

Attn:
Statens Kunstfond
Arkitektur
Rejselegater

Grant Application

07 February 2019

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We are applying to Statens Kunstfond for means to support our ongoing research. Specifically, for a study trip to Japan that will act as a bridge between the first and second phases of our research: to create a digitally fabricated structural system based on the traditional Japanese house.

We have taken the liberty to weave the Project Description and the Artistic Documentation into one document that here follows. We will first account for our Praxis and Method. Following that, we will explain the structural system that we have tested: our Furniture Studies No.1, and its next phase at the architectural scale: Interior Studies No.1. Our study trip to Japan will be the bridge between these two phases.

We hope that Statens Kunstfond will acknowledge our ambitions of restoring the role of the architect as a builder, and of using historical craft as a foundation for digital fabrication.



Digital Fabrication Research and
Permanent Installation, SPACE10, DK
2017



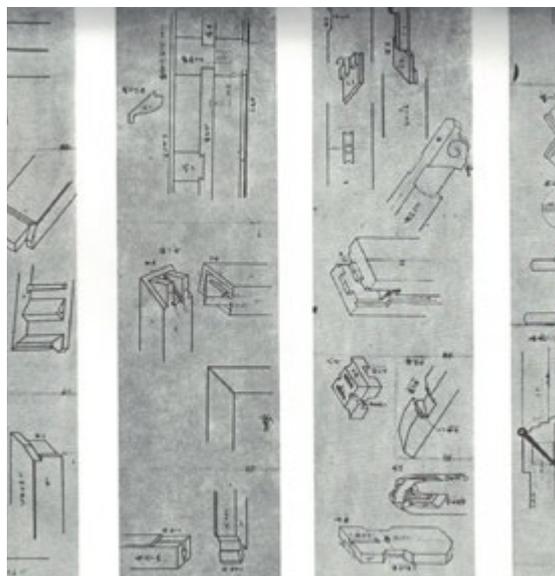
Spatial Scale Study No.3
Cranbrook Academy of Art, USA
2015

As our name implies, our methodology always starts by understanding the already existing. We use the contexts of history, craft, and natural phenomena to guide our work towards designing as little as possible.

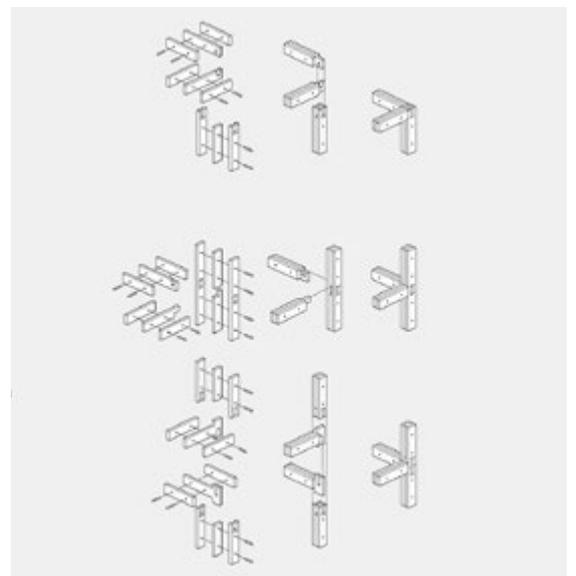
We are working our way up in scale, as we design only what we can build ourselves. The ambition of our praxis is, through our body of work, to give an account of how to expose a timeless way of building.

We challenge how architecture is drifting away from craft. Craft tends to move too slowly to incorporate into architecture, which is increasingly accelerated. However, we believe that the time-proven qualities of craft are culturally valuable and vital to people's wellbeing in the built environment.

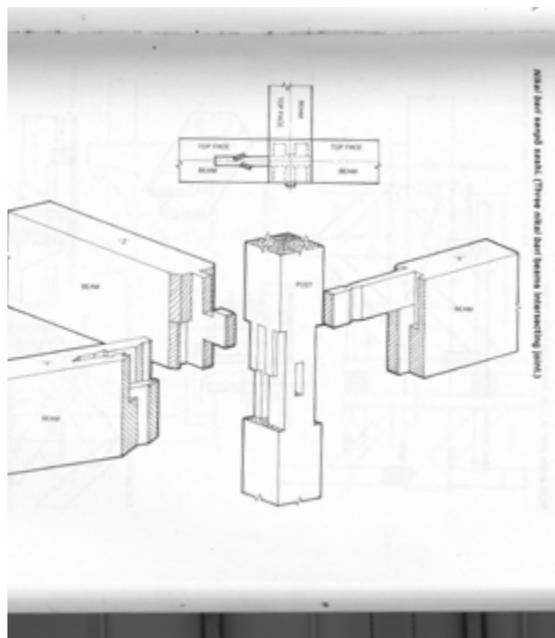
The pairing of the CNC with the wisdom of historical craft presents an opportunity to usher age-old techniques into the present age. By relating the traditional with the digital we can propose a digitally-produced architecture that utilizes the speed and accuracy of the automated aspects, without compromising the humanity and relatability of the outcome. Rather than inventing another new digital aesthetic, we want to use the digital as a preservational tool for the familiar and beloved.



