

**Finding Common Ground: The Monuments of Ramesses the
Great and Urban Transformations**

by

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Submitted in partial fulfilment of the requirements
for the degree of Master of Architecture

at

Dalhousie University
Halifax, Nova Scotia
July 2015

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To Saïd and Julia

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ABSTRACT

This thesis explores the potential of an urban transformation that negotiates between heritage and urban development. The subjects of this study are the monuments of Ramesses II in Abu Simbel, Egypt, which underwent an extreme form of transformation as a result of urban development in the 1960s. The proposal for its continued transformation seeks to integrate tourism with the social, environmental, and economic realities of the local community; and it consists of a series of interventions operating at multiple scales but striving towards the same goal. The goal is to elucidate the story of Abu Simbel and enhance visitors' experience, while celebrating the culture of the place and resonating with the local community.

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Talbot Sweetapple, and advisor, Dr. Steve Parcell for their guidance and support throughout this endeavour. Cristina Verissimo deserves thanks for her encouragement and joyful discussions during the initial stages of this project. Thank you as well to Emanuel Jannasch for his insights throughout the entire process. Thank you to Bev Nightingale and Dr. Margie Clow-Bohan for their willingness to help, on short notice, with formatting and polishing this document. My friends, Nanxi Liu and Jay Alkana, thank you for your help in the final push. Lastly, thank you to all of the following: faculty members who taught me throughout my years at school; staff for making my days brighter; and colleagues who were there throughout the whole process.

CHAPTER 1: INTRODUCTION

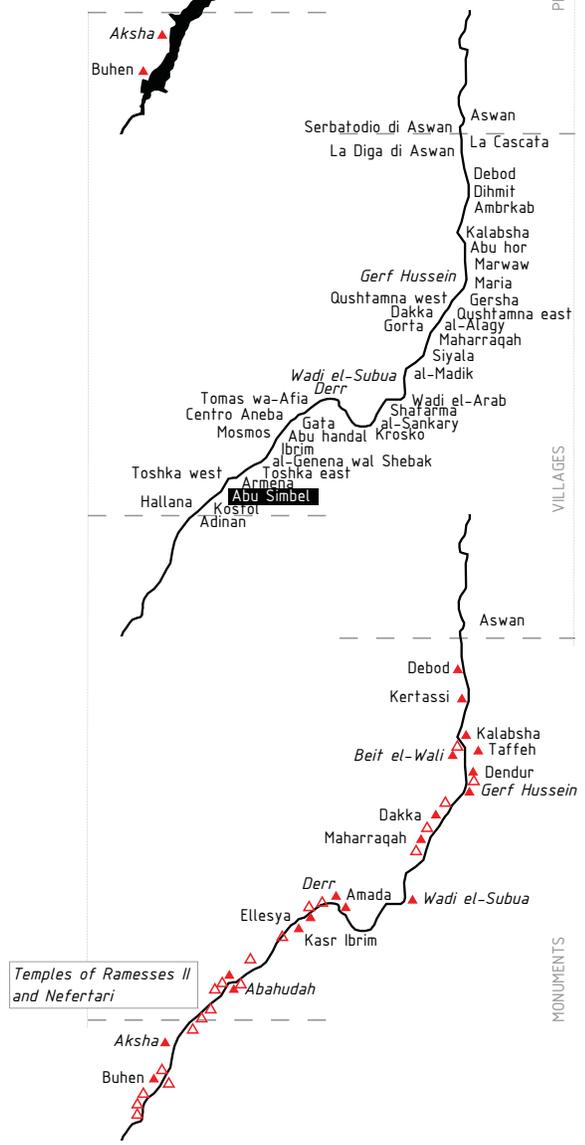
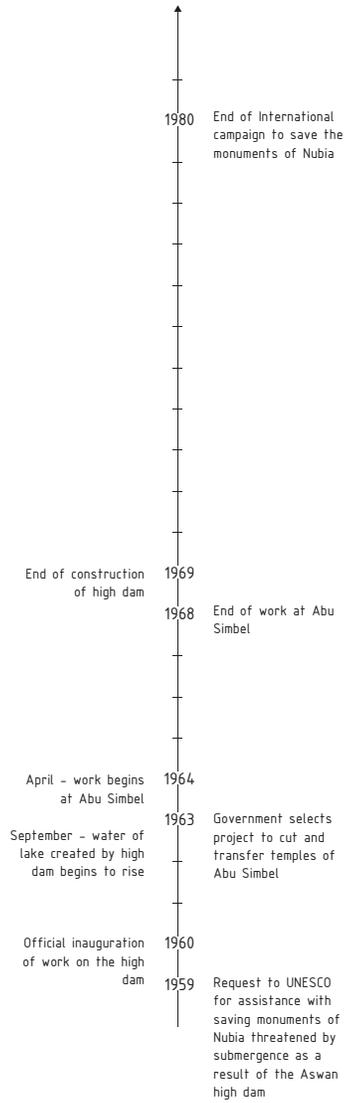
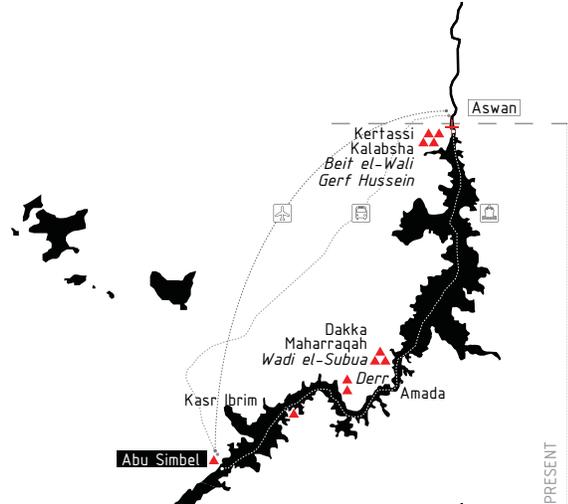
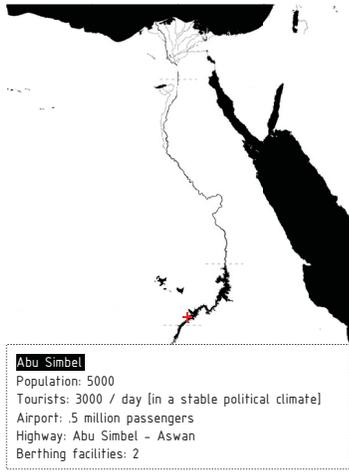
Contexts

The Aswan High Dam, Rising Waters and Nubia

At the southernmost edge of Egypt lies the city of Abu Simbel, home to the monuments of Ramesses the Great dating back to the 13th century BC. Situated in lower Nubia, the region was entirely flooded in the 1960s as a result of the construction of the Aswan High Dam. Dubbed as “Nasser’s Pyramid” - after the Egyptian president at the time - the high dam was an elusive dream that was to come to fruition: taming the Nile - taking control over its annual flooding, storing water for irrigation, and generating the much needed hydroelectric power to fuel the nation’s modernity. The reservoir of Lake Nasser threatened the entire region of Nubia, its settlements and ancient monuments. In an effort to save the monuments of Nubia, an international campaign was launched and more than 20 monuments were saved while Nubian villages were submerged and the population relocated north of the dam. One of the outcomes of that effort is the touristic town of Abu Simbel.



Temples of Ramesses and Nefertari, 2007; from Smith and Tunmore, “Imaging Ancient Egypt: Abu Simbel Old and New.”



States of lower Nubia; data from World Heritage Centre, "The Rescue of Nubian Monuments and Sites," and Gaudin, "Victory in Nubia: The Greatest Archaeological Rescue Operation of All Time."



The town of Abu Simbel, post 1960s; base drawing from Vattenbyggnadsbyran, *The Salvage of the Abu Simbel Temples: Concluding Report*.

Saving the Monuments

The 1960s witnessed a new phase in the history of preservation, with the project to save the monuments of Nubia playing a defining role in shaping the course of the discipline. As Lucia Allais had put it, “The salvage of Abu Simbel exemplifies the new model of monumentality, that was catalyzed when new approaches to preservation mixed with geopolitical ambitions and experimental engineering.”¹ The monuments of Abu Simbel in particular, were in effect an opportunity for UNESCO to codify emerging international criteria for preservation, and more specifically the concept of integrity.² The term, as applied to moving of the monuments, “designated the morphology of a site, the material properties of an object to be moved, and the moral fiber of the person (or entity) doing the move.”³ Further complicating the task was the underlying debate on whether any modern intervention should be legible in the desert. “Here integrity, as a term applicable to environmental systems, became entwined with integration, an aesthetic notion that had been developed by European art and architectural conservators since 1945.”⁴ Although the task of saving the monuments wasn’t a competition, it unfolded as a series of schemes proposed by national delegations and assessed by UNESCO. Lucia Allais points out that “while each team’s proposal can be read for its contribution to the new international discourse on integrity and integration, the rhetoric surrounding each scheme also reveals a preservation mentality strongly influenced by national traditions.”⁵ The following section describes the schemes as proposed in a chronological order.

The French Scheme, Coyne et Bellier, Summer 1960

The French scheme sought to reintegrate the monuments into the desert by utilizing the same technology that had transformed it. The scheme called for building a dam in front of the temples, whereby visitors to the site would arrive by boat at the level of the lake and descend along a scenic path, around a pool to arrive at the front of the temple. Here, Laparde, the architect on the team, did not hesitate to make the human gesture legible in the landscape, as it was deemed to be aesthetically continuous with the original setting.

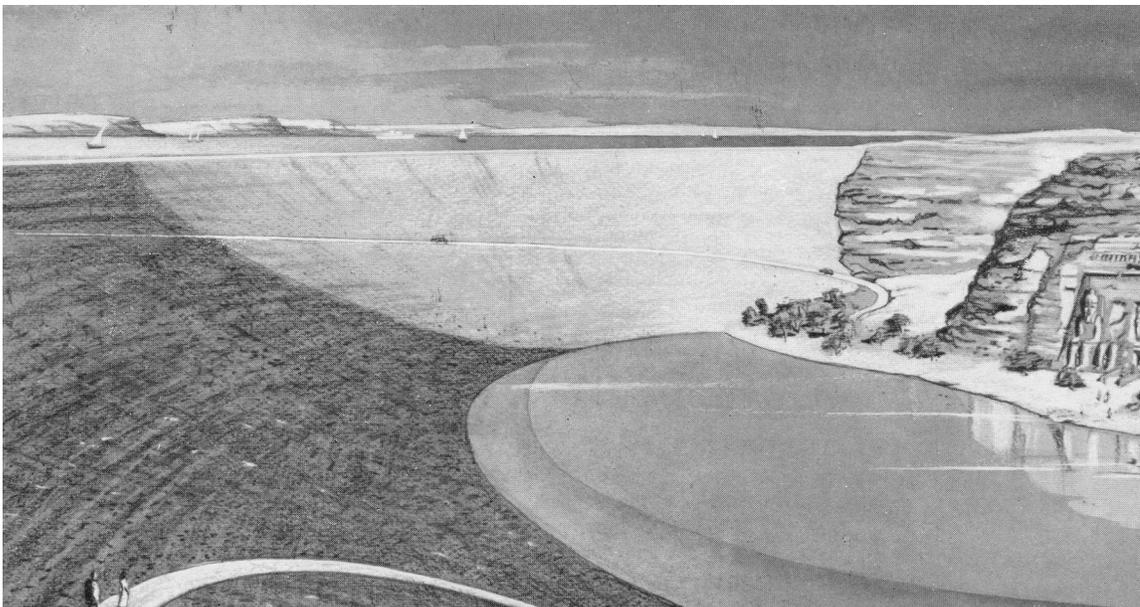
1. Lucia Allais, “Integrities: The Salvage of Abu Simbel,” *Grey Room* 50 (2013):10.

2. Ibid, 14.

3. Ibid.

4. Ibid, 15.

5. Ibid.



The proposal by Coyne et Bellier, 1960; from William MacQuitty, *Abu Simbel*.

Following in the tradition of Viollet-le-Duc, the architect was engaged in restoration, “re-instating a monument in a condition of completeness which could never have existed at any given time.”⁶ Allais points out that “this condition of completeness had long been the French answer to the question of integrity, and Laparde evoked it when he called the site a ‘timeless landscape’.”⁷ In this redefinition of restoration, the site was described as having an “almost natural appearance.”⁸ The weakness of this scheme, as UNESCO’s chief archaeologist noted, was that “unfortunately, dams are made to go across streams, not to protect something on the side of the stream.”⁹

The Italian Scheme, Piero Gazzola, Winter 1960

Influenced by the Italian tradition of painting restoration that distinguishes between the skin and the structure, Gazzola had proposed to “liberate” the temples from the mountain to “preserve the integrity of the temple by lifting it whole.”¹⁰ The scheme called for a series of cuts that would separate the temple from the mountain, encase it in a concrete box, and incrementally lift it by an extensive system of hydraulic jacks.

6. Ibid.

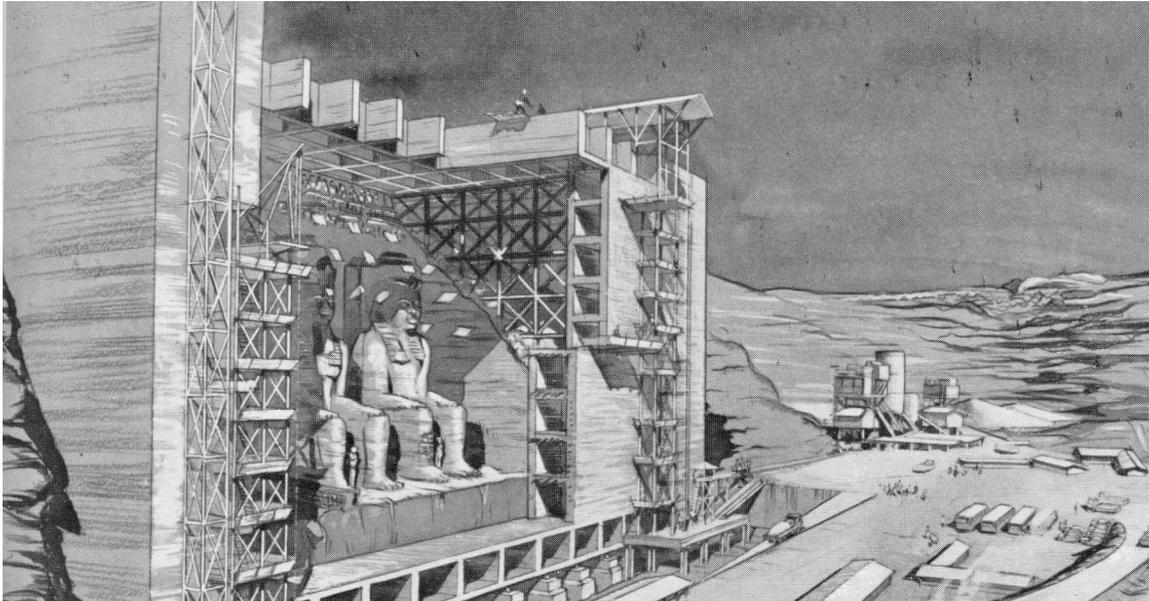
7. Ibid, 15-16.

