

BRENDAN MCDONALD
TRISTAN O'GORMAN
SARAH WETTESKIND

A3

COMPLEXITY

ALA ARCHITECTS
HELSINKI CENTRAL LIBRARY OODI

Töölönlahdenkatu 4, 00100 Helsinki, Finland

COMPLETED 2018

McEWEN SCHOOL OF ARCHITECTURE
BUILDING CASE STUDIES
RANDALL KOBER



FIG 01 | TOUMAS UUSHEIMO - HELSINKI CENTRAL LIBRARY OODI

ALA ARCHITECTS' HELSINKI CENTRAL LIBRARY OODI

Helsinki's Central Library Oodi embodies a nation's revived aspirations to support social growth. While libraries across Finland are warranting a new degree of prestige backed by government funding, ALA's design here asks, how can a library contribute more to urban or rural life? Their solution is an immaculately designed space, central both to the city and country, that offers new and necessary experiences, opportunities and services to each individual. Above all, the space fosters a new paradigm of communal architecture that can percolate beyond the urban limits to inspire socially conscious design across the country.

01 | CONTEXT

The Central Library Oodi in Helsinki can be considered the architectural manifestation of both the cultural identity, environmental activism and social solidarity for the nation as a whole. Through a unique design process, the building is able to adequately reconcile with the divisive past cultural legacy of Finland and the current prevailing environmental conditions while fostering and enabling a shared vision for the country's ecological future. In these ways, the space has become the heart of Finnish identity both in a physical and ideological manner.

The Helsinki Central Library Oodi demarcates the celebration of the nation's century of independence from the Soviet

Union¹, but more importantly, recognizes their independence and worth despite millennia of isolation. The geographic and linguistic isolation of Finland from mainland Europe had, until recently, inhibited its cultural growth. With a sudden immersion into the contemporary world, the nation needed to establish means of sharing knowledge while preserving cultural identity. And so, following a period in time where Finland's cultural integrity had been compromised, libraries emerged as a source of strength and revitalization, providing access to literary and oral language tools along with a comprehensive account for Finnish culture and society. They have adapted into more than simply libraries, and are now even dubbed 'citizens' living rooms'². Where in the US or UK the

¹ Melvin, Jeremy. 2018. "Light and Enlightenment: The Openness Conveyed by the Light, Form and Texture of Finland's Libraries Is Pivotal to the Country's Identity and Social Consolidation." *Architectural Review* 244 (1457): 70–73.

² Ibid.

public library system seems to be losing the support of municipal or even regional governments, those in Finland have become a recurring source of aid with regards to the nation's evolving social needs, and as such, are regarded with high-esteem in the eyes of the public as well as municipal and regional authorities.

Similarly to how the Finnish population has continuously fought to preserve and celebrate their cultural integrity, a recent surge in advocacy regarding their ecological narrative has come into play. Being in a country so dynamically shaped by harsh climatic conditions, it only follows that the urban spaces the Finnish population occupy should reflect the natural landscapes beyond. Finland continues to orient its social and urban realms with a particular consideration for ecological impact. From its unique location along the path of convergence between polar and tropical winds, to its accentuated seasonal differences in solar exposure, to the evolving landscape itself and the varied forms and amounts of precipitation that fall upon it³, Finland's geography, and by extension its people, are characterized largely by the dynamic and articulated natural conditions. Light, temperature, snow, winds, earth and vegetation define the experiences of Finnish society every day. An elaborate train network unites the country across the challenging landscape, and culminates in the city of Helsinki, adjacent to the Oodi Central Library. This profound relation between natural and built environments is fostered by a populace that has an appreciation of both, particularly in their contributions to the design of the Oodi.

Regardless if it is a social or environmental foundation, Finnish identity has been derived primarily as a means of interconnectivity between individuals outlined by past experiences, secondly as a set of beliefs and constructs to

maintain the integrity of the current identity, and thirdly as a shared conception for the future development of the group⁴. As such, time becomes an integral component of any social identity. Historians have identified the 1960s as a critical period in the cultivation of a new Finnish identity⁵. Urbanization and emigration at this time distilled a notion of roots and home in the general population, and so icons or monuments begun to emerge as the manifestations of self⁶. The notion of survival despite a rugged country has, above all else, defined the Finnish mentality.

Finnish society has, unlike most western countries, made immense strides to enable and engage the public in the creation of its built landscapes. This bottom-up approach capitalizes on the agency of each individual rather than suppressing them for fear of confusion or indecisiveness, resulting in landscapes that accurately capture the current and future ideologies of its populace. The ecological vision for the nation's future, born from a dynamic cultural heritage and a profound relation with the natural world is one that epitomizes Finnish identity, and that has been impressively manifested by the practice of ALA Architect's practice, long before their proposal for the Helsinki's Central Public Library Oodi.

³ Tikkanen, Matti. "Unsettled Weather and Climate of Finland." in *The Finnish Environment* 23 (2006): 7-17.

⁴ Ollila, Anne. "Perspectives to Finnish Identity." in *Scandinavian Journal of History* 23 no. 2 (November 2010): 127-137.

⁵ Ibid.

⁶ Ibid.