Traditional Japanese carpenter's scroll



Our Lamination and Joinery diagram



Traditional Japanese intersecting joint



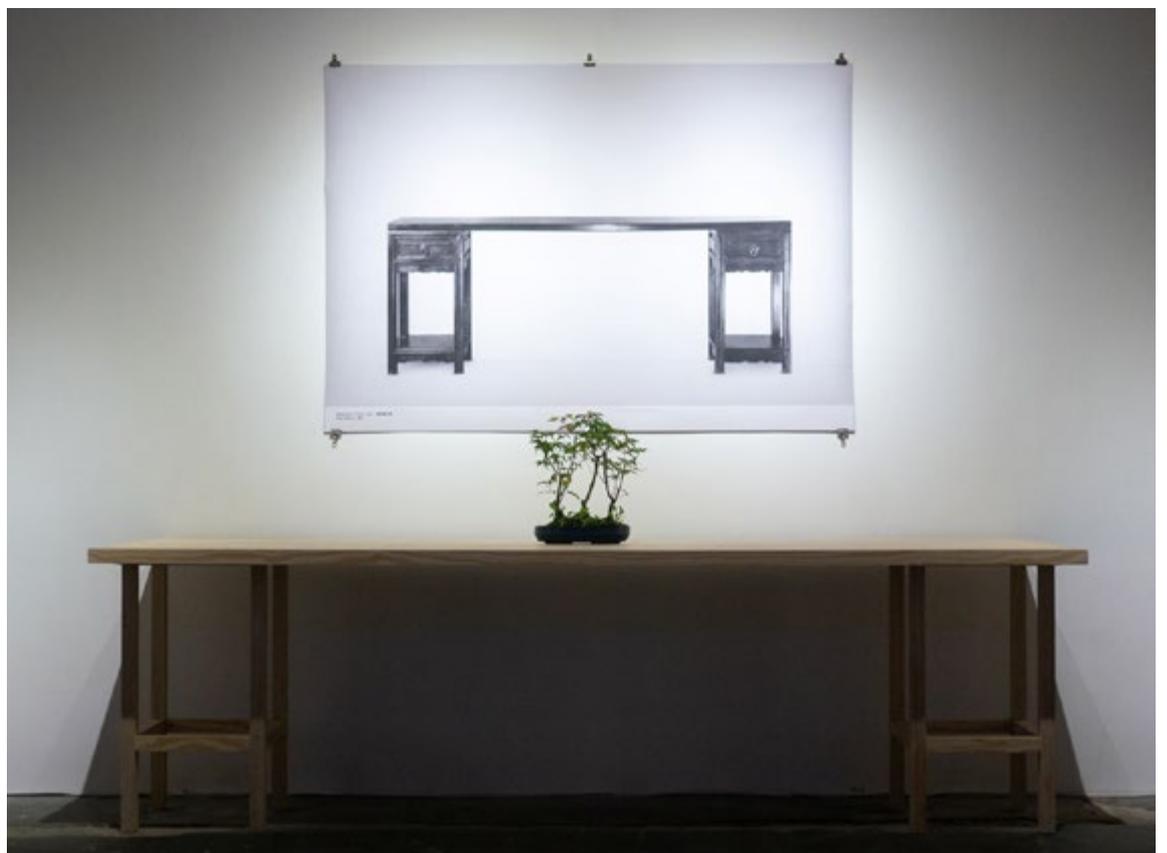
Our Joint Detail, 36mm profile made up from 3x12mm laminated Pine plywood



Chinese Cabinet,
Unknown, Ming Dynasty



Cabinet No.1
by Archival Studies



Poster: Ming Dynasty Trestle Table reference
Furniture: Table No.1
Part of the Copenhagen Guest City exhibition at Beijing 2018



1. CNC milling process



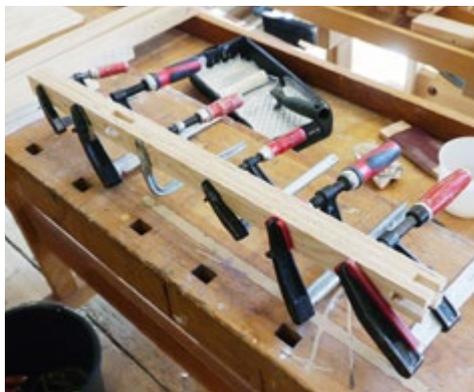
2. All joint parts are cut from 12mm pine plywood