8. Ibid, 16.

9. Ibid.

10. Ibid.

The notion of integrity here is similar to that of Cesar Brandi's Theory of Restoration, preserving "the material wholeness of the work of art."¹¹ In this case, the theory allowed for modern technology to be exposed. Despite UNESCO's advertising efforts to raise funds, it did not attract enough funding, since the risks were high, as every component of this scheme was experimental. As funding came to a halt, and flooding was near, other nations volunteered schemes.



The proposal by Piero Gazzola, 1960; from William MacQuitty, *Abu Simbel*.

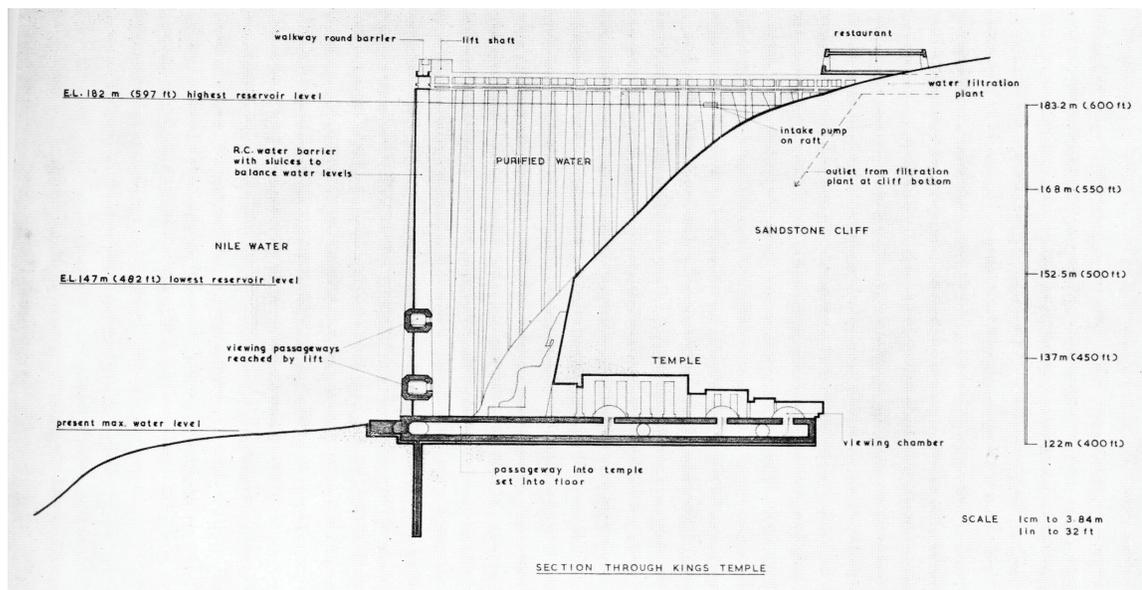
***The British Scheme, William MacQuitty, Jane Drew, Maxwell Fry, and Edmund Hap-
pold, Summer 1963***

Initially proposed by a film producer, this scheme called for the construction of a dam not to retain but to filter water, as it was believed that it's the chemical composition of the Nile and not the water that would disintegrate the sandstone. Integrity here is entrusted to one element, a thin concrete membrane. As Allais points out, "the ingenuity of this scheme lay in the thinness of the interface between object, subject, and site. Instead of the monument, it was the visitor that was encased: in bubbles, tunnels, and shafts that left undisturbed the harmonious continuum of elements."¹² The scheme as such follows the well established British tradition of conservation, in particular John Ruskin's preference for buildings to be left to the forces of decay, and William Morris's notion of subjecting buildings to minimal intervention. By "combining wilful ruination, minimal intervention, high-tech

11. Ibid.

12. Ibid, 18.

chemistry, and picturesque enjoyment” the scheme echoes the Morrisian tradition and its contradictions.¹³



The proposal by William MacQuitty, Jane Drew, Maxwell Fry, and Edmund Happold, 1963; from William MacQuitty, *Abu Simbel*.

The Swedish Scheme, Vattenbyggnadsbyrå [VBB], Summer 1963

This scheme involved cutting the temple into blocks, consisting of a total of 7,047 blocks sawn by hand, and reconstituting it 65 metres above and 200 metres inland of its original location. At one third of the cost of other proposals, the scheme was adopted as it became evident that cutting was the only alternative to flooding, and after the United States offered a guarantee of funding.¹⁴ The selection of this scheme, Allais maintains, was a direct result of American foreign policy. Since the operation was labour intensive, it would have employed Egyptian labourers, which meant they would be paid in local currency, a favourable option to save some of the US government's investments in the area from devaluation. Hence, “in a complete reversal of the rhetoric of integrity that had been gaining momentum around the French, Italian, and British schemes, a political logic ultimately seemed to take precedence over any coherent preservation theory.”¹⁵ Nevertheless, Allais is quick to proclaim that we should not equate the failure of the schemes with a fail-

13. Ibid.

14. Ibid, 20-2.

15. Ibid, 20.

ure of integrity; and instead posits the question of “what definition of integrity was validated by the salvage method that eventually unfolded”; and proposes a theory of integrity that lies in the Swedish scheme, one that is “found not in the doctrinal pronouncements of conservationists but in the salvage apparatus they were forced to use - the technologies for surveying, cutting, moving, and reconstructing the temples, which formed a complicated assemblage of humans and non-humans, ancient materials and modern machines.”¹⁶ Moreover, it was understood at the time that to be authentic the original stones had to be preserved, even if it were in pieces.¹⁷



The executed scheme by VBB, 1963; from William MacQuitty, *Abu Simbel*.

The architects on VBB’s team, Sune Linstrom and Alf Byden, had proposed several options for the design of the site; on one end of the spectrum was a scheme which sought to replicate the original setting, while on the other end was a scheme to create a “characteristic silhouette in an otherwise featureless landscape,” thereby resulting in a “new work.”¹⁸ In the latter proposal, a clear distinction was made between the new and the old, rendering visible the human gesture on the land. In reaction to the sculptural proposal, UNESCO stipulated that “architectural shapes” were to be avoided in the reconstruction of the site.¹⁹ Hence, in reconstituting the temples, the modern technology supporting the

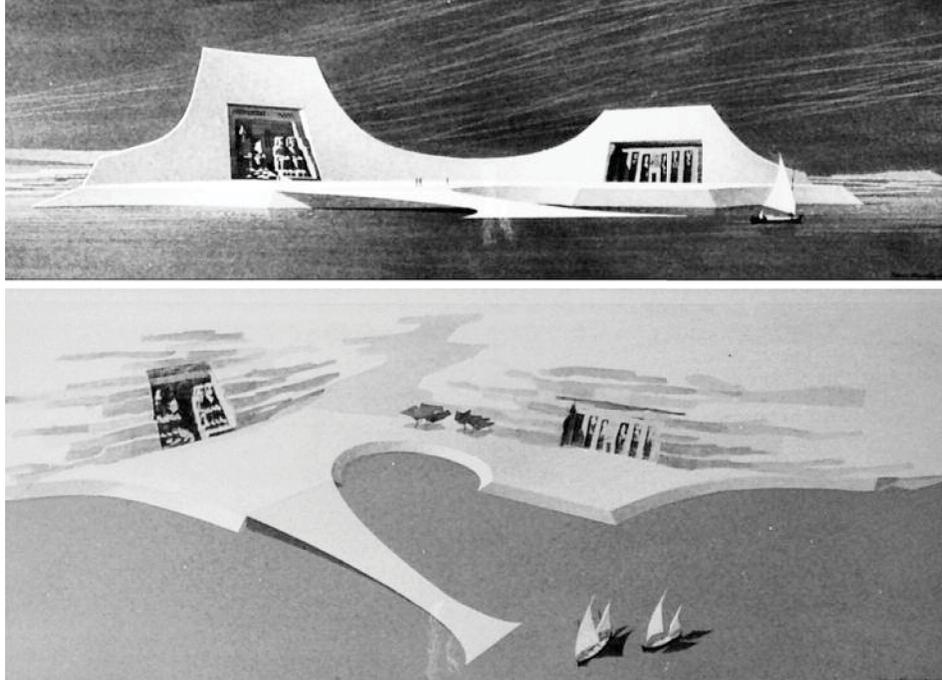
16. Ibid.

17. Ibid, 41.

18. Ibid, 26.

19. Ibid, 27.

temples became internalized within the hill. Nevertheless, within its present state resides the potential for another phase of its transformation, one that would reveal a layer of the temple's history.



Sune Linstrom and Alf Byden's proposals for the design of the temples setting; from Lucia Allais, "Integrities: The Salvage of Abu Simbel."

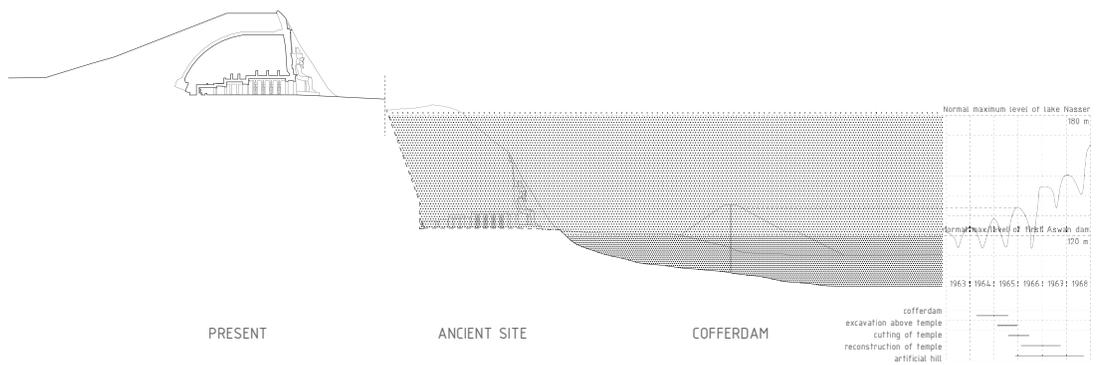
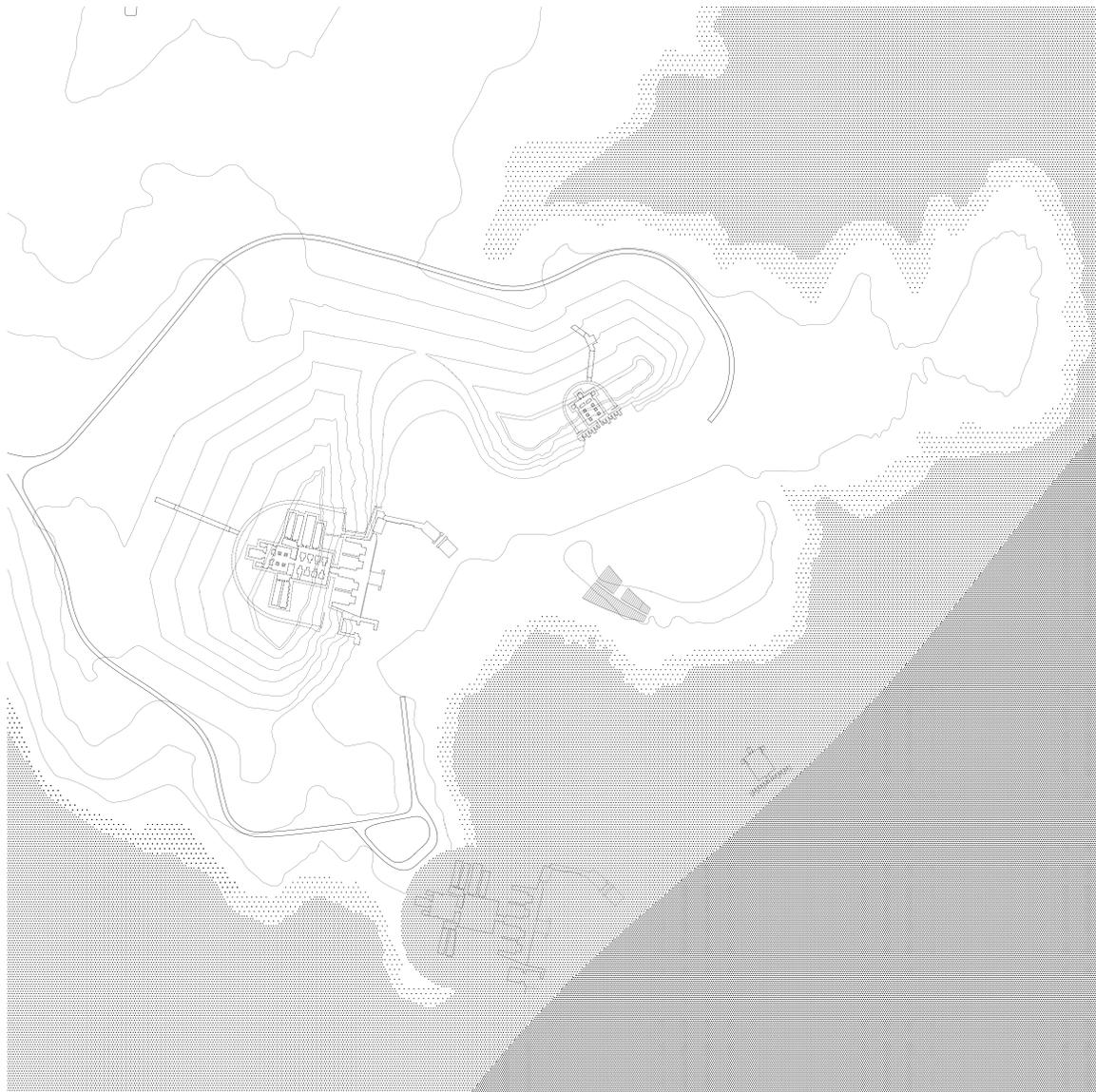
Towards a Continued Transformation

The campaign to save the monuments of Nubia was precisely that, a preservation effort of a selection of the material culture, whereby the surrounding settlements, Nubian villages, were submerged by the rising waters of the lake, and the population displaced. In this thesis, the transformation of the site seeks to celebrate this living culture. The proposal for the site's continued transformation seeks to integrate tourism with the social, environmental, and economic realities of the local community. The goal is to elucidate the story of Abu Simbel and enhance visitors' experience, while celebrating the culture of the place and being relevant to the local community.

In terms of the approach adopted, and as illustrated by the schemes for saving the monuments, restoration of an earlier state is not possible. Thus, the approach to the site's transformation is one that embraces the existing conditions, and focuses on the moments that precede and follow one's visits to the temples. Moreover, it is within the temples' present state that resides the potential for the site's transformation.

