

Jebel | Wadi | Sahra: Exploring Relationships Between Bedouins and Travelers along Egypt's
Sinai Trail through Narrative Place-Making

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Abstract

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The Sinai Trail, established in 2015, is Egypt's first long distance recreational hiking trail. The trail is both administered by Bedouins – Bedouin guides are required – and located on Bedouin land. Recently, the Sinai Trail has started to garner lots of acclaim from international news outlets. This publicity foretells a dramatic meeting of potentially conflicting forces on the Sinai Peninsula. The Sinai Trail is approaching a critical juncture in which attitudes towards existing Bedouin communities, tourism, and the desert environment will be tested.

This thesis seeks to explore the complex relationships along the Sinai Trail and propose a network of interventions that prioritize the preservation, adaptability, and resilience of a people and place that have a captivating and unique story to tell. A design methodology based upon careful observations of culture and landscape is utilized to propose a series of built settings that facilitate mutually beneficial interactions between Bedouins and travelers.

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To my family - for their unending love and support.

To Hanni - my favorite adventure partner.

To my wonderful advisors, Rob and Brian - for making a potentially difficult time so much more bearable and even, at times, enjoyable.

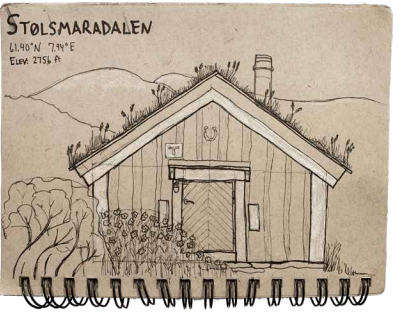
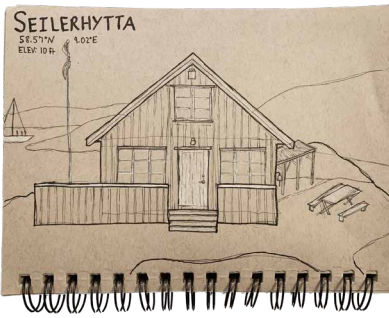
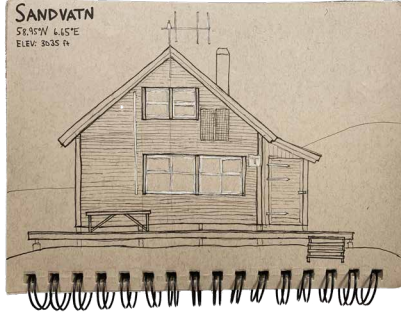
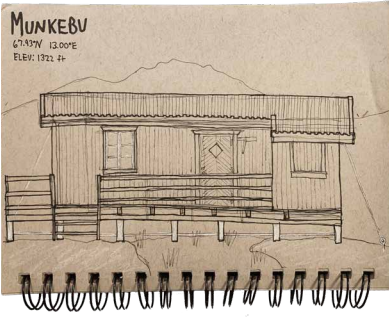
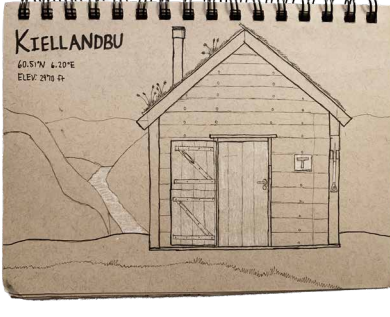
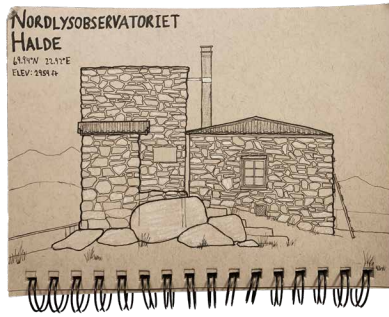
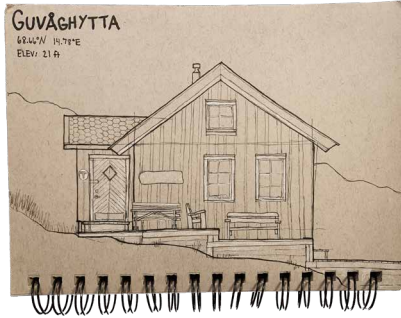
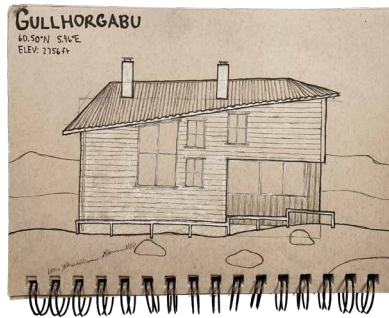
And to Rosemarie - for her pointed critique that is usually correct.

JEBEL | WADI | SAHRA:

Exploring Relationships Between Bedouins and Travelers along
Egypt's Sinai Trail through Narrative Place-Making

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[1] Collection of Norwegian Hytter Sketches

PREFACE

This is a story about the Sinai Peninsula in Egypt, but it begins deep in the mountains of Norway. I spent the summer of 2019 – enabled by some imagination and a research grant – trekking around the Norwegian wilderness and researching the relationship between backcountry architecture and storytelling. Norway has an unparalleled system of wilderness cabins (or *hytter*) dispersed throughout the country. These cabins are owned and operated by the Norwegian Trekking Association (DNT) and are open to the public. All one has to do is purchase a standard DNT key for around 80 USD, and that key unlocks nearly all the cabins – no reservation required. During my three month stay in Norway, I walked over 400 miles – up and over soaring mountains, down rocky coastlines, and along cliffs that lined dramatic fjords. My journey included overnight stays at twenty-two different cabins. I documented the architecture and experience of each through a series of photographs and sketches. I spent lots of time talking with other travelers and investigating objects that had been left behind – all in search of the “stories” contained within these places. For me, it was a dream project.

Through my research, I was hoping to gain a better understanding of how the landscape, human interaction, and culture work together to shape the unique experience of the Norwegian *hytte*. My goal was to synthesize all this information and utilize it to re-imagine the *hytte* for my master’s thesis. However, somewhere along the trail, some doubts started to creep into my mind...

In a way, each cabin I visited represented one designer’s ideas about how culture related to wilderness, how architecture related to landscape, etc. It started to feel like a problem that had already been thoroughly explored. And what did Norway mean to me anyway? Why Norway? These were unsettling ideas, but amongst the stream-of-conscious thoughts that accompany solo hiking, they were easy to push aside and at least temporarily ignore...

Sometime towards the end of my trip, I was sitting in a quaint little coffee shop in Bergen writing a blog post when I came across an article about a new long-distance backpacking trail (not an unusual occurrence if, like me, you subscribe to all sorts of hiking newsletters). The trail was located on Egypt’s Sinai



[2] Map of the Sinai Trail

Peninsula. Trekkers were required to have Bedouin guides and spent most nights sleeping on the ground under the stars. The prospect of such a trail immediately captured my imagination. I am half Egyptian and have visited the country several times. My father was born and raised in Alexandria and most of his family still live there today. This was the first time I had seen Egypt advertise its natural beauty – its wilderness – for the purpose of tourism, rather than its wealth of cultural attractions. Immediately, the wheels started turning in my head – a new climate, a new landscape, a new culture... So many forces coming together in one place: Bedouin communities, tourists, and the beautiful yet unforgiving mountainous desert of the Sinai. Now this was something new and exciting! And so much more personal for me. I had to explore it further.

GLOSSARY

jebel : mountain

wadi : valley

sabra : desert

bir : (water) well

ein : spring or fountain

farsb : basin

bajar : stone, rock

jinayna : garden / small orchard

naqb : pass (as in mountain pass)

ramla : sand





الرزق في أطراف الخطى

Providence comes from the edge of one's feet

CHAPTER 1

INTRODUCTION

The Sinai Trail is Egypt's first long distance recreational hiking trail. Its opening in 2015 represents a new frontier for Egypt's tourism economy. Egypt has long been a lure for travelers due to its wealth of cultural attractions, but the Sinai Trail is something new; for the first time, Egypt is attempting to convince people to come and experience its natural beauty - its wilderness - by hiking in the rugged desert of South Sinai.

The Sinai Trail is a nearly 350 mile long loop that takes roughly 40 days to complete. Because there are multiple entry points, the trail can be hiked all at once or broken into shorter segments. It exists entirely on Bedouin land, passing through the territories of eight different tribes – the Tarabin, Muzeina, Jebelaya, Awlad Said, Garasha, Sowalha, Hamada, and Alegat. Trekkers are required to be accompanied by Bedouin guides at all times, and are handed off from guide to guide at tribal boundaries.¹ The continuous circuit is constructed from a larger network of existing point-to-point trails utilized by the Bedouins for centuries. These original trails were much more utilitarian in function, tracing the most efficient routes between settlements, water sources, and pasture lands.² They represent the collective memory of a culture of people who, due to scarcity of resources, were always on the move.

The Sinai Trail has recently started to garner lots of acclaim; international news outlets such as CNN, BBC, and Lonely Planet have all run features praising its wonder. This publicity foretells a dramatic meeting of potentially conflicting forces on the Sinai Peninsula. The Sinai Trail is approaching a critical point in which attitudes towards existing Bedouin communities, tourism, and the desert environment will be tested.

For Bedouin communities the popularization of the trail and resulting growth of the tourism economy in the region carries with it both a unique opportunity and an impending threat to their way of life. This thesis seeks to explore the complex relationships along the Sinai Trail and propose a network of interventions that prioritize the preservation, adaptability, and resilience of a people and place that have a captivating and unique story to tell.



[6] Bedouin guide leading trekkers along the Sinai Trail

Initially, visiting the Sinai was to be an essential part of this project – walking a portion of the trail and talking with the people that inhabit the land around it. However, that trip was forced to be canceled due to the global coronavirus pandemic. In the absence of first-hand experience, a framework of “due-diligence from afar” was developed based upon careful observations of culture and landscape. These observations emphasize a certain slowness that is uncommon in design research - methods of listening such as sketching, physical collage, and examinations of language. Drawing from the aforementioned exercises, five design interventions are proposed along the trail. The specific circumstances of each intervention unfold through a fictional narrative in the form of a trekking journal.

Perhaps the most critical part of this thesis is the design of the narrative itself; it is an intimate story of the relationships between Bedouin communities, travelers, and the landscape and how mutually-beneficial interactions between each can be facilitated through built settings.

الكبار دفاتر الصغار

elders are the books
of the young







[8] The Approach to Mt. Sinai, David Roberts (1839)



[9] Ascent of the Lower Ranges of Mount Sinai, colored lithograph by Louis Haghe from David Roberts painting (1849)

CHAPTER 2

BACKGROUND

“Who led thee through that great and terrible wilderness, wherein were fiery serpents, and scorpions, and drought, where there was no water...”

