

rectangular prism, would be transformed by an inner empty space that was basically the bas-relief of a tree-like branching space. Inspired mainly by architectural rhythms and repetitions, this second concept recreated the rectangular prism through a series of square planes assembled together, and the interior space was created by the relationship of diverse organic shapes cut from these planes. Again, after discussions with the FuturArc team, the series of square planes was selected as the preferred option. It was suggested that the main volume should be even simpler—a cube rather than a rectangular prism—and main features could be the exploration of the organic void, as well as exploring a combination of different materials and textures in the repeated planes. Some of the proposals of the second round of ideas can be seen in figure 2.

With these guidelines, the final proposal was then refined, also through discussions with other colleague industrial designers such as Chris Hardy and Nick Robinson. The main challenge was to achieve an elegant and simple solution to connect all the repeated planes together, while offering different compositions for the different sides of the cube and at the same time highlighting the inner void. As such, the connection for the planes was resolved by a single slotted metal structure with another plane assembled to it; the different planes were proposed to be in a clear and transparent material that will highlight the inner organic void. Although diverse experiments for the organic void included tree-like twisted branching elements with a wide base and thin branches, the final solution is basically formed through the repeated and rotated cut-out of the “sustainability triad of circles”, which creates a spiralling organic tower, thus strengthening the semantics of sustainability and natural organic growth in a somewhat literal yet abstract way. Upon discussion among some of the industrial designers involved in the refinement, the final solution suggests a “micro-architectural” approach, with a fluid and organic internal space. A final image can be seen in figure 3.

Finally, a differentiation between the trophy for the FuturArc Prize and the FuturArc Green Leadership Award was proposed mainly in terms of finishes and surfaces. As such, the trophy design for one of the awards has clear transparent sheets and a matte (brushed) finish in the metal structure, while the other one features ‘frosted’ or sandblasted clear planes within a high-gloss polished metal structure.

Material Considerations

A trophy has a strong emotional connection to the owners because it marks the material representation of an achievement. Rather than a utilitarian artefact, it is mainly an object for exhibition—a product for display that is treasured, taken care of, and highly valued. As such, it is expected that it will be kept for a long time. Thus, one of the main environmental aspects of the design is precisely its expected ‘long life-cycle’. Main considerations for the design were the use of recycled or easily recyclable materials, an effort to reduce the amount of materials used to a minimum, a reduction of the overall weight (which thus reduces the carbon footprint during transportation), avoiding paints or electrochemical processes for the treatment of surfaces, and also an easy assembly without glue or other such elements, which is also related to design for disassembly (or planning of easy dismantling of the different components for an easy recycling of materials after disposal of the product). Although the use of natural renewable materials (such as timber or bamboo laminates) was considered, issues such as the ease of cleaning/maintenance were also taken in account, and thus the material choice was reduced to only two materials that would not be affected by water. Furthermore, although some of the materials proposed such as aluminium for the metal structure or glass for the clear plates do have a negative environmental impact due to high embodied energy (the amount of energy required by all the activities associated with the production process) the choice was justified mainly by their ‘longevity’ and perceived quality, an honesty in the appearance of the surfaces through simple mechanical processes and a high recyclability. Within the normal constraints of client-manufacturer relationships, evaluation of other possible environmentally-friendly materials with the possible manufacturers, as well as selecting manufacturers which are located as near as possible to the client was also suggested.

Safety aspects included considerations in manipulation, especially while presenting and receiving the trophy. As such all corners and edges were rounded in order to avoid possible injuries while handling.

In the end, the final proposal was also further refined through discussions with other colleagues/designers, namely Nick Robinson and Bill Shelley. Nick supported the detailing of the final proposal and CAD drawings, while Bill was instrumental to solving several design for manufacture issues, such as material thicknesses, tolerances and small details which could only be refined through prototyping.

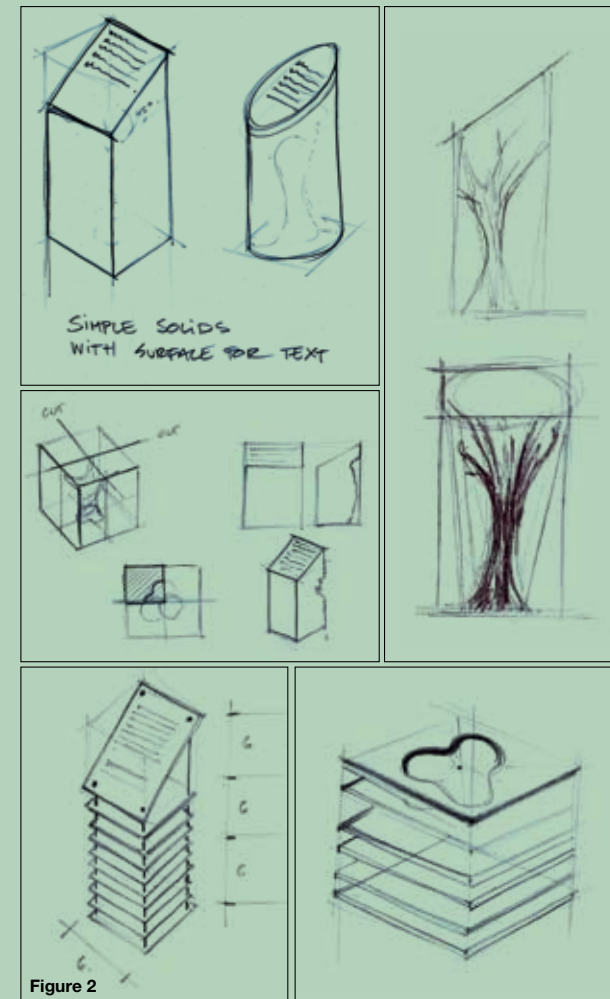


Figure 2



Figure 3

¹ de Freitas, N. (2002) "Towards a definition of studio documentation: working tool and transparent record." *Working Papers in Art and Design 2* • Retrieved 22 March 2011 from http://stem.herts.ac.uk/artdes_research/papers/wpades/vol2/freitasfull.html • ISSN 1466-4917

² Representatives of the FuturArc team include Dr Nirmal Kishnani, Candice Lim, Bee Luen and Karan Kok

³ Most of these ideas were summarised in my article "Reconnecting with Nature" in FuturArc, Volume 19, Main Feature