In a project of a similar status, the masterplan for the Giza plateau called for, among other things, the removal of all structures that were built over the last 200 years, in order to preserve the sanctity of the site.²⁰ The conditions at Abu Simbel are different, whereby, unlike the pyramids which were to be experienced in the round, the temples at Abu Simbel were carved into the cliff; therefore, the impact of the temple is in the facade. This in turn, suggests that structures behind the hill are permissible since they do not have a visual impact on the temples when experienced frontally. Therefore, the approach adopted is one of adding elements to the existing conditions of the site.

20. See Zahi Hawass, "Site Management: The Response to Tourism," *Museum International* 50 (1998): 31-37. See also Zahi Hawass, "Touristic Management of the Giza Plateau," Proceedings of a Roundtable on *Culture, Tourism, Development: Crucial Issues for the XXIst Century*. UNESCO, Paris, 1996. <http://unesdoc.unesco.org/images/0010/001085/108539Eo.pdf>.



Plan and section of the temple's relocation; redrawn from Vattenbyggnadsbyran, *The Salvage of the Abu Simbel Temples: Concluding Report*.



Temple grounds, existing condition.

CHAPTER 2: DESIGN

Monuments and the City

The proposal for the site's transformation consists of several interventions that strive towards the same goals, yet operate at different scales. At the city scale a park flanking the flood plains would link existing and proposed elements in the city. Where it approaches the monuments, the park takes on a formal composition and becomes an open public space with amenities and gardens that would form a threshold to the temples. Although the garden was not a historical part of the temples of Abu Simbel, it is an element that preceded many other ancient Egyptian temples, including the mortuary temple of Hatshepsut and the Ramesseum.²¹

Temple Grounds

Given the heritage status of the site, the buffer zone is used to establish the boundaries of this new public space. Moreover, the existing conditions of the site, combined with elements of ancient Egyptian gardens - a processional way and rectangular pools - inform the design of this space.

The organizational structure of the temple grounds consists of the establishment of a car-free zone in the core area. Water is used as an organizational element to establish a central axis and orchestrate the program, while also forming places of congregation. The central axis is reinforced on the vertical plane by palm trees, which are in turn flanked by bands of trees on either side, creating a continuous canopy to provide protection from the elements. Buildings with activities related to the temple are situated in the core zone, while the centre for arts and crafts is situated outside, on the edge of the boundary. Access to the temples is granted at the back of the gardens through one point of entry on the southern side of the grounds. The exit on the other hand is possible via two means, one around the hill along the existing path on the northern side, and another through the tunnel from within the hill. The following section describes architectural interventions in more detail.

21. See Tom Turner, *Garden History: Philosophy and Design 2000 BC-2000 AD* (New York: Spon Press, 2005), 45-7, and Alix Wilkinson, *The Garden in Ancient Egypt* (London: The Rubicon Press, 1998), 74-90.

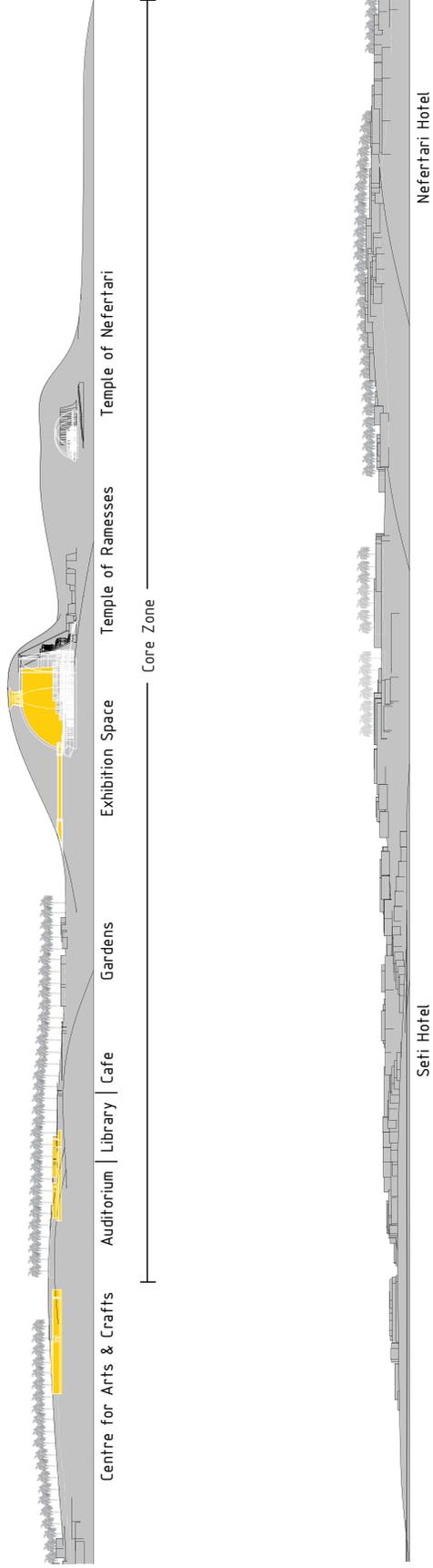


A park flanking the flood plains and leading to the temples.

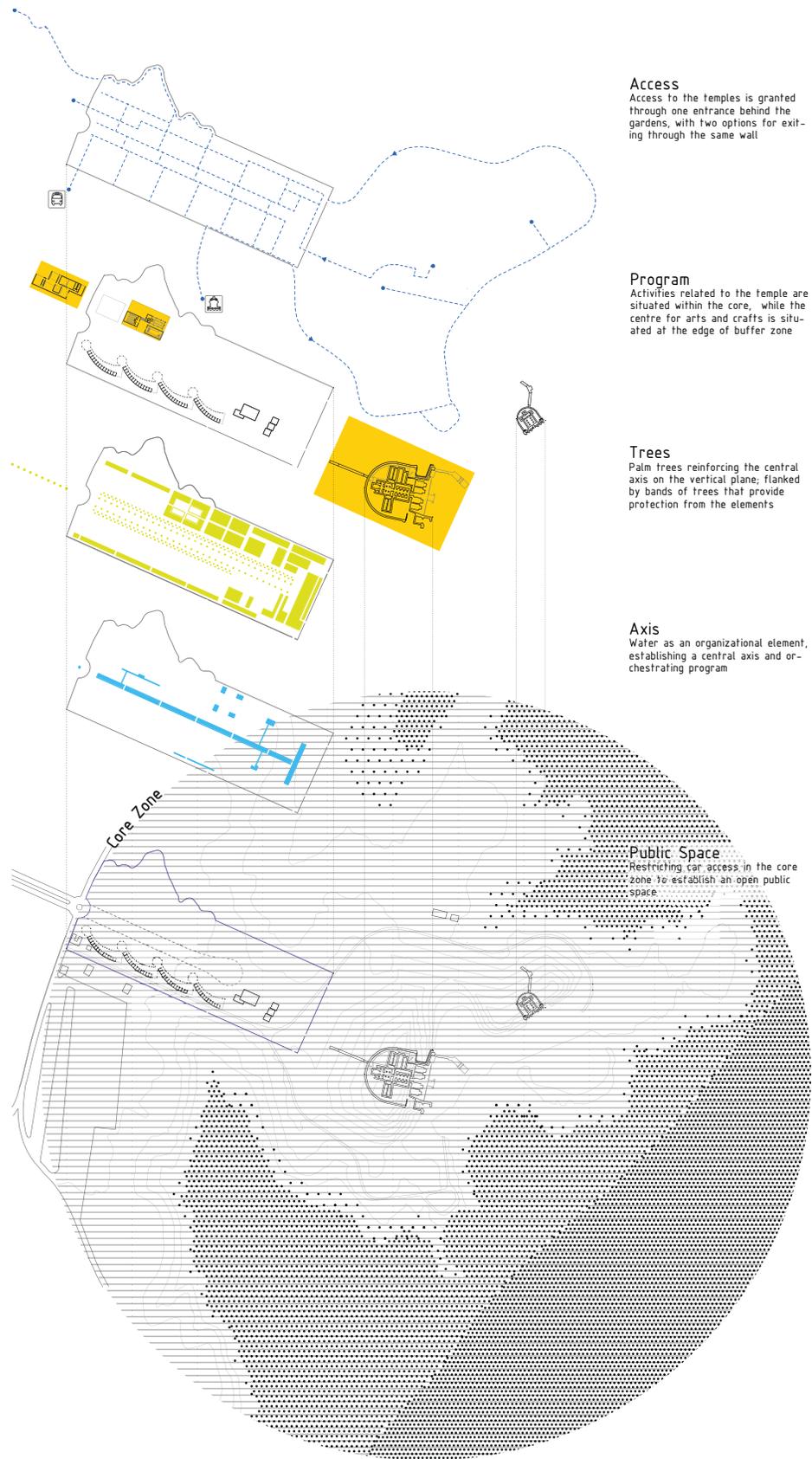


Site Hotel
Nefertari Hotel
Centre for Arts & Crafts | Auditorium | Library | Cafe
Gardens
Exhibition Space
Temple of Ramesses
Temple of Nefertari

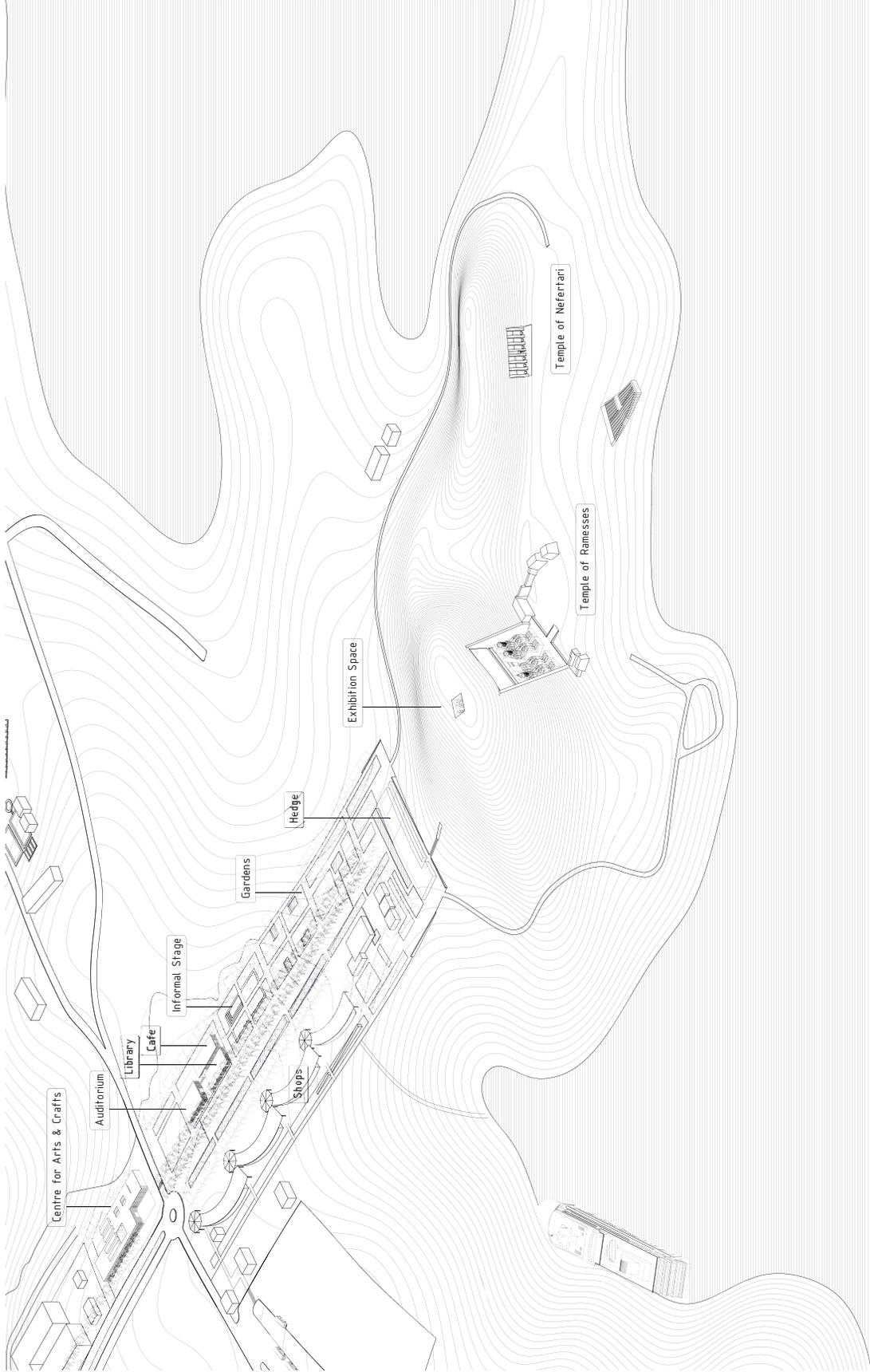
Proposed elements for the transformation of the site.



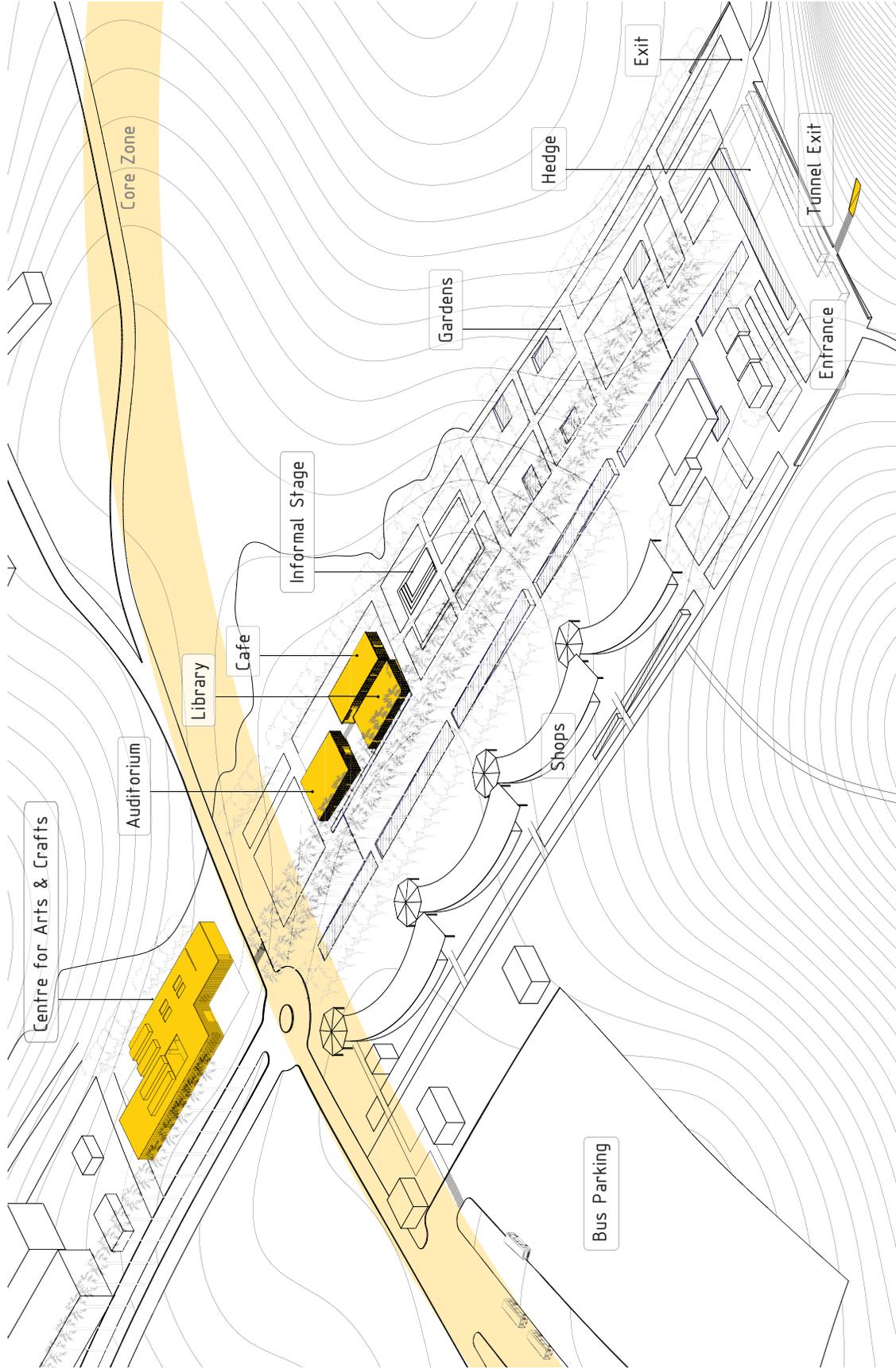
Section illustrating the relationship between the interventions, the temple, and the boundaries of the site.