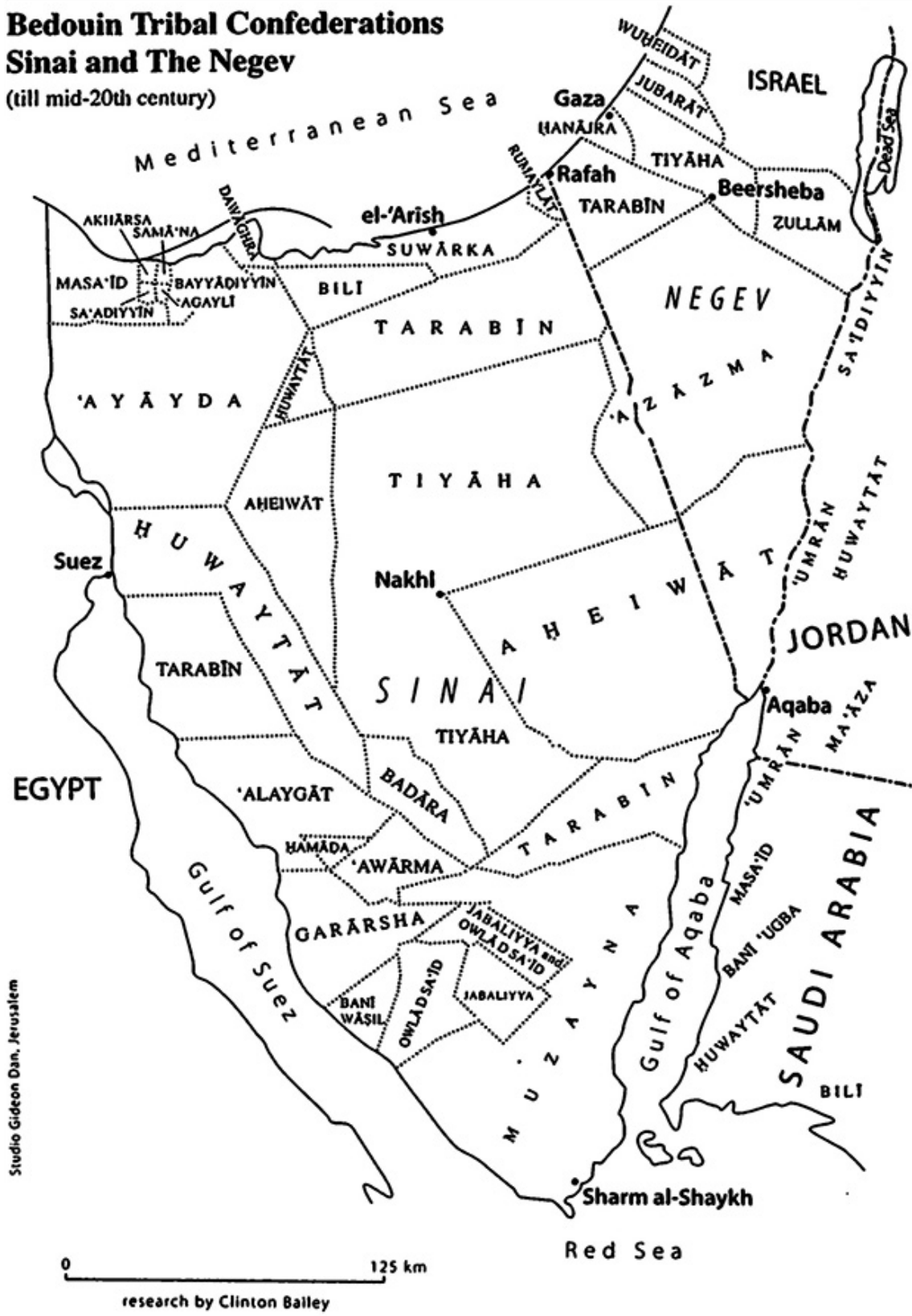
– God to Moses in Deuteronomy 8:15

Egypt’s Sinai Peninsula is a wild elemental landscape that resonates with history and culture. For millennia it has served as an important land bridge between Africa and Asia, an oft-traveled corridor that has served trade caravans and religious pilgrims as well as campaigns of conquest. Because of its privileged location, the Sinai has seen many rulers come and go – Ancient Egyptian Pharaohs, the Romans, Byzantines, Ottomans, British, and Israelis – all interested in the region’s political or economic potential, and seldom interested in its inhabitants. The two consistencies throughout all this turnover and turmoil: the landscape itself and the Bedouin. It is no coincidence that these two entities are intimately intertwined. While others view the barren, thankless Sinai as merely a strategic connector of two important nodes of civilization – a place of transit – the Bedouins have always called it home. These two forces, the Bedouins and the landscape, will form two of the focal points of this thesis.

The third point of emphasis, travelers and tourists also happen to have a long history in the Sinai. Walking in the wilderness in search of revelation is an allegory as old as written history, and it has its beginnings in the deserts of the Sinai Peninsula. In the Bible, Moses and the Israelites famously spent 40 years in the Sinai in the “wilderness of the wanderings” searching for truth. With the establishment of the Sinai Trail, that tradition continues today. Mental clarity is an allure for many long distance hikers; they trek as much in search of natural beauty as peace of mind. A multi-day long distance trail only amplifies that experience. In an unfamiliar location, up against both the elements and themselves, they seek to not only learn about landscape and culture, but also about who they truly are.

Bedouin Tribal Confederations Sinai and The Negev

(till mid-20th century)



[10] Bedouin Tribal Confederations Map

Bedouin Communities

The term “Bedouin” or *Bedu* in Arabic means “inhabitant of the desert.”³ In general, it refers to a wide range of people with different customs and traditions who live in communities across the Middle East. Amongst people who identify themselves as *Bedu* some common aspects of life include: “tribal social organization supporting strong kinship networks; value systems based on ideas of honor upheld by customary law; and livelihoods based primarily on nomadic pastoralism.”⁴ In the past, the life of the Sinai Bedouin was characterized by seasonal migrations in search of grazing pastures and water for their flocks. Most traveled by camel and lived in easily transportable tents woven from goat’s hair.⁵ However, life for Bedouins has changed considerably in the last few decades. While the aforementioned characteristics once formed a shared identity, that which defines a “Bedouin” today is less clear.

Today, there are roughly 200,000 Bedouins living in the Sinai, with only about 20% of those living in the southern part of the peninsula.^{6,7} A map of the different tribal confederations of the Sinai is shown in Figure 10. Few modern Bedouins conform to the mental images and representations most outsiders have of them. Just as our society has changed and evolved over time, so have the Bedouin. Most no longer roam from place to place in search of water and pastureland; they have settled – living in cities and towns like Sharm el-Sheikh and Dahab on the peninsula’s coast or St. Katherine in the mountainous interior. Sedentism and wage labor have been on the increase since the 1967 Israeli occupation and subsequent Egyptian control.⁸ This is primarily a result of rapid commercial development and restrictive and exclusionary government policies, such as the privatization of land, that clash with traditional Bedouin ways of life.⁹ For over 50 years, the Bedouin have contended with disruptive socioeconomic policies, seldom in their favor, and have continuously adapted.

Like most non-Bedouin Egyptians who live in the Sinai, a large number work in the tourism industry – operating restaurants and hotels, as hiking guides, taxi drivers, and scuba diving instructors. They commute to town in Ford pick-up trucks and Jeeps, their camels either left at home or long gone.¹⁰ The modern Bedouin economy is complex and multifaceted – people work in all sorts of occupations. They are builders, mechanics, vegetable farmers, fisherman, boat builders, storekeepers, government workers, teachers, judges, healers, tailors, basket makers, carpenters, electricians, cooks...¹¹

Aspects most commonly associated with “Bedouin-ness” have transitioned from a way of life to a matter of identity. While the way of life was grounded in “ecology and economy,” identity deals with



[11] Bedouin family in St. Katherine



[12] Bedouin family preparing a meal

“heritage and culture”. Being Bedouin today is “an ongoing dialectic of continuity and change, an interplay between tradition and modernity.”¹² Life is a constant push-and-pull with survival and adaptation in a rapidly changing world on one side, and the importance of keeping traditions alive on the other.

One important aspect of this thesis is balancing as well as clearly distinguishing between presentation and preservation. The goal is to present an accurate depiction of Bedouin communities in 2020, while also advocating for the preservation of the cultural knowledge and heritage that is an important source of Bedouin identity and pride.

The Sinai Trail Initiative

The aforementioned goal of presentation and preservation aligns with the mission of the Sinai Trail. The Sinai Trail association was formed in 2015 as a community project with the mission of creating “a sustainable tourism economy, in which legitimate jobs and opportunities paying fair wages are available to Bedouin communities in remote, marginalized areas.”¹³ All of the guides, cameleers, and cooks, as well as the majority of the administrators, are Bedouins that live in the region. An additional stated aim of the organization is to “save the endangered Bedouin heritage.”¹⁴ At a time when many Bedouins are moving to the coast to work within a more global brand of tourism, the Sinai Trail hopes to offer an alternative lifestyle that more closely aligns with traditional Bedouin ways of life. Through employing Bedouins as guides, things like the knowledge of old paths, water sources, place names, and tribal histories all gain inherent economic value. Cultural knowledge and heritage become a source of economic viability that has the added benefit of preserving a way of life that is rapidly fading.



[13] Panorama of Lower Egypt, Von William Mackenzie (1895)

The Landscape of South Sinai

The Sinai peninsula is shaped like an inverted triangle; its base to the North is bordered by the Mediterranean Sea, while its apex to the South lies between the two northern fingers of the Red Sea – the Gulf of Suez to the West and the Gulf of Aqaba to the East. The peninsula can be divided into three primary physical regions: the mountainous Al-Tor region in the south, the central Al-Tih plateau, and the El-Arish plain in the North.¹⁵

The entirety of the Sinai Trail is located in the southern Al-Tor region. Although characterized by mountains, the landscape in the region is remarkably varied. For the purposes of this thesis, five representative landscapes have been identified: the terraced mountain orchard, rugged high mountain, narrow slot canyon, lowland desert plain, and date palm oasis. This list is by no means exhaustive, and many regions of the trail feature a combination of the aforementioned landscapes. However, these five landscapes account for the majority of what a trekker would experience on the trail, and imagining each allows the reader to more completely grasp the diversity of the landscape.

Terraced Mountain Orchard

Representative Location: Farsh Rummana

Most mountain orchards can be found on the periphery of towns or can be reached within an hour or two walking. They are usually located in the stream beds of *wadis*. The Arabic word *wadi* translates to valley, but more specifically it describes a perennial water course, usually dry, except on the occurrence of rain.¹⁶ Many varieties of deciduous fruit trees can be found in these orchards including apricots, figs, pears, pomegranates, and almonds.¹⁷ The land is often artificially bermed or terraced and organized by systems of low stone walls – all to control the flow of water. Many orchards have wells, although they are often too damaged or not deep enough to provide reliable access to water. While the mountain orchard landscape may seem rather specific, there are over 400 mountain orchards scattered throughout South Sinai – most of them long abandoned.¹⁸

Rugged High Mountain

Representative Location: Jebel Serbal

The Sinai is home to Egypt's tallest peaks including Jebel Katerina (elevation 8625'), Jebel Umm Shomer (elevation 8481'), and Jebel Musa (also known as Mt. Sinai, elevation 7497').¹⁹ The high elevation moderates the harsh desert climate; temperatures are lower and the annual precipitation is higher. It is the only place in Egypt that regularly receives snow.²⁰ The mountains here are rocky – mostly composed of granite of varying shades of red and brown.²¹ The Sinai Massif is extensive; from the peaks near its center, silhouettes of dome-like summits and jagged pinnacles stretch as far as one can see in all directions.

