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ACMI **Screen Lounges**: Progress report on construction

From **Crowd Productions**: A report on progress of research, design and construction work to 23.04.03

01.] **Report on design progress: A meeting with ACMI stakeholders, CMR and PIVoD.**

09.04.03. On Wednesday 09 April, Crowd met with ACMI, CMR and PIVoD to discuss design and construction progress of the Screen Lounge pods. With Michael Parry we discussed the optimal height for positioning of the track lighting system required by the Memory Grid pods. Michael would like the track set as high as possible, with the obvious limit set by the inflatable ceiling above. Max Goode agreed to source a sample of the track lighting that ACMI intends to use in both the Screen Lounge pods and throughout the ACMI fit-out so Crowd can proceed with designing of the connection system to the built pod environment. Crowd stated that the procurement of the tack falls outside the contract with ACMI, which does not include Memory Grid functionality, as now only the original contract is in operation, as the Memory Grid additional contract, apart from some already completed consulting, has been rescinded.

Crowd agreed to present proposals to ACMI for a perforated metal shield to protect the roll bar and plasma screen assembly on the open Screen Lounges from the public. John Smithies requested that Crowd present proposals to suggest designs for provision of extra space within the Screen Lounge pods, either under the seats, within the Mantle Boot or possibly within the external fibreglass seating forming part of the exterior skin of the pod. This space is to house possible games processing units from a selection of games manufacturers in the future. These units will be approximately 200mm cubed.

CMR requested a schedule of delivery for the inflatable ceilings.

02.] **Report on design progress: A meeting with ACMI stakeholders and PIVoD.**

11.04.03. On Friday 11 April, Crowd brought into ACMI a sample of each of the LCD/touch screen control screen delivery devices for evaluation by AMCI stakeholders. ACMI will decide which system they wish to employ. Crowd met with Matthew Mulcahy, Max Goode, Joy Woodford and David Watson about the setting up of an operating prototype installation to test the characteristics of the two arrangements. Matthew set up an operating installation with plasma monitor and speakers at the correct relative heights. It is important that the different stakeholder groups test the facility and voice their vote and opinion quickly so we can proceed with the

Images of the prototype installation set up by Matthew Mulcahy at ACMI showing the plasma monitor and the LCD touch screen mounted on the Spacedec arm. Right shows the stowed position of the Spacedec arm [within the Mantle Boot].

Images of the AME system bracket developed by Matthew Mulcahy of ACMI to hold the speakers and video camera to the plasma monitor

construction of the selected option within the first operating Screen Lounge pod. Crowd is aware that different stakeholder groups have different concerns and bring different frames of reference to the table about use and space etc. PIVoD need as much room inside the Mantle Boot. Other stakeholders are concerned with security or occupational health and safety.

Crowd now awaits the decision by ACMI as to which delivery arm it wishes us to proceed with. We can not proceed with the construction of the Mantle Boot interior until this decision has been made, as either alternative will require a different interior fitout and chassis construction. Any delay in making this decision after Monday 14.04.03 will delay our ability to begin and finish this work.

Images of the Scissor Arm prototype with the increased wall thickness and additional returns to achieve a very high level of stiffness

03.] **Report on design progress: Developing the content for the Blister Pack**

15.04.03. On Tuesday April 15 Michael Trudgeon from Crowd and photographer Peter Clarke met with Victoria Lynn from ACMI to discuss the concept for the content for the Blister Pack that form part of the Screen Lounge pod boundary. In conceiving the Blister Pack the intention has been to use it as a device to evoke a sense of the domestic. For Crowd this is a spatial or architectural exploration to examine ways for charging the space of the Screen Lounge pods with a notion of an ambiguous intimacy. Notions of public and private space and how people perceive and establish these differences are central concerns of this project.

To maintain the domain of the original project, which is our only legitimate terrain of activity, we want to take the family of contributors who have participated in creating the Screen Lounge pods and Memory Grid pods and draw personal material from them to create Blister Pack walls of photographic memorabilia, details of selected special or favourite items, pets or people. Peter Clarke will use this material to re-photograph it to then focus on details and process the images in a way that draws attention also to the process of reproduction The acrylic Blister Pack container has become a kind of organic reconfigurable machine for the fragmentary display of imagery. The mechanism is revealed as part of our program of investigating porosity and ambiguous boundaries. For us the Blister Pack is attempting to reproduce the mosaic and participatory nature of television, a central driver behind our conception of the contemporary lounge room.

We are currently developing our collection strategy and Peter Carke is developing techniques and systems for reproduction.