Proposed organizational structure of the temple grounds.



Proposal for the transformation of temple grounds.

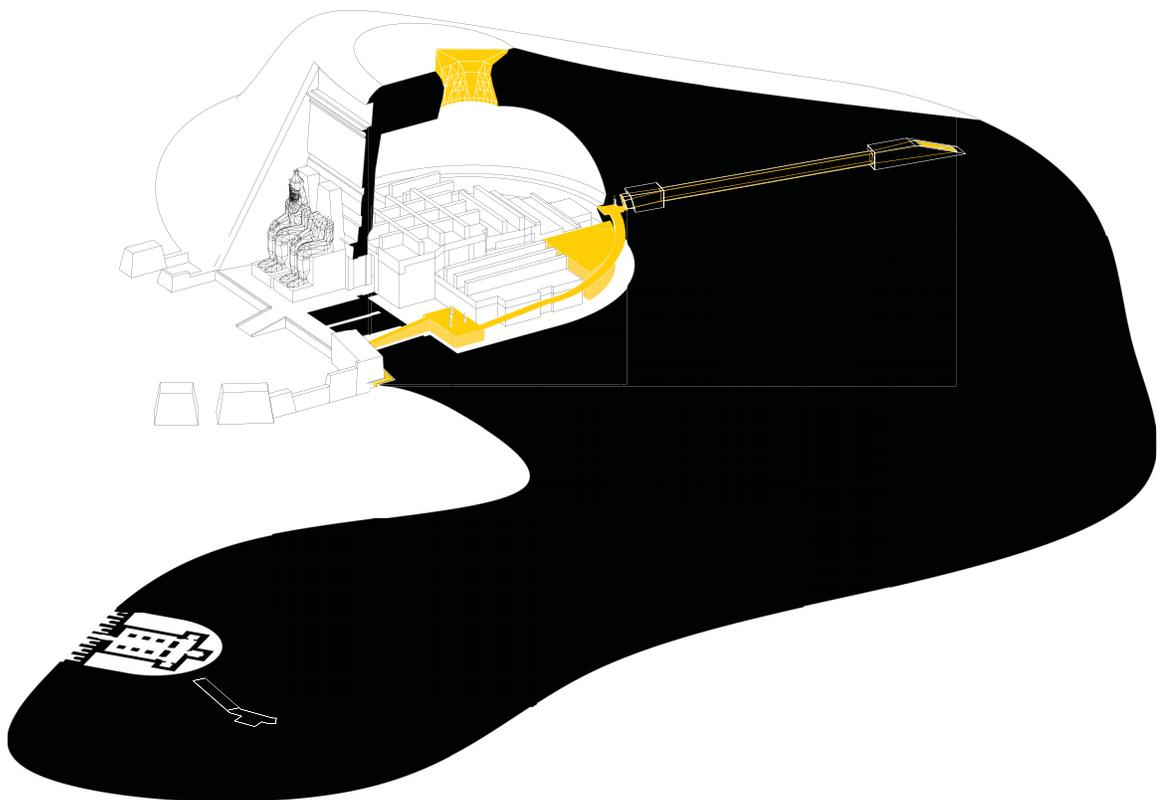


Detail of temple grounds, illustrating the relationship of the interventions in regards to the boundaries of the site.

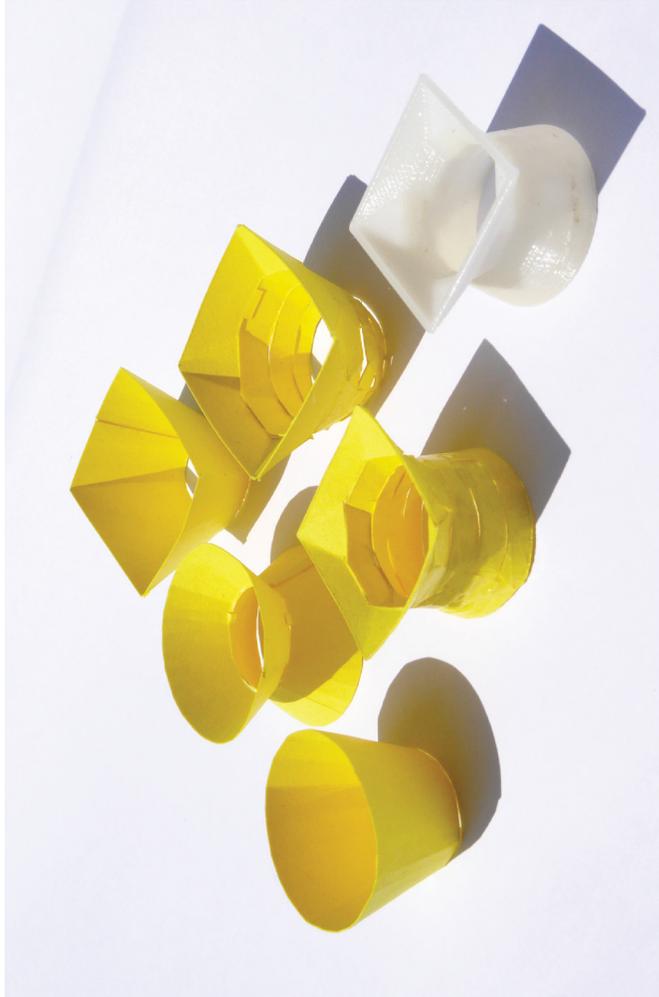
Architectural Interventions

The Exhibition Space

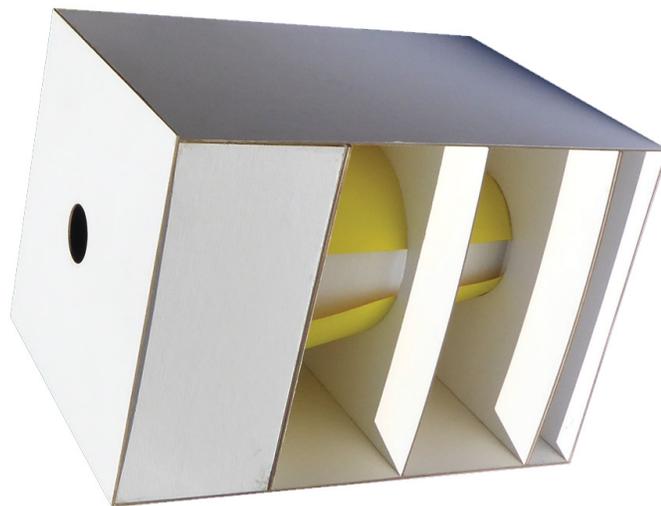
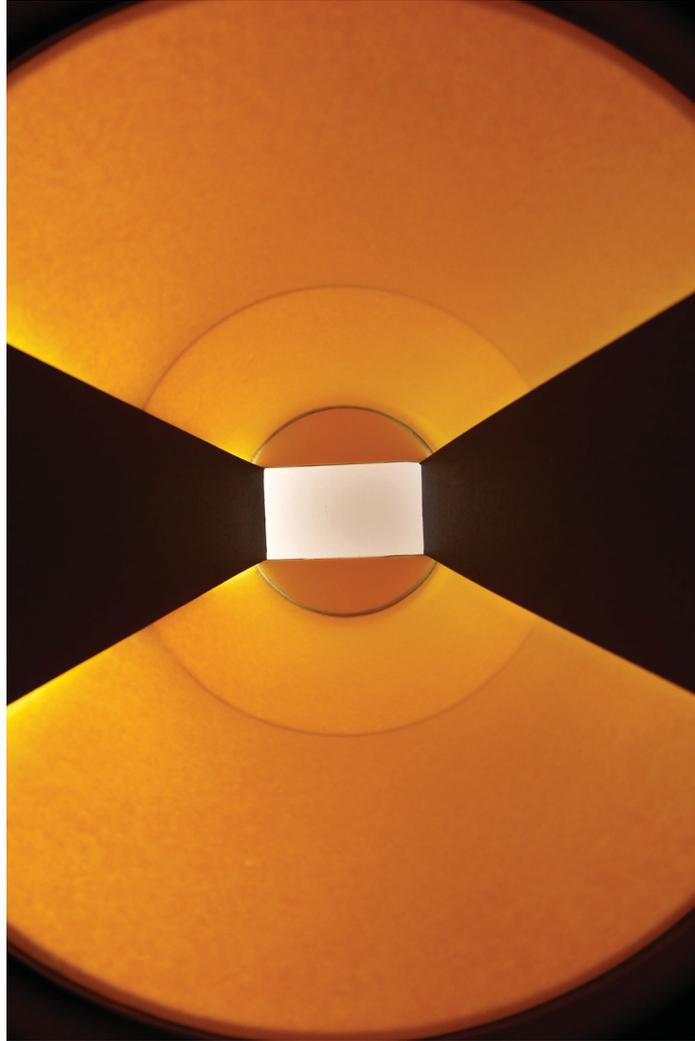
The intention of the exhibition space within the existing structure of the temple is twofold: to reveal a layer of the temple's modern history, and to house artifacts that had been removed from the temple and are currently on display at the Nubian Museum in Aswan. Given that the existing space within the hill is powerful in its emptiness, the adopted approach was one of restraint, adding only necessary elements for the functioning of the space. The intervention consists of the following elements: platforms linked by a series of ramps that rise gradually towards the existing tunnel, and a skylight to illuminate the space. The skylight here becomes an embodiment of some of the larger themes, of transformation, in this case a morphological transformation from a square to a circle, and in the process an image or representation of cosmic rhythms - with a square, a dodecagon, and a circle. Lastly, the intervention within the tunnel consists of a layer that stretches the interior to negotiate between the different parts and geometries of the tunnel.



Interventions within the existing structure of the temple.



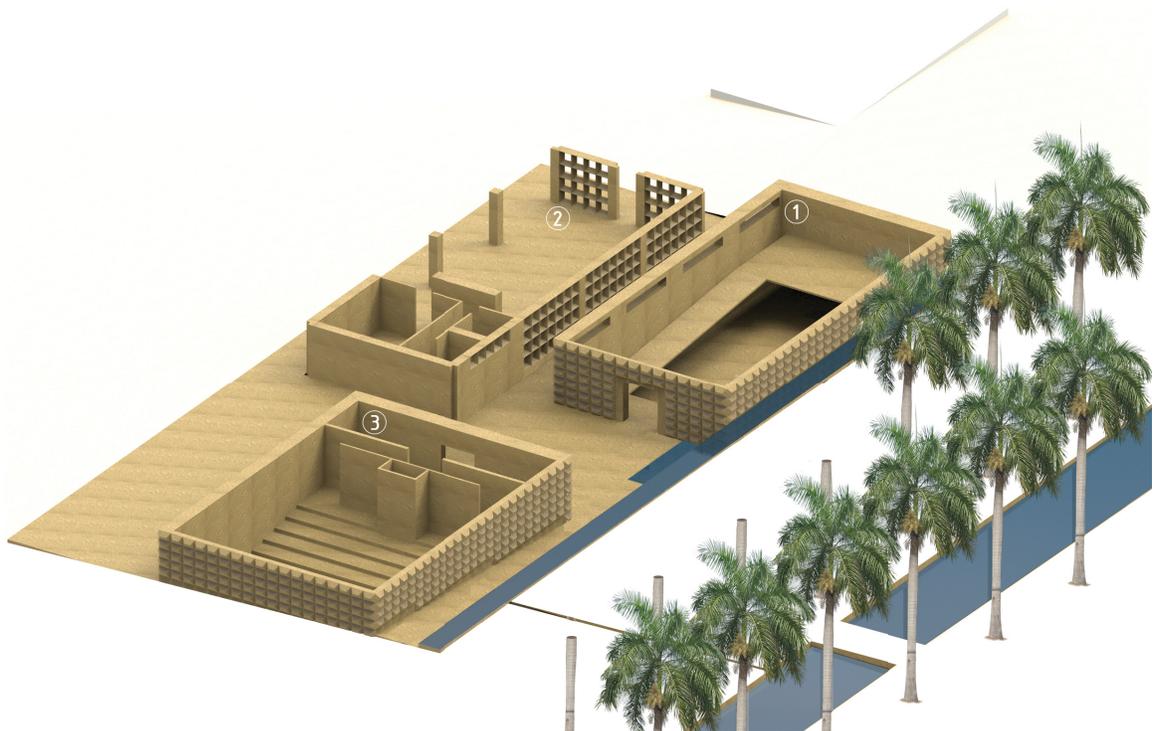
Studies for a skylight within the exhibition space.



Model of middle segment of the tunnel.