Narrow Slot Canyon

Representative Location: Wadi Isla

With soaring mountains come canyons and ravines. South Sinai is filled with winding *wadis*. Some of these are dramatically narrow, bending back and forth between nearly vertical cliff faces. The sandstone and limestone walls are etched away by years of flowing water. Such *wadis* can provide important connections between different regions – easier routes than trekking up and over the mountains. However, rain in the narrow canyons can create dangerous flash floods, transforming a dry channel into a raging river in a matter of seconds. The power of these flash floods is evident by the large boulders that can be found strewn about across the canyon floors.

Lowland Desert Plain

Representative Location: El Ramla

The far northern and eastern reaches of the Sinai Trail contain large stretches of sandy desert plain. These deserts are very different from the rolling sand dune expanses found in the Sahara; the ground is rockier and punctuated by low hills. Here, the landscape is vast and the horizon is wide. Water is much scarcer than in the mountains. Vegetation is sparse. The occasional hardy herb or thorny acacia tree dot the landscape.

Date Palm Oasis

Representative Location: Ein Hudera

A rare lush clump of greenery against the golden brown hues of the desert. The experience of entering an oasis is stark and sudden. Date palms spring from the ground. Suddenly there is shade. Suddenly there is water. The songs of birds fill the air. Where there is water in the desert, there is life. This includes more than flora and fauna. Most oases – due to their readily available water – are home to people too. Even the smallest oases will usually have a few families living around them. Larger oases often become the center of larger settlements and towns.

FARSH RUMMANA
TERRACED MOUNTAIN ORCHARD



JEBEL SERBAL
RUGGED MOUNTAIN LANDSCAPE



WADI ISLA
NARROW SLOT CANYON



EL RAMLA
LOWLAND DESERT PLAIN



EIN HUDERA
DATE PALM OASIS



[14] - [18] The Landscapes of South Sinai





[19] Well Distribution in South Sinai



[20] Desert Well



[21] Rainwater Pool



[22] Man-made Dam

Water in the Desert

While many of the larger cities and towns in South Sinai are provided fresh water via pipeline from the Nile River, accessibility of water in more remote areas – like those experienced along the Sinai Trail – remains a key concern.²² Guides recommend that trekkers drink between two to five liters of water a day.²³ Obviously, packing the amount of necessary water for the entirety of a multi-day trek is not an option, so locating water along the trail is of utmost importance. For people outside the more populated areas of South Sinai, and especially Bedouin trail guides, knowing where and how to locate water can be the difference between life and death.

Sources of water along the Sinai Trail can be separated into two categories: permanent and temporary. The “permanent” sources of water include wells and dams. Both are most commonly found in *wadis* and mountain orchards. However, even these sources of water are not always reliable; many run dry during summer months or in the absence of rain. Others may contain water, but it is inaccessible because the level is too low and there is no rope or retrieval device.²⁴ Known wells along the Sinai Trail are marked with blue squares in Figure 19. Bearing in mind that the trail is nearly 350 miles long, notice that the distances between reliable water sources can be quite long.

Temporary sources of water include pools and flows that form after rain. South Sinai has an extremely arid climate. In the high mountains it only rains around two to three inches per year, and in the surrounding areas, significantly less.²⁵ In the mountainous regions, water courses over the impermeable granite and collects in depressions where it can remain for several weeks before evaporating.²⁶ Elsewhere, rainwater can be gone in a matter of seconds, absorbed by the thirsty ground. Bedouins living in remote areas know exactly where to go to find water after it rains, as it is often necessary for survival.



[23] Sharm el-Sheikh, South Sinai

Travelers and Tourism

The Sinai Peninsula has long been an attractor for travelers and tourists. Before the advent of modern tourism, it served as a place of transit for many as they journeyed between two hubs of civilization: Nile Valley Egypt to the West and the Levant to the East. These travelers included trade caravans as well as religious pilgrims on their way to Mecca and Jerusalem. In the late 1800s and early 1900s, the peninsula was frequented by British explorers including Wilfred Thesinger, Edward Henry Palmer, and T.E. Lawrence - each of whom published detailed written descriptions of the region and its people. These written accounts were hugely influential and provided much of Europe and America with their first mental images of Bedouin society.

While Nile-Valley Egypt has been considered a premier world tourism destination for over 100 years due to its many cultural attractions and archaeological sites, the advent of tourism in the Sinai Peninsula is relatively recent. Until the 1990s, the sandy shores of the Sinai were largely tourist-free. Today the number of tourists that visit South Sinai annually has surpassed the number that visit Cairo and the Nile Valley.²⁷ The vast majority of these tourists are Europeans coming for beach-based leisure holidays - one or two week all-inclusive packages at resorts on the coast in cities like Sharm el-Sheikh and Dahab. In 1989 the combined bed-space capacity of all the hotels in South Sinai was 1,500. By 2005, that number had exploded to more than 38,000 – most of which came in the form of internationally-branded hotel chains.²⁸ Many Bedouins work within the bustling tourism economy of these coastal resorts.

While the Sinai coast is now Egypt's top tourist destination, few travelers ever venture to the peninsula's interior. The majority of these visits come in the form of one or two day "excursions" to visit the town of St. Katherine, a UNESCO world heritage site, or climb Mount Sinai. The Sinai Trail promises to draw more tourists to the interior of the Sinai, putting them in close contact with traditional Bedouin settlements. However, being a long-distance backpacking trail serves as a filter for the types of travelers that will visit. The assortment of items in Figure 25 show what the author originally packed for the trail before the trip was canceled. These provide an idea of the type of travel one experiences along the Sinai Trail. Treks typically cover between 10 and 25 kilometers per day, and most range from 5 or 6 days to the entire 40 day circuit. The trail's website, sinaitrail.net, recommends, "Good cardiovascular fitness, stamina, endurance, and plenty of mental resilience."²⁹ Most nights are spent sleeping on the ground or in humble

BBC

The Egyptian hike that's rewriting history

CNN travel

DESTINATION EGYPT
Sinai Trail: Bedouin bet on Egypt's first long-distance hike

Wanderlust

Egypt's Sinai Trail Is the New Thru-Hike You Need to Try

[24] Sinai Trail Travel Article Headlines (2017-2019)

lonely planet

Worth a Trip: The Sinai Trail

The Telegraph

Egypt's amazing new hiking trail – 340 miles long with no signposts



[25] The Author's Sinai Trail Packing List

wilderness shelters.

In its first few years of operation, the Sinai Trail has experienced increasing success, so much so, that it is receiving publicity on an international scale. Below are a sample of publications from well-known outlets that have featured the trail:

“On the Trail: Six of the World’s Greatest New Hiking Trails” – Wanderlust, 2017

“Worth a Trip: The Sinai Trail” – Lonely Planet, 2019

“Egypt’s Amazing New Hiking Trail” – the Telegraph, 2019

“Global Development: A Long Distance Hiking Trail in Egypt has reunited Bedouin Tribes in the Name of Jobs and Tourism” – LA Times, 2018

“The Egyptian Hike That’s Rewriting History” – BBC, 2018

“The Next Adventure Hot Spot” – CNN, 2018

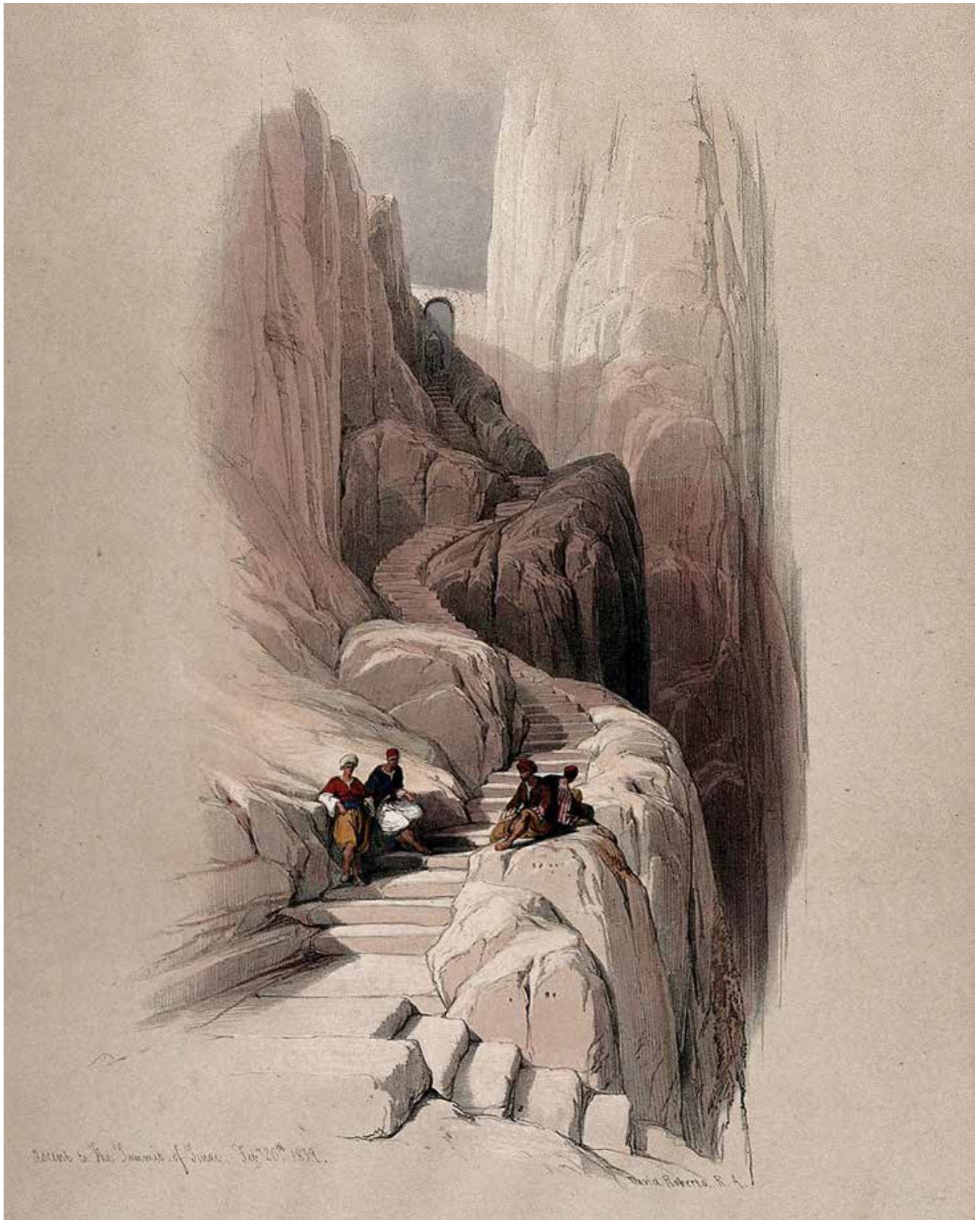
While an increase in tourists visiting South Sinai’s interior might be economically advantageous for Bedouin communities, it also poses a threat to traditional ways of life as well as the fragile desert ecosystem. The ripple effects of mass commercialization can already be felt in Sinai’s coastal resort cities, where there has been a significant loss of local character. Additionally, if more land is purchased by global investors, and international tourism companies continue to move in, Bedouin businesses may struggle to compete. With the impending influx of tourists, what will be the fate of Bedouin communities and the Bedouin way of life?

