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29.07.02



ACMI Screen Lounges: Progress report on design

From **Crowd Productions**: A report of progress and an outline of research and design work to 29.07.2002

01.] Report on Design Progress: Fitting the first Soona prototype

16.07.02 The first prototype *Soona* was fitted onto the seating base at VECCI to test it's fit, stitching patterns and strength, ergonomic performance and ability to reconfigure into the desired leisure modes. This prototype is a shape and foam density test prototype and does not use the selected cover fabrics, in order to save money. After studying the details of this prototype it was decided to proceed to a second prototype to test the selected fabric performance. Also as a result of combining the seat base and *Soona* we wish to modify the seat base to provide a deeper seat. The second *Soona* prototype will be fitted shortly for ACMI evaluation.



02.] Visualisations and prototyping the Screen Lounge interior wall panels

In order to demonstrate the behaviour of the Screen Lounge Pods we are proceeding with prototyping the interior wall panels to give a more complete indication of the finished interior elements. Of particular interest are the peep holes or viewing ports cut into them to explore the notion of a porous boundary and evoke an intriguing impression of the Screen Lounge interior and the activity there in. These have been dimensioned, detailed and costed. Below are visualisations of these panels with the current pattern of peep holes or viewing ports cutting through them.



03.] Full scale weaving and material research project

Wendy Golden, a leading Victorian Fibre practitioner has conducted some materials experiments at full scale to find out what might be the appropriate natural materials to employ in the construction of the Woven partition screens. While these initial experiments are well wide of the mark in terms of our intended aesthetic, they have given us an insight into the performance and colour etc. of the selected screen materials.



04.] Design Modifications to the Screen Lounge Pods in response to the Stakeholder meetings

In response to concerns about the sharpness of the base of the Screen Lounge pod louvres and their relation to the external seat or perch and seating comfort, these have been tapered back to the Screen Lounge body. This provides more back room and headroom for the external seat and takes away the sharp corner.



05.] New Visualisations of the Proposed Six Seater design

We have prepared new visualisations of the proposed six seater Screen lounge design which update the elements in line with the design developments of all the key components being proposed and discussed.



06.] Summarization of meetings with ACMI Stakeholders to discuss the design of the Lounge Pods

Below is a summary of discussion points raised by ACMI stakeholder groups in relation to the Screen Lounge pod designs.

- 01.] The Edworks team need the Screen Lounges to be open and approachable and with some ongoing and inviting idle mode.
- 02.] As the Screen Lounge space is designed to accommodate a number of exhibition formats it is an important feature of the Screen lounge pods that they be easily movable.
- 03.] It was recognised that there is a difficulty in meeting the brief requirements of an open and porous design as well as providing a

lounge space for a curated experience, viewing material that requires some acoustic isolation and privacy. There was general support for the use of the movable acoustic baffle partitions to accomplish this requirement.

04.] The Edworks team are concerned that ACMI patrons will not be able to clearly distinguish between the open availability of an Edworks configured Screen Lounge pod, with exhibition material appropriate for general viewing and a Screen Lounge pod that is available to show 'Not for general exhibition' content. One idea is to develop a specific partition that acts as a sign for Edworks activity.

05.] The idea of a Screen Lounge pod at the entrance to the designated Screen Lounge and Edworks area to act as an indicator of activity and interest was embraced.

06.] The use of movable partition screens was embraced along with the idea that the design of them would refer to navigation and way finding. This resonated with the work of Andrew Garton and Jane Ellery. The Edworks team like the possibility of being able to make temporary rooms by grouping the partition screens.

07.] The Edworks or Memory Grid functionality requires the need for standing room and a blue screen. This is accommodated at the space at the end of the Screen Lounge pod in front of the Blisterpack Memory Wall.

08.] It was agreed that development of the control console coffee table element will continue in consultation with stakeholder groups and with Pivod and David Watson. It was requested that a meeting of all concerned stakeholder groups be arranged to discuss the elements of the media platform.

09.] Andrew Garton observed that while a lot of the material included in the Memory Grid is 3:4 image ratio, the landscape format of the plasma screen could be used to good effect with programmed border material.

10.] The notion that the Screen Lounges provide a social space for discussion and delving into the curated ACMI archive was supported by the curatorial and programming group.

11.] Disabled access was discussed with Jack Crawford. It was felt that the best solution was to make one Screen Lounge dedicated to disabled access with an assessment made by Arts Access as to accessibility. This lounge would have a ramp and removable seats.

12.] It was felt that there needs to be further clarification with regard to details of the media platform, how it will do what it needs to do, how its requirements would be balanced or even traded off against each other and what exactly was the full set of demands from all stake holders for it.