The Library, Cafe, and Auditorium

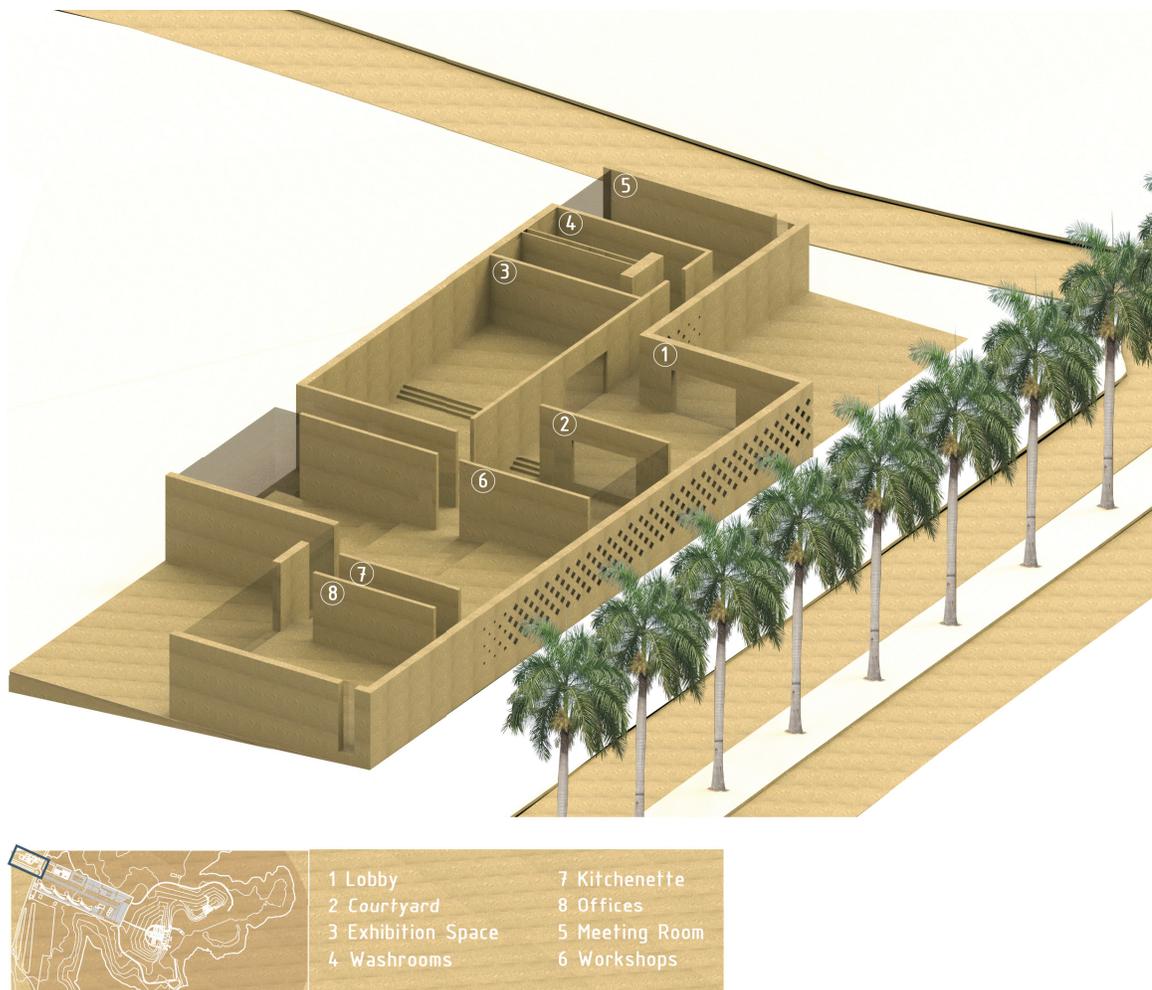
The library, cafe, and auditorium are programmatically related to the temples, and as such are situated within the temple grounds. Although the program is related to the temples, it has the capacity to accommodate a variety of uses and appeal to a broad range of users. For instance, while the auditorium serves the temples during their opening hours, in the evening it could potentially host events for locals. The library is another program that relates to the temples, but also an addition that could potentially resonate with the locals. In an effort to encourage tourists to proceed to the town, and vice versa, to attract locals to the temple grounds, the pavilions are arranged as a cluster of concentrated activities positioned closer to the town.



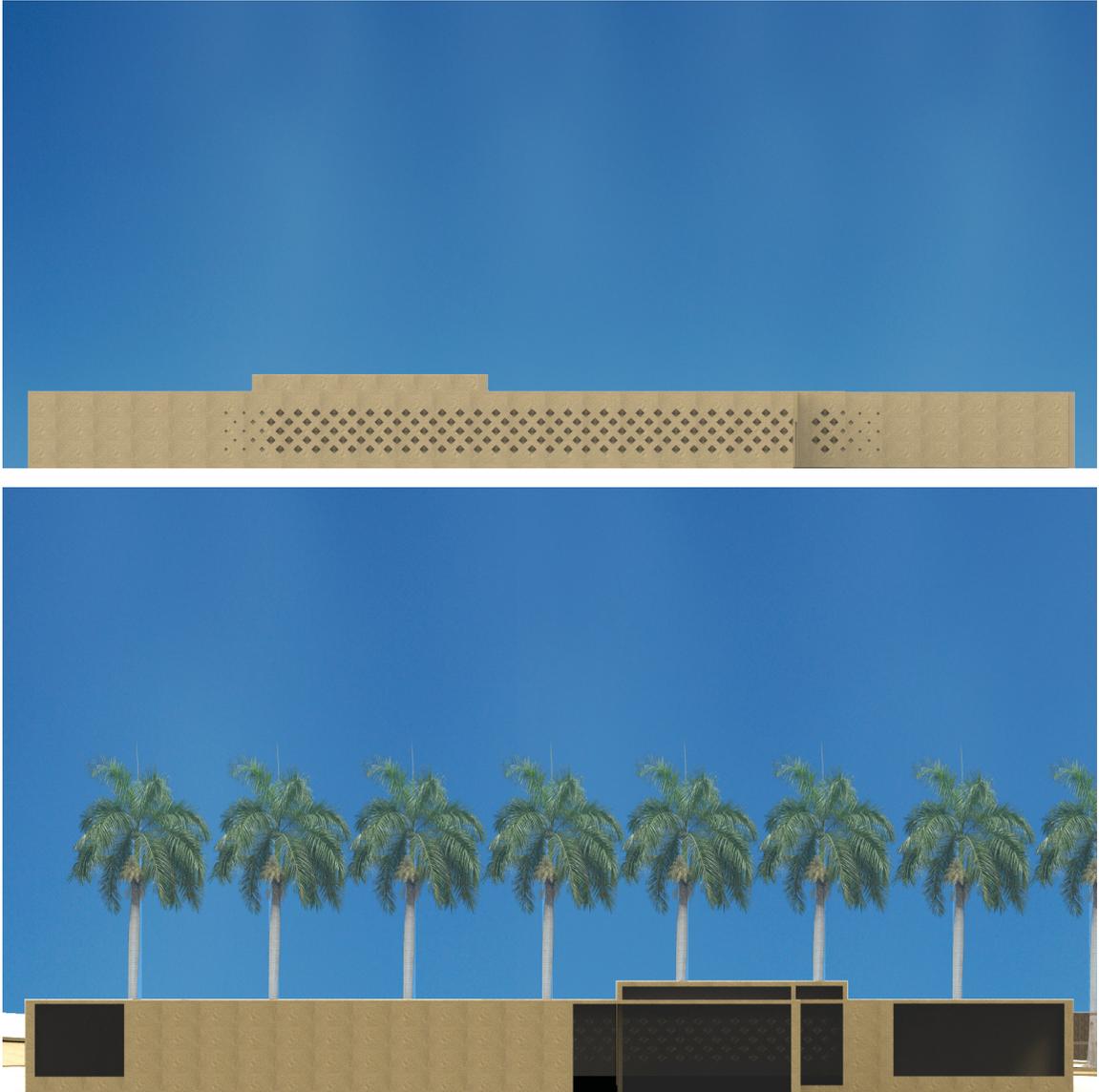
Auditorium, Cafe, Library

The Centre for Arts and Crafts

Nubians have strong traditions in weaving, producing personal and household accessories primarily from palm fibers. The craft of basketry, in particular, can be traced back to the bronze age. Jewellery as well is another craft with deep historical roots, and continues to thrive to this day. Although the mines in Nubia were an important source of gold in ancient Egypt, a variety of other materials are used in beaded jewellery. The centre for arts and crafts celebrates the culture of the place. Positioned across the street from the temple grounds, the centre becomes an opportunity to engage with contemporary cultural production and an invitation for visitors to the town of Abu Simbel. Programmatically, the centre is comprised of an exhibition space, an open space for workshops, a meeting room, and supporting facilities.



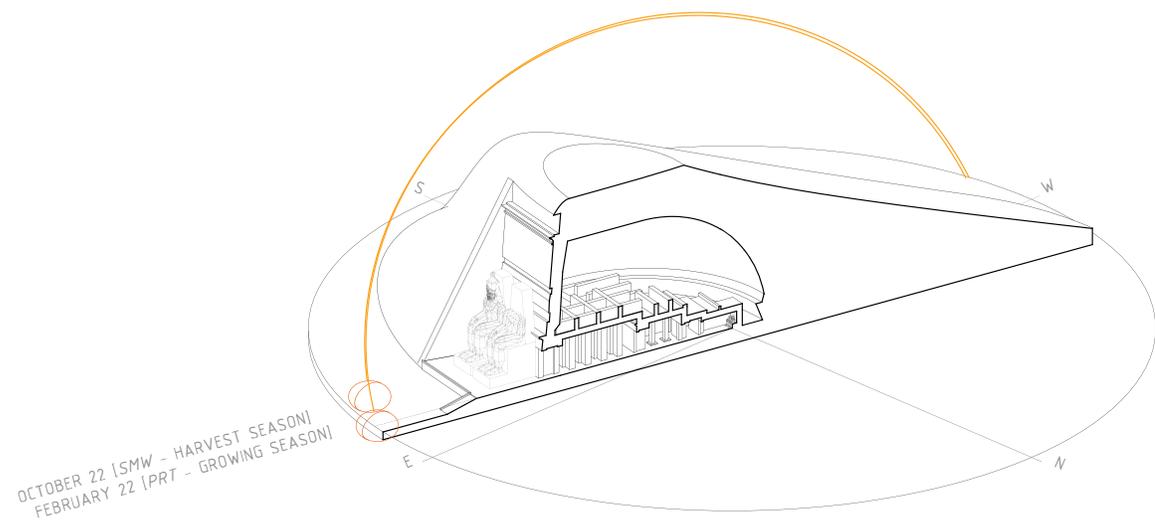
Centre for Arts and Crafts



Centre for Arts and Crafts, south elevation (top), north elevation (bottom).

Materiality

The materiality of the structures builds on ideas inspired by the temple. The first has to do with light, whereby twice a year - at the beginning of the growing and harvest seasons - the rising sun's rays penetrate 60 metres into the temple to illuminate figures of the gods on its back wall, effectively signaling seasonal changes and reinforcing the concept of the pharaoh as a god.²² The second idea about the temple is that it was carved into a sandstone cliff, resulting in a condition where the walls, structure, relief, and sculptures are made of one material. Nevertheless, in order to save the temples they were cut into blocks that were numbered as a system, in order to be reconstituted on higher grounds. Furthermore, this system of blocks was incased in a concrete shell to support the walls and ceiling of the temple.



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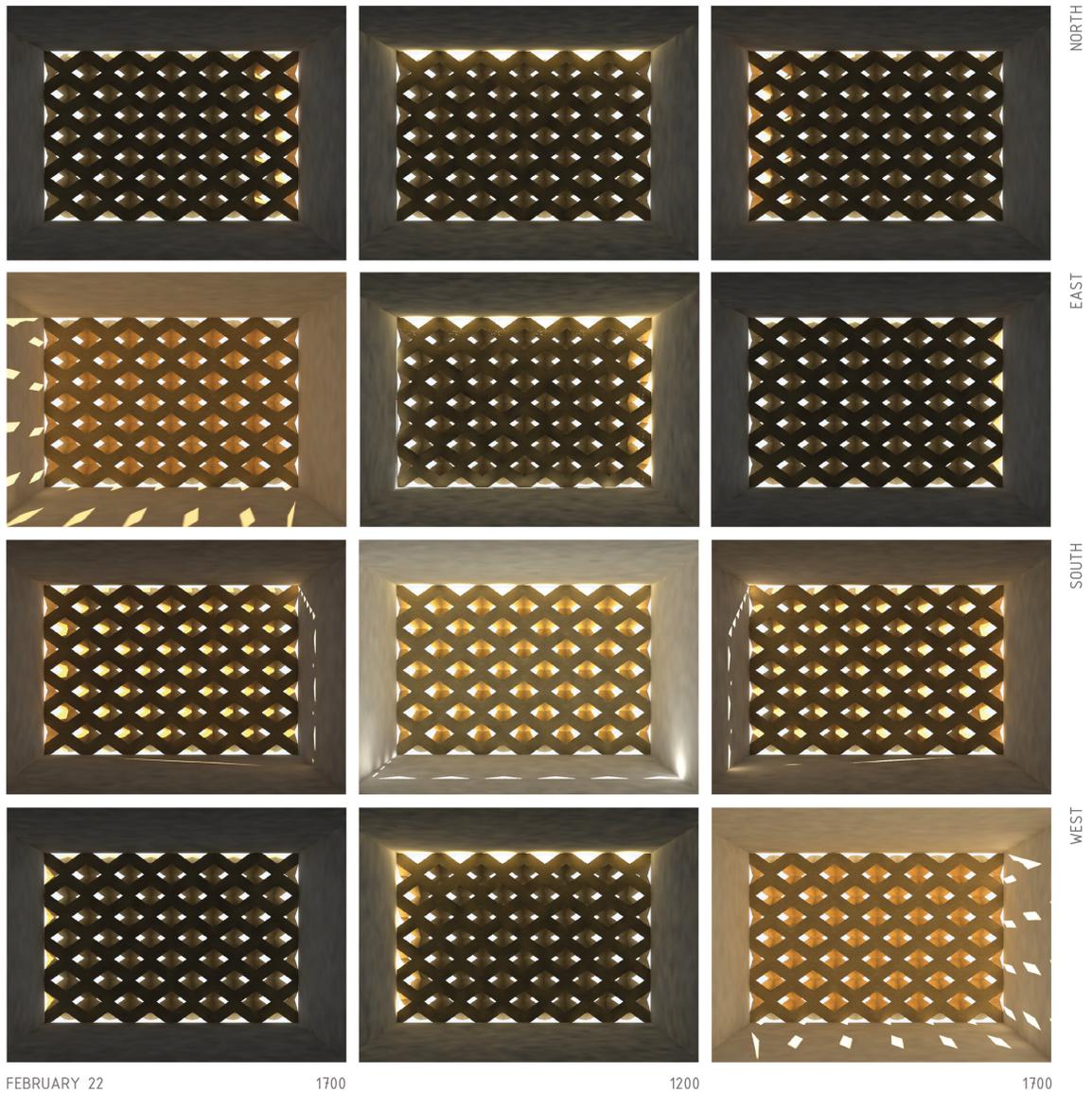