يا باخل بالملء - بأيش تجود

if you're stingy with v
with what will you be

water,
e large?





[27] Stone Path to the Summit of Mt. Sinai, colored lithograph by Louis Haghe from David Roberts painting (1849)

CHAPTER 3

THEORETICAL FRAMEWORK

Chapter 2 examined the three primary forces colliding along the Sinai Trail - existing Bedouin communities, the landscape, and travelers - as independent entities. Chapter 3 will analyze the overlaps between these forces. This analysis will provide the basis for the philosophies underlying the design proposal portion of this thesis.

Bedouins and the Landscape

For tourists, the development of the Sinai Trail provides a new opportunity to trek in the wilderness of South Sinai. Bedouins, however, have been walking this land for centuries. For many of them, it is not the “wilderness”, it is home. The Sinai Trail is constructed from a larger network of existing Bedouin trails. They mark the most efficient routes between settlements, water sources, and pasture lands. These paths function as a form of external memory and collective intelligence.³⁰ Through generations of use, they take on new meanings – no longer just routes to resources, but settings for “stories, spirits, sacred nodes, the bones of ancestors.”³¹ Just like we scribe important events into history books, Bedouins have recorded their history across the face of the landscape. It has become hallowed ground. As a guest on the Sinai Trail, there is much to be learned in the walking.

To further understand the relationship between Sinai Bedouins and the landscape, it is important to revisit their roots as a nomadic culture. Joseph Hobbs explains matter-of-factly, “Nomads are nomadic because the environments they live in could not support them if they were settled.”³² The mountainous deserts of South Sinai are some of the most resource-poor habitats in the world. Before significant industrialization, survival in the region was contingent upon locating and managing scarce resources. This continual process resulted in the accumulation of “detailed empirical knowledge” of the environment and “ecological expertise” across multiple generations.³³ Such an intimate connection with the natural world gave rise to an ecocentric worldview. While many Westerners define a clear separation between



[28] The Tourist Gaze

“nature” and “culture”, the Bedouin make no such distinction. They view humans and nature as belonging to the same interdependent system.³⁴ The Bedouin concept of ecocentrism will be adopted as an essential part of the design philosophy for this thesis. Proposed designs will seek to blend with the landscape. Local materials and sustainable passive strategies will be utilized in an effort to create low impact structures that blur the boundary between nature and culture.

Bedouin and Tourists

What might compel someone to travel to the Sinai Peninsula and hike the Sinai Trail? There are many potential motivations – the desire to partake in new experiences, take a break from regular routines, or seek out adventure. In exploring why people vacation, Jon Urry states that we seek out pleasurable experiences that result from consuming goods and services that are “different from those typically encountered in everyday life.”³⁵ More often than not, we have specific expectations for those experiences before we ever arrive at the chosen destination. Our expectations are based on a constructed mental image of place that has been shaped by a wide array of media – the internet, television, magazines, books, etc. Today, most vacations begin with thorough internet searches of attractions, hotels, and restaurants. We are inundated with images of places we have never been, activities we have never experienced, and meals we have never eaten. This is how the tourism industry functions; it markets a specific place as desirable and different hoping that people will decide to experience it for themselves. And then when we finally arrive at that place, rather than having “fresh eyes,” we look upon it with a “gaze” that carries with it those ingrained expectations. This is called the tourist gaze.³⁶ The tourist gaze extends beyond the environment to objects, activities, and even people. This phenomenon is only exacerbated when the subject of the gaze is an indigenous culture. Tourists often arrive at a destination hoping to experience a way of life that no longer exists. For these outsiders, certain historic rituals, tools, and clothing have become emblematic of a culture through their depictions in media. They may be disappointed to find out that – just like their own culture – the culture of interest has changed and evolved to adapt to the conditions of modernity.

The Bedouin both suffer and benefit from the tourist gaze. On one hand, they must deal with

classist and colonial views that devalue their culture as “primitive” or “backward.” However, because many tourists are traveling specifically to experience this romanticized past, the static historic identity of the Bedouin actually has great value and can be wielded for economic gain. Across the Arab world today, it is not uncommon to find Bedouins “performing” their historic identity, “mounted on camels in full regalia with daggers and rifles,” often in Bedouin tents while onlookers sip Bedouin tea.³⁷

Just exactly how this power is wielded is an essential question of this thesis. As previously discussed, cultural tourism becomes a balancing act between presentation and preservation. How does a group of people choose to present themselves? What level of autonomy do they have? What historic traditions would they like to preserve?

This thesis asks that tourists view the Bedouin as ordinary, everyday people. It seeks to subvert the tourist gaze. Instead of searching for an “exotic artifact of the past” or “romantic representation of some other”³⁸, it urges visitors to come to the Sinai with an open mind. To consider the potential multiplicity of individual identities within Bedouin communities and each’s capacity for change. Do not search for an identity or culture you have seen in a movie, or read about in a book. Simply be present, listen, and observe. Value the authentic expression of Bedouin culture as it is today.



[29] Logarithmic Timeline: Occupation of the Sinai

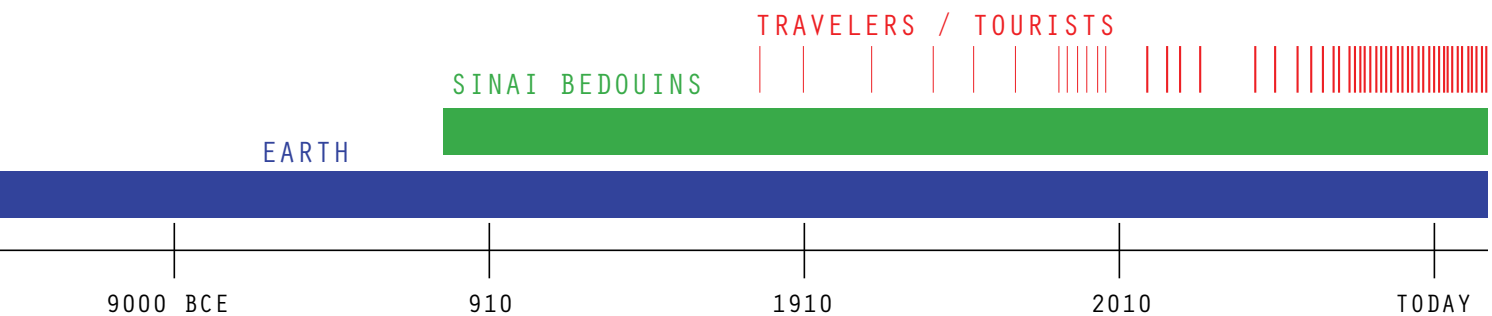
Tourists and the Landscape

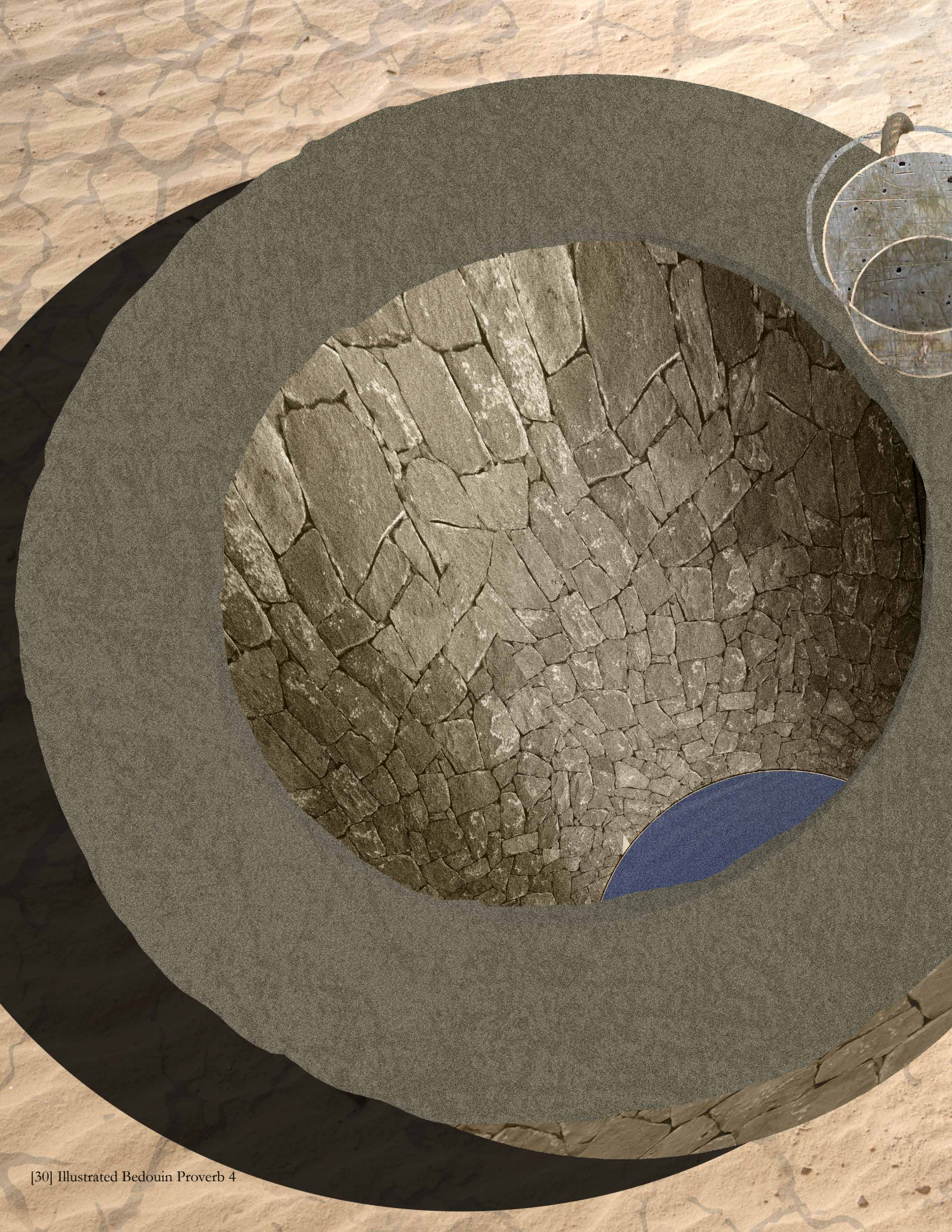
The Sinai Trail provides the unique opportunity to immerse oneself in the mountainous desert landscape of South Sinai for a period of multiple weeks. While some portions of the trail are quite popular and frequented by many tourists each day, such as the route to Mount Sinai, the majority is far more isolated. Trekkers are frequently without cell phone service and miles – or even days – away from the nearest road.

