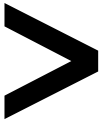# STUDIO DELTA

DESIGN JOURNAL: THE LANGUAGE OF ARCHITECTURE

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STUDIO 04
LAURA MARTIRES

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STUDIO DELTA

Studio Delta consists of 3 different segments to completing our journey of finding what a contemporary library will become in the new world in the city of Melbourne. We started the journey with mapping, by gathering a range of informations such as case studies of the library, the city, and the site. We came up with a few design strategies using models to complete our architecture design of a contemporary library. With the design journal as a guide, we gathered more knowledge on what a library could become and what potential ways a library could be represented. This Design Journal will go through a series of journeys on what will drive the final design of the contemporary library.

CONTENT

ON THE PUBLIC LIBRARY

I am able to widen my horizons on how a library can be used. From my understanding, or from the documentation, I realised how the library is really about people. Designing a library is not just about designing for the individual but it's also for the people to gather, to seek help, to grow, and many more. I find it interesting about what the director is documenting, and find there is a patterns on how he wants to show the library with the different activities happening in the library and how people connect using scenes switching from past, present, and future. Some interesting activities including a theatre for minorities and their hobbies to be shown, giving 3G internet for poor people, and having a meeting frequently in the library on how to deliver better quality.

Ex Libris Film, Directed by Frederick Wisema

EX Libris The New York Public Library Documentary By Fredrick Wiseman

PAST

NOW

NOW

FUTURE

NOW

FUTURE

PAST

NOW

HISTROY

QUIET ROOM

FUTURE

BOOKTALK

FUTURE

JOB SERARCH

CORRIDOR STUDY

NOW

MEETING

PICTURE COLLECTION

INTERNET SERVICE

NOW

MEETING

MEETING

PAST

FUTURE

NOW

FUTURE

DISSABILITY TALK

NOW

NOW

FUTURE

MEETING

TALK

NOW

NOW

NOW

PHOTO SHOT BOOKS

EDUCATE STAFF

ELDERLY DANCE CLASS

MUSIC PERFORMANCE

POETRY PERFORMANCE

BOOK TALK

NOW

NOW

BOOK TALK

NIGHT ANNIVERSARY EVENTS

CHILDREN

1:26:01

DISSABILITY

" Library is not about book, its about people."

PEOPLE

ELDERLY

FUTURE

FUTURE

PAST

FUTURE

TEENAGERS

NOW

NOW

NOW

MEETING

BOOKS RECORDING

SHARING ABOUT HISTROY

JOB SERARCH FOR DISABILITY

NOW

TALK

BOOK TALK

TALK

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FUTURE

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FUTURE

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CLASS FOR ELDERLY

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MEETING EBOOK

BOOK TALK

WEDDING

RACISM TALK

MEETING FUNDS

PARENTS &MMLTALK

BOOK TALK

A CONTEMPORARY LIBRARY

This is a building found in Metropolis magazine in the MSD library, 'The house of wisdom' by Foster + Partners. I found the bookshelf very interesting as I was very curious on how bookshelves are placed in a library and later understood that the bookshelves are a part of the architecture. I find this precedent has shown parts of the quality that I wish to show. It uses bookshelf as a column/ wall to divide the space. The space looks very wide when the primary structure where supported on the sides creating this center space for people to interact as well.

"The library is not only a source of knowledge and information, but also a space for contemplation and inspiration. It should reflect the surrounding community and be a place that celebrates the joy of learning." Norman Foster

The shelf is part of the architecture

The four core structure provide support for the floating roof and used for back-of-house servicesing

