

AQUASCAPING

A. Introduction:

Aquascaping is the craft of arranging aquatic plants, as well as rocks, stones, cave work, or driftwood, in an aesthetically pleasing manner within an aquarium in effect, gardening under water. Aquascape designs include a number of distinct styles, including the garden-like Dutch style and the Japanese-inspired nature style. Typically, an Aquascape houses fish as well as plants, although it is possible to create an aquascape with plants only, or with rockwork or other hardscape (rocks and wood) and no plants.

Although the primary aim of aquascaping is to create an artful underwater landscape, the technical aspects of aquatic plant maintenance must also be taken into consideration. Many factors must be balanced in the closed system of an aquarium tank to ensure the success of an aquascape such as filtration, fertilization, lighting, and algae control etc.

B. Principles

1. Plant all groups in odd numbers.
2. Fine leaved plants look best in the mid to back center of a tank, with heavier leaved plants toward the edges.
3. Don't use red in the middle as they have a heavy, dark, feel.
4. Dark leaves (red or dark green) look best toward back edges, with light colored leaves toward the center.
5. Arrange plants and hardscape to provide good contrast of light and dark areas
6. Light colored sand provides good contrast to plants.
7. When rocks are used, use multiple sizes, mixing large and small rocks, as in nature.
8. Rock edges should generally be rounded.
9. Aquascapes with unplanted sand in front is a good alternative to the traditional "Nature Aquarium" style of all foreground covered with foreground plants.
10. An attractive layout alternative is a slope up from near the middle up to the two back corners.

C. Design and styles

1. Dutch Style:

The Dutch style aquascaping utilises multiple plants with different leaf colours, sizes, and textures. This style was developed in 1930s in Netherlands, as freshwater aquarium

equipment became commercially available. More than 80% of the aquarium floor is covered with plants, and little or no substrate is left visible.



2. Japanese Style:

A contrasting approach is the nature aquarium or Japanese style, introduced in 1990s by Takashi Amano. This style draws particularly from the Japanese aesthetic concepts of Wabi-sabi, which focuses on transience and minimalism as sources of beauty. Plants with small leaves like, small aquatic ferns, and java moss are often used to emulate grass or moss. Colours are more limited than in the Dutch style, and the hardscape is not completely covered. Fish or freshwater shrimp are usually selected to complement the plants and control algae.



3. Iwagumi style:

The Iwagumi term in Japanese means "rock formation" and refers to a layout where stones play a leading role. Aquarium with gray stones arranged to form a tall pointed structure at the

right, and a similar but smaller structure at the left. The stone peaks and the foreground are largely but not entirely covered by a short layer of fine textured green plants.



4. Jungle Style:

Some hobbyists also refer to a jungle (or wild jungle) style, separate from either the Dutch or nature styles, or incorporating some of the features of them both. The plants are left to assume a natural, untrimmed look. Unlike nature style, the jungle style does not follow clean lines, or employ fine textures. A jungle canopy effect can be obtained using combinations of darker substrates, tall plants growing up to the surface, and floating plants that block light, offering a dappled lighting effect.



5. Biotopes Style:

The styles above often combine plant and animal species based on the desired visual impact, without regard to geographic origin. Biotope aquascapes are designed instead to replicate exactly a particular aquatic habitat at a particular geographic location, and not necessarily to provide a gardenlike display. Plants and fish need not be present at all, but if they are, they

must match what would be found in nature in the habitat being represented, as must any gravel and hardscape, and even the chemical composition of the water. By including only those organisms that naturally exist together, biotopes can be used to study ecological interactions in a relatively natural setting.



6. Paludarium Style:

Paludarium is an aquarium that combines water and land inside the same environment. These designs can represent habitats including tropical rainforests, jungles, riverbanks, bogs, or even the beach. In a paludarium, part of the aquarium is underwater, and part is above water. Substrate is built up so that some land regions are raised above the waterline, and the tank is only partially filled with water. Unlike other aquarium setups, paludariums are particularly well-suited to keep amphibians.



IV) Techniques of Aquascape:

- In addition to design, freshwater aquascaping also requires specific methods to maintain healthy plants underwater. Plants are often trimmed to obtain the desired shape, and they can be positioned by tying them in place inconspicuously with thread.

- Use aquarium-safe fertilizers, commonly in liquid or tablet form, to help the plants fill out more rapidly.
- It is also necessary to support photosynthesis, by providing light and carbon dioxide.
- Use of animals that consume algae, such as some fish, shrimp, or snails, to clean the algae that collect on the leaves and tank.