

BRONZE SCULPTURE

in Simon's Town

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Simon's Town has blossomed in the past few decades. Properties with breathtaking views against the mountain have attracted millionaires and overseas investors and the development of the Waterfront has provided attractive places for people to meet.

The Bronze Age Foundry

The Bronze Age Foundry, started in 1997, is another recent development in Simon's Town. It consists of the Bronze Age Sculpture House, the gallery and the Bronze Age Residency that provides accommodation for artists who work at the foundry. The former, situated in the historic Albertyn's Stables, has sculptures of prominent national and international artists on show, and the latter (a national monument) is housed in Albertyn's Cottage, built around 1761 and is an early example of an English country cottage in South Africa. Albertyn's

Stables, dating back to 1845, sheltered the carthorses that transported goods destined for ships in Simon's Town harbour.

Sculpture

Sculpture is a three-dimensional form in the round or in relief. A form in the round is free-standing and may be viewed from all sides. The design of the piece therefore needs to be interesting from all angles. Both the positive shape (of the sculpture) and the negative space (formed around the sculpture) are taken into account. Various materials and techniques are used. Historically the most durable materials have been stone, bronze, fired clay and wood. Metal alloys, for example, bronze, brass, aluminium and lead are non-ferrous materials and therefore less vulnerable to atmospheric corrosion than, for example, iron.

Bronze

Bronze has other excellent properties necessary for use in sculpture: structural strength, durability, ease of casting, fine, dense surface and the ability to take a

patina. The bronze sculptor is free from restrictions imposed by other materials: the grain of wood, or shape or size of a block of stone. Casting is the simplest way of getting metal into a desired form. Molten bronze will flow into a mould and take on any shape. The surface of the sculpture can be left rough after a cast or refined to a smooth finish. Because metal is less brittle than stone or clay, a more open design and slender shapes are possible. A hollow cast also results in a lighter form.

Bronze is composed of about 85% copper and minute quantities of tin, zinc and lead. (The addition of more zinc yields brass, of which the tonal colour is not as rich as the bronze colour.) Bronze was the most important metal used between 3000 BC and 1000 BC. There were thousands of bronze smiths working all over the Roman Empire, using sophisticated bronze technology. Other civilisations - the Chinese, Indians, Etruscans and European sculptors of the Middle Ages and Renaissance onwards (for example, Michelangelo and Rodin) also produced bronze sculptures.

Artists could cast their own sculptures or employ professional bronze casters to reproduce their prototype statues mechanically. The Bronze Age Foundry in Simon's Town's highly skilled work force of 30 professionals work in shifts around the clock to mould artist's work, cast it in bronze and complete the patination process. They do corporate or private consignments, for example, the BOE Bank sculpture at the



The Bronze Age Sculpture House has exhibited works of prominent sculptors in South Africa since January 2003



The Bronze Age Residence, that provides accommodation for artists who work at the foundry, with a sculpture garden in the front

clock tower situated at the Victoria and Albert Waterfront in Cape Town.

Lost wax method

This method (cire-perdue) is normally used when objects are cast in bronze.

- The sculptor moulds his original piece in clay or wax.
- A mould is then made of silicone rubber, which is flexible, with an outer mould of fibreglass as its support. (A complicated sculpture would be divided into sections, which would be cast separately and joined afterwards.)
- The inside of the rubber mould is coated with a few layers of molten wax, to form a hollow replica of the original piece. When the wax is hard, the mould is removed and imperfections on the hollow wax replica are repaired.
- Wax rods are attached, which eventually form a supply pipe for the molten metal and exhaust pipes for gases produced when the bronze is poured into the mould.
- The hollow wax replica is covered with a fire resistant ceramic mould and placed in a furnace to harden the earthenware shell and burn out the wax (hence the term 'lost wax' method). The mould is now ready for the bronze casting process.
- The molten metal will fill the cavity that contained the wax before the previous step and takes on the shape of the hollow wax replica of the original piece.
- The remaining ceramic mould is broken to free the cast piece and the remains of the ceramic mould are removed by sandblasting.
- The rods that were added for pouring and exhaust fumes, now made of metal, are cut off.
- Separate sections are assembled and the bronze sculpture may be further finished off with metal brushes and sandpaper.
- The piece is then appropriately mounted.

A predetermined number of casts are made of one mould; after which the mould is destroyed. (A piece in the gallery would, for example, have 3/10 on the label, indicating it is the third cast out of ten casts.)

The desired colour of the patina is acquired by applying specific chemicals.

Finally a coat of bees wax protects the surface from any further discolouring through oxidation. If desired, the piece could be buffed to a beautiful shine.

Bronze sculptors

Work of both national and international prominent sculptors is shown at the Gallery and renowned sculptors are represented at the Foundry:

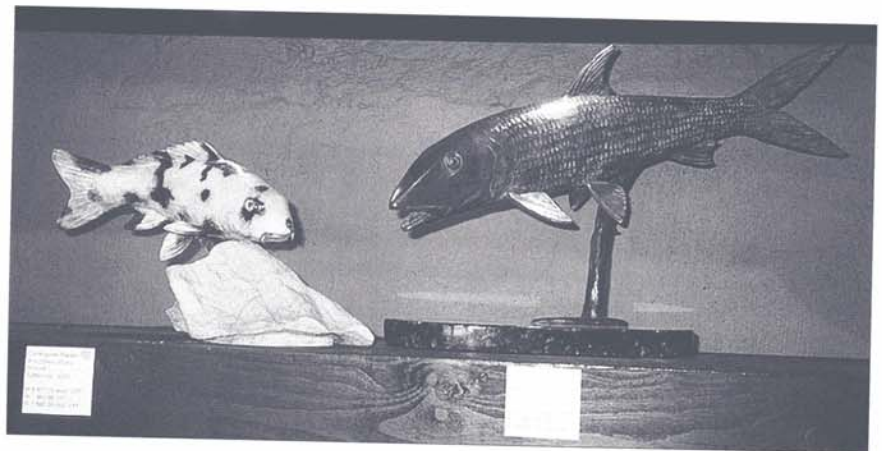
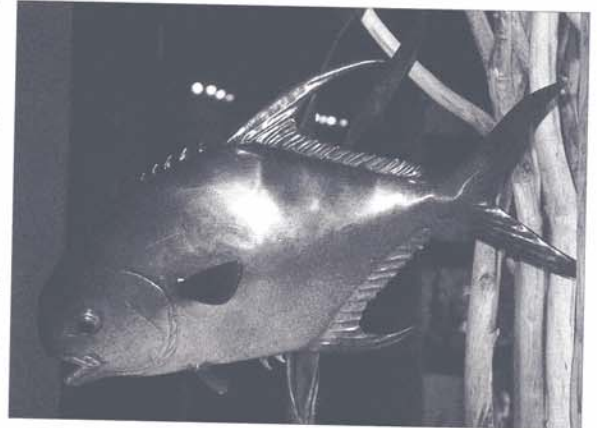
Jennifer Morgan is fascinated by cheetahs in motion. She sculpts small bronze cheetahs in different actions. A mixture of clay and wax is used for the original model - it does not crack as might happen when using clay on its own. The casting of her work is done for her at the Foundry.

Christopher Bladen qualified in dental technology, where he gained knowledge and experience in wax sculpting, mould making and precision metal casting. He therefore enjoys doing the casting of his bronze sculptures himself. Wax is used for the original design. Fishing is also a passion that inspires Christopher's work. Photographs of fish, magazines and other specific research provide the detailed information reflected in the life-size fish that are sculpted. He enjoys

working in patinas, marrying the natural colours of the fish with the bronze colouring. He applies the chemicals with a brush (dots of smooth strokes) or spray gun (for example, the Permit) to achieve the desired effect. The metal is heated during the colouring process for the colour to develop fully. Various species of fish represented by Bladen are displayed at the Bronze Age Foundry.

Donald Greig (born in Natal, but lives in Cape Town). He has exhibited nationally and internationally and regularly receives commissions for his wild life sculptures in bronze.

Speelman Mahlangu is based in Gauteng. He was commissioned by the Bronze Age Sculpture House to produce a life-size



Above right: Permit (*Trachinotus falcatus*) by Christopher Bladen, mounted on a stone. The sea bamboo alongside it, places the fish in a natural setting. Sulphuric nitrate was sprayed on the flank and back of the Permit, so that it fades into the white oxide, used on its belly

Above: Koi (ed 3/20): white, with dark spots, commissioned by a Koi collector. On the right hand side is a Bone Fish (*Albula Vulpes*) with its large, textured scales, also by Bladen

sculpture for the sculpture garden in front of the Artist's Residence.

Keith Calder (born in Cradock) has received numerous commissions, for example, Armillary and seals, at the Grand West Casino, near Cape Town.

Maureen Quinn sculptured the three life-size minstrels at the Grand West Casino, near Cape Town. The work was cast for her at the Bronze Age Foundry. Her studio is in Alexandria (Eastern Cape), where she has worked since 1994.

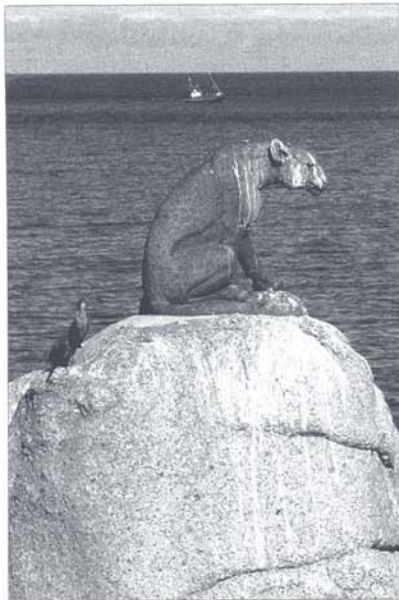
Jean Doyle made the famous sculpture of the Great Dane, Just Nuisance, at Jubilee Square, Simon's Town. She has had numerous exhibitions and her work is part of private collections worldwide. She has also undertaken various private and corporate commissions. Jean casts her own work at her studio in Wynberg, Doyle Art Foundry, which opened in 1980.

Although not represented in Simon's Town, *Ivan Mitford-Barberton* (1896-1976) needs to be mentioned as well. He sculpted the

bronze leopard mounted on a boulder at the base of Chapman's Peak (see below). The leopard was a gift to the people of Hout Bay and a reminder of the leopards that once roamed the area. *Ivan Mitford-Barberton* was a lecturer at the University of Cape Town and had his studio at Hout Bay. Hout Bay Public Library is privileged to also have a bronze sculpture of Mitford-Barberton: the head and neck of a giraffe.

The Bronze Age Foundry in Simon's Town offers three courses annually for interested persons who want to learn how to cast their own bronze sculptures. Students are taken through the whole process of sculpting their own piece, mould making, the lost wax process, casting and finishing off their work.

The Bronze Age Gallery is open to the public daily at various hours. Guided tours for the public are also conducted to explain and demonstrate the various processes of mould making and casting.



Left: *Ivan Mitford-Barberton* sculpted the bronze leopard mounted on a boulder at the base of Chapman's Peak. The leopard was a gift to the people of Hout Bay and a reminder of the leopards that once roamed the area

Right: Hout Bay Library is privileged to have another bronze sculpture of Mitford-Barberton: the head and neck of a giraffe



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