13.] For some staff there is concern about the relationship between the Screen Lounge plasma screen and the viewers seating position. It was felt that the screen might be too big or too close.

14.] There is some concern that the Screen Lounges are too big for the Screen Lounge space available, while it is recognised that the interior space needs to be a certain size to comfortably contain the users and their belongings.

15.] Andrea Kliest noted that the louvres on the Screen Lounge pod exterior might pose a danger presenting a sharp corner when one is seated on the external seat or perch.

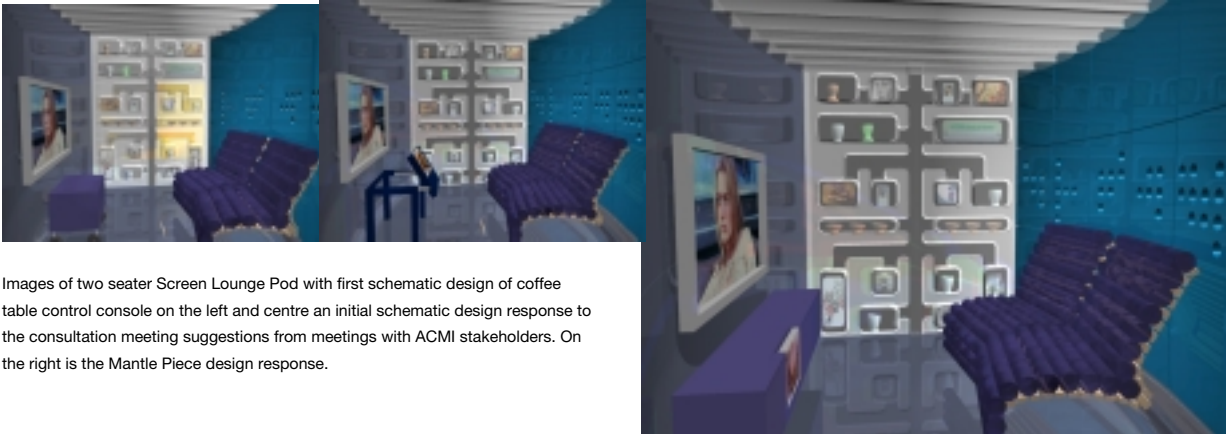
07.] Development of the design for the Control Console for the Screen Lounges.

As a result of initial consultation with ACMI stakeholders we have begun to integrate suggestions and design requirements into the schematic design of the Control Console or the Coffee Table zone. Issues raised include:

- 01.] That the interface touch screen panel be used both in an upright position in way-finding mode and horizontally in the Edworks or Memory Grid mode.
- 02.] That space be provided for storage of notes and reference material.
- 03.] That space may be needed for additional on-site computing facilities.
- 04.] That space be provided around the touch screen in the horizontal mode of operation to allow for possible additional controls
- 05.] That connection points be made available on the console module for connection to games controllers

06.] That more leg room be made available to the users of the Screen Lounge in front of the control console

07.] That users in the various mode of operation of the Screen Lounges don't have to bend forward to use the control console



Images of two seater Screen Lounge Pod with first schematic design of coffee table control console on the left and centre an initial schematic design response to the consultation meeting suggestions from meetings with ACMI stakeholders. On the right is the Mantle Piece design response.

Our initial response to the brief for a control console was to start from the archetype of the coffee table as a form. We attempted to develop an articulated lever system to swing the screen out and up to the users from a coffee table frame. This is difficult to do and leaves us with a support structure that is a potential obstruction. This idea has evolved into a new design response we call the Mantle Piece. This design still provides for an extendible and rotating touch screen but has the following advantages:

01.] The mantle piece is tucked out of the way and is principally mounted off the wall.

02.] The Screen can be used in an upright position [at some distance] in the rest position

