



Reducing your ecological footprint

Building the Eden Project

COMMENTARY

How can we make ecologically sustainable cities towns and buildings the natural choice? In this film we'll be stepping up from the individual level to the institutional. Really big changes can't happen until government, the private sector and other players act, But is anyone pointing the way?

COMMENTARY

All over the country there are environmental pioneers experimenting with more sustainable practices. We'll be looking at two projects in Cornwall and asking: what would it take for them to become the norm?

First off, the Eden Project

BETH:

everything we do from in the office, to transport, to food, to the shop at the top we try and be as sustainable as we can

JO:

we took the regulation building standards which were concerned with sustainability and wanted to raise the bar slightly

GUS:

we had to put together a travel plan to get the congestion down and also look at more sustainable transport options for Eden.

COMMENTARY:

The Eden Project opened in 2001 near St. Austell, Cornwall. Built in a barren disused clay pit; now it's home to a million plants, including 5000 different species from around the world, housed in two giant biomes".

It aims to get its one million visitors per-year thinking differently about their natural world. But more than that, Eden also serves as a cutting edge "lab" for sustainable practices. We'll be looking at their work in three areas with a big environmental impact: building, transport, and food.

COMMENTARY

The newest building here is the Core education centre. It's an expression of the Eden Project's aims; to set new sustainability standards in both its construction and everyday use.

CAPTION:

Jo Elworthy
Director of Learning

JO:

The brief to the architects for this building was to create a building the size of a space ship with the structure of a sunflower and they achieved that beautifully.

COMMENTARY:

Every choice about the design was scrutinised against sustainability criteria. The waterproof "skin" for the roof is a good example: they wanted to minimise impact of the materials used, but maximise lifespan, and stretch the building industry's thinking about materials – such as mined metals.

JO:

rather than say mining's wrong and you shouldn't dig things up, we all use metal from my earrings to my watch to my car to the building behind, we use metals for everything so let's try and find a responsible way of sourcing it.

JO:

In order to do that we contacted all the major mining industries around the world and they said we've got a mine in the USA which is the most responsible mine in the world, good social standards, good environmental standards and I said we want the copper from that mine on this roof.

COMMENTARY:

It took two years to trace the metal from rock to roof, making sure all the transport and processes were the most ethically and socially responsible.

JO

So we looked at all parts of the process right from the beginning of sourcing the materials right the way through to fabrication and minimising waste, minimising energy even the contractors had to minimise energy in the vehicles that they used

JO:

We're now doing research to follow the process and put certification behind it so that other people can use what we've experimented with.

COMMENTARY:

Energy use in the Core is minimised; photo-voltaic panels generate electricity, mirrors reflect daylight inside, and the roof collects rainwater for use in the building. But is it just an expensive one-off? What would it take for this attention to sustainability to be adopted across the construction industry?

JO:

maybe it's a policy decision, maybe we work with governments to make it policy, forcing people to do things. But in another way as with the mining industry and this building they're realising that the public want it so it's a consumer led activity which will then have an impact on the industry to actually change and put those policies in place themselves.