Indoor-outdoor connection with the surrounding view
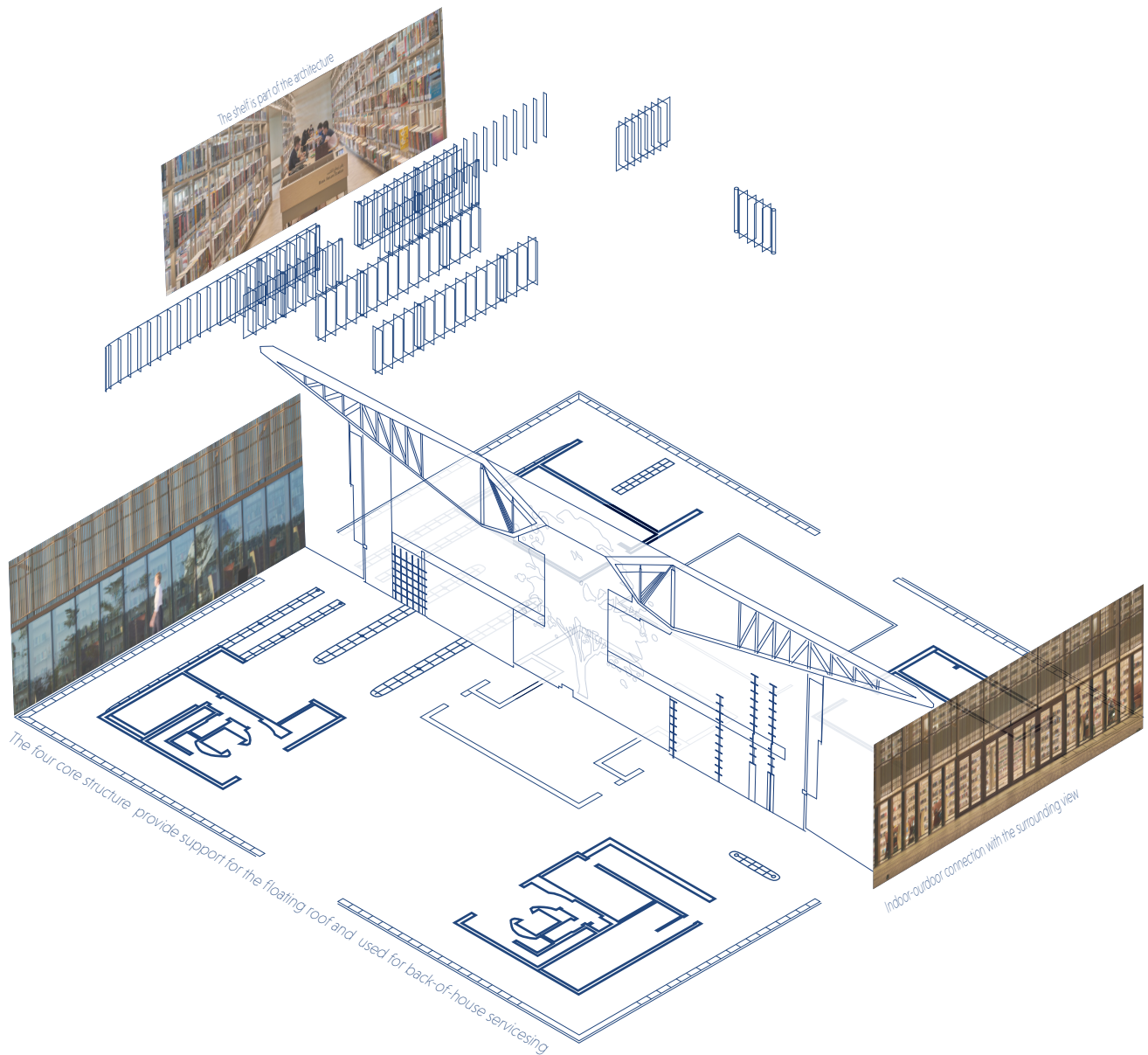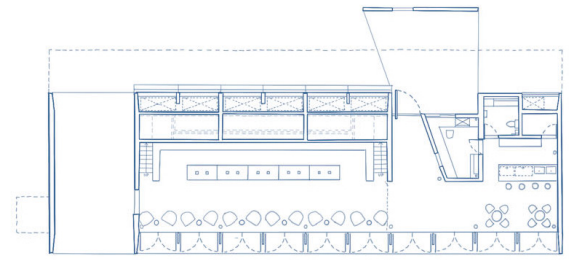
ARCHITECTURE CASE STUDIES

A case studies of two ground floor plan to understand the operation within the architecture through the composition and how they project it in their plans.

The Library at the Dock, Melbourne Australia
1: 500 @A4

Vector Architects, Seashore Library, China
1: 500 @A4

Library at the Dock uses range of plantings and seating around the area to offers a views of the waterfront. In the floor plan a clear programs is able to see on how they organise a space for reading, hanging out, and more flexible spaces. This comparing with the Seashore Library in China, which also setting a view to the ocean in front, gives a more directed on how users could use the space and the main focus is the view at the front. The programs will be lesser as The library at the dock focus more for the community around Dockland in Melbourne whereas the Seashore library in China focuses more for visitors and providing with surrounding seas for views.

The below images description more informations about the observations made above.
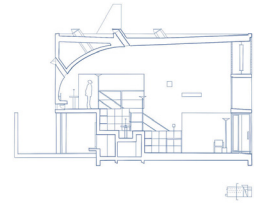
ARCHITECTURE CASE STUDIES

A case studies of two section to understand the operation within the architecture through the structure, solid and void to understand how the space is used.