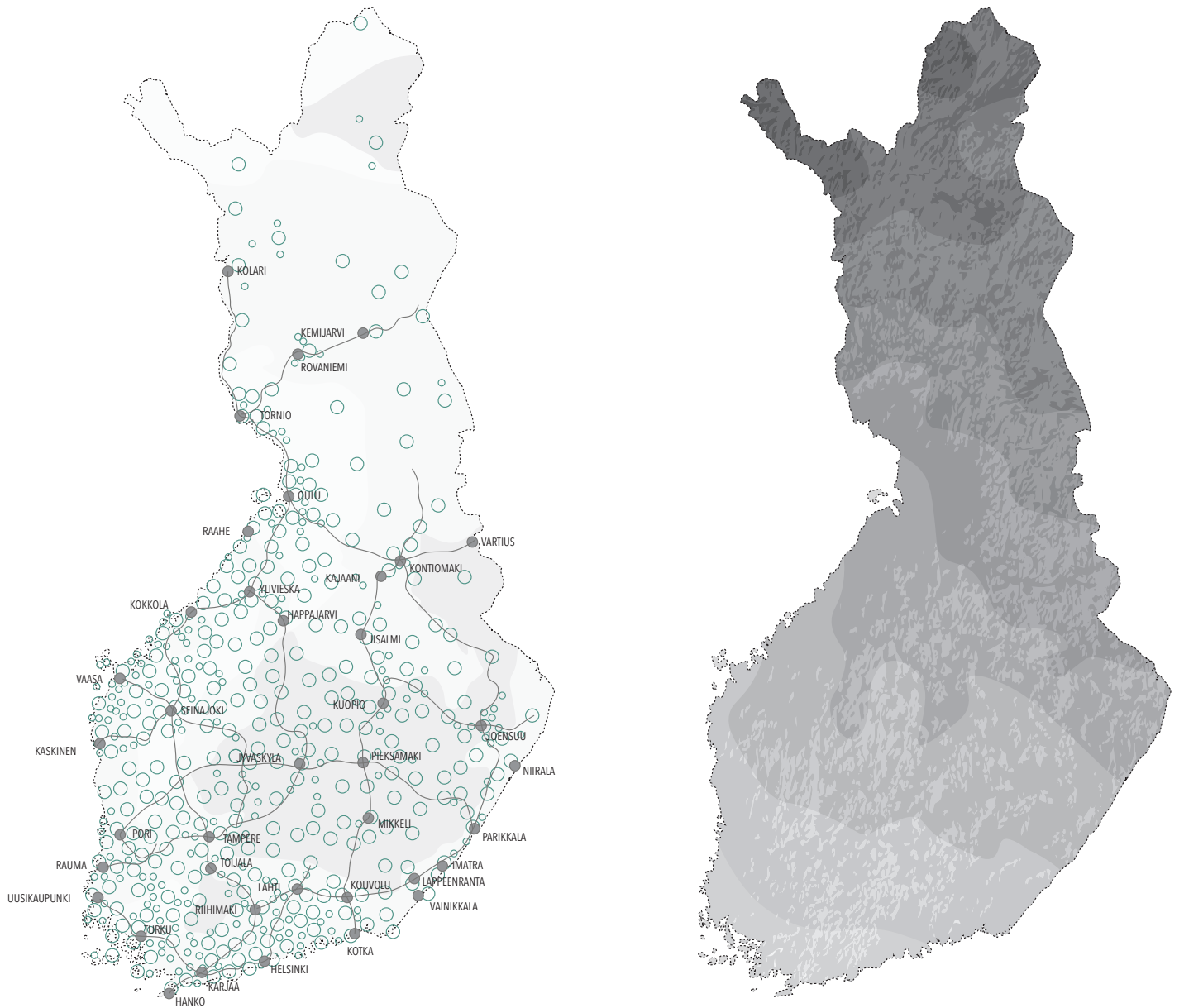


DIAGRAM 01 | CULTURAL IDENTITY

FINLAND'S CULTURAL IDENTITY IS DERIVED TO A SIGNIFICANT DEGREE FROM THE NATURAL CLIMATIC CONDITIONS (SHOWN RIGHT) AND ITS EXTENSIVE ACCESS TO KNOWLEDGE-SHARING SPACES (SHOWN LEFT).

02 | ARCHITECTS

"ALA seeks fresh angles, flowing forms and surprising solutions. We trust in beauty achieved by combining the intuitive and the analytical, the practical and the extravagant, the rational and the irrational." ALA ARCHITECTS

Born of small origins, ALA Architects has evolved at an unprecedented rate to a world-renown firm known for their ability to manifest a local community's ideologies in the socially and environmentally conscious design. Their enthusiasm for the movement towards participatory design has cultivated a newfound investment within the general public for their built landscape, and has been the cornerstone of their practice from their first commission through to Helsinki's Central Public Library Oodi.

ALA Architects was initiated in 2005 upon receiving their first commission for a concert hall in Kristiansand, Norway⁷ It has since grown into an international firm with 45 employees, each committed to the shared ecological philosophy⁸. ALA's principal ideals are to integrate collaborative work throughout the design phase as well as to seek intuitive and progressive solutions for social, structural, environmental and aesthetic challenges⁹. Between the three original partners who still run ALA; Samuli Woolston, Juho Grönholm and Antti Nousjoki; each provides the firm with varied expertise and experience which collaboratively create innovative and fitting solutions. Each of these principles are Finnish born with the goal of bettering their country, namely its capital city, through progressive and engaging architecture¹⁰. As such, the expertise that informs the development of their designs extends far beyond just their own. In correspondence with not just professionals, but with any members of the community with

a vested interest, the firm continuously provides agency to the public and values their input. Ideals that have been expressed and ultimately manifested themselves into the design of the Oodi Central Library include the development of inspiring spaces, structure which pushes bounds and encourages interaction, and creating micro-environments within the building that foster a variety of moods and uses to reflect the populace of Helsinki and their diverse needs and desires¹¹.

The emerging role of design as a catalyst for social and cultural activism in Helsinki¹² is a philosophy practiced continuously by ALA Architects, and has been validated by a dramatic increase in public enthusiasm for ecologically-rich urban settings has incentivized policy change at all levels of government¹³. Notably, a transition from a technocratic and modernist design philosophy to one that is adaptive and reflective of a time, place, and people has occurred, and is being reinforced by the inputs of the nation's populace. From master plans for entire cities to cultural totems such as the Oodi Library, the firm has developed its own philosophy to provide sustainable and exciting urban landscapes.