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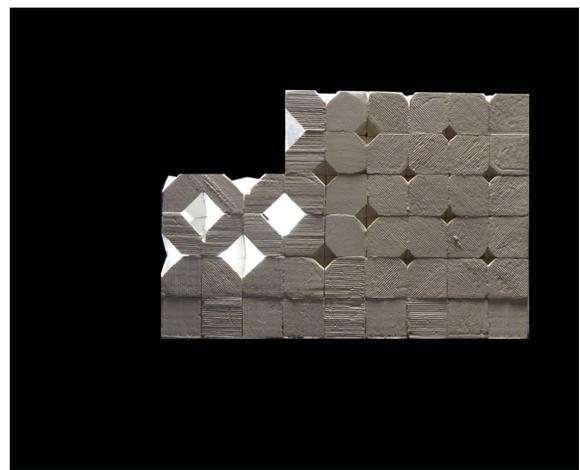
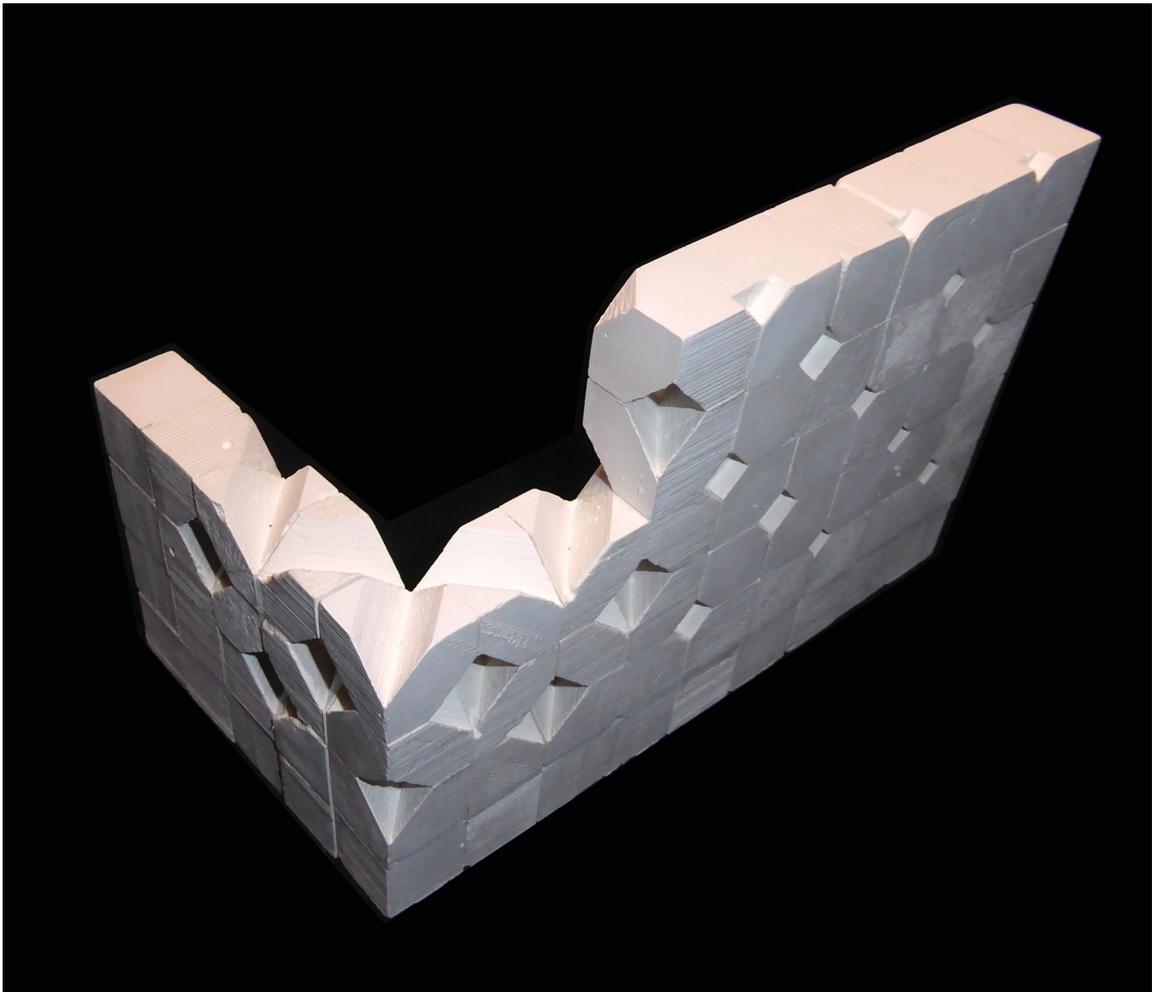
The rising sun's rays entering the temple twice a year to signal seasonal changes.

22. See M. Shaltout and J.A. Belmonte, "Keeping Ma'at: An Astronomical Approach to the Orientation of the Temples in Ancient Egypt." *Advances in Space Research* 46 (2010): 532-539. See also M. Shaltout and J.A. Belmonte, "On the Orientation of Ancient Egyptian Temples: (1) Upper Egypt and Lower Nubia." *Journal for the History of Astronomy* 36, no. 124 (2005): 273-298.

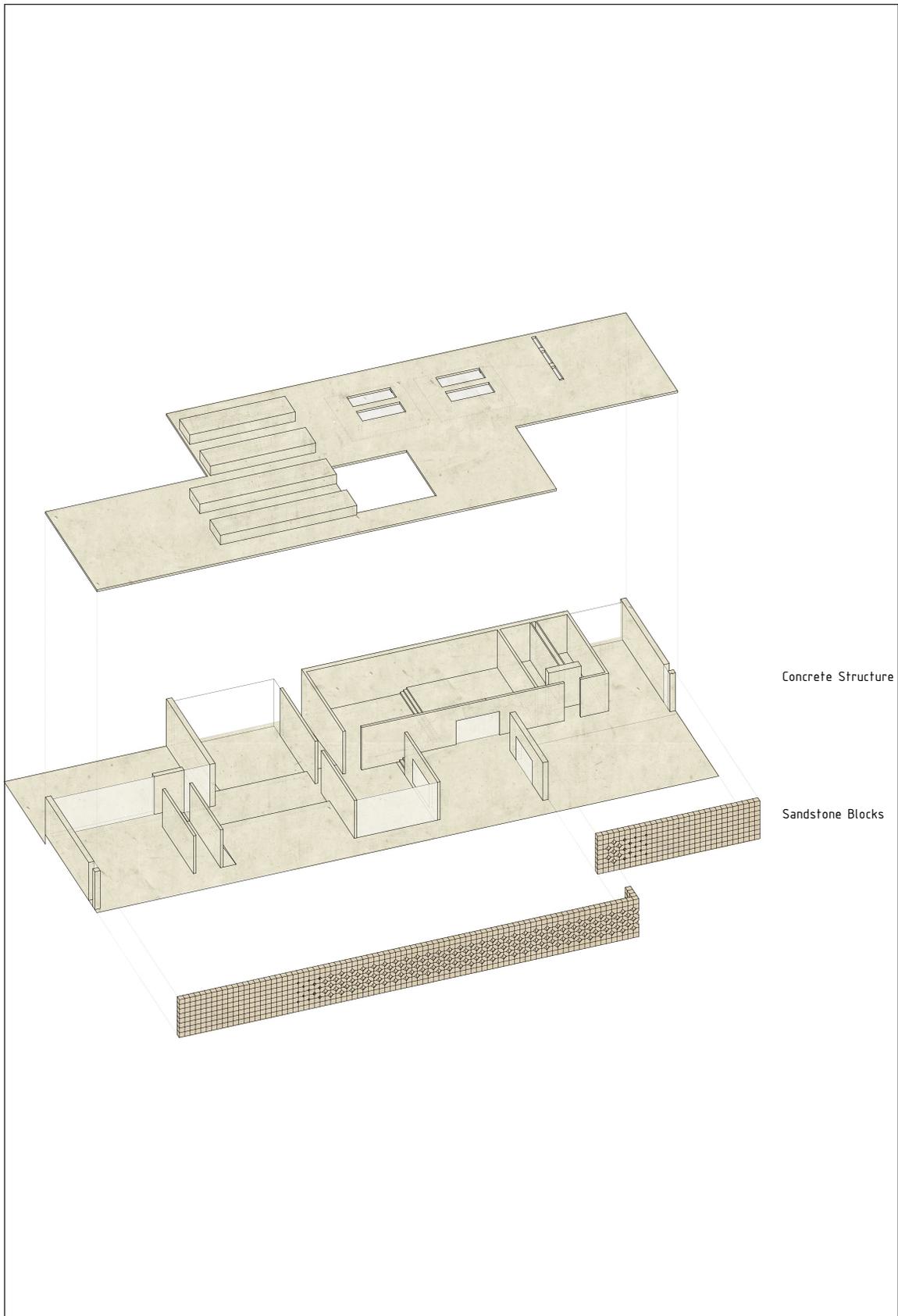
In combining these ideas, an attempt to develop a modular system of carved sandstone blocks was made, that through aggregation would form a wall that would be self-supportive and would filter light. The resultant system, as seen in the following images, is used at the centre for arts and crafts, as an independent system forming the south facing walls of the building. Meanwhile, the rest of the building resorts to a concrete structure which is in turn clad in sandstone.



Lighting study of sandstone block wall.

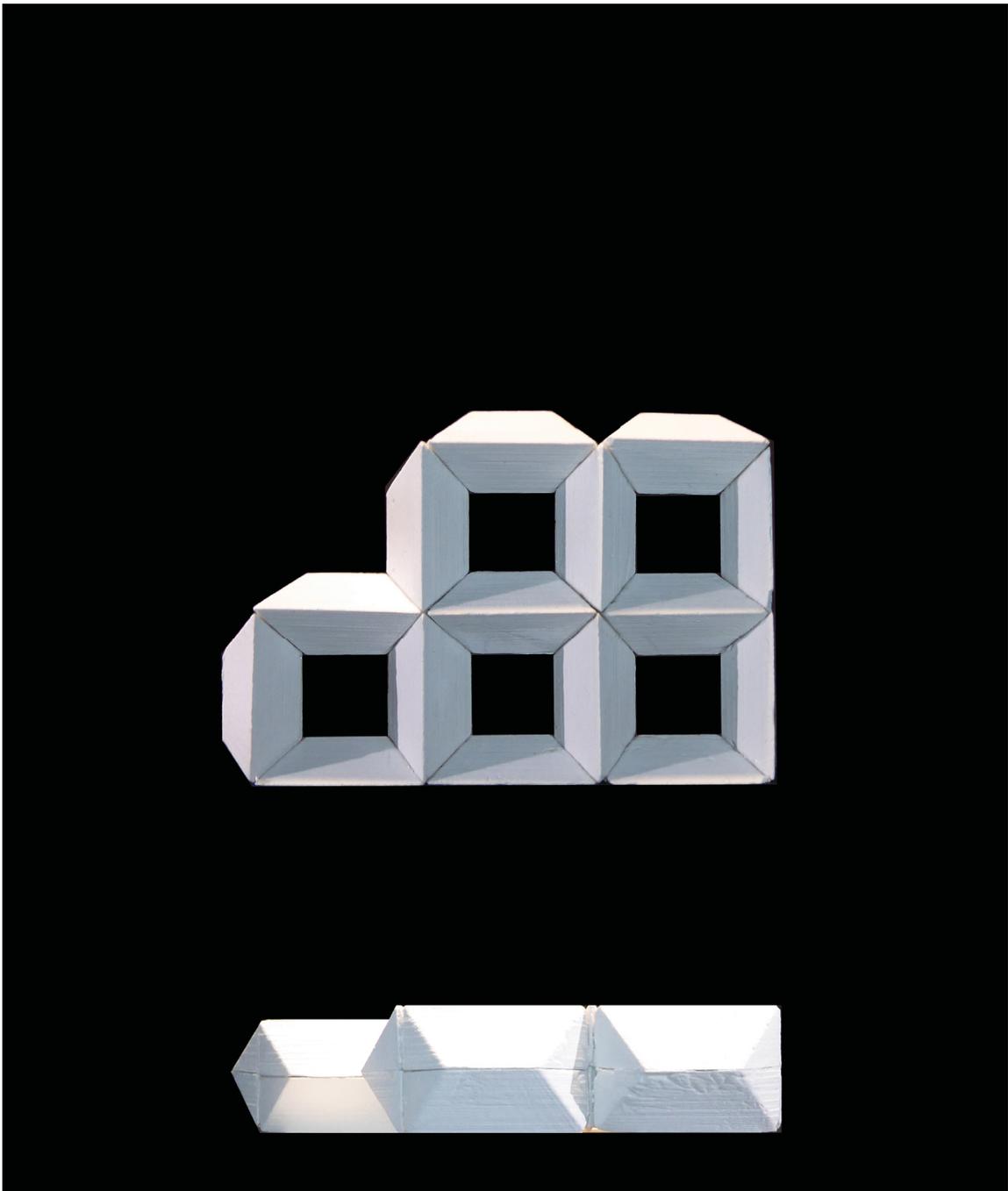


Plaster model of sandstone wall, blocking direct light during the day, while emitting light throughout the evening; with views to the inside being revealed obliquely to the passersby. Centre for arts and crafts, south facing walls.