While the author has not hiked the Sinai Trail, experiences on other long distance treks are part of what inspired this thesis. The passage of time is different when on a multi-day trail. Unlike our increasingly busy and sporadic lives, everything unfolds gradually. As one methodically walks, always in contact with the land, they start to see their surroundings in a new light. Rich details that we normally gloss over – the arrangement of leaves on a plant or a peculiar pattern in the sand – enter our sphere of awareness. When we spend day after day within the natural world, we no longer feel so separate from it.

The wilderness can inspire profound feelings of humility and respect. A long hike spurs realizations of how grand and powerful the landscape is, and how small we are in comparison. Goals that seem so important in our urban lives fade away, and are replaced with more simple and fundamental objectives. For those we trek with, the wilderness is an equalizer; it has a way of stripping away our differences in the struggle to achieve a common goal – walking a few more miles, making a fire, survival.

This philosophy of walking and contemplation is a key component of the methodology described in the following chapter.

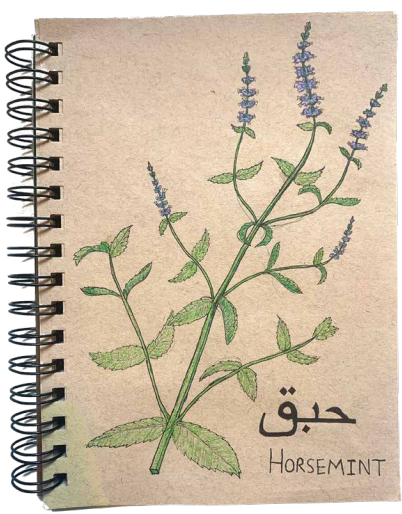
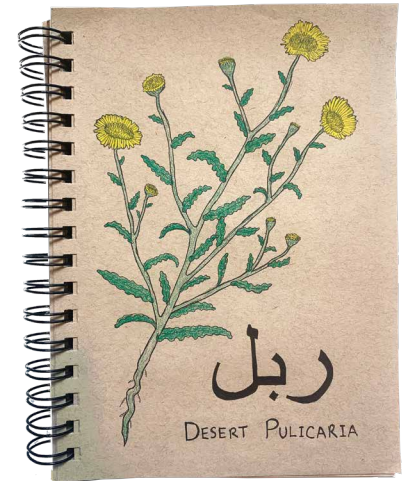
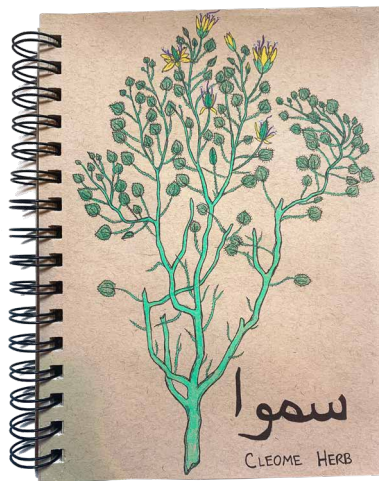
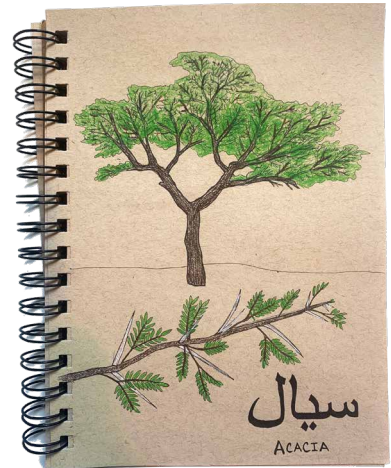




A photograph of a desert landscape with sand dunes. A rope is hanging from a pail on the left side of the frame. The text is overlaid on the lower part of the image.

دلو الظمه ما لها رشه

the pail of thirst has no rope



[31] Collection of South Sinai Plant and Animal Sketches

CHAPTER 4

METHODOLOGY

In the absence of the opportunity to actually visit the Sinai and hike a portion of the trail, a framework of “due-diligence from afar” was developed based upon careful observations of culture and landscape. These observations emphasize slowness and attention to detail. The goal of the exercises is to understand some of the details on the periphery of landscape and culture in order to fill in the margins of the portrait painted by the preceding research. The concept of “slowness” is derived from what people generally experience while hiking long distance trails. When the days are long and filled with miles of methodical walking - step after step after step - one’s awareness of the surroundings is heightened. You start to notice details that you might have previously overlooked, small perturbations and changes in the landscape.

Listening to the Land: Trekking Journal

While not being able to experience the trail first-hand changed many of the intended research methods, an important question became, “What methods could remain the same?” On the trail, part of the research was to include a series of sketches documenting the different plants and animals that were encountered. Despite never actually setting foot on the trail, the decision was made to create a similar catalogue of sketches. This was a way of getting in touch with the land – understanding the flora and fauna as well as their physical adaptations to the harsh climate. Additionally, the sketches reinforce the idea of slowness. Sketches force one to slow down and think about the details, to appreciate the landscape in a way that is more contemplative than simply looking through photographs. The sketches are utilized in the final design proposal to bring authenticity to the landscape and enrich the visual storytelling.

Listening to the People: Proverbs

A simple and effective way of observing culture, is to listen to what people say. For most of their history, Bedouins have had a primarily oral culture; widespread adoption of written Arabic amongst Bedouins did not occur until the second half of the twentieth century.³⁹ As such, proverbs became one of primary vehicle by which Bedouins passed on their own culture from one generation to the next.⁴⁰ Bedouin proverbs usually convey some truth about the world or offer advice. They are often short and rhyme in Arabic for ease of memorization. For an outsider, these sayings provide an excellent window into some of the more nuanced aspects of Bedouin life.

For this thesis, a collection of proverbs was selected that would provide useful knowledge or cultural understanding for someone hiking the Sinai Trail. These proverbs were then illustrated to provide a visual and atmospheric aspect to the short sayings. The layering of information further enhances the capability of the imagination to transport oneself to an unfamiliar place amongst an unfamiliar culture. This is essential for conducting cultural research from afar. In this document, one illustrated proverb appears prior to the introduction of each chapter - a way of framing the ensuing conversation for the reader.

The selected proverbs come from Clinton Bailey's collection of 1,350 proverbs in the book *A Culture of Desert Survival*. Bailey lived among the Bedouins of the Sinai and the Negev conducting ethnographic research for 35 years. All explanations have been paraphrased from those presented by Bailey.

Sustenance comes from the edge of one's feet.⁴¹

الرزق في طرف الخطى

A nod to nomadic roots. One must continually be on the move to survive in the desert.

Elders are the books of the young.⁴²

الكبار دفاتر الصغار

In a largely oral culture, the most important sources of knowledge are elders.

If you're stingy with water, with what will you be large? ⁴³

يا باخل بالله - بأيش تجود

Generosity is necessary for survival in the desert. This is a denouncement of those that would consider withholding water - the desert's most precious resource. A statement of Bedouin hospitality.

The pail of thirst has no rope. ⁴⁴

دلو الظمء ما لها رشاء

Some problems are difficult and have no immediate solutions. What could be worse than coming to a well after a long trek through the desert and there being water, but no rope for lowering the bucket to retrieve it?

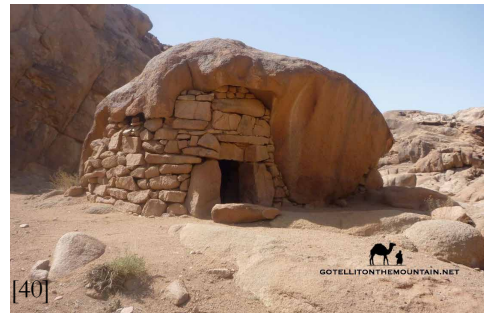
O rulers of the ground, we seek refuge in your honor. ⁴⁵

ياهم ملوك الارض - احنا في العرض

A request for protection from the land itself. A statement of Bedouin respect for the natural world.



[32] Bedouin Proverb Illustration

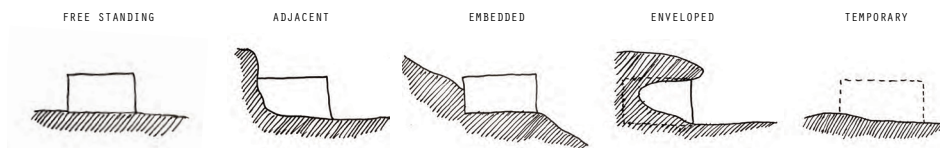


[33] - [45] Shelters found in South Sinai

Pattern Analysis: Shelters in the Desert

Many different types of shelters can be found throughout South Sinai, ranging from contemporary CMU Bedouin homes to hermit cells hidden beneath boulders. Through a systematic examination of these shelters, much was deduced about both the landscape and the people living within it. Each shelter is an intentional mediation between human inhabitant and surrounding environment. Embedded within is a vast amount of accumulated knowledge honed over many years of living within the specific conditions of South Sinai. Looking through a survey of these shelters, certain patterns start to emerge - common characteristics that are repeated over and over again. These characteristics were distilled into five essential questions:

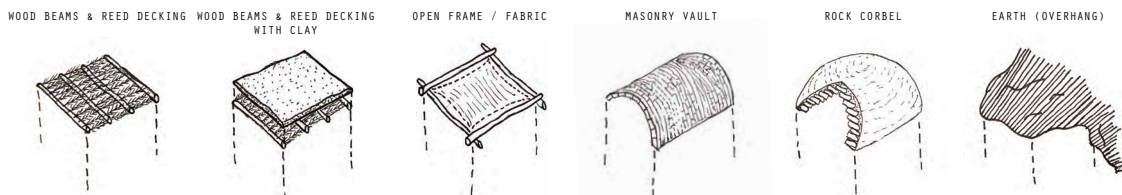
How is the shelter situated in the landscape?



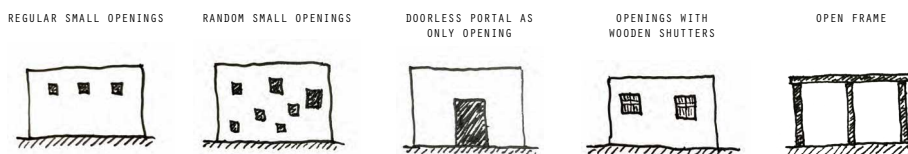
What is the primary material for wall construction?



