

SCHISM
Precedent and Design Development

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ARCH 384: Competition Elective Essay
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19/07/09

Introducing SCHISM, an innovative and contemporary take on the outdoor lounge chair.



Simplicity is the fundamental concept of design behind the SCHISM chair. Contemporary lines, a sleek form and ease-of-use all help to define this twist on an old outdoor favourite. Efficiencies in design are found in both how these chairs are folded and stored, and also how few materials are used, thereby rendering the SCHISM very eco-friendly. A single sheet of standard plywood (2400 x 1200mm) can create three SCHISM chairs. Additionally, recycled aluminum is used to create the brackets, sliding tracks, and locking bar for the SCHISM's innovative 'slide and lock' styled frame. The SCHISM chair is able to fold completely flat so that multiple chairs can be stacked or can lean against a supportive wall, thus occupying minimal storage space.

The SCHISM provides its user with a position of full relaxation. The low-to-the ground level, backrest recline, and complete adjustability give it a true holiday feel. For this reason, the SCHISM is an ideal implementation for places such as commercial resorts, where efficiencies saved in the cost of designing the chair can be passed on to the buyer, allowing them to buy in bulk at a low price.

Design team: Amrit Phull and Tyler Murray

From the point of the projects fruition to final submission, an ultimate design goal rang



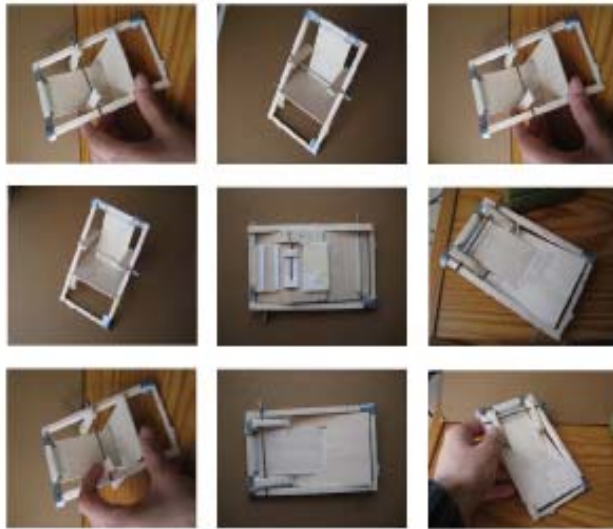
clear throughout the design development of SCHISM. This design goal was a direct inspiration from world renowned architect Steven Holl's Storefront for Art and Architecture situated in New York (*left*) – a

project that utilizes hinged connections to create a dynamic façade of large, shifting geometric shapes. While Steven Holl's design uses a large scale folding scheme to create an aesthetic and visually impressive elevation, SCHISM realizes the efficiency of this method when applied to an object that requires a degree of portability.

The initial briefing within the SCHISM design team was ultimately an agreement on the precedent. The significance of this precedent manifested in the incredibly linear and disciplined design process. Having a clear idea of the chairs main feature and method allowed for a consistent design in which each iteration was a step in the right direction, an improvement on the formal model. Thus, the linear process was not convoluted with unnecessary or inappropriate actions. After the design brief, a thorough analysis of furniture standards and the human form was conducted. This intensive investigation of body proportions, typical chair dimensions and simple folding chairs was



accompanied by an architectural bible, *Architectural Graphic Standards* (*right*), as well as several interior design companion manuals. In order to understand the standards delineated by these invaluable resources, the design team proceeded to synthesize the first iterations of SCHISM.



It is important to note that the prototyping stage (*left*) began only until a strong basis of built and published works were understood. The *Storefront for Art and Architecture* provided a basis for methodical thinking in which the principles of expansion

and contraction in a built façade were transferred to the design of a chair that must ultimately fold into a perfectly flat plane. This idea was crucial to the success of the chair which lies in its ability to be stored and stacked flat. The *Graphic Standards* provided the practical knowledge required to design a chair that is ultimately functional: it must comply comfortably to the human form. Physical iterations built in order to understand the design always referred back to a scale model of the typical human form (a mannequin). The lessons garnered from these two precedents culminated in an eco-friendly, comfortable, affordable and efficient lounge chair that is simple to mass-produce.

Interior Design Manuals were provided to the design team by registered architects and interior designers who proved to be an integral part of the design process. The prototyping stage was synchronized with a period of implementation. This involved presenting the prototype and receiving critiques and commentary from registered architects, interior designers, friends and family who were not necessarily in the design field. This question and answer method helped shape the chair in terms of aesthetic preferences, connection details, and construction methods. Being able to hear professional advice as well as opinions of the target audience was a critical component of SCHISMS implementation.

The final stage in the design process was communication – how will the design team optimize the use of graphics in order to effectively communicate the core ideas they garnered from precedents and prototyping? Especially in the context of a competition, this is a critical stage in the success of a project. First, the design team delineated the fundamental aspects of the design that they felt were important to convey:

- i. The wood component of the chair is an oversized sheet of plywood with simple, rectilinear cuts. No wood is wasted in the cuts – the whole sheet is used.

- ii. The chair has metal connections that allow it to slide into a flat plane. This allows users to stack and store multiple chairs with ease.
- iii. The chair is classified as a lounge chair and is adjustable to two degrees of recline. It is comfortable and suitable for the human form
- iv. The efficiency in design, use and production makes the chair suitable in situations where a large number of chairs is required i.e. a resort.

Because of the competitions requirement for a fairly small image, text could not be



accommodated for so the chair must, in essence, speak these four points for itself. Holl's storefront can be described as a series of cuts in a flat façade. When the Storefront is open, connections animate the façade and the 'cut' pieces swing all which ways. This basic idea of 'cuts' is conveyed by the text design which includes "schism" and a common cut line with scissors (*above*). The latter symbol is one generally understood by the public and can be found on many types of packaging. An orthographic dimensioned drawing illustrates the size of the plywood sheet, the cuts required to create three chairs and the fact that no wood is wasted in construction. A simple diagram reveals the stacking capabilities of the chair as well as the clean metal connection on the back of the chair. The vignette, as well as presenting the chair in a positive and desirable light, illustrates the two degrees of recline. Orthographic elevations drawn with the human form profile convey a correctly proportioned chair. A

final orthographic elevation shows the action taken to open and close the chair, using the closed stage as a register.

SCHISM as a conceptual investigation on the human form, architectural and aesthetic innovation proved to be a successful project. The design development was made possible by recorded measurements and calculations in GRAPHIC STANDARDS as well as a strong built precedent, Holl's Storefront. The design team aspires to build this chair and continue its development, aiming to implement SCHISM in today's built environment.