

Nature & Form

Apple Snail The Mysterious Snail

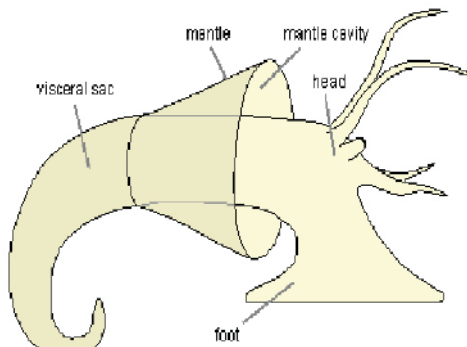
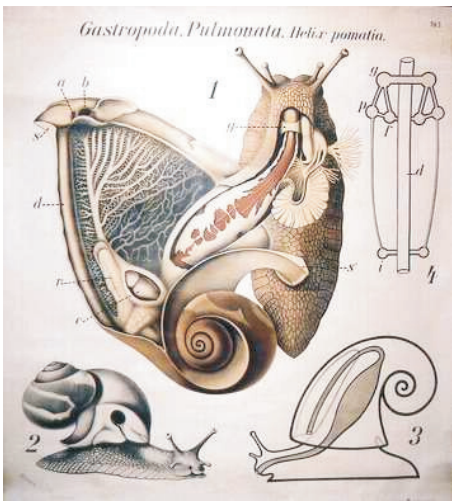
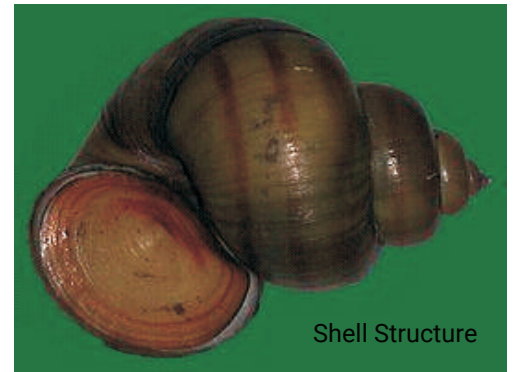


Course
Student
Faculty
Discipline

Nature & Form
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Research



Syphon Body



Golden Proportion

This family consists of two following subfamilies: Tribe Ampullariini Gray, Afropominae Berthold. This species of snail have shells that are a variety of colors such as brown, yellow, blue and the body can feature variations from black to grey to yellow.

When retracted into their shells, snails secrete a special type of mucus that dries to cover the entrance of their shells with a 'trapdoor' like structure called an operculum. Their attractive appearance and relatively big size (5 to 15 cm / 2 to 6 inches, depending on the species) greatly contribute to their success. The whole body surface of the apple snail contains chemo and mechanoreceptors. The eyes of the apple snail are located at the base of the tentacles, on top of the eyes stalks. The structure of the eye does not provide detailed vision, they rather function as directional light sensors that give the snail an orientation towards light sources. Color vision is absent as the retina does not contain color-specific photosensors: an apple snail is color-blind.

The structure of the shell: The shell consists of several layers. The layer on the outside is an organic layer, a build-up of several layers of conchioline, which contains the pigments which make up the color of the shell. The operculum is attached to the upper surface of the foot and in its most complete state, it serves as a sort of "trapdoor" to close the aperture of the shell when the soft parts of the animal are retracted. The operculum is attached with an opercular disc dorsally to the upper surface of the posterior part of the foot. The motion is powered by succeeding waves of muscular contractions that move down the ventral of the foot. This muscular action is visible when a snail is crawling on the glass of a window or aquarium. Snails move at a proverbially low speed (1 mm/s). They produce mucus to aid locomotion by reducing friction, and the mucus also.

Drawing & Explorations



Drawings of Apple Snail

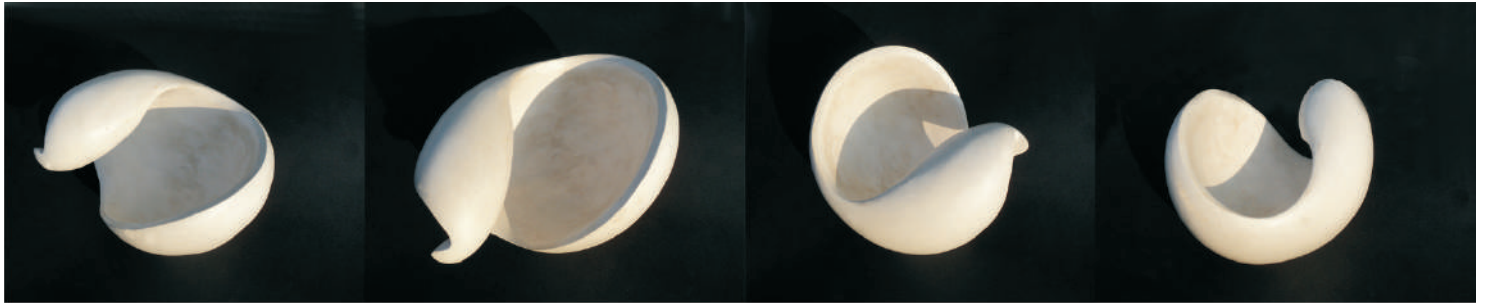
Form Explorations



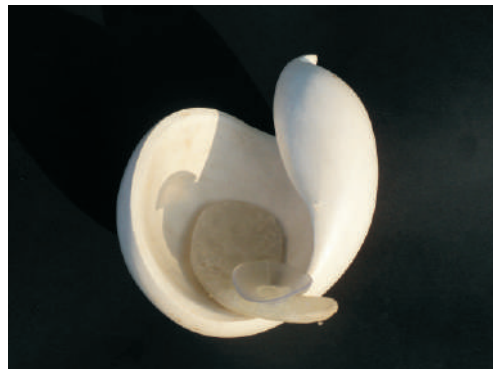
These explorations had done in different materials like aluminum, copper sheet, basically the shell's spiral structure is golden proportionate.

I Designed this shell in abstract Form with the help of explorations which helped me to come up with a Static and Dynamic Playful Form.

Final Form

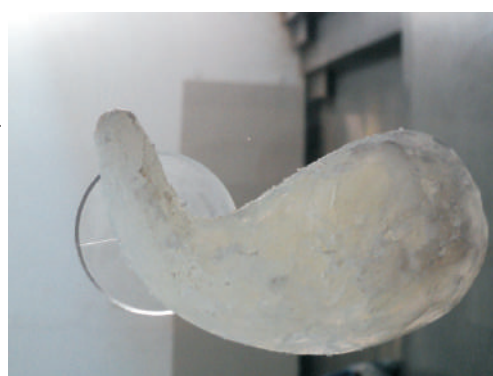


Static and Dynamic Form (Medium **Plaster of Paris** & **Medium Density Thermocol**)



Snail in his shell (Medium: Gluegun).
This snail can walk on any surface like glass, blade, etc only the mucus (Chemical helps to grip on any surface).

I used the golden proportion attribute on both two Form (Static & Dynamic).



The main point is that this snail shell's nose top point will never touch the ground when it moves. The same attribute was achieved in both Forms. It gave me an idea about this Playful Form.

People can play with this and enjoy the attribute in this Form.



Learning

From Nature and Form, I learned how to convert a natural object to an abstract form and how to use its attribute in abstract form and achieve a playful product. It also helped me developing the Form conceptually.

In future, this learning will help me to achieve (convert) nature to abstract Form and use its attributes in a Playful way.