04.] **Report on design progress: Researching the behaviour of the inflatable ceiling membrane used in the Screen lounge pods.**

17.04.03. On Friday 17 April Crowd met with Peter Lim of Tensys and Peter Bedggood of Bedggood Canvas to conduct welding and pressure tests on the selected polyurethane skinning material for the inflatable ceiling elements of the Screen lounge pods. We also discussed the anchoring systems. Tensys, in England, are doing the computer-based form finding for this project. To produce the exact final form for the inflatable ceiling many factors need to be taken into account. We have a designed envelope for the ceiling to conform to and we require a smooth edge and a uniform contact with our support structure. To shape a pattern that gives our final size and form we need to know the strength of the surfacing membrane, the strength of the fabrication welds, the inflation pressure necessary to make the inflatable self supporting and finally to gauge the exact elongation or stretching characteristics of the selected

material. We have established a suitable inflation pressure with the computer model of 0.35kN/m2 or 0.05 PSI. This was tested and the samples response indicates that it will be structurally sound at this pressure. The stretching characteristics involve a number of factors. The material will stretch under initial inflation pressure. It may then gradually continue to stretch over a period of time under the inflation pressure. This is called creep. Then we must deflate the sample and re-measure the fabric to see if it has irreversibly stretched or returned to its original size. It is then re-inflated to see if progressive creep or stretch has occurred, what it's extent might be and how it is to be factored into the cutting pattern. We are now conducting these on going tests. We then test bent the proposed lock track or rope track system to test it's ability to both accept a radius in plan without buckling or deforming to a point and then see if this interferes with it's function. Both of these tests were successful. We have now ordered the polyurethane from Italy for the fabrication. It will take six weeks to get to Australia. In examining the fabric inflation sample we have also determined the orientation of the fabric for construction. The smooth side will face out both for ease of cleaning and the apparent capacity of the fabric to transmit light. The final element in the construction of the inflatable ceiling is the inflation valve. We have sourced an Italian low profile conformal valve from the inflatable boat on tender industry. These products are not imported into Australia, but are available in New Zealand. We are now contacting our suppliers in New Zealand to purchase the valves.

Images of the polyurethane test inflatable and the rope track/track lock system components to secure the inflatable ceiling to the Screen Lounge pod walls.

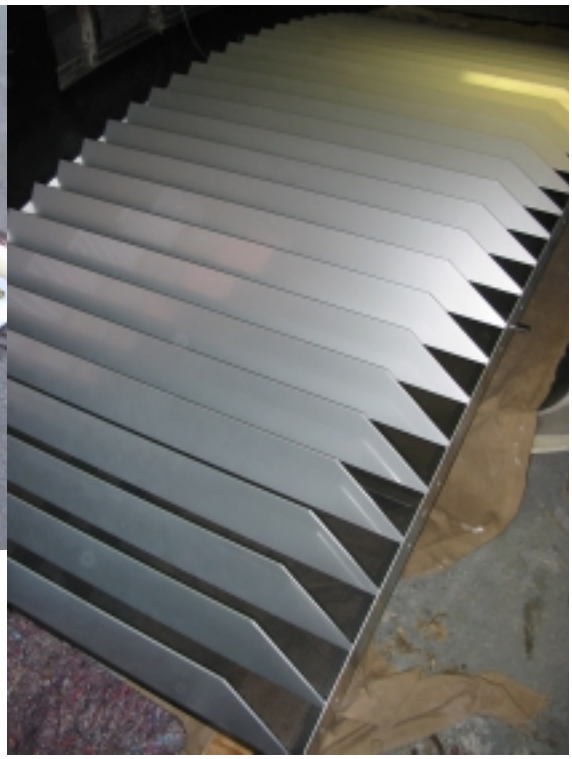
05.] **Progress on construction: Finishing the interior shell skin.**

The interior shell of SLP 01 has been skinned in black vinyl as the finishing coat to the lower part of the shell. This has required the sanding and smoothing of the fibreglass interior coving so that all joints are filled and flush with the abutting surfaces. A very smooth substrate must be provided for the vinyl to ensure a good gluing surface and a final uniform finish. As the lower sections of the frame carry all the principle services, a number of cutouts and apertures must be accommodated in the vinyl including the recesses to take the Blister Pack optical fibre conduit and the entry floor light.

Images of the preparation for and application of the vinyl wall finish to the interior floor and wall surfaces of the Screen Lounge pod 01.

06.] **Report on construction progress: Assembly of the painted louvre wall.**

19.04.03. On Saturday 19 April the painted and finished louvre wall components were assembled into their final positions. This assembly represents one quarter of the finished Screen Lounge pod enclosure and is part of the overall strategy to produce a dynamic porous exterior surface.



Individual louvres are screwed into the support frame of the louvre wall. The central membrane of black metal mesh can be seen behind the louvres

07.] **Report on design and construction progress. The trolley system for the Screen Lounge pods**

Below are the final visualisations of the trolley system designed and now being built for the Screen Lounge pods. This assembly is being fabricated at Riva Fab this week for delivery next week to complete the fabrication of the metal components for the Screen Lounge pod 01.