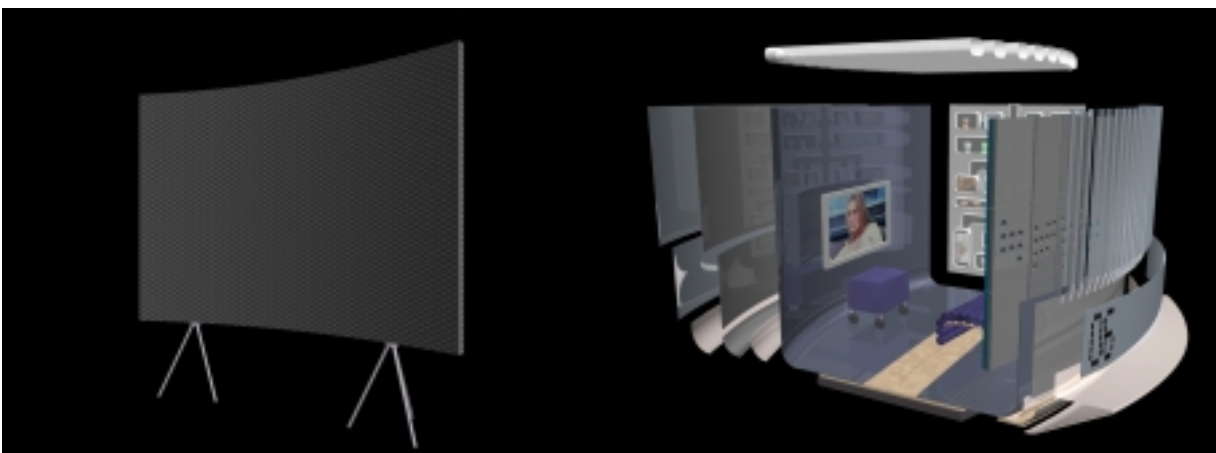
03.] The mantle piece contains user storage shelving

04.] The mantle piece provides a technology boot for additional localised hardware if required. It will also house the Blisterpack light driver for all internal Screen Lounge pod lighting. This will facilitate easy maintenance.

05.] The mantle piece will house a dimmable wall washing viewing light. This is designed to offset eye-fatigue from the optical edge effect from prolonged viewing of the plasma screen against a wall.

08.] Report on Design Progress: Developing the acoustic partition for the Screen Lounge Pods.

In discussion with John Maher from Source One Alliance we have redesigned the acoustic partition to optimise for the material sizes of acoustic foam available. Below is a visualisation of the new acoustic panel with the revised panel size and surface material along with an exploded visualisation of the other current design Screen Lounge elements [except the proposed updated control console design.



09.] Report on Design Progress: Developing the lighting systems for the Screen Lounge Pods.

The proposed lighting systems for the Screen Lounge pods consist of 4 elements.

01.] A threshold safety lighting strip in the floor.

02.] A row of Hot Dot floor lamps to provide a clear and safe light guide inside the Screen Lounge Pod.

03.] A Fibre optic system and light driver for the Blisterpack Memory Wall

04.] A wall wash light mounted behind the Mantle Piece control console to reduce excessive contrast between the TV image and the surrounding wall. This is designed in consultation with Kevin Poulton to reduce eye fatigue. Key data comes from *Visual Perception* by Tom N. Cornsweet published by Academic Press, New York.

The intention is to have all lighting wiring in the lower quarters of the Screen Lounge Pod modules so that no wiring is involved in the dismantling and change from the full Screen Lounge to the convertible mode. This means all interior lighting will be floor mounted or be wall wash. It is also proposed that all the lighting could be fibre optic with one central light driver for easy maintenance. The light driver would be housed in the control console. The floor mounted lights are reminiscent of runway landing lights and again reference the idea of navigation and literal 'way finding'. They also evoke the isle lighting found in darkened theatres used for the same reason. With regard to controlling the intensity of the television viewing wall wash we feel that this should be possible by a control knob on the pull out touch screen tray mounted on the Mantle Piece.

10.] Meetings with ACMI Stakeholders to discuss the design of the Screen Lounge Pods.

01.] 24.07.2.

Meeting with David Watson focusing the control console and its relationship to the media platform.

The potential conflicts that result from the Screen Lounge Pods as a Curated Experience space versus a multipurpose space were discussed, along with the desire for Pivod to utilise a virtual keyboard and pointer and the possible location within the Screen Lounge for a barcode reader or smart card swipe port. The possible need for centrally programmable volume limiters on the Screen Lounges was also discussed.

11.] Discussions with consultants and fabricators on fabrication techniques and systems for the Screen Lounges.

01.] 12.07.2. Emailed IBR Inflatable boats in New Zealand with a set of schematic construction drawings re inflatable ceiling module to obtain a quote.