⁷ Architizer. "ALA Architects" 2018, <https://architizer.com/firms/ala-architects-ltd/>.

⁸ Ibid.

⁹ Ibid.

¹⁰ Nousjoki, Antti. "Architecture concept, further development and implementation" Library Channel video, 25:08, 2018

¹¹ Architizer. "ALA Architects" 2018, <https://architizer.com/firms/ala-architects-ltd/>.

¹² Berglund, Eeva. "Design as Activism in Helsinki." in *Design and Culture* 5, no. 2 (April 2015): 195-214.

¹³ Ibid.

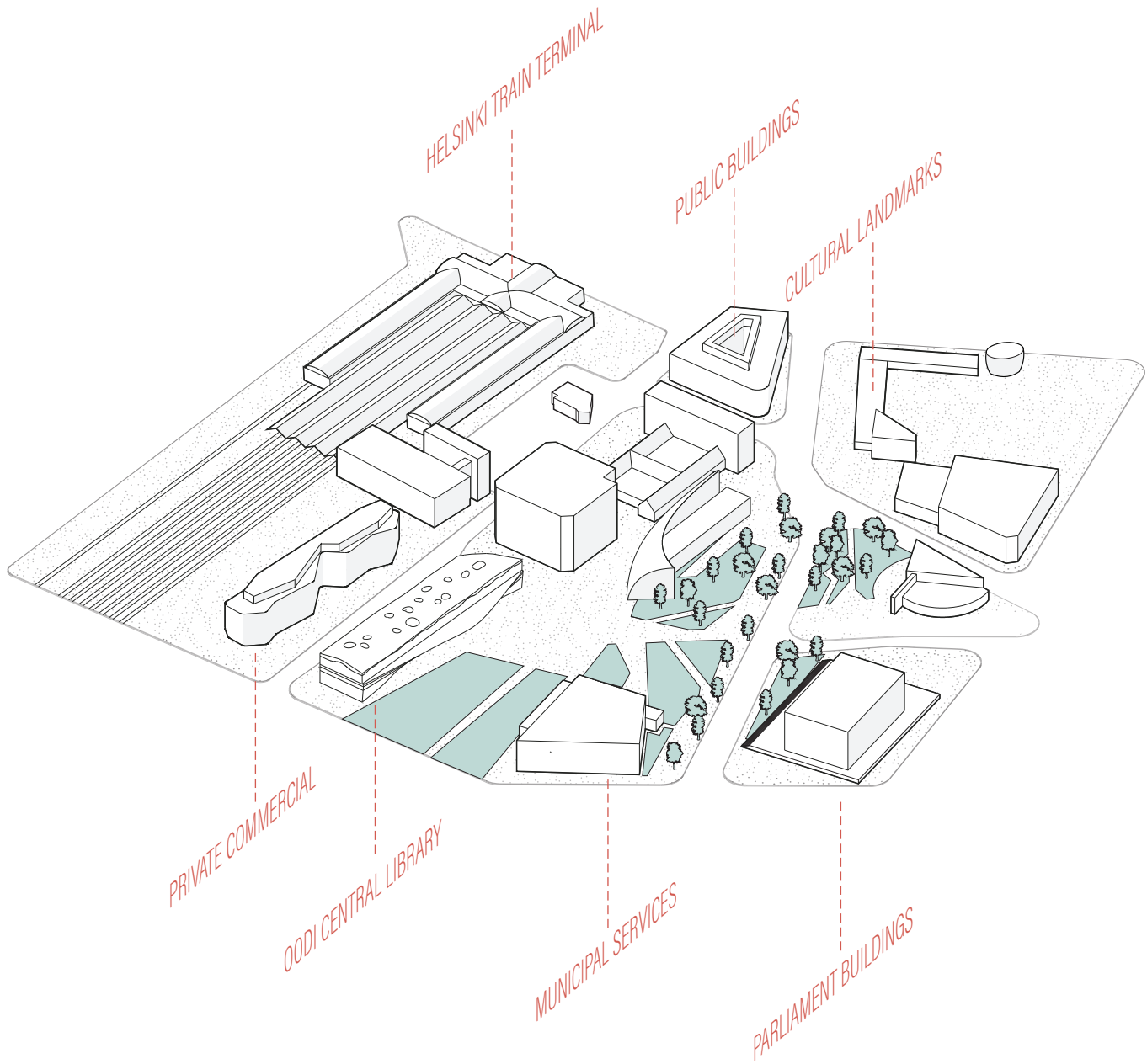


DIAGRAM 02 | SITE CONTEXT

IMAGINED AS THE HEART OF THE CITY, THE OODI FUNCTIONS SYMBIOTICALLY WITH THE EXISTING URBAN REALM TO FOSTER A NOTION OF COMMUNITY AND IDENTITY.

03 | ARCHITECTURE

Helsinki's Central Public Library Oodi manifests the core beliefs of ALA Architects as well as the Finnish population. It simultaneously expresses a contemporary solution to the country's ongoing cultural evolution while offering reinforced notion of how humans can positively orient themselves within the urban landscape. The space, though labelled a library, transcends the programmatic constraints of a library to offer something for each Finnish individual. The result is an unprecedented fostering of community interconnectivity in the nation's capital.

Much like the conceptual intent of the Oodi lies at the heart of the nation's ideals, the building itself exists physically in the heart of the nation's capital, Helsinki. Encompassed by civic institutions committed to bettering public life such as the parliamentary buildings, a public square and the city's train terminal. Oodi aims to weave itself into the existing rich urban fabric as a means to create a relationship between the urban environment and the populace. In particular, the juxtaposition to the country's parliamentary buildings acts as a reminder of the Finnish Library Act's mandate for libraries to promote lifelong learning, active citizenship, democracy and freedom of expression¹⁴. As such, it was critical that the program, form, atmosphere and tectonics of the space draw parallels to the existing context in order to reinforce the nation's commitments.

