

THE ART OF BURSWOOD PARK
Sculptures in bronze by:- Smith Sculptors

For a sculpture to succeed as a work of art, the artist must capture the essential essence of the subject, the inner line of energy or life force the Chinese call 'Chi'

Joan & Charlie Smith believe passionately that this must begin with the basic steel armature which has to be welded up as a 'stick figure' to support the modelling clay. It is this steel inner line, which ultimately expresses the dynamic quality of 'Chi', without which a sculpture is merely a statue and not a work of art.

Next the figure is modelled over an armature, in clay (A), as a nude, irrespective of the eventual surface of the sculpture. The finished surface is then added, also in clay.

The sculpture is then moulded (B), in sections and the wax 'positives' (C), taken out of the moulds. These wax 'shells' are reassembled into the original form, which is now hollow and ready for the ceramic stage.

Much time and effort can go into final detailing of the wax 'positives' (C), before runners and risers are applied (D). Essentially, this is a network of wax bars forming a conduit system, enabling the molten bronze to flow through and the gases to escape.

Finally, a pouring cup is fitted to the 'running system' and the sculpture is invested in a ceramic shell (E). This fireproof material is capable of withstanding the heat of the molten bronze. The sculpture is filled with this material internally as a 'core' and externally, forming a completely sealed jacket. This is called a 'Ludo Mould' or 'Investment' which is then placed in a kiln where it is fired until all the wax is melted out. With large sculptures this can take up to 40 hours at 850 degrees Celsius.

When this process has been completed, the Investment is removed and buried in sand, in a casting pit. Silicon Bronze is then melted at 1100 degrees Celsius and poured into the investment filling the spaces left where the wax had melted out, thereby forming a bronze sculpture (F). When cool enough, the sculpture is winched out of the pit and the ceramic shell is removed with compressed air chisels, sand blasting and a variety of tools (G).

Many hundreds of hours of work lie ahead, with the removal of the running system and the meticulous repair of any surfaces damaged in the process. As the sculpture is now in sections, these must be welded (H) together to recapture the original clay form. Dressing of welds and finishing of the bronze surface is called 'chasing' (I).

A patina is applied to the desired shade and the sculpture is finished with a protective coat of wax ready for installation (J).

This is the ancient art of 'lost wax casting,' which apart from the introduction of modern features such as rubber, gas and electric machine tools, has remained principally unchanged for at least 7,000 years. This is the same method of casting used by the most ancient craftsman of Antiquity from China, Egypt, Greece, Rome and South America through the Renaissance, to the present day, with only a few modifications.

It is hard to imagine, in this day and age of high-tech industrial processes that bronze sculptures of this quality and scale are being lovingly crafted in Western Australia at their studios in Gidgegannup by Joan and Charlie Smith and their team. Working amongst the most ancient rock formations on the planet, the Smiths along with their daughter, Joanne and Artisan, David Miller, are maintaining an ancient and glorious artistic tradition, enriching Perth with a unique collection of sculptures that will grace the banks of the Swan River for generations to come.