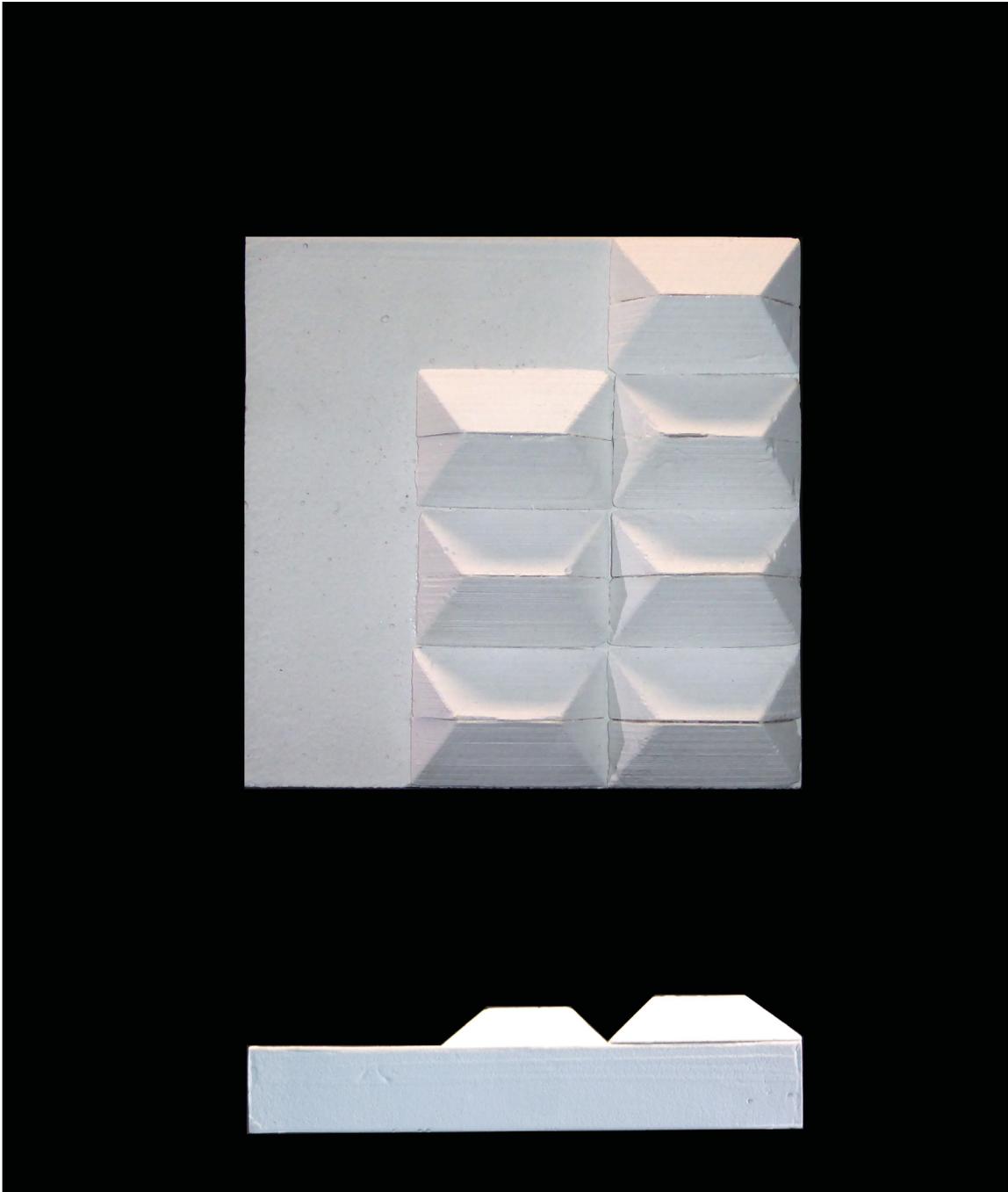
Axonometric depicting structure and material relationships at the centre for arts and crafts.

The residual material of the first system in the centre for arts and crafts is reconfigured to create other wall types. The first of these walls is employed at the cafe in the temple grounds, across the street from the centre for arts and crafts. The system, as seen in the image below, is used on the south and east facing walls and relies on the adjacent concrete structure for support.

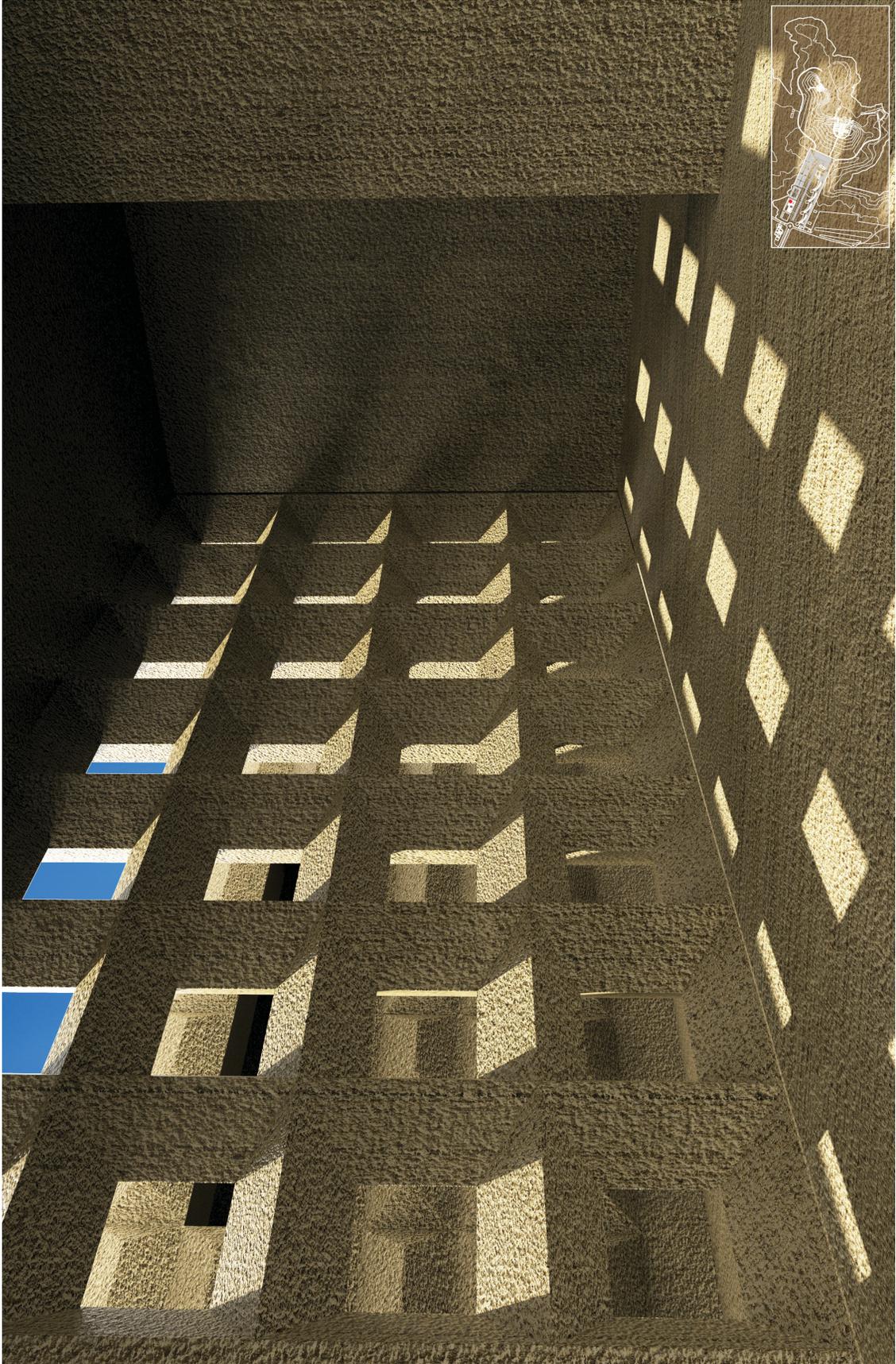


Plaster model of sandstone wall, employed on the east and south facing walls of the cafe; elevation (top), plan (bottom).

The second wall type is also based on the same component, but in a different configuration. The wall, as seen in the image below, is used to clad the library and auditorium, where it is attached to the concrete structure of each pavilion. Although the aforementioned structures are separated by the boundaries of the site, they relate to one another in their materiality.



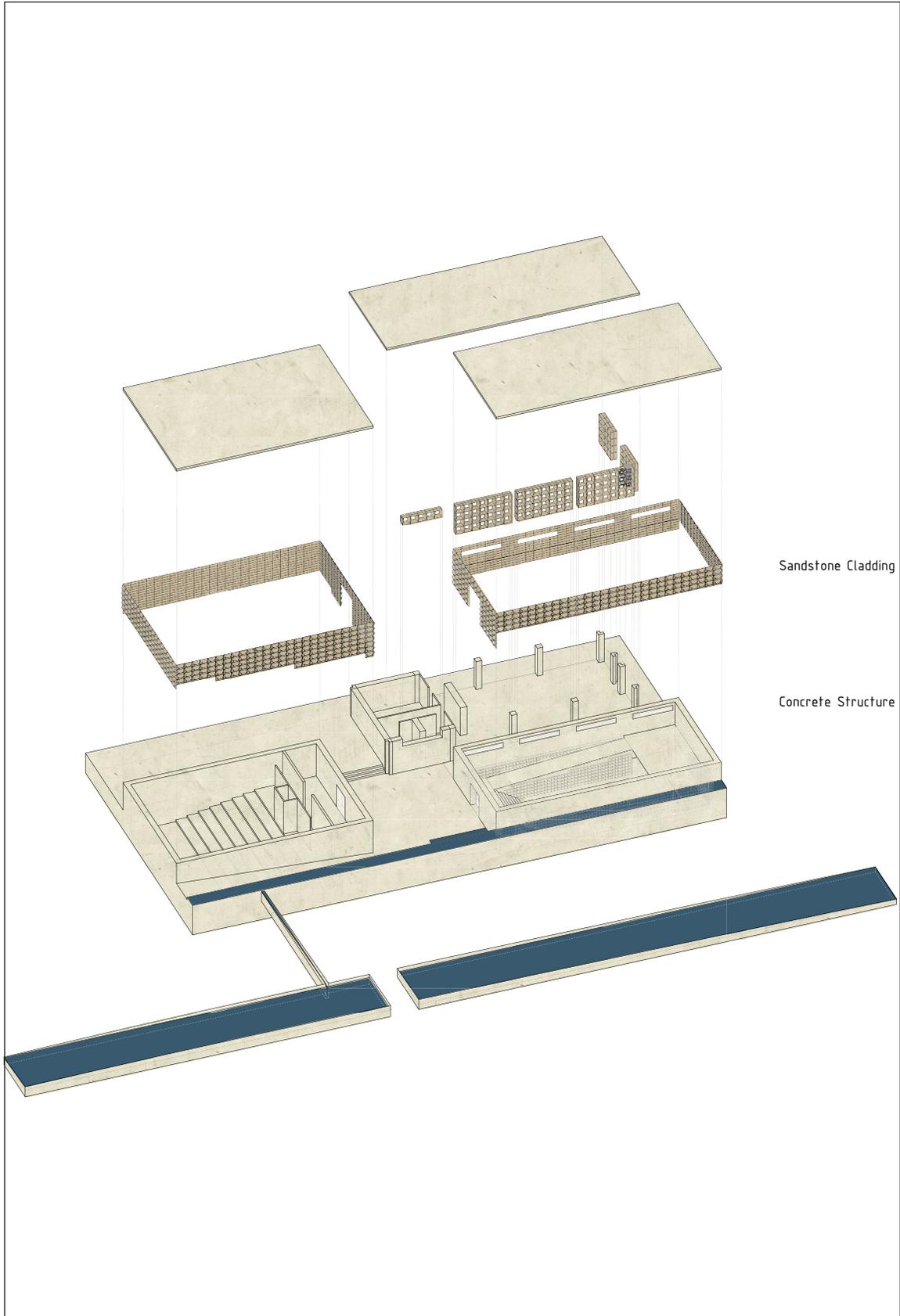
Plaster model of sandstone cladding the library and auditorium; elevation (top), plan (bottom).



Cafe, south facade.



View from the temple grounds - with library on the right - towards the centre for arts and crafts.



Axonometric depicting structure and material relationships at the auditorium, cafe, and library.

Procession

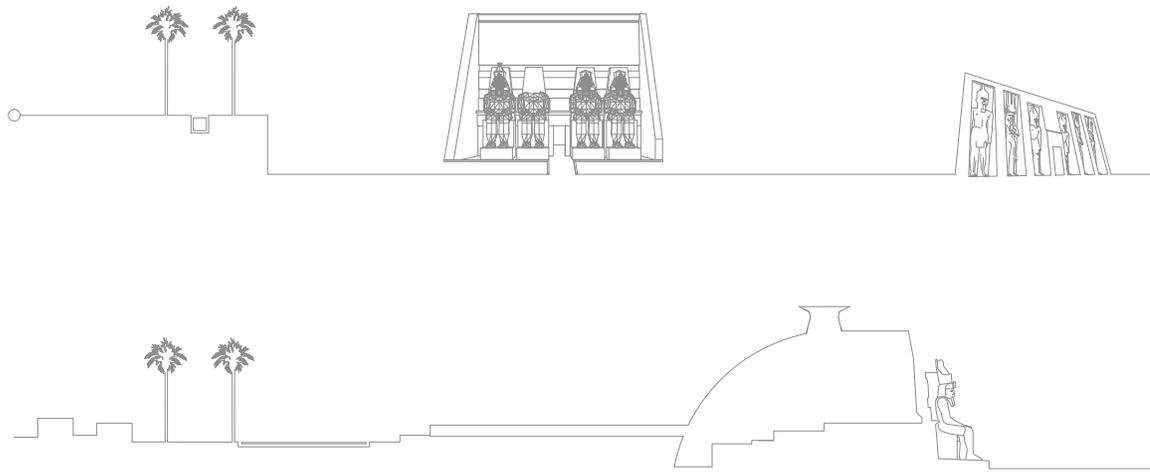
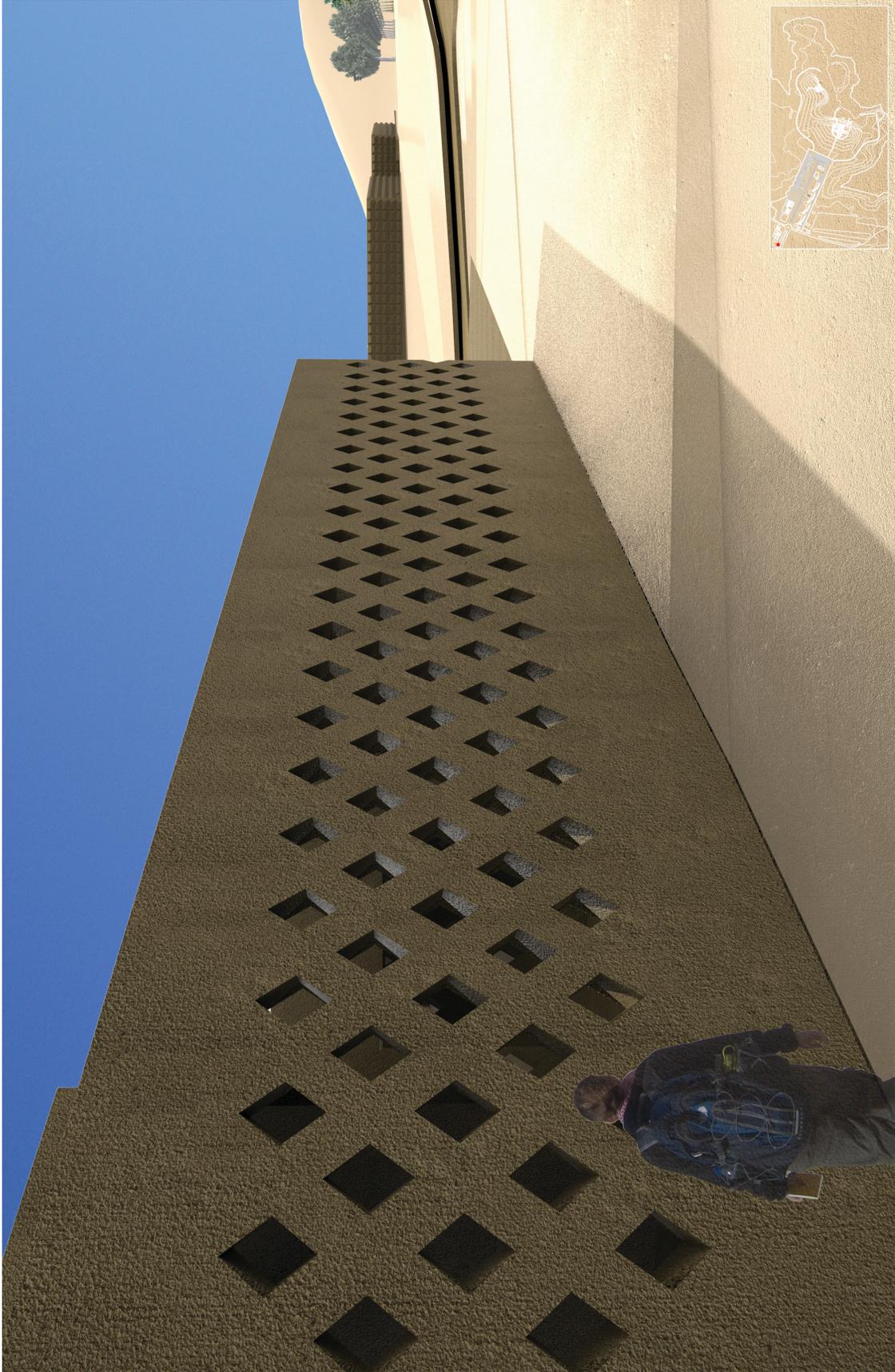


