



風景の中の流木

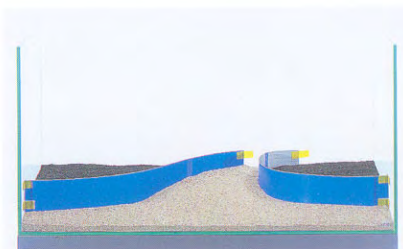
Driftwood in the Natural Landscape

原始、人間にとつての自然は特別なものではなく、人間も自然の一部だった。しかし、文明の発達に伴って人間と自然は分離し、対峙するようになつた。自然の営みの中で木は枯れ、髓の部分を残して朽ちていく。水に運ばれ流木となつた木の髄は、流れ着いた先で自然の風景の一部となる。そんな何気ない自然の風景が私たちの心を動かすのは、遠い原始の記憶が呼び覚まされるからかもしれない。

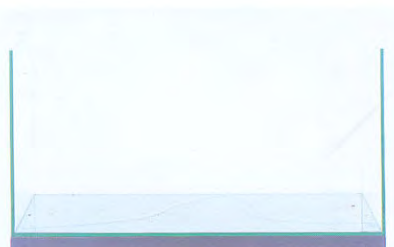
In the primitive age, human being was a part of the Nature, and Nature was nothing special for human being. However, as civilization develops, people takes distance from the nature, and sometimes came into conflict with it. In the working of the nature, trees withers, and decays, and only pulp remains. Remains of the trees are drifted by water, and becomes a part of the natural landscape. Such a simple landscape moves our minde, because our memory of primitive age might be recalled.



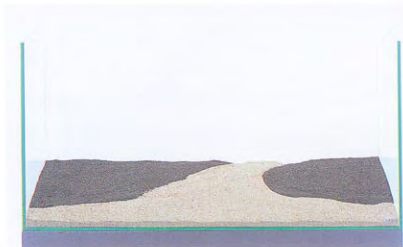
1 First, we decide layout composition. Here, we chose 90cm tank and a large and a small Old Black Driftwood. Before spreading the substrate, we placed driftwood inside the aquarium tank to see the direction or angles of driftwood combination. Please make sure the driftwood fit in the aquarium tank.



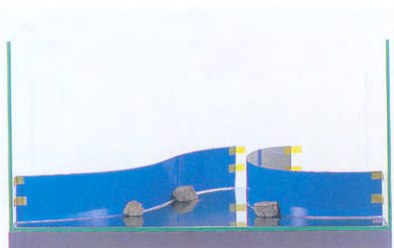
5 On top of the Power Sand Special, spread AQUA SOIL Amazonia. The amount of dressing sand in the forefront doesn't need to be much, but make sure to make a slope from front to the back, and keep the same height with Amazonia Soil at the boarder line.



2 Now we take out driftwood and prepare to spread soil in the tank. This time we try to make a concave composition layout with an open space in the middle, and spread Bright Sand, dressing sand in the foreground. First draw the boarder line of the dressing sand on the bottom of the tank.



6 Finally, spread Aqua Soil Powder-Amazonia thinly and make the surface of the substrate neat. After spreading all the substrate, remove the adhesive tape and take out the partition vertically. This will make a substrate partitioned with smoothly curved boarderline.



3 Along with the drawn lines, set partitions made by cardboard. The cardboard is the best material to form a smooth boarder line. Using adhesive tape, fix both end of the partition to the aquarium glass, and put small stones on the curving points.



7 Along with the boarder line, place FUJI STONE tied with Fantinalis sp. for blocking the AQUA SOIL crumble on Bright Sand. We recommend to prepare right size stones and tie Fantinalis sp. in advance. As it takes for Fantinalis to take roots on the Fuji Stone, we used Riccia Line to fix Fantinalis securely.



4 In the back of the partition where aqua plants are going to be planted, spread nutrients for substrate bacteria, BACTER 100, and then Power Sand Special M, which provides nutrients for the plants. In front of the partition, we spread Bright Sand as dressing sand. The amount of Power Sand Special should be adjusted based on the area of planting.



8 Attach Fantinalis sp. (Willow Moss) on the surface of the selected driftwood, and then place the driftwood on the substrate. Spread Willow Moss thinly on wet driftwood, and then attach it by Moss Cotton tightly. It is easier to tie the Willow Moss with Moss Cotton in several batches.

