

Chateau cardboard cyborg

The question of when machines will become human-like is already passé, according to Faculty of Natural and Agricultural Sciences scientific technician Gary Cass. What is more compelling is the question of when humans will become more machinelike.

In a confronting art installation entitled *Bioalloy and the Body: 'Bleeding Angel'*, Mr Cass and Singaporean artist S. Chandrasekaran explore the diminishing space between humans and machines, including Cyborgs. A version of the 'Bleeding Angel' was a fringe event in last year's Venice Biennale and the latest incarnation is on show until November 16 as one of ten finalists in the 2008 APB Signature Art Prize in Singapore.

A viticulturalist by training, Mr Cass uses red wine, 'chateau cardboard', to which he introduces the bacteria *Acetobacter* to create a cellulose substance that forms the metaphoric bones, flesh and blood of the half machine which makes up some of the installation.

The rest is the real-life human, the artist, whose body is painted red. The artist stands with half his body obscured by the tin machine in whose 'belly' is a stomach that not only creates the vinegary 'bleeding' fluid but also generates a small amount of electricity.

The 'bleeding' fluid is pumped from the 'belly' to the machine's 'head' from where, after several days, it begins to form an organic skin.

Visitors to the exhibition over time see the tinman's 'head' go from being ossified white to 'bruising and bleeding' and finally forming a 'smelly skin'.

Mr Cass generated interest world-wide with his 'clothes' made from cellulose created through the interaction of bacteria and both red and white wines but he and S. Chandrasekaran push the boundaries

further with this work which, a few months before the 200th anniversary of Darwin's birth, forces us to wonder whether evolution will eventually link living beings to machines which may qualify as living organisms in many respects.

Already humans are becoming more machinelike, with cochlear implants, pacemakers and even spectacles helping us to function. Many people are permanently hooked up to a mobile phone and we increasingly depend on computers and other machines," Mr Cass said.

This machine generates fleshand blood of a sort, produces odours and attracts flies so it is in many ways an organic, self-sustaining thing. Eventually it will rust and die."



Skeletal system



Bruising and bleeding