This dedication to existing symbiotically with the existing urban environment is initially manifested in the continuation of the urban grid established in the adjacent Kansalaistori seamlessly into the buildings ground floor. Furthermore,

exhibiting both traditional and contemporary cladding techniques, the glass, wood and steel façade¹⁶ simultaneously integrates itself into the surrounding context while also creating an identity uniquely its own. As such, the design establishes a new hybrid architectural typology, one that is able to bridge traditional values with contemporary aspirations, much like the principal occupancy which it houses. What supports this immense topographical exploration, ironically but undoubtedly intentionally, is an extensive structural system whose loads are distributed primarily onto two arched bridge-like components. The architects here imagined the space as an inhabited bridge¹⁷ which simultaneously reflects their conceptual, programmatic and structural intentions.

The form supported by the two arches, seemingly sprawling across the urban square and even emerging out from it at certain points, is given a dynamic, organic life-like character, representing both the vitality of the program within as well as the evolving social realm beyond. The spruce-wood cladding reinforces the imagery of living architecture, while also supporting local resource development and offering a pragmatic solution to the climatic conditions presented. Lastly, the distinct topography apparent in the building's envelope are a nod to the nation's layered and diverse identity. The effect of the buildings meticulous façade design is one of reaffirmation. To the people beyond, it stands as a testament to their own agency, and value within the social fabric. This notion of pride carries through to the spaces interior as well, in which each topographical layer offers a distinct atmosphere to support the services and opportunities offered within it.

¹⁴ B. F., and Simon de Neumann. 2019. "Zentralbibliothek Oodi in Helsinki. (German)." Detail, February, 28–35.

¹⁵ Es, Karl van. "Oodi Is Helsinki's Library of the Future." *ÄVONTUURA*, January 10, 2019.

¹⁶ Ibid.

¹⁷ Ibid.

The aforementioned pull from the public square demarcates the ground floor's three principal entrances, each one grand and organic in form to contrast the otherwise rugged and constrained urban realm. From outside to inside, the notion of open air is maintained by the expansive uninterrupted volumes afforded by the two primary arches supporting the upper-story's loads.

The Oodi's open and active ground floor presents a restaurant, cinema and multipurpose hall to maximize public interest and offer a new vision of what a central library could provide¹⁸. That being said, the building strategically organizes its upper stories to ennoble programs more aptly suited to foster a sense of community and provide the services required to support it.

Upon ascending the space's iconic spiral staircase, the occupant first arrives in a more subdued second storey, subdivided in accordance to the primary structural elements into more intimate spaces than were accessible on the ground storey. Dubbed 'The Forest', this space is defined by its celebrated structural system which divides the space into reading rooms, studios, an amphitheatre, group study spaces, makers' spaces and offices all to compliment the primary occupancies on the floors above and below¹⁹.

Finally, upon ascending to the third storey, the occupant is immersed once again into an expansive volume, incredibly illuminated by windows framing the public life within the city beyond. Here, the human scale is dissolved, as the occupant feels they have ascended beyond the otherwise chaotic urban realm into a secluded, peaceful and enriching environment.

From the second story to here, a distinct change in scale offers the occupant an opportunity to breathe and take in the impressiveness of the library. The spaces work synergistically and are designed to be both inspiring in terms of design as well as energy efficiency²⁰; it offers a vision for what a Finnish vernacular for the future could be.

¹⁸ B. F., and Simon de Neumann. 2019. "Zentralbibliothek Oodi in Helsinki. (German)." Detail, February, 28–35.

¹⁹ Ibid.

²⁰ "Architecture." "Service Design." Oodi.

