Glass is more!

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Angela van der Burght & Engelbert Roovers

Crockery and kitchenware and tableware
Seneca wrote: “Apples seem more beautiful if they are floating in a glass.” Glass services and tableware with cutlery were used much earlier already to serve food and for eating and drinking. Glass – but also enamelware with glass powder (from *esmal* of the Frankish *smelzan* for melting) enamelled metal of white goods and kitchenware – is more than any other material an isotropic, directionless, non-porous material without granular rims which makes it clear, flavourless and odourless, water and acid resistant and a perfect material to package and serve food and drink. Crystal glass is less fit, e.g. for decanters, drinking glasses and nursing bottles, as the high lead content causes lead poisoning.

Greenhouses were in evident use from early millennia; underneath the ash and lava of the eruption of Vesuvius in 79 A.D., archaeological excavations of the ancient city of Pompeii have uncovered the remains of early greenhouses. The ancient Romans ensured the survival of vegetables and grapes by protecting them from stormy and colder weather in early versions of the greenhouse. One of the earliest known greenhouses was built around 30 A.D. for the Roman emperor Tiberius. The 'glass' used was specularium fabricated from tiny translucent sheets of mica. In the 18th century the possibilities to travel increased as a result of the inventions of locomotive engine, steamship, aeroplane and car and a solution was found for packaging food and drink safely using lockable containers like the swing-top bottle, the thermos flask and the marble bottle. The increase in population necessitated an increased food production and in the 13th century glass greenhouses could provide this. In 1599 the first practical greenhouse was designed by Jules Charles a French botanist, it was built in Leiden, the Netherlands and used to grow medicinal tropical plants. Outdoors, lantern cloches and single cold frames protected the crop. Bottles were used for growing pears and as a cucumber straightener. In Japan, they now grow square melons in glass cubes in order to make stacking easier.

In vivo and in vitro.
For ages on end, plants and vegetation are being cloned through striking, grafting and budding. The asexual reproduction or cloning, cell nucleus transplantation and genetic modification of food are now being investigated. In laboratories, glass plays a crucial role in the conversion of *in vivo* into *in vitro*. Our ecological *footprint* is too big and that is why we are now on the search for other, more sustainable high-protein sources like algae, seaweeds, fungi, insects, and cultivated meat. *Bio-based economy* is the area of investigation. Professor Arnold van Huis of Wageningen University said that 80 per cent of the world population is already eating insects. In Taiwan, Mexico and Colombia, deep-fried crickets are a delicacy, just like a serving of caterpillars or ants. The jewel beetles, of which Jan Fabre used one and a half million

Kacper Hamilton: Greed Glass, one of the 7 Deadly Glasses, 2008; hand blown glass, limited series