

MINERAL ACCRETION FURNITURE

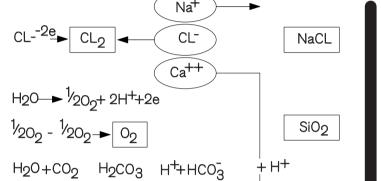
The Mineral Accretion Process was invented by architect and biologist Wolf Hilbertz to grow construction materials from ocean'minerals.

Wolf Hilbertz and Dr. Thomas J. Goreau - President of the Global Coral Reef Alliance - both develope the process (Biorock®) to create artificial reef to help the coral reef restoration (almost 64 % of the corals died during the 20 past years), fisheries restoration, shore protection and mariculture.

The process is based on structures easily built with locally available conductive material (usually rebar) which is submerged. A low voltage electric power is applied between the conductive structure (cathode negative) and a pièce of titanium (anode positive). Minerals crystallize from seawater onto structures. The structure is then, auto-protected and the calcium carbonate, white limestone (CaCO3) grow quickly on it.

The purpose of Mineral Accretion Furniture is to use this low tech and slow process to create furniture and domestics objetcs according to a biological rhythm.

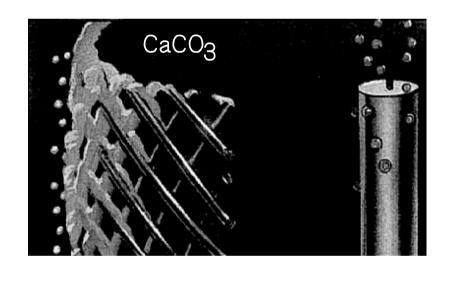




Electrochemical pathways of mineral accretion

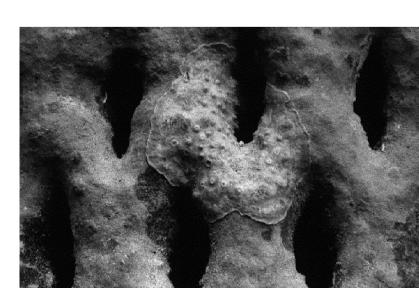
CaCO₃ H₂O → 20H + H₂ seawater average reduction (alkaline) pH PROFILE

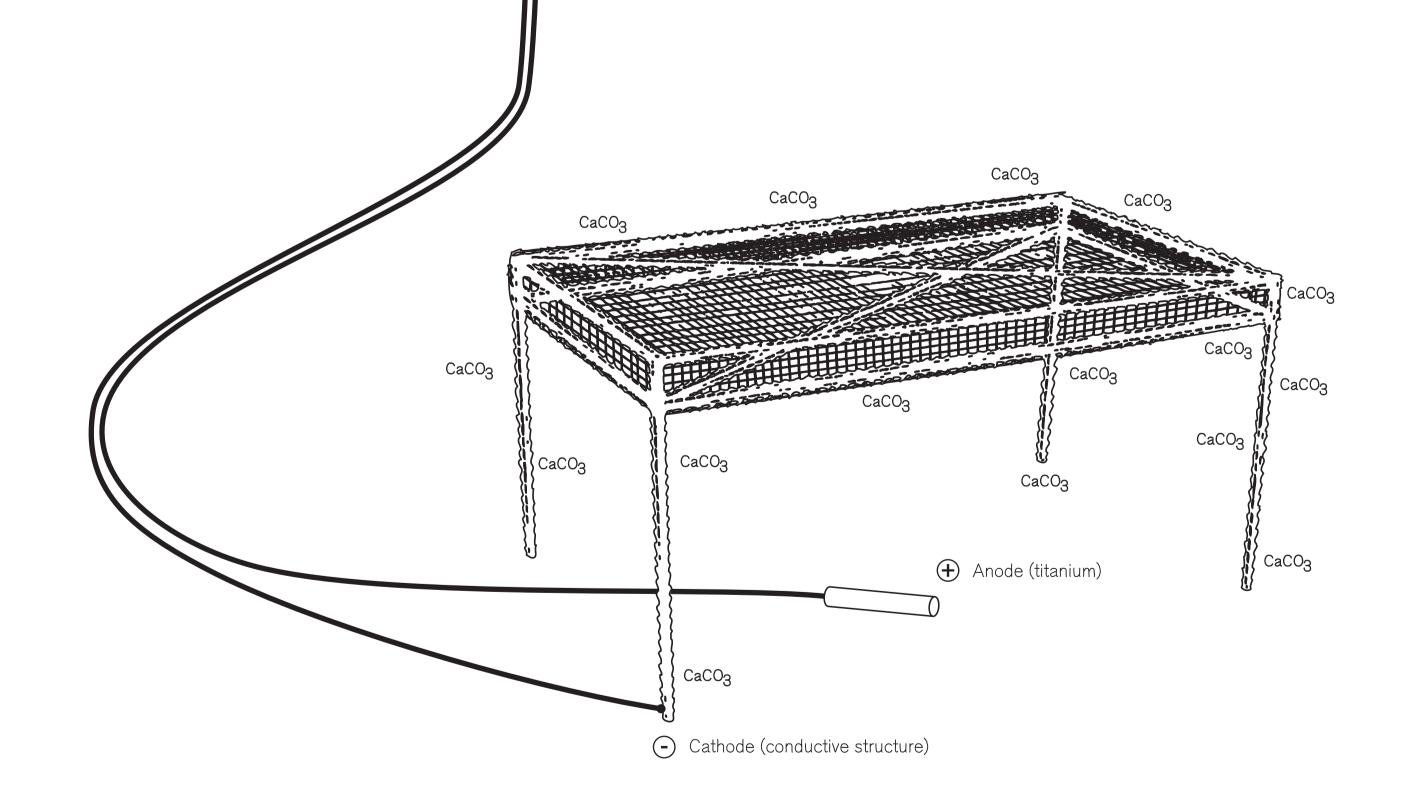
When a positively charged anode and a negatively charged cathode are suspended in sea water with an electric current flowing beetween them, calcium ions combine with carbonate ions adhere to the structure (cathode). The result is calcium cabonate. Sub-marine flora and corals adhere to CaCO3 and grow quickly.



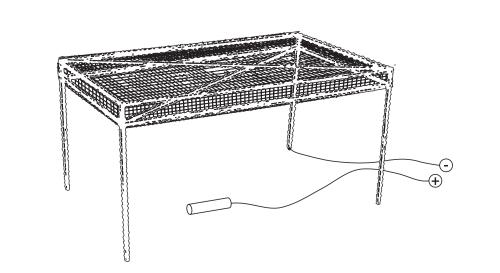


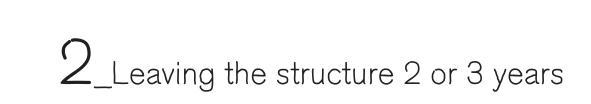






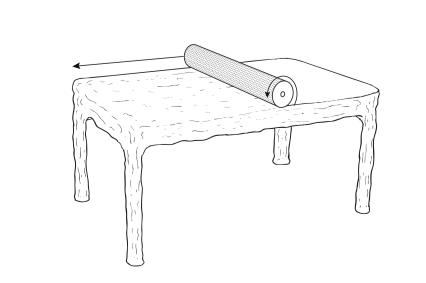
PROCESS







3_Drying the structure



4_Rectifying the using surfaces



5_Fixing the material with bio-resin