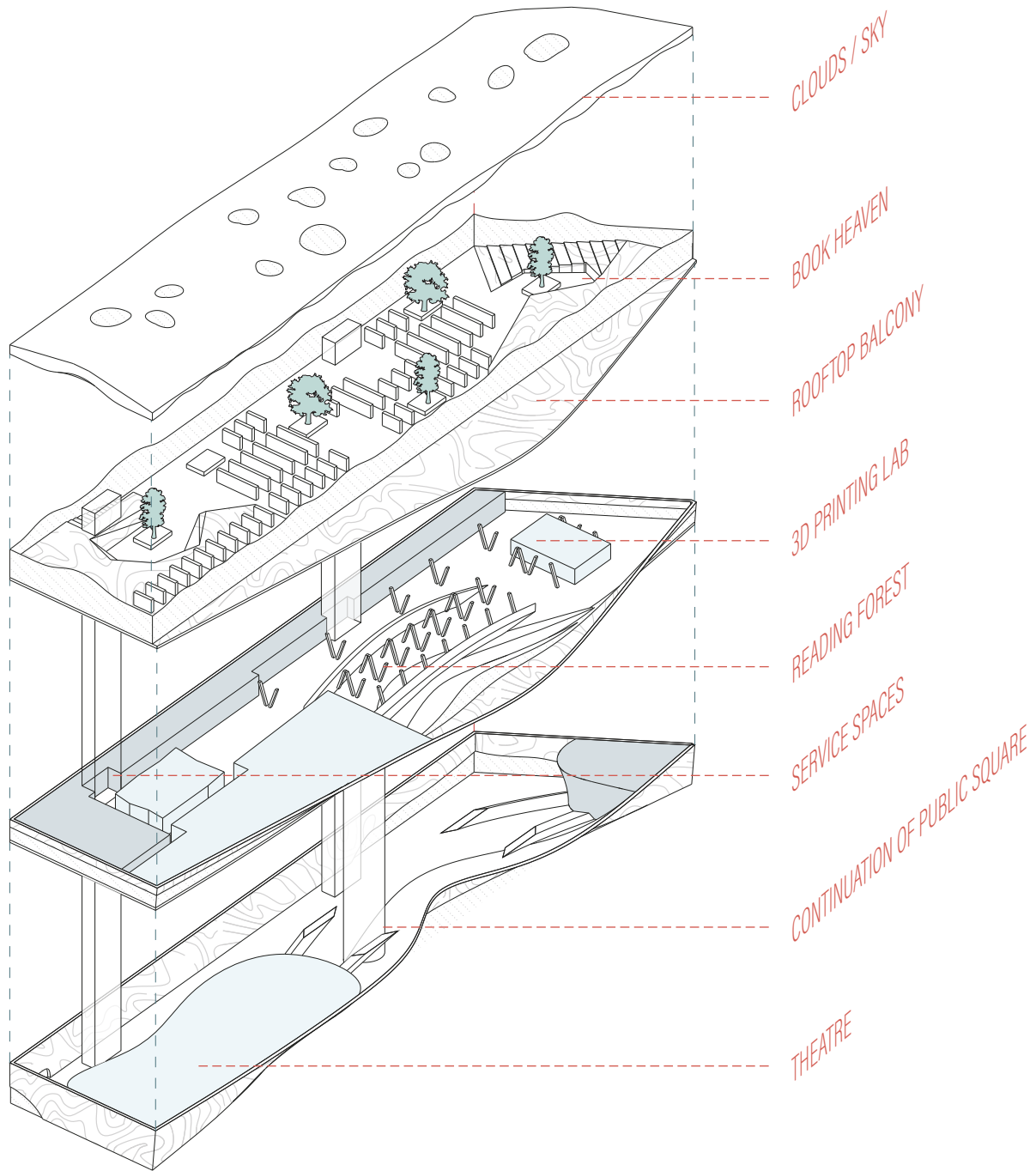
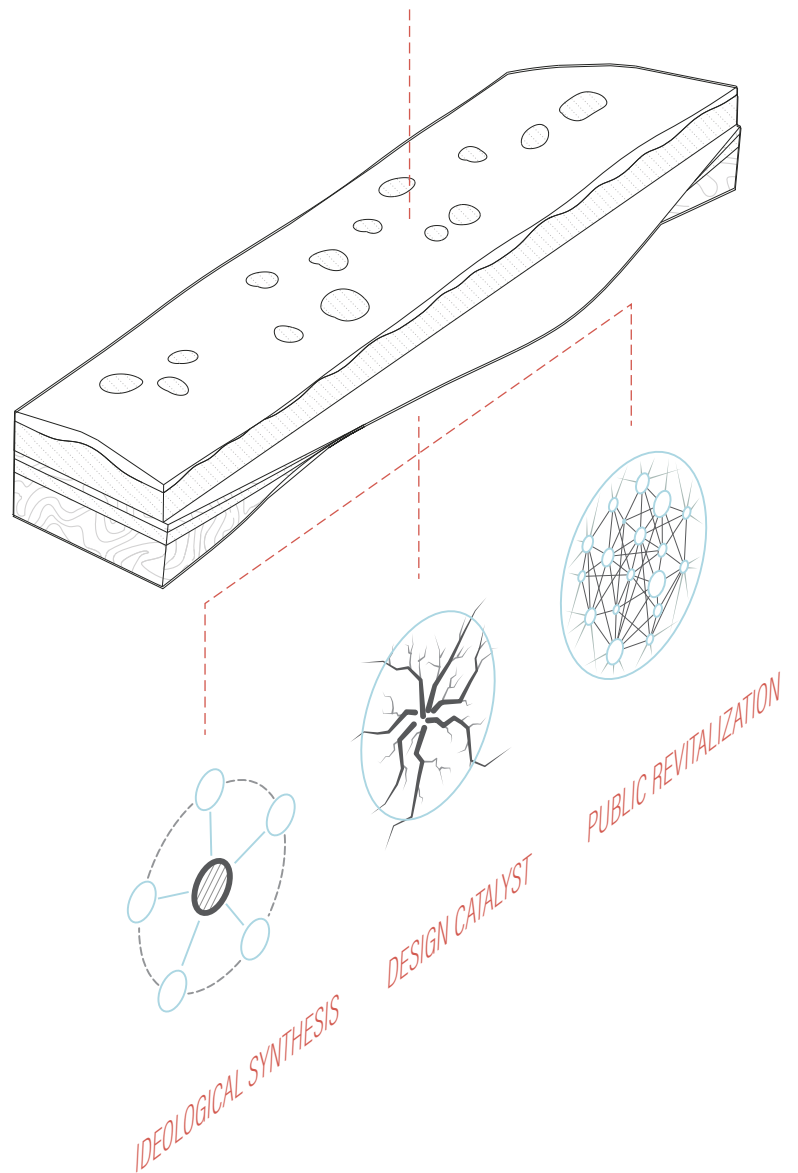


DIAGRAM 03 | BUILDING COMPOSITION

THE INTERIOR OF THE OODI WAS CONCEIVED TO OFFER SOMETHING OF VALUE TO ALL RESIDENTS, AND AS SUCH ITS PROGRAM TRANSCENDS THAT OF JUST A LIBRARY.

CONCLUSION

Oodi is a testament to public life. The services it provides are extensive and comprehensive, allowing the building to foster a public vitality not typical of urban realms entirely on its own. And yet it exists mutually with the urban core beyond; the two work harmoniously to reinforce the integrity of the urban landscape. The library does not simply exist to provide access to knowledge, but to a cultural identity as well²¹. Though the edifice has been envisioned as the catalyst for a nation-wide library revitalization, it is in fact inciting a cultural reform through architecture as well. The new multidimensional cultural artifact that is the Oodi successfully interweaves traditional contexts, modern technology, and future aspirations to define a new urban space that is indicative of Finland's current ecological orientation in time and place.



²¹ Melvin, Jeremy. 2018. "Light and Enlightenment: The Openness Conveyed by the Light, Form and Texture of Finland's Libraries Is Pivotal to the Country's Identity and Social Consolidation." *Architectural Review* 244 (1457): 70–73.

