The Past

Eco-evolution

The Present

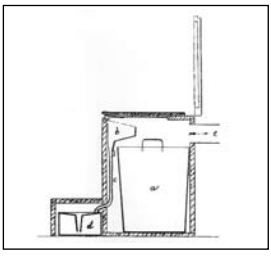
The Future

Eco-revolution

Coalition Clean Baltic
FOR PROTECTION OF THE BALTIC SEA ENVIRONMENT

• **Coalition Clean Baltic (CCB)** is a network of 24 environmental NGO's in nine countries bordering the Baltic Sea. CCB's main goal is to promote the protection and improvement of the Baltic Sea environment and natural resources. One of the priority areas is the reduction of the harmful nutrient load to the Baltic Sea, for example by promoting sustainable wastewater management.

• Eutrophication is one of the major environmental problems in the Baltic Sea. It is caused by excess discharge of nutrients (primarily phosphorous and nitrogen) into water bodies, mainly from agriculture, traffic and wastewater emissions. Many serious effects of eutrophication have been observed in the Baltic Sea, including oxygen-depleted sea-beds and extensive algal blooms.



The urine-diverting Marino's toilet was constructed in the mid 1800s and was used in several Danish and Swedish cities.

Eco-evolution

The Past

The nutrients in animal manure and human toilet waste have been reused in agriculture for as long as people have been cultivating the land, as a means of maintaining the fertility of the soil. Before the introduction of water closets and artificial fertilizers, many farmers depended on toilet waste as a nutrient source. Urine-diverting toilets have long been used to facilitate the recycling of nutrients. In China and Vietnam for example, urine has been used as fertilizer for thousands of years.

Eco-evolution

The Present

Since the introduction of water closets in the early 1900s, we use drinking water to transport our toilet waste out of the cities. The former widespread awareness of the value of toilet waste nutrients has been replaced by a flush-and-forget philosophy. But it is actually when we flush that the problems start! The nutrients in toilet waste end up in the wrong place: instead of fertilizing arable land, they contaminate local water bodies and eventually the sea. This systematic error means that we have to use non-renewable resources to produce artificial fertilizers and costly, resource-demanding technologies to treat wastewater. A significant part of the wastewater discharged into the Baltic Sea is not treated sufficiently and thus contributes to the severe eutrophication problem.

Phosphate mining for production of artificial fertilizer in Nauru, in the South Pacific.

A dry urine-diverting toilet installed in a residential building in Stockholm.

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Eco-revolution

Back to the Future!

The basis for a sustainable society is the recycling of resources. Thus, in the future we will have to design systems that allow for the recycling of nutrients in toilet waste back to arable land without contamination of natural water bodies. The good news is that the future is already here. Simple, smart and environmentally friendly technologies, such as urine-diverting eco-toilets can be installed without sacrifice of the high hygienic standard at home. Hygienically safe and efficient methods for the application of toilet waste to arable land have been developed and are in use at several sites around the Baltic Sea where urine and composted faeces are already used as fertilizer.

Support eco-toilet systems for sewage management!