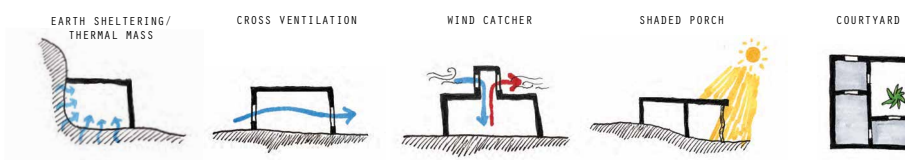
How is the roof constructed?

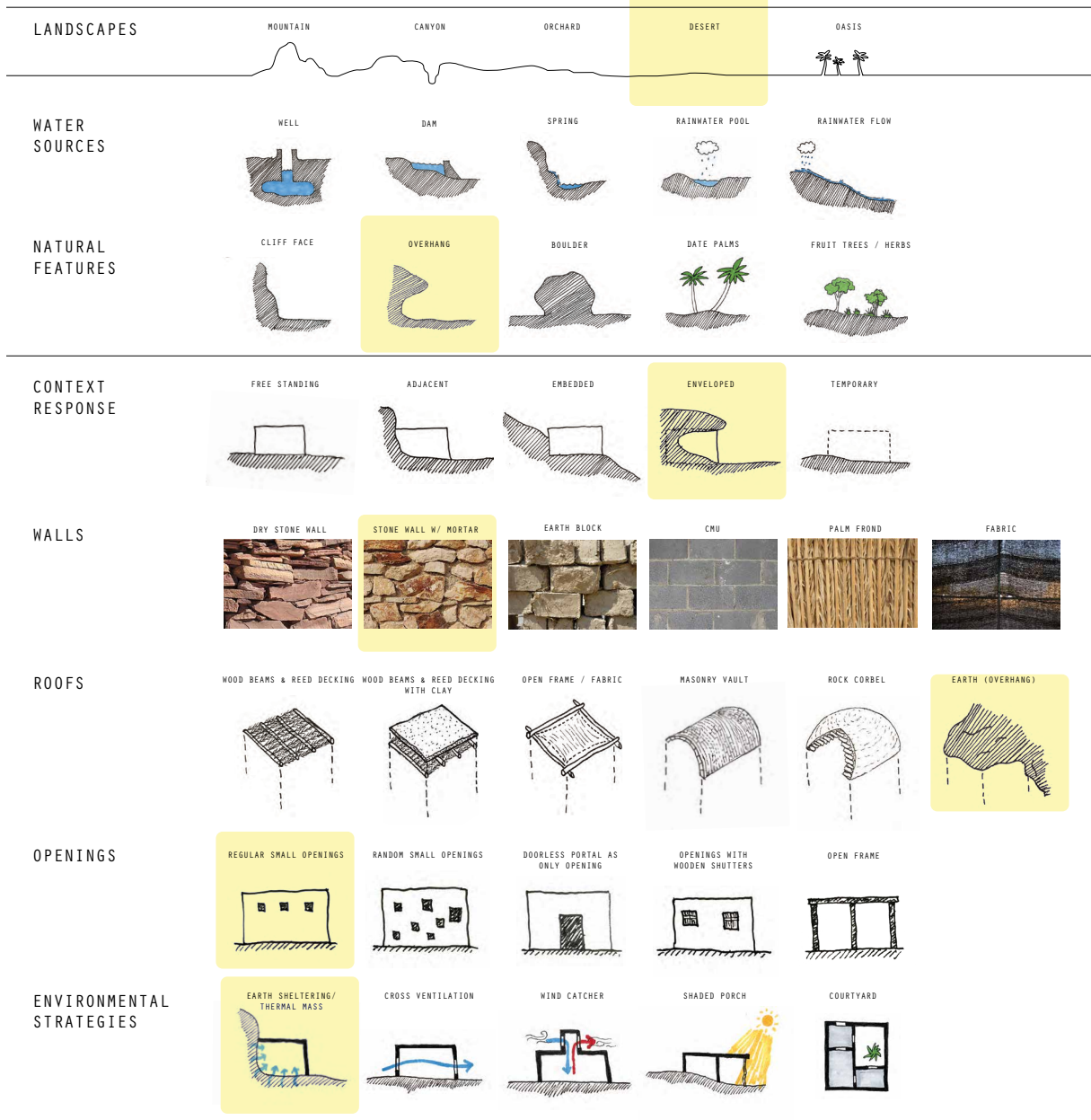


How are openings arranged on the façade?



What specific environmental strategies are utilized to adapt to the desert climate?





[46] Pattern Analysis of Shelter Under Rock Overhang

These patterns were compiled into a table to form a taxonomy-of-sorts - a way of breaking down and understanding the types of shelters one might find in South Sinai. Additionally, three rows were added to the top of the table to describe the location in which the shelter was located. A collection of taxonomy sheets similar to the one shown in Figure 42 can be found in the Appendix.

While the table is a useful tool for the analysis of existing structures, it can also serve as a tool for the design of new types of shelters. What combinations have not yet been considered? How can existing combinations be tweaked to formulate something that makes sense culturally and environmentally, but at the same time is completely new? These types of investigations became a driving force for the design of the structures proposed in this thesis. In Chapter 5, the patterns that were considered for the design of each proposed intervention are identified with their associated icons.

ياهم ملوك الارض - احنا في العرض

O rulers of the ground,
we seek refuge in your honor





[48] Christian and Muslim Chapels on Mt. Sinai, colored lithograph by Louis Haghe from David Roberts painting (1849)

CHAPTER 5

NARRATIVE PLACE-MAKING

While conducting the previously presented research, some key questions started to emerge - how can all these disparate elements be combined in a coherent way? In the absence of a true client, what are the “programs” or “functions” that need to be incorporated into the design? The answer to both of these questions came through narrative. A well-crafted story could layer together multiple aspects of the research - both written and graphic - to paint a vivid picture of what it might actually be like to walk the Sinai Trail. Additionally, by crafting a series of research-informed scenarios, the situations within the narrative could necessitate certain programmatic needs for potential designs within the story. With this logic, designing the narrative became equally as important as designing the interventions themselves. In bearing the burden of accurately representing the Sinai landscape and Bedouin culture, the narrative provides a solid foundation from which the proposed built settings can grow.

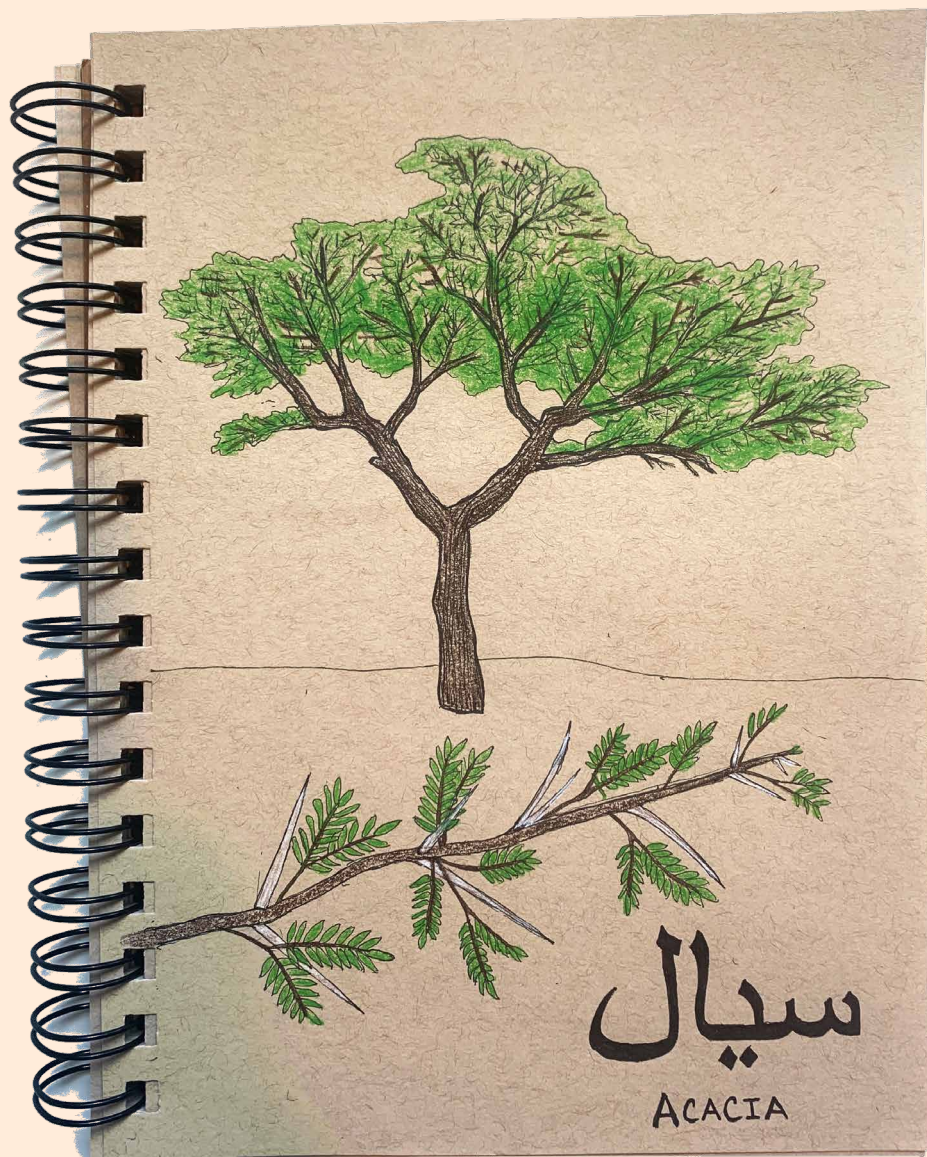
The narrative that follows borrows from the previously presented research, various hiking guides, news articles, interviews, and my own experiences in Egypt as well as on other long distance hiking trails. It is written in the style of a trekking journal, a day-by-day log of happenings and observations. It is the story of a trip that never happened, but that I sincerely hope will happen someday soon.