BRENDAN MCDONAL
TRISTAN O'GORMAN
SARAH WETTESKIND

A3

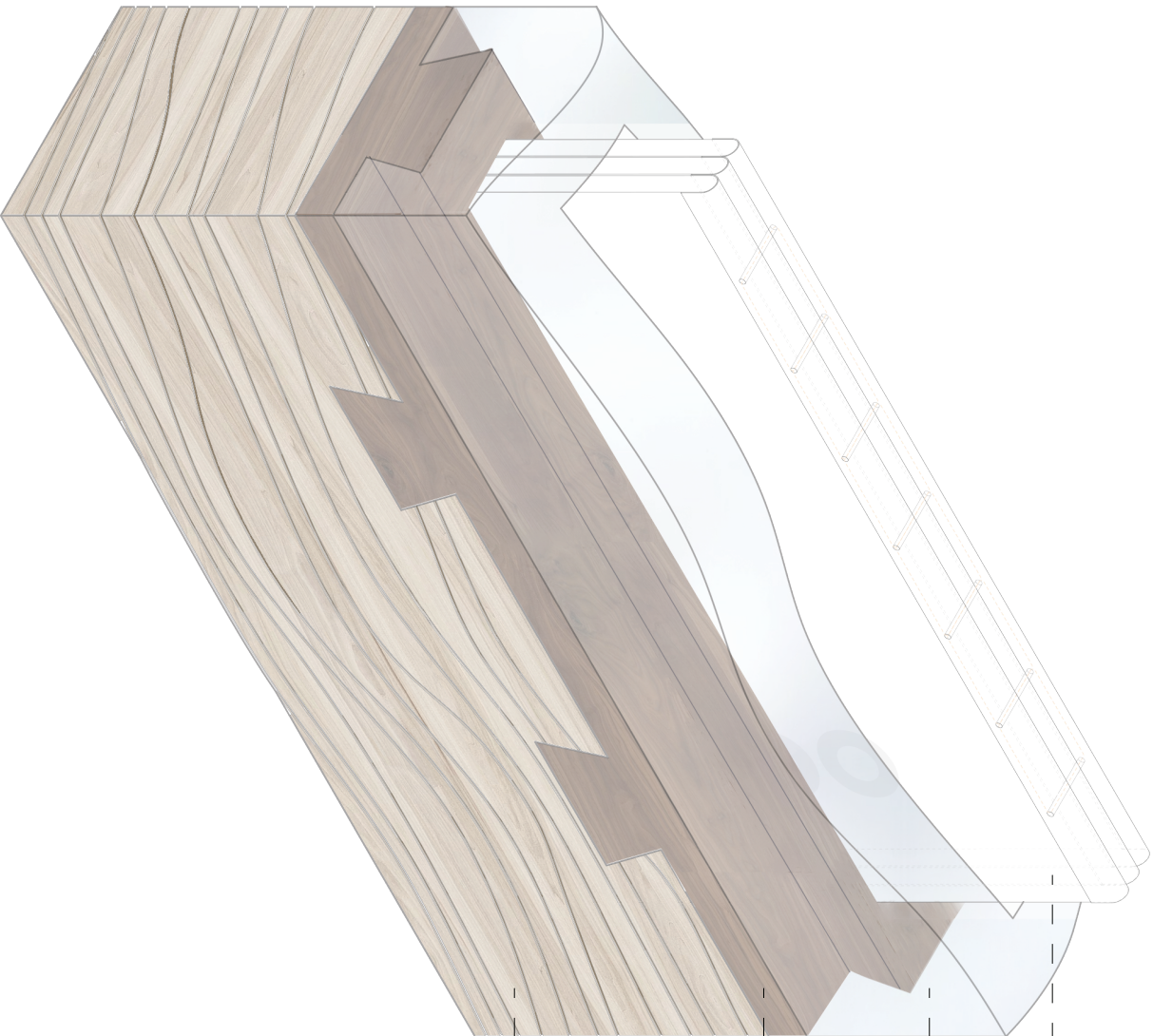
COMPLEXITY

McEWEN SCHOOL OF ARCHITECTURE
BUILDING CASE STUDIES
RANDALL KOBER

ARCH 4006
A3 COMPLEXITY
RANDALL KOBER

CASE
MATERIALS
CONSTRUCTION
DETAILS

A L A ARCHITECTS
HELSINKI CENTRAL LIBRARY
OODI
B. McDONALD, T. O'GORMAN, S. WETTESKIND



BOOK - 8.5 x 5.5 x .875"

