History of Aquarium

In ancient culture of Egyptians, Romans Greek are known to have keep fishes in embankment for food purpose.

Aristotle (384-322 B.C.) had documented the scientific knowledge of fish community by he wrote about different habits of fishes further he described many local fish species.

The most important contributor to the popularity of keeping aquariums and ornamental fish is Goldfish, according to the documentary record available it is clear that keeping gold fish in aquarium was practiced in during Sung Dynasty in China.

In 1136 Emperor Hiau-Tsung started to breed and keep these fish in a more suitable environment. There was record of several new breeds of fishes.

In 1510 Goldfish was used by common people also, otherwise keeping gold fish aquarium was the sign of luxury life amongst the community. Many houses and dwellings had ponds with Goldfish and breeding them flourished. It was very common to keep successful breeding techniques a secret.

However, the very first book "Essay about the Goldfish" was written in China in 1596.

1616 the Goldfish arrived in Japan. The Japanese mastered the breeding of this fish over time. They now are the largest exporter of Goldfish worldwide.

1691 the Goldfish made it's appearance in Portugal, Europe. From there it arrived in England in 1728. At this time, the fish was popular throughout Europe's privileged ruling class.

Holland was the first country to breed the goldfish in Europe in 1780.

1850 was the year where the Goldfish reached the New World and was the attraction of New York in 1865. Upon this success the first goldfish breeder of the US took shop in Maryland in 1888.

1850 England, marks an important date in history of aquariums. Up until then, fish where kept by rather primitive means.

Based on the works of Chemist Priestley and Zoologist Johnson, who realized the plant oxygen relation, Robert Warrington build the first aquarium.

His theory was, by building a glass structure filled with sand on the bottom, snails, and plants that can provide oxygen, fish can live forever. The plants would provide oxygen to the fish, snails eat decaying plants and lay eggs, and the fish feed off of the snail eggs. The perfect contained cycle.

As farfetched as this theory may sound, aquariums where successfully set-up on this principle well into the 1950's. Planted aquariums held together by steel constructions, without filtration and heaters as we know today.

In 1856 a groundbreaking essay about "Sea in a Glass" by Emil Adolf Roßmäßler was published in Germany which is recognized as the beginning of the aquatic hobby as we know it today. The term aquarium by the way was used in writings starting as early as 1841.

It took many years to understand filtration. One of the first, the undergravel filter, was introduced in the 1950's.

Up until 1952, all fish kept in captivity where fed live food. Dr. Baensch (Baensch Atlas) revolutionized the hobby by inventing flake foods.

From there on, the hobby flourished. Fueled by shorter transportation (air traffic was in it's infant years), more and more breeders and the enthusiasts helped make the hobby more popular. The inventions and the understanding of water chemistry and fish within the past 30 years has enabled just about anyone to enjoy fish-keeping with little to no problems.

Nineteenth century

- 1. In 1836, Dr. <u>Nathaniel Bagshaw Ward</u> suggest to use tanks for tropical animals.In 1841 he did so, though only with aquatic plants and toy fish. However, he soon housed real animals.
- 2. , <u>Félix Dujardin</u> (In 1838) noted own a <u>saltwater aquarium</u>, though he did not use the term salt water aquarium .
- 3. <u>Anne Thynne</u> (In 1846,) maintained <u>many_corals</u> and <u>seaweed</u> for almost three years, and was credited as the creator of the first balanced marine aquarium in London. in his aquarium the water ecosystem was well maintained .so that this is the most balanced aquarium.
- 4. Robert Warington experiment by using 13-gallon container, in which he had put goldfish, <u>eelgrass</u>, and <u>snails</u>, he had created one of the best stable aquaria. These findings were published in the <u>Chemical Society's journal</u> (1850).
- 5. United Kingdom, contribute for the aquarium keeping in the form of ornate aquaria which was made by in cast iron frames. It was put at the <u>Great Exhibition</u> of 1851.
- 6. In 1853, the first large public aquarium opened in the <u>London Zoo</u> and came to be known as the Fish House.
- 7. <u>Philip Henry Gosse</u> was the first person to actually use the word "aquarium", opting for this term (instead of "aquatic vivarium" or "aqua-vivarium") in 1854 in his book *The Aquarium: An Unveiling of the Wonders of the Deep Sea.* In this book, Gosse discussed about saltwater aquaria.
- 8. In the 1850s, the aquarium became a fashion in the United Kingdom.
- 9. Tank designs and techniques for maintaining water quality were developed by Warington, later cooperating with Gosse until his critical review of the tank water composition.

- 10. <u>Edward Edwards</u> developed these glass-fronted aquaria in his 1858 patent for a "darkwater-chamber slope-back tank", with water slowly circulating to a reservoir beneat
- 11. However, in 1856, *Der See im Glase* (The Lake in a Glass) was published, discussing freshwater aquaria, which were much easier to maintain in landlocked areas. During the 1870s, some of the first <u>aquarist societies</u> were appearing in Germany. The United States soon followed. Published in 1858, Henry D.
- 12. Butler's *The Family Aquarium* was one of the first books written in the United States solely about the aquarium.
- 13. According to the July issue of *The North American Review* of the same year, William Stimson may have owned some of the first functional aquaria, and had as many as seven or eight. The first aquarist society in the United States was founded in <u>New York City</u> in 1893, followed by others. The *New York Aquarium Journal*, first published in October 1876, is considered to be the world's first aquarium magazine.
- 14. In the <u>Victorian era</u> in the <u>United Kingdom</u>, a common design for the home aquarium was a glass front with the other side's made of wood (made watertight with a <u>pitch</u> coating).
- 15. The bottom would be made of <u>slate</u> and heated from below. More advanced systems soon began to be introduced, along with tanks of glass in metal frames.
- 16. During the latter half of the 19th century, a variety of aquarium designs were explored, such as hanging the aquarium on a wall, mounting it as part of a <u>window</u>, or even combining it with a <u>birdcage</u>.

Twentieth century

- 1. Circa 1908, the first mechanical aquarium air pump was invented, powered by running water, instead of electricity.
- 2. The introduction of the air pump into the hobby is considered by several historians of the hobby to be a pivotal moment in its development.
- 3. Aquaria became more widely popular as houses had an electricity supply after <u>World War</u> <u>I. Electricity</u> allowed artificial lighting as well as <u>aeration</u>, <u>filtration</u>, and heating of the water.
- 4. Initially, amateur aquarists kept native fish (with the exception of goldfish); the availability of exotic species from overseas further increased the popularity of the aquarium. Jugs made from a variety of materials were used to import fish from overseas, with a <u>bicycle foot pump</u> for aeration.
- 5. Plastic shopping bags were introduced in the 1950s, making it easier to ship fish. The eventual availability of air freight allowed fish to be successfully imported from distant regions.
- 6. In the 1960s metal frames made <u>marine aquaria</u> almost impossible due to corrosion, but the development of <u>tar</u> and <u>silicone</u> sealant allowed the first all-glass aquaria made by Martin Horowitz in Los Angeles, CA. The frames remained, however, though purely for aesthetic reasons.
- 7. In the United States, as of 1996, aquarium keeping is the second-most popular hobby after <u>stamp collecting</u>. In 1999 it was estimated that over nine million U.S. households own an aquarium.