

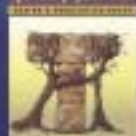
Total Habitat Presents

Natural Swimming Pools & Ponds



THE TOTAL GUIDE

Total Habitat



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H A B I T A T
L A B O R A T O R I E S

Natural Swimming Pools

The Total Guide

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We at Total Habitat have included as much information as possible into this book. We find it to be a short, but worthy treatise on the subject and know of no other books on this subject at the time of publishing. As much as we wish to include more - every how-to book is a work in progress and we will publish new editions as time and information allow. If you find an error in this book, we welcome your comments and corrections.

Please e-mail them to: hilleary@southwind.net.

Thank you for your interest in Natural Swimming Pools.

We are obliged to honor Peter Petrich, the pioneering Austrian engineer who was one of the first to attempt to create a water purification based on plants (founding BioTop in 1984) and Ken Andrews, a little known American chemist who created a natural water cleaning system for pools (much like the one we use) in 1955.

Much is to be done to spread the word about Natural Swimming Pools. We are doing our part and we look forward to more and larger projects, municipal size pools have been successfully done in Europe - we need brave clients in the USA.

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Habitat Books

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Swimming Naturally

Our Natural Swimming Pools Feature:

- **Clean, Clear Water** (no mud on the bottom)
- **Affordable** (about the same cost as a traditional pool to build, but less ongoing costs – chemicals for traditional pools can run \$300.00 – \$600.00 a year)
- **Low Maintenance** (much less than a traditional pool)
- **Year Round Beauty**
- **Year Round Fun**
- **Passive Solar Heating** (for extended swimming opportunities)
- **Water Feature Therapy** (which we all can use)

Let's Go Swimming

Have you ever seen how many pounds of chemicals go into a typical swimming pool? Have you ever read the warning labels on the chemicals used to sterilize typical swimming pools? The basic philosophy behind water quality in a typical swimming pool is to kill everything short of killing the swimmer. There is another way.

In a natural swimming pool we harness nature's own processes to produce clean, clear water. If you have ever had the opportunity to swim in a crystal clear lake or stream, then you know the sense of bliss that only nature can supply. Swimming is much more enjoyable without burning eyes and chemical odor. In Europe they have built hundreds of natural swimming pools since 1985. Interviews with pool owners have shown overwhelming satisfaction.

A great place to swim is not the only benefit that a natural swimming pool provides. It becomes the center piece of your own personal paradise, your own reflection pool, one you can retreat to when ever you want. With flowering plants, a waterfall and a few fish, your pool becomes a beautiful water garden. You can enjoy it all year round. If you are in a cold climate, you can go ice skating. Your natural swimming pool is far more attractive in the cooler months than a covered swimming pool. Realtors have found that houses with well constructed water gardens increase resale value more than houses with traditional swimming pools.

A natural swimming pool is a great addition to a holistic life-style. Humans have been enjoying natural water resources for millions of years. With fresh water resources waning in many parts of the world, it is nice to know that you have 20 to 30 thousand gallons handy.



City Folk vs Country Folk

People living in rural areas often have more experience than city dwellers swimming in natural water. Swimming holes, lakes and farm ponds are enjoyed world wide. The water may not be perfectly clear, it may have fish and other little critters in it and a layer of mud on the bottom, but on a hot summer day it is the most refreshing experience around. Generations enjoy these water resources and continually improve them. Sharing the water with wildlife is a good thing: they stay out of your way when you are swimming and it's a joy to discover the rest of the time.

City folk on the other hand have more experience with chlorinated pools. Public or private swimming pools typically have clear water, white bottoms, and any wildlife that happens along dies in contact to the water. Sadly, some city folk harbor fears of natural water. To that we say, "Courage is having done it before", so it is up to the rest of us to spread the good news about swimming naturally. In a well designed natural swimming pool, the water is clear (you see what is in it) and it is beautiful.

The goal of this book is to enable you (the home owner or contractor) to embark on a natural swimming pool project and successfully emerge. We believe that in years to come natural swimming pools will be more popular than traditional pools. The triumph of the natural swimming philosophy is built one pool at a time. We are dedicated to giving you the best information, products and methods to make your project a lasting scenic heirloom.