3. Each structural component is laminated from 3 layers



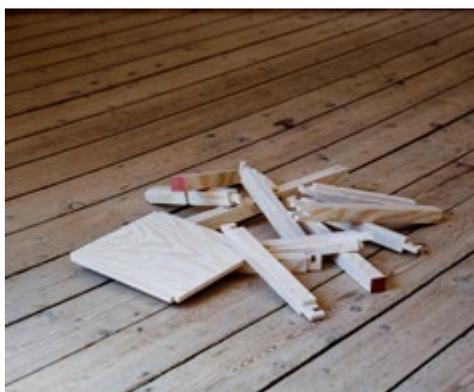
4. CNC-drilled holes and wooden dowels allow us to laminate precisely



5. Laminated joints can easily be scaled up or down



6. All edges are sanded



7. Components for Chair No.1, to be assembled by hand without glue or hardware



8. Chair No.1 prototype, assembled

The traditional Japanese house uses the tatami floor mat as a unit to organize the plan. The 900X1800mm mats form a grid system that offers flexible arrangement. This dynamic floor plan expands its shape organically. The Japanese house becomes a part of the landscape, as it employs nature as part of the floor plan arrangement.

We are developing a flexible structural system by studying this grid and combining it with our joint research. This new system begins with post-and-beam units that easily connect to each other, becoming a stable structural system. Along with unglued joints, this system can potentially grow organically in response to people's needs.



1. Organization of space by composing with rooms of fixed sizes



2. Component parts are prefabricated at the carpenter's workshop



3. Removable building parts such as doors, windows, and ceiling components



4. Concentrate creative instinct solely on refinement of that which standardization has not yet reached



5. Japanese house is built with a self-supporting grid system



6. Exposed structure of the Japanese House

So far, our progress has been based on secondary research and hands-on experimentation. There is still the need for collaboration, open dialogue, and contextualized primary research to develop and refine what is already there. Our wish of Statens Kunstfond is to support our situated research in Japan, which comprises four parts:

- + Lumbermills: We are curious to engage with the Japanese approach to lumber, and potentially scope suppliers.
- + Workshops/Craftspeople: Japan still exhibits an extraordinarily resilient craft culture, and we are curious how we can learn from its practitioners. We would then like to open a dialogue with Japanese craftspeople on this system for refinement and expansion.
- + Architects/Contractors: Contractors in Japan have been fortunate to have access to a robust culture of craft. They have found good ways of working with craftsmen through dialogue.
- + Exemplary Buildings: Reading about and studying images of Japanese dwellings is no substitute for experiencing the spaces themselves. We wish to visit places in which this style of housing persists in order to understand the landscape and culture that sustain it.

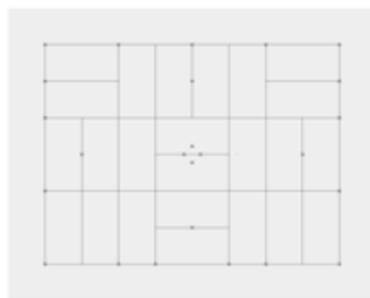
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We have been using our network, including the Danish architectural historian Svend Hvass, to establish contact with a number of respected people and places to meet with in Japan. Some of those that we already established contact with are listed on the budget page.

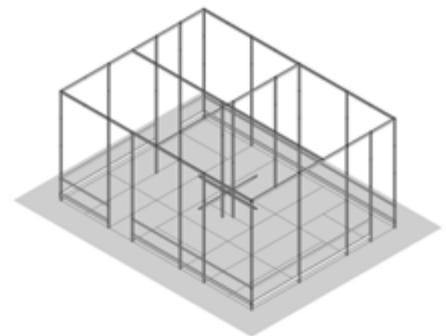
Application of Knowledge in Denmark

We are scaling up the structural system that we tested through Furniture Studies No.1 to become an interior building system: Interior Studies No.1.

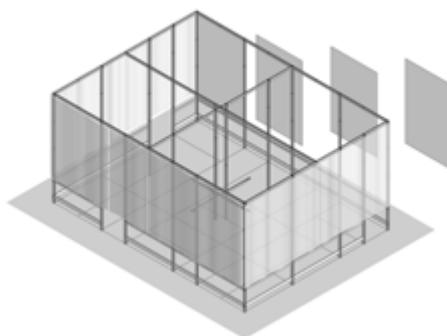
We will first prototype this system by using it to build our own architectural studio within a larger industrial space in Copenhagen. It is the ambition to share the details of this project as open-source CAD+CAM.



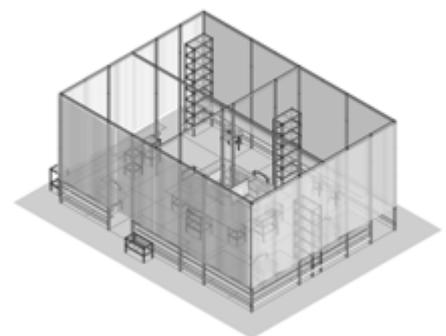
1. Tatami Grid: Organization in plan



2. Post and Beam: Structure



3. Non-structural Infill: Panels



4. Furnishing: For Use