

# POOLING YOUR RESOURCES



Max Vittrup Jensen, from the PermaLot community in the Czech Republic, tells how they turned a stagnant pond into a beautiful natural swimming pool.

**W**hen we introduced the idea of renovating a leaky old concrete fire dam in the heart of Bouzov Svojanov, an idyllic Moravian village in the eastern part of the Czech Republic, one of the villagers wrote, “It’s not possible to change the fire pond into a natural swimming pool with plants and use it as a reservoir in case of fire. It will not work.” Luckily the majority of the locals did not agree and it was accepted that PermaLot and the village could go ahead and start renovating the pond. For years the dam had only held 1m (3ft) of stagnant, bug infested water. It wasn’t very inviting. We used permaculture design, copying the various elements of a natural lake: water plants which serve as a filter, various depths to enhance multiple biotopes, a large edge effect to encourage biodiversity and a constant through flow to avoid standing water.



**Above:**  
The completed natural swimming pool proved to be a hit with both adults and children.

**Right:**  
Polling local opinion in the village.

**Left:**  
The stagnant, half empty fire pond before its transformation.

## NATURAL POOL HISTORY

The renovation was the idea of a Czech ‘civic association’ called PermaLot, with the official status of an Ecovillage Initiative, dedicated to restoring the sustainability of Svojanov through permaculture principles. Inspired by an article by Michael Littlewood (‘Taking the Plunge Naturally’, PM26) about creating natural swimming pools, we made an initial sketch and presented it to the Mayor. Having received positive interest, applications

for funds were written and the search for people with professional experience started.

It soon turned out that the concept of such a renovation is new to the Czech Republic and, because of the high costs, the renovation had to be done by covering the existing pond with a waterproof membrane. The flexible membrane gave the freedom to follow the natural contours around the pond. It became clear that if we could dam up the north side,



it would be possible to create an overflow along the east and west sides, thus creating a natural edge effect as well as a low water area which could serve to filter the incoming water. The low filter would be followed up by a deep filter secluded by a gravel filter.

#### FINANCING THE PROJECT

We managed to arrange a two week international youth exchange at our ecovillage (financed through the Ministry of Education) with 31 young people from Italy, Latvia, Romania, Hungary and the Czech Republic. This meant that we were able to donate the majority of the costs, apart from a grant of €1,000 which was raised by one of our international volunteers, Farran Powell, from the Dutch NGO, Milieucontact Oost Europe

(Environmental Contact East Europe). Farran Powell later joined us for 2½ months and helped us complete the renovation. A small contribution was even offered by the local town hall at the last minute.

The finished renovation ended up costing about €4,000 and unexpectedly produced an enormous amount of volunteer work, easily worth an additional €3,000.

#### LOCAL CONDITIONS

Throughout the Czech Republic, partly due to the socialist regime as well as the Velvet Revolution, villages are becoming disbanded as the trend for young people to move to the cities is growing and inherited family houses and farms become holiday homes. This is certainly the case in Svojanov, with 18 year round inhabitants, formerly 150.

Many of the buildings are used as weekend houses and the visitors are very concerned about the impact that PermaLot may have to their secret retreat. You see, Svojanov is at the end of a dead-end road and surrounded by a few fields, orchards and vast mixed forests. The location offers an unobstructed view of the nearby Bouzov castle. The local myth tells how not even the Swedish army managed to find the village during their 30 year occupation of the region.

Despite this, PermaLot had generally been received well by the locals, but most people have a healthy scepticism



*Left:* Clearing the fire pond of silt.

