to be solved, a sustainable activity, or the inevitable consequence of other economic policies. The diversity of ASM practice and locations means in some situations it appears far more socially desirable than in others. But all attempts by government authorities to stop ASM activity anywhere have been markedly unsuccessful. Even where questionable and violent means of suppression have been adopted, the number of people engaging in ASM keep rising. In many places ASM communities are expanding because there are few other options for survival; in such situations even concerted erasure campaigns are merely temporarily effective.

Some of the most positive ASM stories come out of Latin and South America. In many cases the harsh conditions and lack of any alternative employment make mining the only viable economic solution in the locality. But despite the

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day-to-day hardships, gold and silver mining communities have demonstrated the social cohesion to consider their activities in the longer term, and attempt to provide education and health care for all community members and to reduce or eradicate mining pollution. In 2008 members of the RESPOMIN network, coordinated by the Alliance for Responsible Mining (ARM) in Latin America, produced a guide to responsible ASM practice for local communities, titled *The Golden Vein*. The direct involvement of ASM miners in this and other initiatives with similar aims is proof of their foresight and commitment to sustainable practices with minimal support and encouragement.



In contrast the situation in Zimbabwe has been one of increasing governmental pressure on ASM communities. The 1993 Harare Guidelines on Small-Scale Mining issued by the Zimbabwean government was frequently referenced as a model for emulation by other countries. Since then the situation has deteriorated, with the de facto responsibility for managing and policing ASM shifting from the increasingly marginalised Ministry of Mines to the Gold Reserve Bank and its associated police squads. In 2006 Operation Chikorokosa Chapera (“finished with illegal gold mining”) targeted the ASM communities, confiscating gold, ore, mining equipment and household possessions and demolishing homes deemed substandard. Ostensibly initiated to stop environmental damage through unregulated mining, it was also an attempt by the authorities to curtail gold smuggling and trading gold for foreign currency on the black market. For ASM miners the only other option to selling their gold illegally was to sell to the central government at rates set unilaterally by the Reserve Bank, which were so low they often made the cost of processing unviable. At the beginning of the campaign, the Reserve Bank’s Governor claimed between \$US 50 and 60 million of gold was being smuggled out of the country per month. During the same period Zimbabwe’s overall recorded gold production (including industrial production as well as ASM) shrank by 37% to its lowest level in 100 years. One background factor in Zimbabwe has been economic collapse, which has swelled the number of new ASM miners as other opportunities to work vanish.

A common factor in both these situations and the majority of other ASM regions is the issue of mining rights. In most cases ASM is practiced without the miners having legalised their claim. This results in a politically and legally marginalised position and leaves them vulnerable to claims of irresponsible or criminal activity. But the opportunities for ASM miners to legalise claims over mines are often limited, and complicated by legally complex, time-consuming and expensive processes for having claims ratified.

Even in countries where there has been no specific intention to exclude ASM activity, international economic pressures have had a negative effect. The neo-liberal free trade policies of the World Bank in the 1980s and 90s and the need for inward investment by developing countries have resulted in the liberalisation of many national mining codes and the granting of new extensive long-term mining licences to multinational mining corporations. Where these mining concessions cover long-standing ASM regions the local mining communities have found themselves suddenly excluded from their traditional occupation, or forced to practice illegally at sites they previously enjoyed unrestricted access to. In countries such as Ghana with a long tradition of ASM gold mining, the imposition of a

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system of concessions following Western legal conventions has cut across the traditional system of paying local farmers for the right to access the gold deposits on their land. Despite now being largely illegal, over the past two decades ASM production has consistently increased its percentage of Ghana's total gold production. In 2003 it amounted to almost 10%, generating over 2 hundred thousand ounces. In addition ASM is now also appearing in regions of Ghana not traditionally associated with gold mining. In 2006 the Ghanaian government attempted to provide opportunities to transfer mining rights to ASM communities, and so legalise some diggings. The numerous different multinational corporations that held the mining rights have varied in their responses to the initiative, even in cases where their concessions cover deposits that are unviable for commercial mining.

“Opponents of ASM identify two main negative consequences of its occurrence: disease and environmental degradation.”

Opponents of ASM identify two main negative consequences of its occurrence: disease and environmental degradation. In countries where stagnating or declining economies are creating new masses of unemployed, ASM attracts increasing numbers of new practitioners. The social structure of ASM communities on these countries is often rudimentary, bearing a marked similarity to the gold rush towns of the 19th century American West. Having a large percentage of transient, young, single males, these settlements have contributed significantly to the spread of AIDS in the camps and the surrounding region. Environmental degradation includes deforestation, water pollution and mercury contamination. Though individual mines are small, in the aggregate ASM can cause extensive damage. The use of simple and traditional but environmentally unsustainable processes and equipment on a grand scale has led to deforestation and the devastation of watercourses. In contrast to industrial mines, the lack of any focus of responsibility means there is no opportunity for any redress for affected communities either in the locality or downstream.