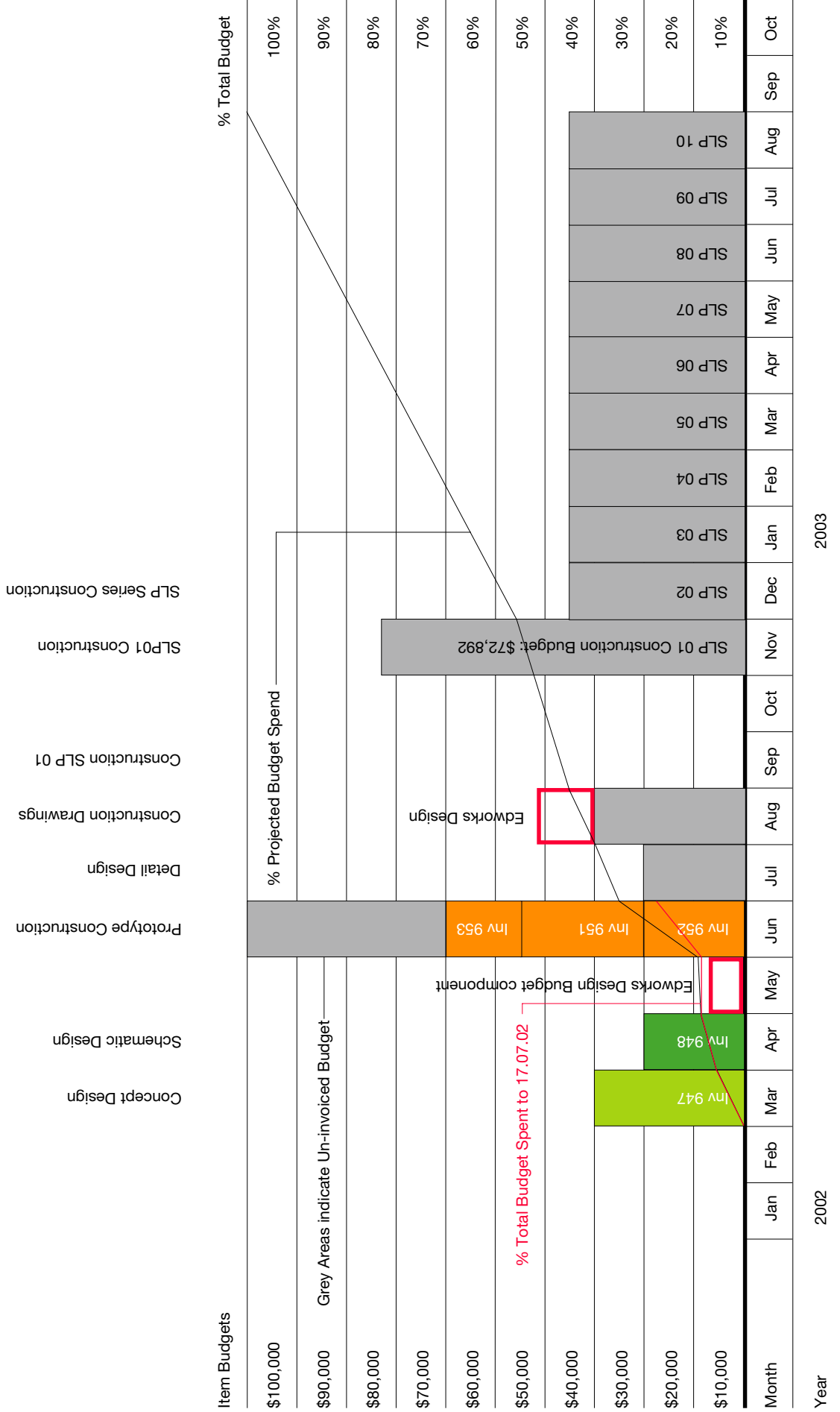
02.] 23.07.02 Meeting with Megan Dollar from RMIT Fibre Department to discuss fabrication techniques and a time table of fabrication experiments for the woven partition screen.

03.] 22.07.02 Meeting with Sallyanne Nelson from Woven Image to look at fabrics for the wall panels for the interior of the test bed prototype

04.] 19.07.02 Meeting with Lionel Barden from Fibre Light International Ltd, Brent Tyrer from Rexel Australia and Kevin Poulton of K. Poulton and Associates to discuss the proposed optical fibre lighting system for the Blisterpack wall and the Screen Lounge Pods.

05.] 26.07.02 Meeting with Kevin Poulton from K. Poulton and Associates, our senior lighting consultants about the lighting systems for the Screen Lounge Pods.

12.] Timeline indexed Construction Budget expenditure for the Screen Lounge Pods



NB: Where pattern making, mould making and tooling are required to produce items these costs are part of the Screen Lounge pod 01 [SLP 01]. This first Screen Lounge Pod absorbs the full cost of that initial pattern making, mould making, tooling and associated works.
 All prices based on figures and research to hand. Where possible multiple quotes for all services required are being obtained. Choice will be based on quality, ability to perform and understanding of project and aesthetic. The lowest quote will not necessarily be chosen. Where detail drawings are not available and schematic design only available approximate figures available only. Where schematic drawings are not available budgets have been apportioned based on previous experience.
 All budgets are based on current design and design projections and not the final design. Certain functional requirements that have not yet been finalised by the client and not fully discussed with Crowd Productions have not been factored in. The proposed Edworks Blue Screen has not yet been costed nor do we have an estimate.