WHITE CARDSTOCK PAGES + COVER

LAYER 3 - RESIN

UNDULATING TOP CREATED FROM A NEGATIVE MOLD

LAYER 2 - WALNUT

THIN LAYER WITH THE MALE PORTION OF ALL JOINTS

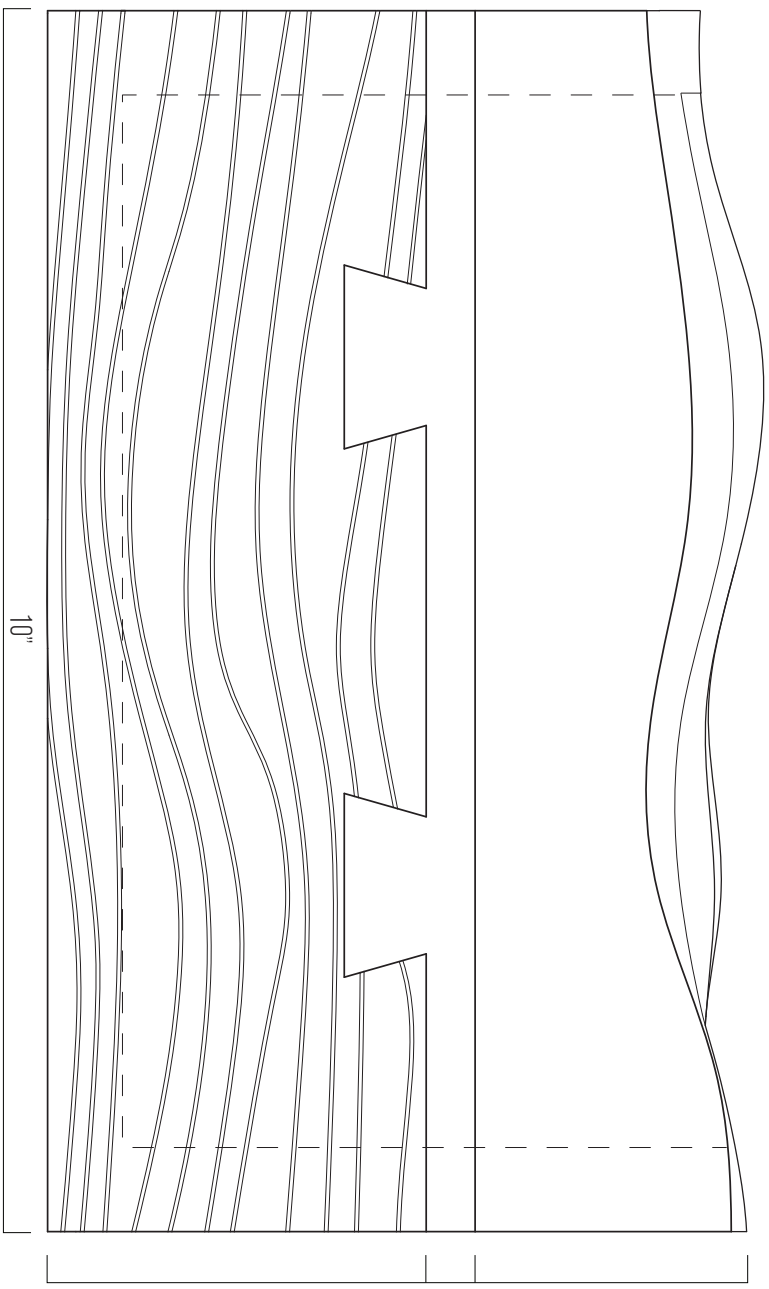
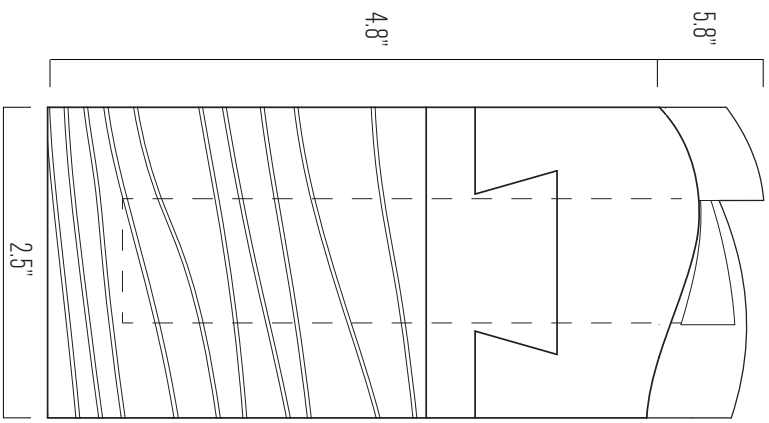
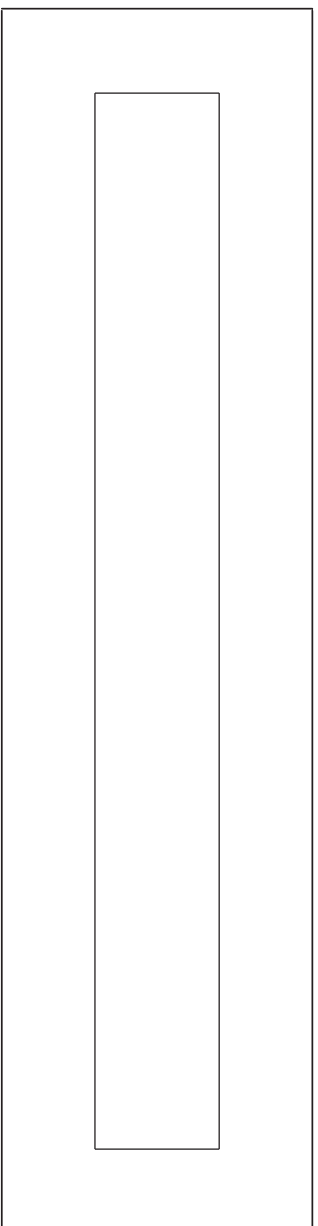
LAYER 1 - SPRUCE

ETCHED WITH TOPOGRAPHY LINES

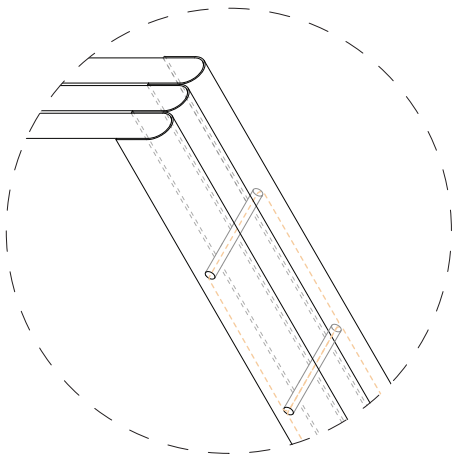
The case for the Oodi Helsinki Library is intended to represent the distinct vertical layers and programs of the building and show that they are held together by a sharing of knowledge and culture. While the materials are aesthetically similar to that on the actual building, their intention is mainly to show distinction between the layers. Joinery is used to show that programs and layers are not simply stacked upon one another, but are woven together through the building. The book is the joining piece which strengthens the case - similar to the way in which the Finnish culture has grown through an emphasis on knowledge and shared intellect.