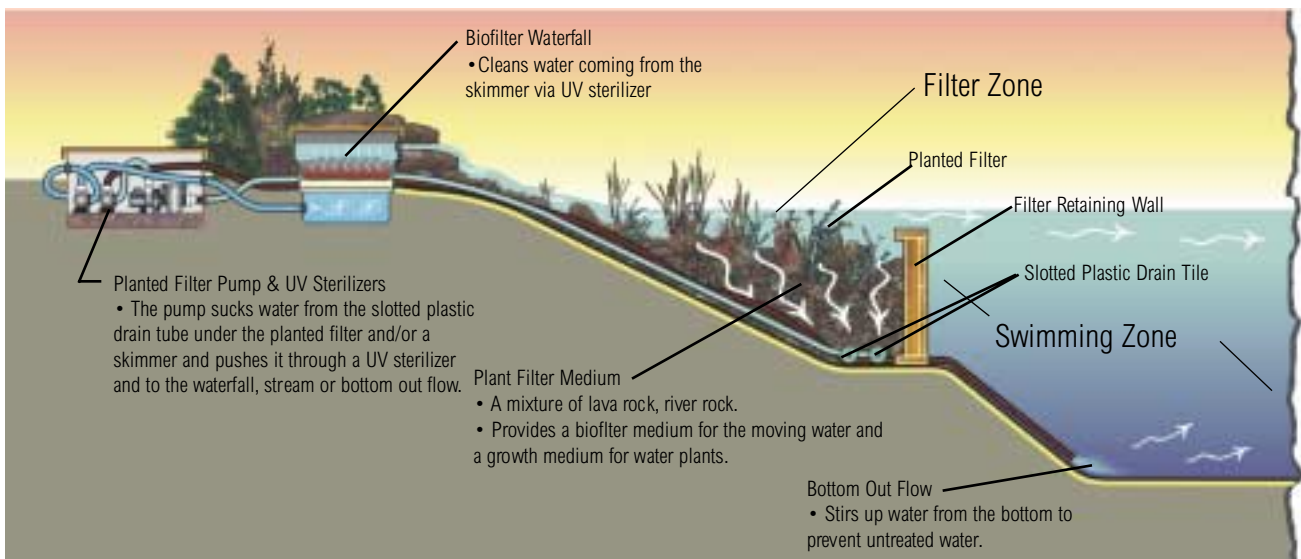
The Big Recipe

The goal of a Natural Swimming Pool project is to create a balanced, self contained, self cleaning ecosystem. We start with a hole in the ground and add a liner so it holds water very well. We establish a swimming zone and a filtering zone. We add skimmers, filters, plumbing and a water pump to constantly turn over water through the system. Throw in a UV sterilizer for added security and some means of aeration, add plants and an army of friendly bacteria to get the system started, allow a little time for these to establish, and there you have it – go swimming. You have the best swimming pond you have ever seen and it is ready for years of enjoyment.

The Anatomy of a Natural Swimming Pool

Natural water chemistry is very complicated. No two ponds in nature are exactly alike, and the chemistry of every body of water changes constantly. The seasons, rain, runoff, debris in the wind and the ponds physical makeup all affect the water quality. Safe, clean natural bodies of water change, but fluctuate within an expectable range. This is the goal of our Natural Water Cleaning System. For our Natural Water Cleaning System (and any system for that matter) to work properly throughout the year, in diverse conditions, and in many regions of the country, a certain amount of overkill is required. Traditional pools use an overkill of chemical disinfectants to keep the water clean, we use natural processes. If you follow our principles and guide lines you will be successful.

fig. 3.1 The Anatomy of a Natural Swimming Pool



Natural Water Cleaning

System Basics

I. Containing Water

Water Tight Liner

II. Moving Water through the System

Pumping & Plumbing

III. Filtration

Mechanical Filtration

Skimmer

Biological Filtration- The Nitrification Process

Planted filters

Biofilter Waterfall (Aeration)

UV sterilizer

IV. Maintaining Water Level

Auto-filling

Overflow

V. Careful Choice of Materials

For thriving plants and to maintain pH and other potential variables

VI. Nurturing the Pool into Maturity

Growing a Balanced System



fig. 4.1 The Anatomy of a Natural Swimming Pool (part 2)