The Library at the Dock, Melbourne Australia
1 ： 500 @A4

Vector Architects, Seashore Library, China
1 ： 500 @A4

Library at the Dock include open public space with skylight for table tennis activity, it is designed with recycled timber making the center as the main circulation for people to get straight to where they want to head into. The sections can be seen where different spaces are designed for different purpose used. Whereas Seashore Library in China has distinctive sloping roof, mimics the surrounding sand hills and giving lots of books for people to seats and calm down and view the sea. It also uses concrete and steel and glass as the material and emphasizes of natural light and being relaxed in the environment.
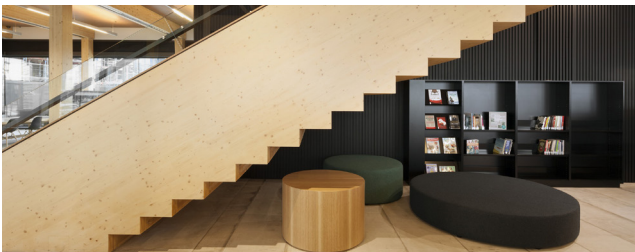
ON REPRESENTATION

Hyper realistic renders by coordinating different representing of the techniques, such as camera angels, surround vegetations, light ans shadow, realistic material and adding human and removing human figures in renders. To make materials physically real, material should be created or represented as closely as possible and observe the details and investigate on the atmosphere of it.
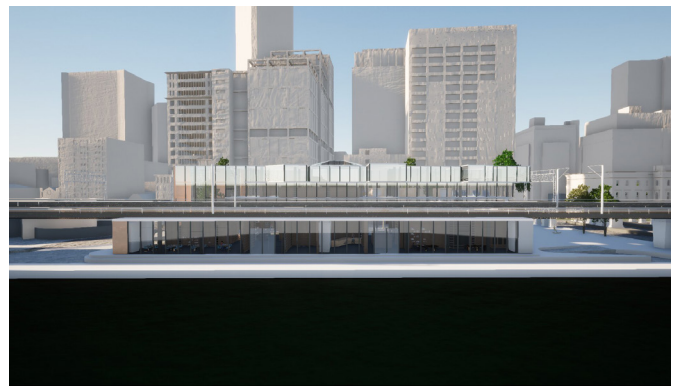
MODEL MAKING

Understanding about tools, what tools to use, what materials to use, what time of techniques to be used, i used hand-scored on my curtain wall to show the mullion out and how to clean the finishes and showing the details such as lift, staircases, etc . Going through the many examples of how model can be make and with the guidance from school, I am able to practice a much cleaner model making skills.

Model Making by Werner, Megan Flip

Tools

Bend

▸ Create organic acrylic shapes with planar acrylic through heat bending. Make a template of the desired curve and cut and sand negative and positive wood molds. Offset the molds by the thickness of the acrylic material. Span the flat acrylic sheet across the negative curved wood mold and apply heat with a heat gun in an even fashion. Place (do not press) the positive curve mold on top of the acrylic once it has dropped or bent into the negative curve position. Allow the wood mold to pull the heat out of the acrylic part. Remove the negative mold and let the acrylic rest on the positive mold. Be prepared to make multiple parts and select the best. ❶

▸ Create templates for complex forms by unwrapping the shape in CAD.

▸ Divide complex forms into a series of manageable curves for heat bending. Then reassemble.

▸ Vacuform clear polystyrene to create organic or complex glazing elements.

▸ Etched metal can easily be bent and curved using form molds. To fold metal, create fold lines by half-etching the metal. Etched metal can be readily bent and curved.

▸ Score mat board in successive, evenly spaced lines to create a segmented curvilinear plane. The scores will release the surface tension on one side of the board, allowing it to curve in one direction.

▸ Bend basswood by lightly soaking precut strips in water. Tape the dampened basswood to a curvilinear form matching the desired curve. Make sure to cover all of the basswood with tape to allow it to dry evenly without warping. ❷

Hand-Scored

Material
acrylic solid

Tools
drafting tools / metal ruler / rice paper tape / scoring tool

Tips & Techniques
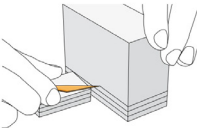
Creating your own hand-scoring tool will help you achieve even score lines. Cut a number of acrylic squares in a thickness that matches the desired dimension between scores. The quantity of cut squares should be equal to the height of the entire score pattern when stacked (or half the height if the object you are scoring can be flipped). Adhere an X-Acto blade to one of the acrylic squares. On an even surface, slide the acrylic square with the dull side of the blade along the vertical surface of the object to create a score. Add an acrylic square to the bottom of the stack and repeat until your score pattern is complete. This is a great technique for applying scores to curvilinear model parts.
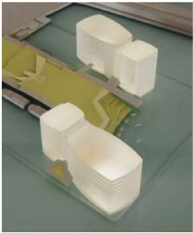
Applied Technologies & Alternate Methods
The hand-scored block was created by scoring a polished acrylic solid at equal intervals using the back side of an X-Acto blade. Material can also be scored with a CNC mill, a laser cutter, or the metal etch process. You can rout a reveal line on a CNC mill or score linework into a variety of materials with a laser cutter. When working with metal, you can half-etch it to create a score line. Each method has tolerances dictated by your choice of material.

Architectural Concepts
grid / incremental / joint / line / pattern / scale / texture

Sample Model (p. 152)

Suggested Alternatives

Scored and peeled paper (p. 24)
Metal-etched scores (p. 50)
Saw-cut linework (p. 82)
Saw-cut reveals (p. 44)
Laser-scored acrylic (p. 60)