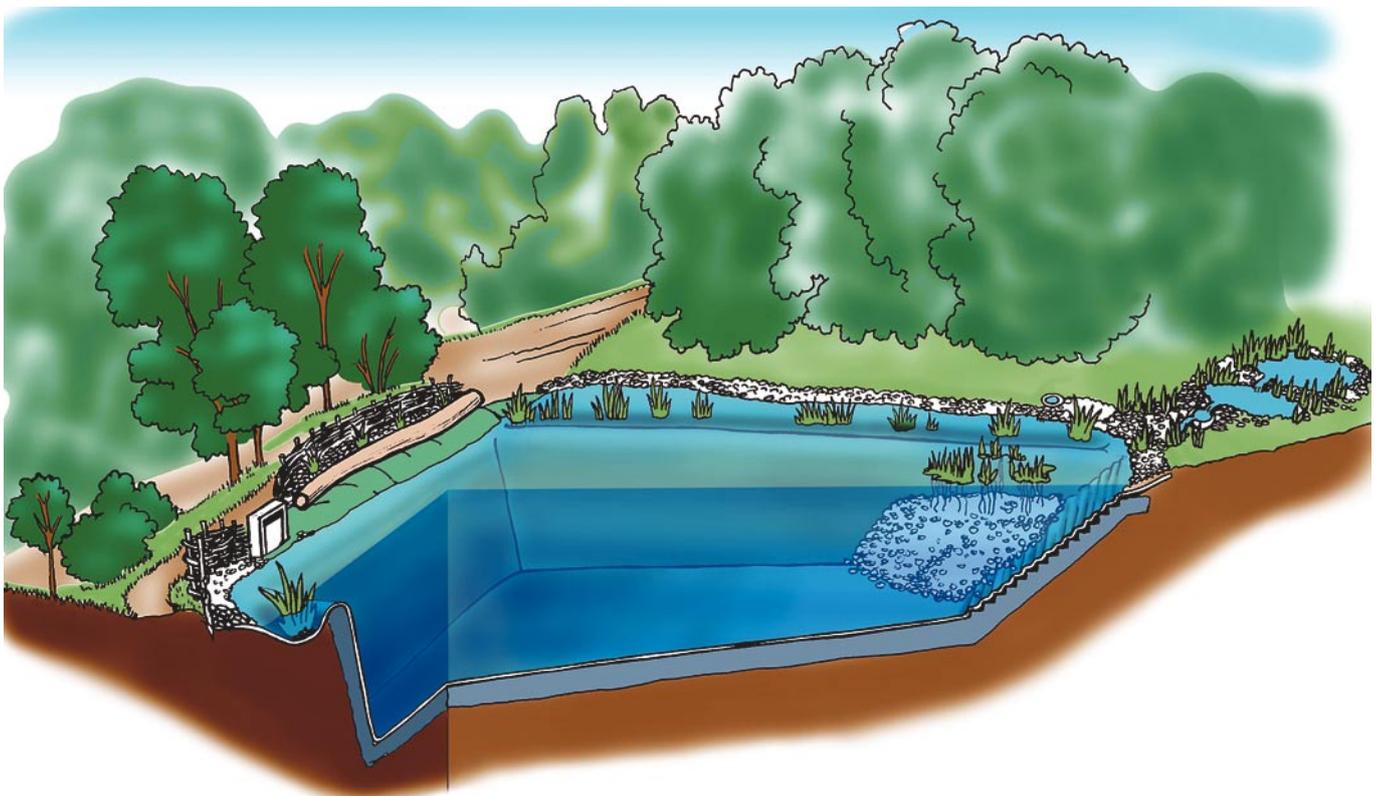
*Top right:* Planning the future in the newly cleaned out pond.

*Below:* Section diagram of the proposed natural swimming pool, showing the planting scheme.

towards the new, especially our approach to the organic and permacultural management of the orchard.

Another issue was that the concepts of philanthropy and organized civic initiatives were unheard of in the region. To try to demonstrate our intentions, PermaLot revitalized the old cultural tradition of 'Majka' (a spring celebration around a maypole) during the spring and summer of 2002 and 2003 village when meetings were arranged in order to discuss the renovation of the pond.

The opinions varied from strong support of the natural pool, to some





who wanted a standard swimming pool, or others who simply wanted everything to remain the same. Agreement was reached that the village would unite and empty and clean up the pond before the youth exchange arrived to do the redesign of the contours, line the pond and plant the plants.

Surprisingly, a big issue was the material of the pond liner. We made it a prerequisite that the liner should not be made of flexible PVC, which we knew contained water disposable phthalates, proven to cause environmental havoc. Throughout the Eastern block, PVC, other plastics, along with GMOs, are being seen as progress and the grassroots are fighting an uphill battle against the commercial powers and slow legislation.

We insisted on paying a higher price for a different product. Luckily, we located a Swiss company, Sarnafil, which offered us a 30% discount on their polyolefin liner, a material which is chemically stable. The

*Above:*  
The liner goes in.

*Right:* Digging out the filter area on one side of the pond.

*Bottom left:* The planting ledge in the finished pool.

*Bottom right:* Building the inlet filters.

*Opposite top:* The nearly completed pool with diving board.

*Opposite bottom:* Local children making the most of their new pool.

discount made the costs comparable, and the company even came to demonstrate how to weld the materials together.

#### THE WORK

Managing the two week youth exchange program was a challenge, and it tested the capacity of our facilities, but also initiated PermaLot's involvement in environmental youth work (a task we now assist the Global Ecovillage Network with). We created a very varied program, including excursions, theory, games and 'practical education', that consisted of about seven days work on the pond. Some of the villagers supplied home-baked cakes throughout the



week and samples of the local Slivovice (a plum-brandy) for the final party.

The renovation was carried out without use of heavy machinery, and most of the materials needed were available on site; the concrete edge of the side and excavated soil became the dam, the old fence posts became the poles for the woven willow fence, and a large willow got split in two to create a bench and garden barrier.

Today, the pond has several discreet zones; a couple of play areas for the kids to use, a small ornamental garden, whilst sides work as a natural filter and biotope and the southern-most area works as a filter for the incoming water. We still intend to make a large sedimentation/ tidepool area as part of the inflow, but we're currently lacking the resources to finish this.