Whilst industrial extraction no longer relies on the use of mercury, it is often still used by ASM miners. Many not only handle liquid mercury but also roast mercury-gold amalgam in the open air, resulting in the release of mercury vapour into the surrounding environment. It has been estimated that in some locations the ecosystem is being polluted with a kg of mercury for every kg of gold produced. The miners themselves also suffer from the effects of



mercury poisoning. NGO, charity and national governmental initiatives have attempted to either curtail mercury use, or minimise its effects by introducing the use of metal retorts to catch the vapour during roasting, but these have met with limited success. One barrier has been a widespread belief amongst the miners that they needed to see the roasting process occurring to ensure its efficacy. The ThermEx glass retort was developed to combat this issue, and promoted in Ghana and Tanzania. Though the ThermEx is efficient, its initial cost (at least \$US 520) relative fragility, and the additional cost of replacement glass flasks compromised its adoption. In contrast the less efficient but easily constructed 'fish-tin retort', made from an enamelled or stainless steel bowl, a glass kitchen bowl and sealed with sand, has been more positively received.

Its use has been recorded in Papua New Guinea, Ecuador, Sudan, Mozambique and Zimbabwe. ASM miners generally prefer less efficient, low-tech solutions which do not require significant investment or make them dependent on specific equipment suppliers over high-tech engineered systems created by an external, if well meaning, scientific and engineering community.

The retort issue highlights the disparity between the Western political and scientific approaches to ASM and that of the ASM communities. For Western-influenced policy makers the main focus for assistance is on improving technological efficiency. This is exemplified in the 2003 UN Economic and Social Council publication, Reports on Selected themes in Natural Resources Development in Africa: Artisanal and Small-Scale Mining and Technology challenges in Africa. After reiterating the problems ASM causes and the ASM poverty trap argument, the report goes on to enthuse over 10 possible technological proposals which aim to improve production and reduce environmental damage. These range from the ThermEx retort to other equipment (some more low-tech in its construction) and the provision of communal processing facilities. Though the report claims to adopt 'a people-focussed multi-disciplinary

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and holistic view of artisanal and small-scale mining' it argues that ASM poverty is caused by the increasing number of ASM miners, which lowers productivity and so income per head. Little effort is made to consider the corrosive effects of exploitation by equipment suppliers, independent and government gold purchasers and victimisation and criminalization by authorities and their agents. When there is a possibility of having their mining equipment seized in future government-backed pogroms, ASM miners are unwilling to purchase anything but the most basic tools. In such situations, developing more complex equipment or communal resources is irrelevant, no matter how environmentally friendly.

For some activists, it is the economics of the situation that needs to be tackled. Instead of claiming the poverty trap is a consequence of income per head, they identify the price paid to ASM miners for their product as the overriding issue. ASM tends to concentrate on materials that require little processing: precious metals and gemstones, so the amount of work being undertaken by many intermediaries in relation to their percentage of the profits –whether they are independent agents or government officials- is indeed questionable in many cases. The Fairtrade Gold initiative, which aims to support ASM communities through offering a fair price for their gold, takes this approach. This initiative, the potential problems it faces, and what it could mean for ASM miners and the jewellery industry as a whole, will be the subject of the next article.



*Peter Oakley has a background in analytical chemistry, art and design education and practice and regional skills development. He is currently reading for a PhD at University College London. His research is focusing on the influence gold has on the perceptions and activities of professionals working with the material. Preparation for his PhD project included training as a precious metals assayer at the Birmingham Assay Office and field visits to gold mining sites in California and Alaska. Other institutions that have supported his research include the Goldsmiths Company, the London Assay Office, the British Museum, Tate Britain, the Portable Antiquities Scheme, the British Jewellers' Association, Jewellery Connects, the Fairtrade Foundation and CAFOD.*

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*This is the fourth in a series of articles written especially for benchpeg. To read the first article for benchpeg by Peter Oakley please refer to issue 162 of the benchpeg newsletter. benchpeg produced an ethical edition of the newsletter in 2008 and aimed to give an overview of the ethical issues within the jewellery industry. For any comments or feedback on the series, or to request the 2008 ethical issue please email:*  
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## 23.2 Ideas Fund Green

Ideas Tap is offering eight of its members £5,000 each to realise creative projects that either address green issues or are produced in an environmentally sustainable manner. Ideas Fund Green is open to IdeasTap members aged 16-25 who are resident in the UK. Ideas that offer exciting new angles on climate change - or new ways to make art in an eco-friendly fashion are welcomed. It doesn't matter what medium you work in - from film to theatre, photography to visual arts, music to poetry - Ideas Fund Green is open to all creative disciplines. The deadline for applications is 5pm, Monday 9th August. For further information please visit:

[w] [www.ideastap.com/Opportunities/Brief/3de37c56-4a42-441c-8f12-9da300fdd748#](http://www.ideastap.com/Opportunities/Brief/3de37c56-4a42-441c-8f12-9da300fdd748#)