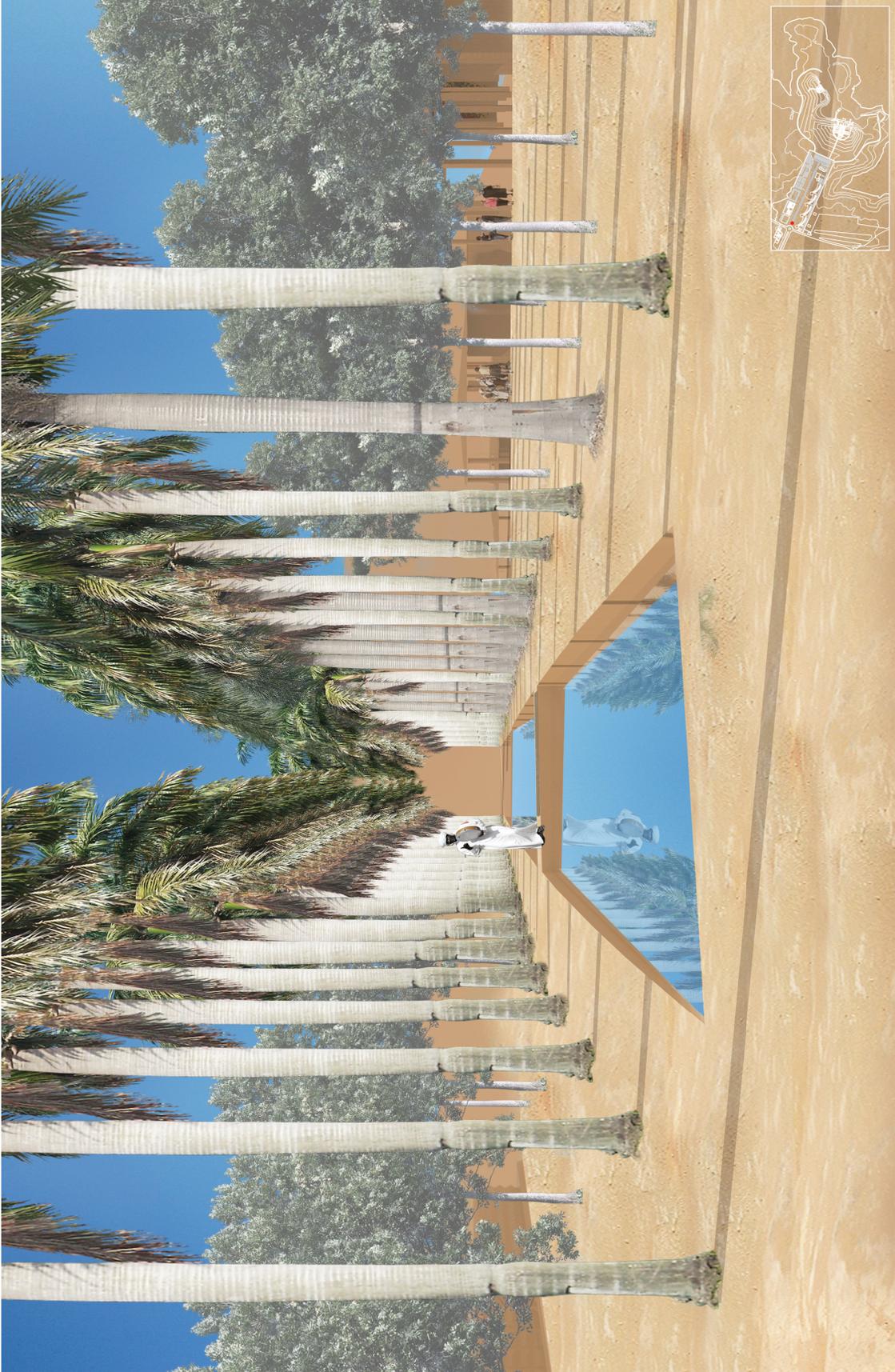
Diagram of significant moments during one's visit to the site.

The diagram above illustrates significant moments that precede the temples and those that follow one's visit to the temples. The journey begins at the gardens, which lead to the temples, and after one visits the temple of Ramesses and that of Nefertari, one proceeds to the permanent exhibition space within the hill.²³ The exit from this space is provided through the tunnel, which leads back to the gardens, the point of arrival. From here one proceeds along the northern side of the temple grounds to the first set of buildings, comprised of the cafe, library, and auditorium, where one is presented with not only the story of the temples of Abu Simbel, but Nubia at large. Once the story of Nubia is revealed, one proceeds to the centre for arts and crafts across the street to engage with contemporary cultural production.

23. An alternative route which bypasses the exhibition space is the path around the hill to the north, which leads one back to the gardens.



Approaching the temple grounds.



Gardens leading to the temples.



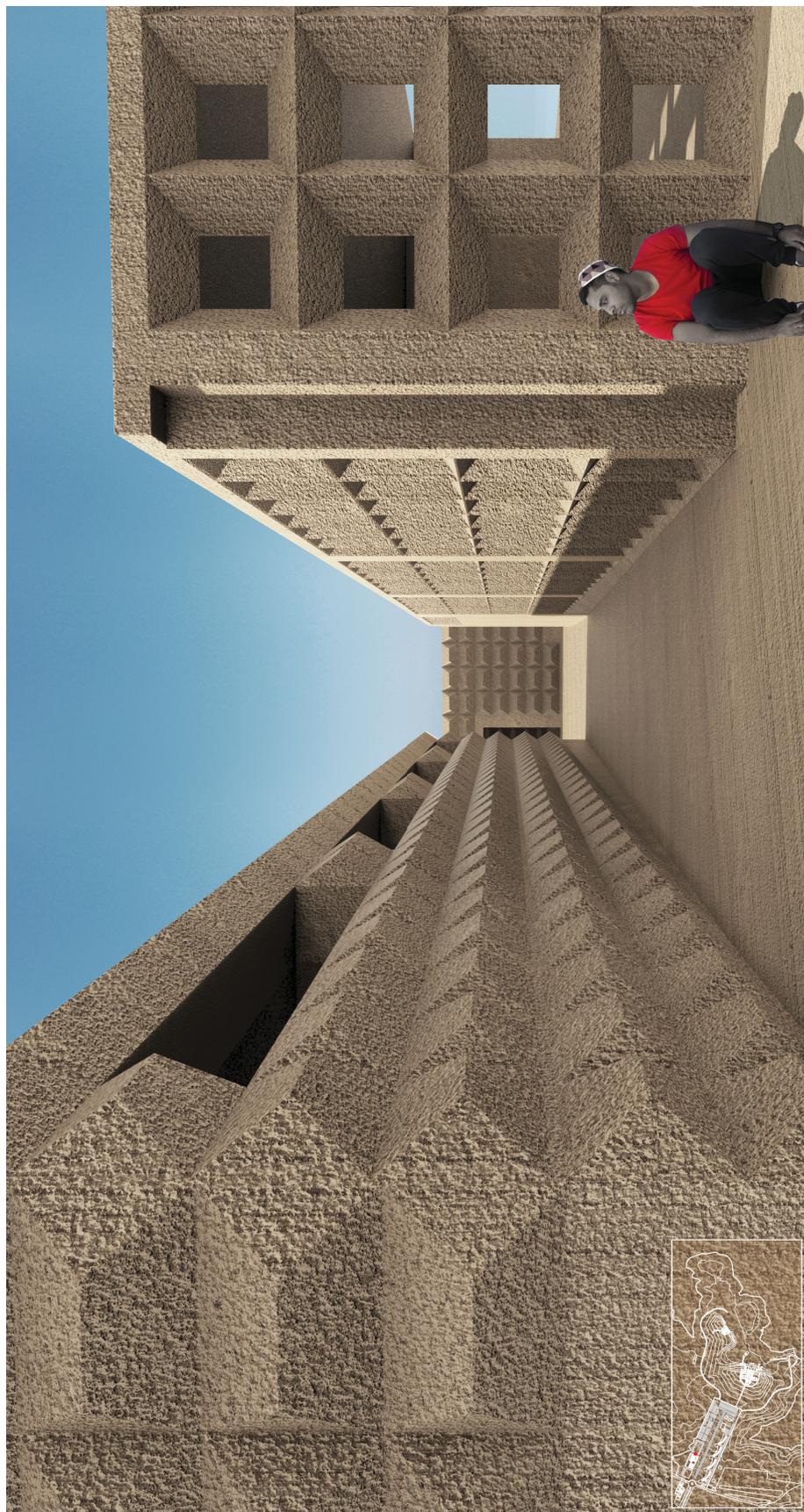
The temple of Ramesses II, with entrance to the exhibition space on the right, between the two temples.



Exhibition space within the existing structure of the temple.



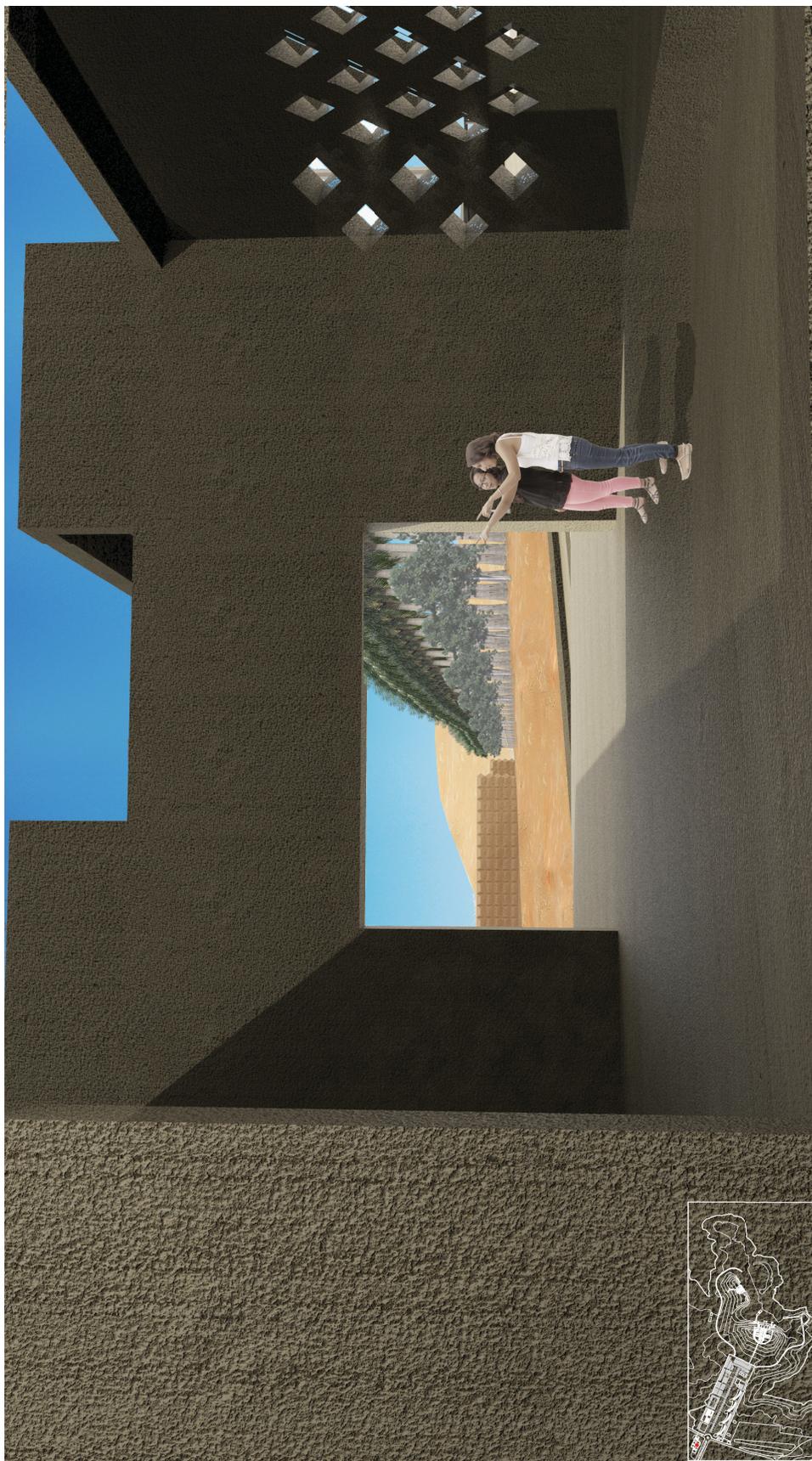
Exiting the tunnel, which leads back to the point of arrival.



Library, cafe, and auditorium in the background.



Library and auditorium.



Centre for arts and crafts, view from the courtyard looking through the lobby and towards the temples beyond.

CHAPTER 3: CONCLUSION

The case of Abu Simbel demonstrates the potential of an urban transformation operating at multiple scales to negotiate between heritage and urban development, while integrating tourism with the social, economic, and environmental aspirations of the local community. The main findings of this thesis are program related, involving propositions that were deemed to be appropriate to the situation, while having the capacity to appeal to a wide base of users. While some spaces have a specific program, others are more open to allow for appropriation. The adopted approach of adding to the existing conditions of the site and not removing buildings produced the resultant outcome.

Some of the difficulties encountered have to do with access to information, particularly from an Egyptian governing body. Instead I had to rely on other sources. Further complicating the task is that I did not have the opportunity to visit the site during this time, which in turn imposed some limitations. The richness and complexity of the site demanded breadth of knowledge, which was a major hurdle in a given time frame, but it was also an opportunity to investigate a variety of topics.

The thesis would benefit from more research on alternative approaches to the same problem. Given the historical and architectural significance of this site and other historical sites around the world, a potential direction to pursue would be to address the same issues with the erasure of architecture.

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