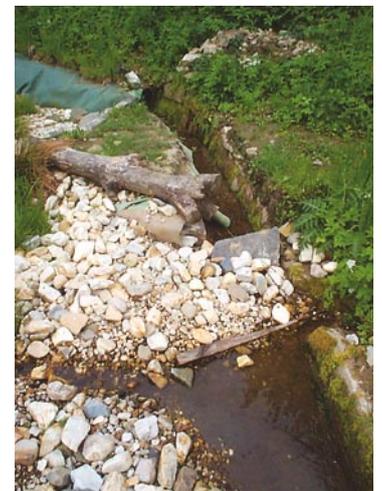
Throughout the planning of the project, a big issue was how to fill up the pond with water. It was calculated that it would take 120 fire truck loads to fill it and the town hall was not thrilled about footing the bill. Another suggestion was to make a pipeline with pump relay stations up

the hill and pump the water from the river 1.5km/100m (1 mile/330ft) below. Happily, nature found a solution for us and reminded us of the story of Noah's Ark. Remember the flooding of Prague last year? Well, it started to rain and it continued and continued. We had to hurry and finish the welding of the membrane, but the pond was filled up in a few days. We were able to fulfil our promise to our young volunteers – that they would be able to swim in the pond before the exchange was over!

As the youth camp left, we still had the final touches to make, like creating a wooden ramp and other landscaping elements, along with locating and planting hundreds of water plants. This part of the project was achieved in co-operation with the locals and several volunteers who appeared out of the blue, each with their different talents.

As soon as the pond had a significant amount of water in it and the first plants were settling, we saw the first insects and frogs. A friend wrote, "We have dragon flies following us around the pond and the swallows are busy catching the mosquitoes as well as drinking out of the pond. There's more water available for fighting fires than ever before and the children are lining up to swim and play in the pond during the day. Towards the evening, even a few of their parents venture in for a cold dip. It's becoming common to see kids wearing swimwear and carrying towels and floats in the village. This is the first time in 12 years anyone has swum in the pond. The whole event has been free for the village, and has only cost the town hall about €350."

Written at the end of August 2002, this story could have ended happily, but unfortunately this is not so. As we moved into the harvest season,





PermaLot had to focus on its 1,500 apple trees. Then, during the winter, a conflict of interest appeared with a few of the locals, as PermaLot refused to sell a piece of land to the town hall. Instead, it was made a public land trust. This resulted in a very unfortunate situation with three of the villagers, and included an attempt to destroy the inflow of the pond. The vandalism was repaired during a working weekend with the Czech Permaculture Association in May and many new plants were planted. The negative cartel, however, had a strong impact on local opinion (one of the three is elected to the town hall). We fear that the future of the pond as a natural system is endangered, as the town hall has renounced their verbal agreement to the design. They seem to be working on changing the pond into a chlorine filled blue swimming pool. This year's dry summer has also not worked in our favour, resulting in a lack of fresh water and causing denitrification.

The good part of the story is that this summer the local kids, along with participants on our courses, have once

again enjoyed the wetland area, where the water plants are settling in nicely and the natural biotop is well established. I also hope that by telling you this story, the villagers will see it in print and will realise what a unique resource they actually have. Then they can put politics to one side so that we can all enjoy our very own Czech natural swimming pool 

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#### ABOUT PERMALOT



PermaLot is an ecovillage in a beautiful location in Svojanov in the Czech Republic. It accommodates approximately 20 ecovillagers plus many long-term volunteers and short-term visitors. The village is based on 11 hectares (27 acres) of agricultural land, forest and wetlands and has a variety of shelters, from wooden pyramid-shaped dwellings for visitors, to tipis, and a communal kitchen. PermaLot offers voluntary work, courses, educational activities for children and a camping area in a rowan berry orchard.

Max Vittrup Jensen is the founder of PermaLot and for the first 2½ years of the project lived alone in the Trinity Mountains. In his 36 years, he has lived in many different places and done hundreds of jobs. He says, "The creation of PermaLot has been a very intense effort by hundreds of volunteers. Some people volunteered money, others skills, some simply their muscles. The biggest lessons people learn in PermaLot is self-discovery – finding out that they can construct a tipi, a garden or a house. It's not about the initiators, it's all about the purpose and spirit."



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## PERMALOT

Permaculture in the Czech Republic



....Over the hills, through the woods, at the end of a dead-end road, is where you'll find our camp ground nestled in the rowan and apple orchards. PermaLot is an ecovillage initiative trying to create a model for rural sustainability, while hosting a number of courses and camps. Our magic kitchen provides 70% organic vegetarian meals served in our flying circus tent. For digesting, dreaming, contemplating and meditation you can seek shelter in the teepees or wooden pyramids or head for a walk in the surrounding lush forests.

Please check our website for up coming events.

Facilitator/instructor without a venue? Our camp is still available to host a few select events at favourable prices.

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