

**Yorick Benjamin :**

## **Reusing knowledge**

Last year I visited Benin in West Africa for the United Nations Environment Programme Working Group on Sustainable Product Development.

The idea was to identify product design areas that could be developed locally in a sustainable way. I was looking for products based upon indigenous knowledge and local materials. As is common in other non-industrialised countries I found many people working in poor conditions and making products of inferior quality with imported materials. These people work in the so called 'informal sector' – the unorganised (black) economy where there are no state controls. In India it is estimated that 70% of the work force is employed in this way whilst in Africa it is 60%.

Within this sector there are millions of people who work with the imported waste products and materials of others in the most imaginative ways. Wheel hubs become wood burning stoves, petrol stations are a mixed collection of reused bottles filled with fuel and market trolleys are fabricated from old water pipes.

They work with exotic materials which are manufactured by industrial systems based upon non-sustainable resources. Rarely are these materials appropriate to the countries they invade as few collection systems or societal structures exist to deal with the toxic and non-degradable bits and pieces that result. Everywhere non-sustainable materials can be found until the 'informal designers' turn up to collect it and reuse it.

However, to improve the environment you do not work towards reuse but rather the 'prevention' of waste.

It seems to me that Benin and other developing countries do not need to reuse our non-sustainable waste, but rather 'reuse and rediscover' their indigenous knowledge. They possess a wealth of great design solutions already based on renewable materials and inherent waste prevention. They have much to teach us and we have much to learn. I will give just one example of many.

In Benin there are ten known types of leaf used for food packing. Each has a unique characteristic, one preserves the food longer whilst another improves the taste of the food it contains. The leaves are a renewable resource, indigenous, sustainable and biodegradable. Reuse and recycling involves feeding

Yorick Benjamin :

## Reusing knowledge

the waste to pigs or making compost. The leaf package is a sustainable product that meets a human need and cares for the environment. Just like other non-industrialised countries the people of Benin are affluent with such knowledge which we in the industrial world have left behind. Sadly, they do not reuse this knowledge widely enough as the countryside and streets are spoilt with discarded plastic bags which have been imported to replace the leaves.

It will be a great challenge even to the informal designers to reuse this waste.

It is more desirable that they recall their indigenous knowledge and explore further the leaf packaging system and perfect it before it is lost. If they are generous and we are open minded we may learn from it too.

**Yorick Benjamin** (United Kingdom) studied Industrial Design at the Royal College of Art (RCA) followed by a doctorate on eco-design tools. Since 1994 he has been the senior researcher of the United Nations Environment Programme, Working Group on Sustainable Product Development (UNEP-WG-SPD) based at the University of Amsterdam, The Netherlands. He has written research reports on Sustainable Product Development of an advisory nature on behalf of an agency of the European Commission and been a 'core' group member of the EU EUREKA-PREPARE Eco-Design Group. Eco Design projects include work with: Thorn EMI Central Research Laboratories, ICI Dulux, Body Shop International, Brand New Product Development, Michael Peters Group and Dragon International.