ARCHITECTURE OF CONSEQUENCE
DUTCH DESIGNS ON THE FUTURE

* A RESCUE OPERATION * OLE BOUMAN, NA
Reducing the use of raw materials and energy is not enough to counteract climate change. The architecture of MVRDV offers alternatives to compensate for the negative consequences of our consumer behaviour. **Multiple use of space, energy and other resources** must lead to a net gain rather than merely a reduction of waste.
1. KAME: the Cube, is a study of the compact city. Based on Dutch statistics, the study visualises the spatial needs of one million people. A cube of 3.87 kilometres contains all the programme required, including the necessary buffers around industries. Housing and offices occupy less space than expected: 30 per cent of the cube's space is reserved for industrial production and 46 per cent for oxygen. The study emphasises the need to work on these issues, which have been on badly neglected by the architectural and urban traditions.

[Project KAME: MVDS]
At some point in the nineteenth century we lost our ‘CO₂ innocence’, as the German philosopher Peter Sloterdijk recently put it. Nobody today argues against the need to be more efficient and productive in, for example, land use. Since we consume too much anyway, we have to decide whether to reduce consumption, or to use the earth’s surface in a more efficient way, which could be thought of as farming. Instead of merely consuming less, we can still have more. The Dutch are used to creating land (polders) and to being highly productive per square metre, but we still have not reached the limits of researching how combined functions can be transformed into integrated designs in which buildings produce cycles within themselves.

Recently more and more neighbourhoods have been designed to produce their own energy by integrating renewable energy devices such as solar panels, solar boilers and wind turbines which are placed on the rooftops or on public land. Water recycling and purification can be integrated, though this sometimes requires a large amount of space. If, however, the occupants are made aware of what it takes to produce clean water the effect is eye-opening. These neighbourhoods sometimes become so effective that they even start their own company to sell off the surplus energy they have generated.

It would be interesting to see if we can broaden the profession of architects and urban designers from creating culturally and functionally efficacious designs to making productive designs as well. Some of these aspects could be simply translated into briefs and, if necessary, into budgets, but it becomes even more interesting if the desired productivity can be associated with the design – agricultural aspects, the lives of plants and animals (Pig City), floating cities, or by using energy produced by humans themselves through their body heat, movements and activity.
4. Fly City

The Netherlands is the largest exporter of pig meat in the EU. This means that reducing the sector's emissions would result in 79 per cent of the country's entire area being dedicated to pig meat production. Fly City, located in Rotterdam, is a tower of 40 stacked pig units. The system is designed to reduce energy and food production costs while improving efficiency in the food industry. It aims to integrate urban life and agriculture in a novel way.

5. Elx City

Elx City, located in Spain, is a new urban experiment in energy production and recycling. The city is designed to generate renewable energy, water, and waste management, offering a new typology of public space. This energy park is designed for recreation and energy production, representing a new typology of public space which saves the emission of 8,000 tonnes of CO2 per year. An on-site research centre and museum will collect and disseminate knowledge about renewable energy.