AXONOMETRIC // MATERIALS
 OODI LIBRARY CASE

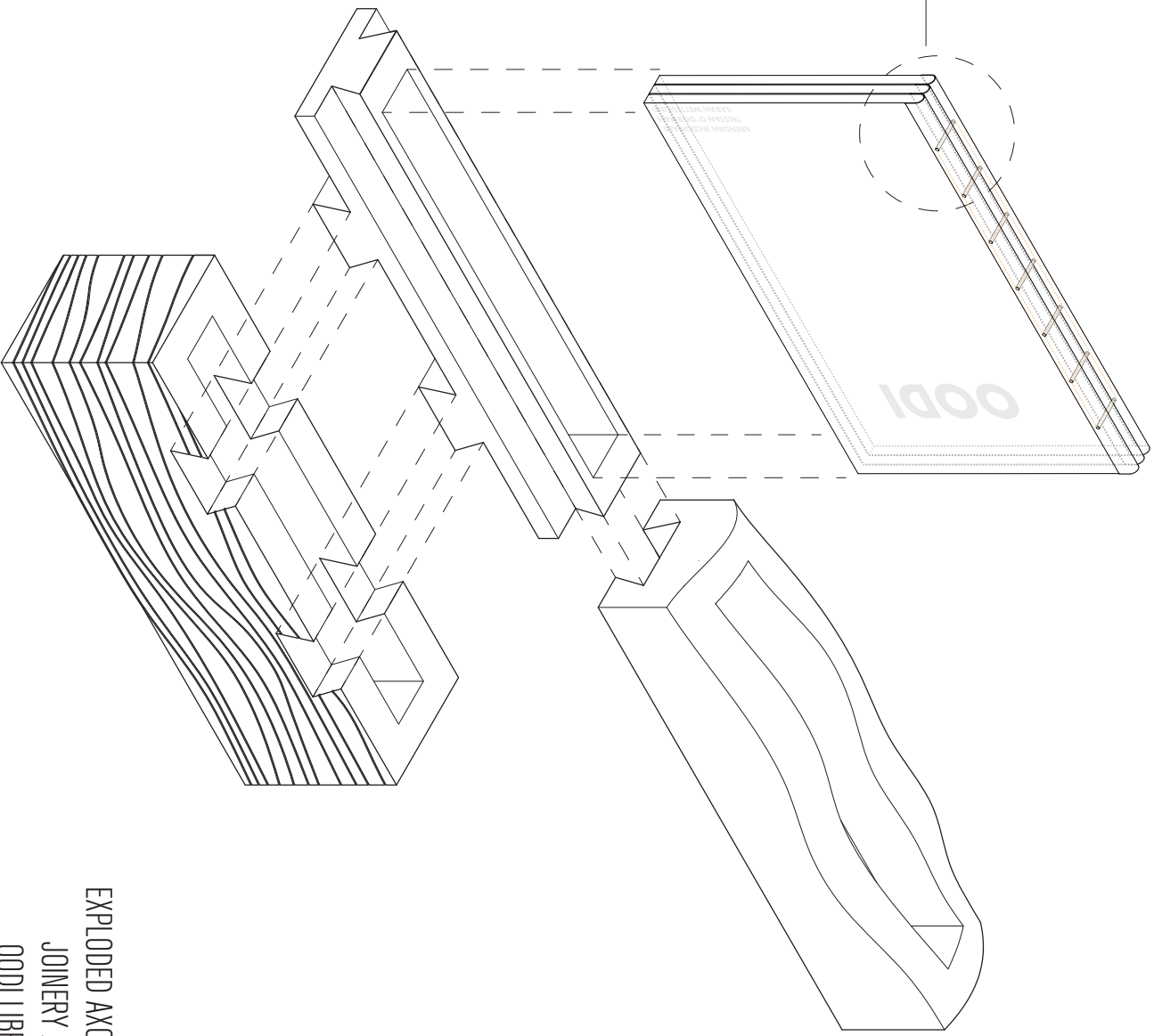
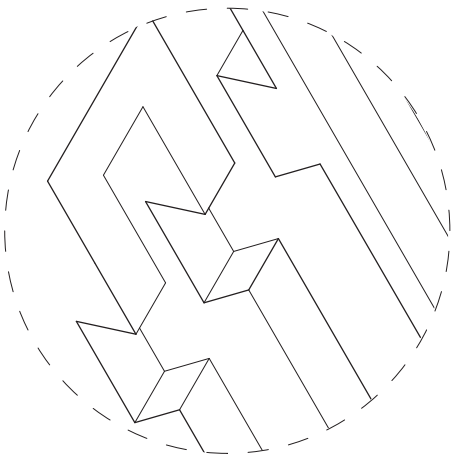
To construct the resin layer of the case, a negative mold would be created from layers of laser cut 3mm wood. This would allow for variation in the curved form and be sanded on the inside before pouring. The walnut layer would be squared to its maximum dimensions and then the tenons formed. The spruce layer would be squared and then the mortises cut into it. Both wood pieces would then have the inside routed out to fit the book. The exterior of the spruce piece would have its topography lines etched via adjusting the height on the laser cutter.



1:1 ELEVATIONS
OODI LIBRARY CASE



For the text itself, our diagrammatic approach to representing the building is arranged in a flip book so readers can view the various scales and stages of analysis on the right side of the page, or choose to read through on the left. The book's binding is stab-stitched with a white cover. The joinery used is a sliding dovetail joint. The male of each joint extends from the thinnest layer - the walnut. The layers assemble in opposite directions and are then locked in place by the book.



EXPLODED AXONOMETRIC
 JOINERY // DETAILS
 OODI LIBRARY CASE