The layout with dressing sand and driftwood

In order to express the natural feeling, the stone and driftwood are necessary materials in the Nature Aquarium. Even the dressing sand at the foreground is a natural river sand. Using those natural materials, we can create a natural feeling effectively. In actual riverbed or riverbank of the mountain stream where trees and plants bristle,

water washed clean sand cumulates. In such a river bank, driftwood lied and moss and ferns are growing on it. Imagining such a scenery at time of creating the layout helps to create a natural looking atmosphere. First step should start from selecting the material suiting for your layout image.



9 Attach Willow Moss to the other driftwood. On the substrate, you can make a fine adjustment of the driftwood angles easily. Decide the direction and angle of the head of branch, considering the composition and image of the layout. Driftwood plays an important roll as the frame of composition in the layout.



10 Pour the water till the top of Aqua Soil for making planting easy. In such a time, we advise to turn on the water a little and rotate the tip of the hose like a sprinkler, in order to avoid the flowing water damage the substrate.



11 Plant *Echinodorus tenellus* between driftwood and Fuji Stone. Later, *Echinodorus tenellus* spreads its submerge leaves, and grows in runners, forming a thicket between Fuji Stone and the driftwood. This thicket fill the gap between the stone and the driftwood, and makes a natural impression to the layout.



12 Plant *Cryptocoryne* sp. around driftwoods. It will be a natural middleground after green and brown color *Cryptocoryne* leaves grow.



13 Plant the stem plant in the background. Here we selected several species of small leaf green and red stem plants. We cut those plants in same length, and planted with Pinsettes.



14 Attach Riccia to tiny Fuji Stones, and place them in front of larger FUJI Stones on the boarder line. In such case, please make sure not to break the Riccia leaf cell with fingers.



15 Fill water in the tank after finishing the planting. Suck the Aqua Soil Powder-Amazonia out on dressing sand in the foreground with a hose, as the Aqua Soil may come out during planting.



16 The picture shows the layout from the back. You can notice densely planted stem plant and how different color, and shape plants are planted in assortment. Intertwined stem plants should be fixed with Pinsettes.



17 After 2 weeks (before trimming)
After 2 weeks, water plants have started growing, and the whole layout looks in bad order. Fast growing *Rotala* sp. has reached to the water surface and *Myriophyllum matogrossense* grows horizontally. These plants block the direct lighting on *Echinodorus tenellus* and *Riccia*, which is planted around the left driftwood.



18 After 2 weeks (after trimming)
This picture shows the layout after trimming of the left and right stem plants. We recommend to make a trimming of the stemmed plants so that those will make up a thicket as a plant group. At this time, trim slow growing plants as well. This is an important point to make a beautiful thicket in the layout. By trimming tall stem plants, *Echinodorus tenellus* and *Riccia* now can receive light well.



19 After 2 month (before trimming)

After repeatedly making trimming of the background stem plants, the density of their stems and leaves get thicker, and the plant thicket becomes lushly. Submerge leaf of *Cryptocoryne* grows well around this time and creates sense of unity together with *Echinodorus tenellus*, Willow Moss and *Riccia* in the middle ground.



20 After 2 month (after trimming)

In order to keep the beautiful stem plant thicket, it is advisable to make a trimming when apical bud of the stem plant reaches the water surface. As the stem plants grow, lower part of the stem gets ungraceful. But in this layout, driftwood, and *Cryptocoryne* thicket blocks those ungraceful part from viewing from the front.



Nature Aquarium Gallery 06

We set the balance of left and right driftwood and aquatic plant thicket 3:2, and try to express the perspective feeling in the layout. The path of dressing sand in the middle leads to far right background, and this emphasizes the perspective more. Brightness and natural feeling stay in a single layout.

DATA Aquarium/ Cube Garden W90xD45xH45 (cm) **Lighting**/ Grand Solar I (NAG-150W, Green) 10 hours per day **Filtration**/ Super Jet Filter ES-600 (Bio Rio, NA Carbon) **Substrate**/ Aqua Soil, Bright Sand, Power Sand Special, M, Bacter 100, Clear Super, Tourmaline BC, Penac W for Aquarium, Penac P **CO₂**/ Pollen Glass Beetle 30, CO₂ Beetle Counter, 3 bubbles per second (Tower/ 20) **Aeration**/ Lily Pipe P-4, 14 hours during the night **Fertilizer**/ Brightly K, Green Brightly STEP2 **Water Change**/ Once a week 1/3 **Water Condition**/ Water temperature 25 degrees Celsius, pH:6.8, NO₂:<0.2mg/ℓ, NO₃:<1mg/ℓ, COD: 2mg/ℓ



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