DAY 1 - ARRIVAL

LOCATION: ST. KATHERINE

GUIDE: AWAD

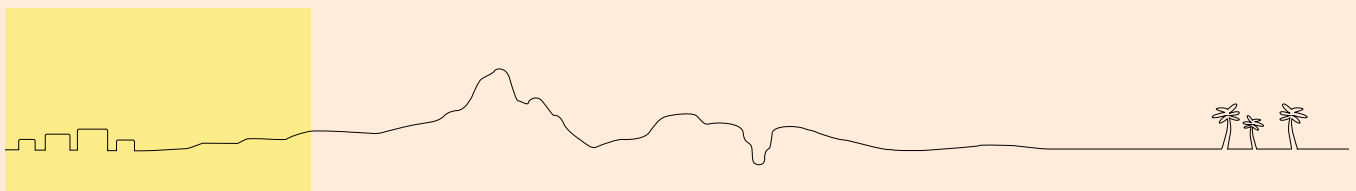
TRIBE: JEBELIYA

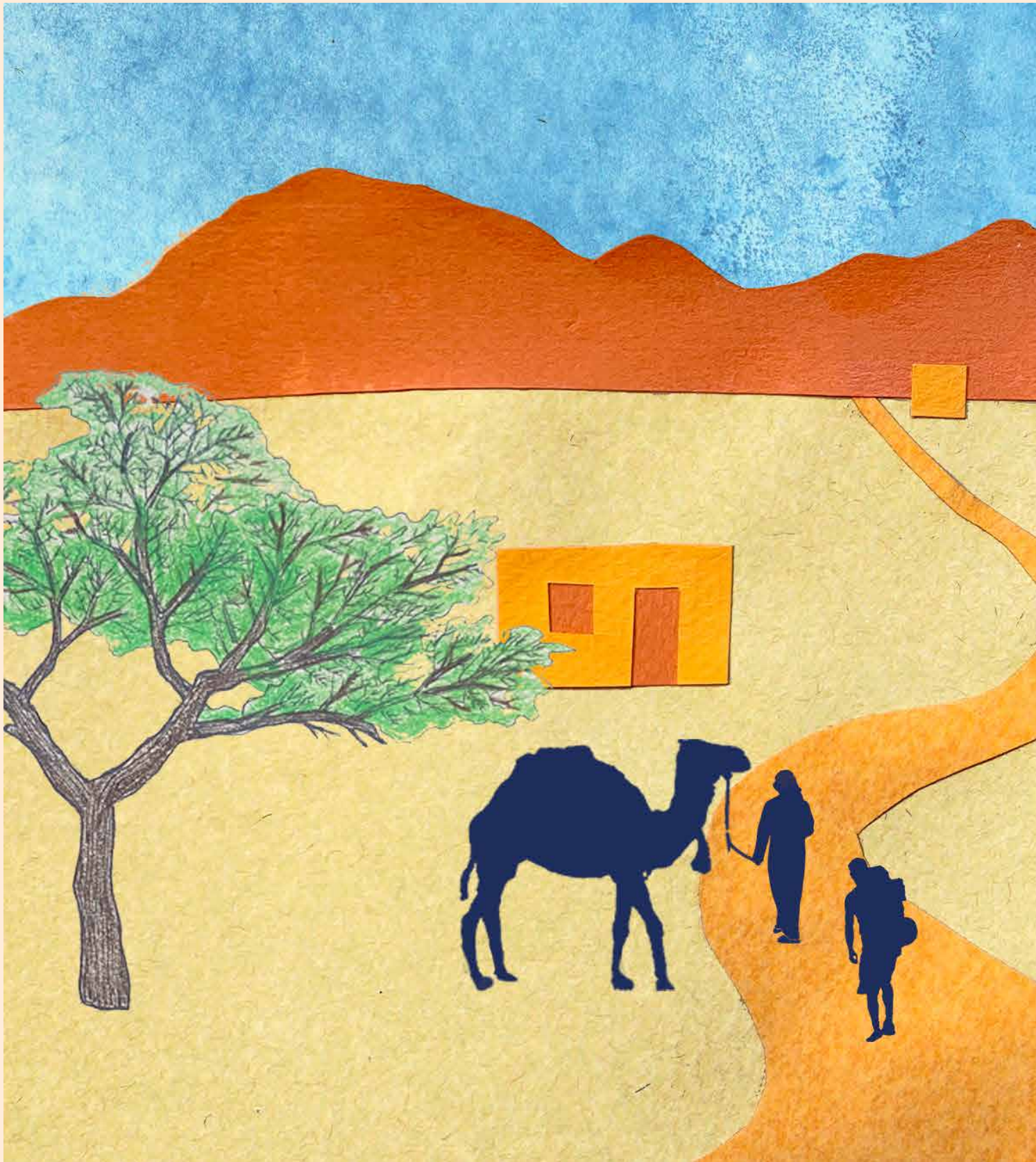


[49] Acacia Tree Sketch

After months of planning it is finally time to begin my trek. I met my guide, Awad, for dinner last night. It was great to finally meet him in person - we have been texting back and forth over What'sApp for the last couple of weeks to figure out logistics. I wear a small daypack, but the majority of my gear is strapped to the back of a camel. Awad leads the camel down the Main Street of St. Katherine past a row of single story CMU homes, a café, and a parked Ford pickup truck. After some time, he motions towards a small market outpost at the edge of town. "You'll find many useful things here," he says.

I wander around looking at the various goods for sale – figs, pomegranates, jewelry, bags woven from black and white goat hair. I purchase some dried apricots, a bunch of dried habaq to make tea, and a shemagh to protect my head from the relentless sun. Awad, a man of few words, waits for me to pack away my newly acquired items, then points towards the jagged peak of Jebel Katerina on the horizon. "6 hours" he says. We walk at a methodical pace, the town of St. Katherine getting smaller and smaller behind us. There are no signposts or trail markers, but Awad knows the way.



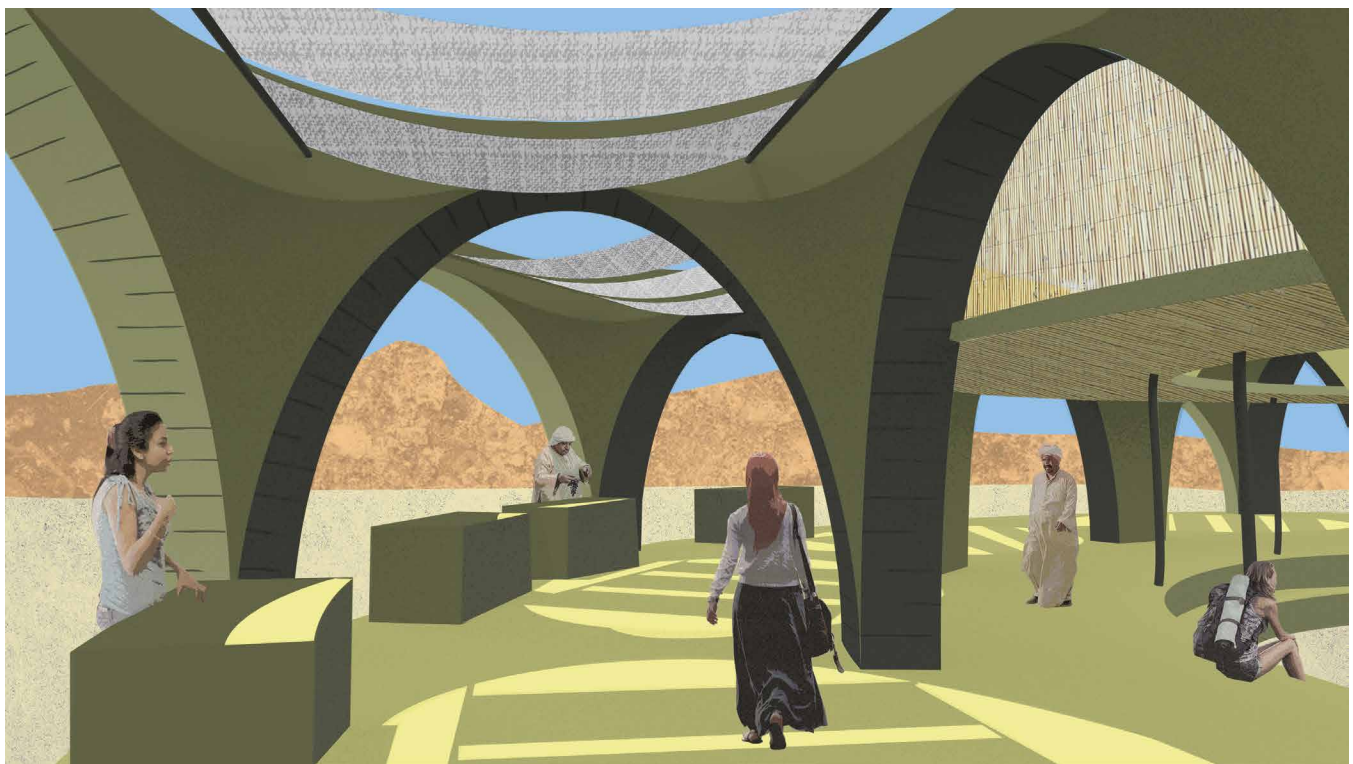


[50] The Journey: Leaving St. Katherine



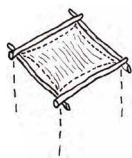
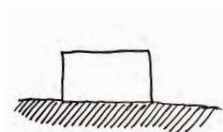
Market Outpost

The market outpost marks the beginning of one's journey on the Sinai Trail. Located at the edge of various portal towns, this space is about preparation as well as economic and cultural exchange. Strolling around the curved arcade, travelers have the opportunity to buy traditional food for their trek as well as locally-crafted hiking gear. Roof-mounted solar panels provide necessary utilities for vendors as well as places for trekkers to charge their phones. The interior space, a combination of the porch and courtyard patterns, provides a shaded gathering place. Here travelers can arrange to meet guides, look over maps, and make any last preparations. Passage through the outpost marks the transition from civilization to wilderness.



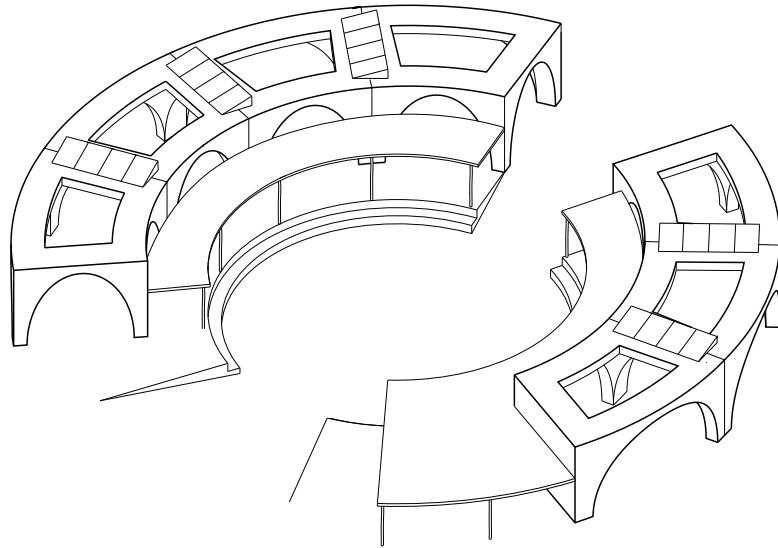
[51] strolling through the curved market arcade

Patterns:

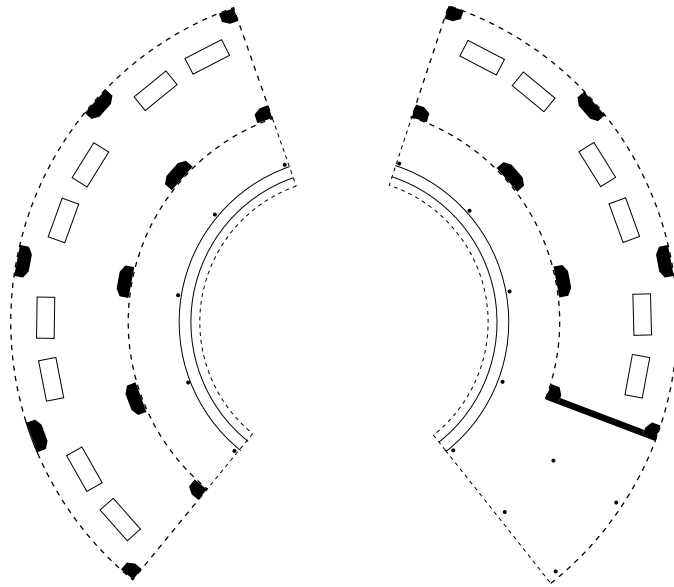


Relationship to Trail

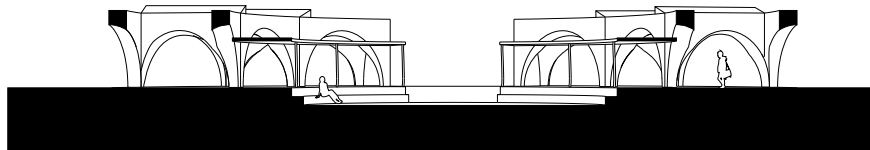




[52]



[53]



[54]

DAY 7

LOCATION: JEBEL SERBAL

GUIDE: MAHMOUD

TRIBE: GARASHA



[55] Spiny Zilla Sketch

The last few days have taken us up and over spectacular mountain passes, down into deep gorges, and into long winding wadis dotted with date palms and acacia trees. For some time we followed a winding camel path. Worn smooth by centuries of travelers, it was a welcome change for my weary feet. Today, we summit Jebel Serbal, a red granite massif made up of a cluster of rugged pinnacles. Locally, it is known as “The Crown of the Sinai”. As we steadily ascend, agama lizards dart back and forth across the path. Sometimes they spin around to observe us from atop nearby rocks. I am surprised by the all the blooming flowers – lavender, yellow, and white. Mahmoud knows them all by name. “Shieh,” he points to a plant with small yellow flowers and thin blade-like leaves. “If you make tea from the leaves, it will soothe your stomach.”

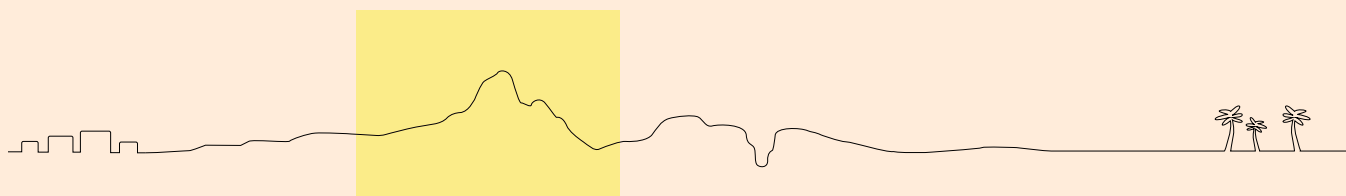
The sky is getting darker and the temperature has dropped considerably. After some time, Mahmoud stops and looks up at the night sky. I follow suit and my gaze is met by thousands of twinkling stars and the glowing aura of the Milky Way. “Khat el Thamara,” he says. “That’s what my grandfather calls it.”

“What does that mean?” I ask.

“The way of the fruits” he replies with a chuckle.

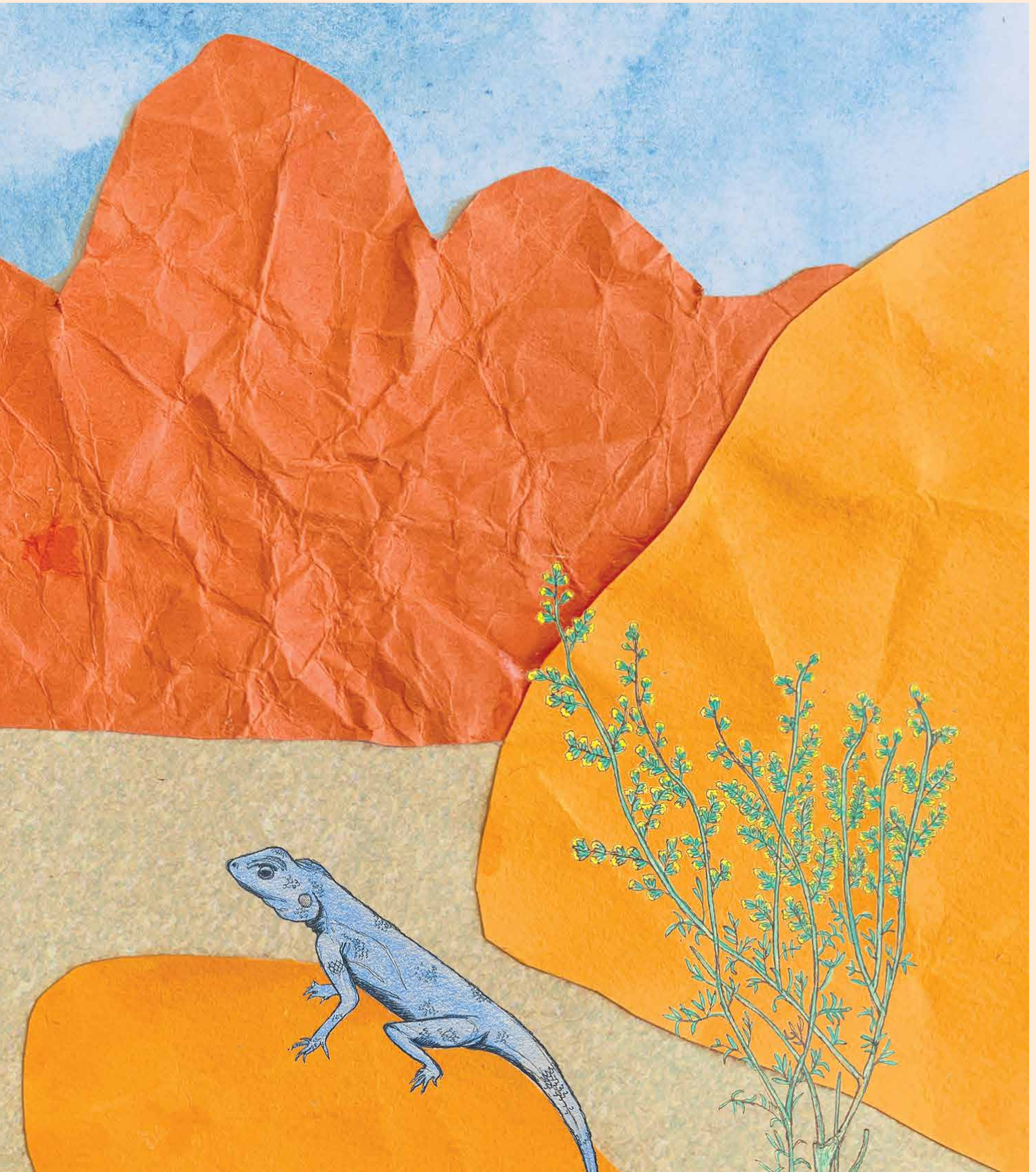
Mahmoud leads us up to a mountain shelter built into the cliffside. “It will be warm here” he says.

Inside we meet two other hikers and their guide. They invite us to sit down and have some tea. Mahmoud lights a fire in the hearth. It crackles and gives off a warm glow. We talk late into the night, laughing and recounting trail stories.





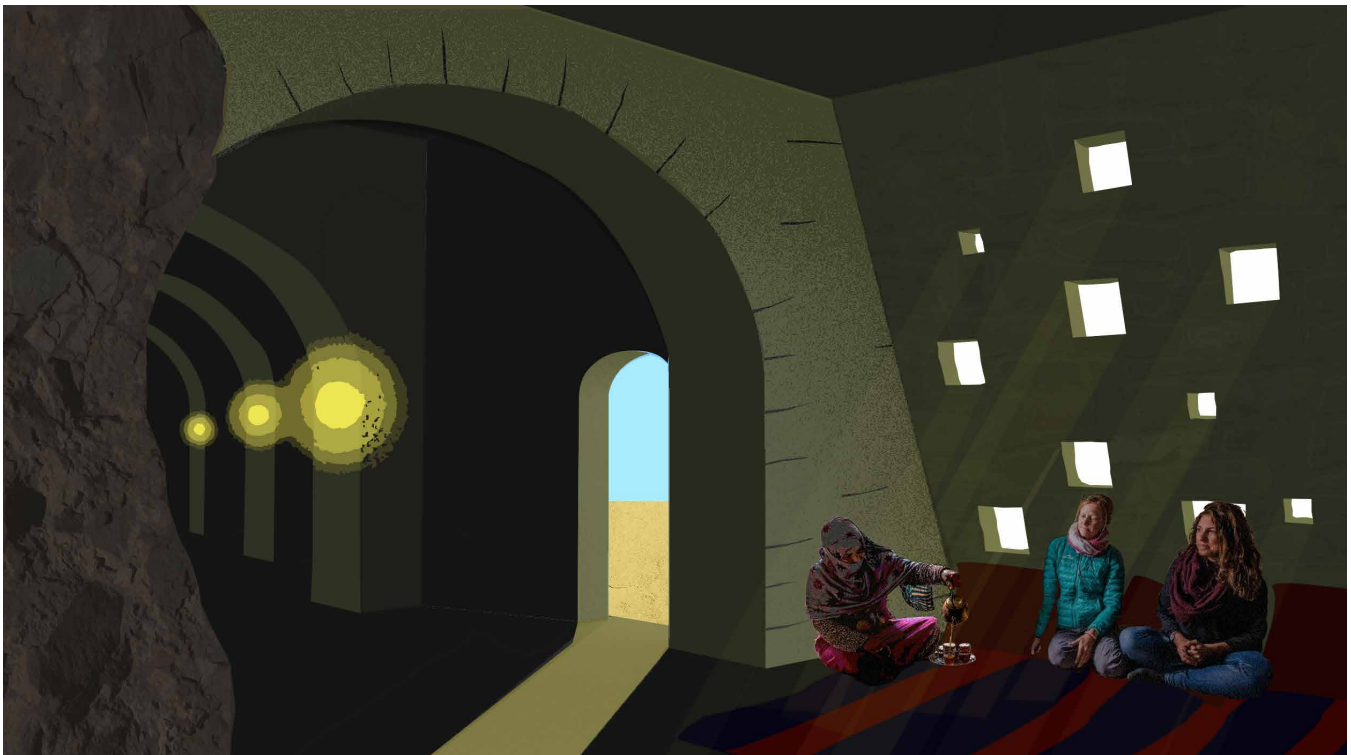
[56] The Journey: Ascent To Jebel Serbal



Mountain Shelter

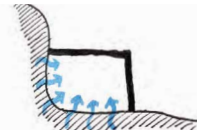
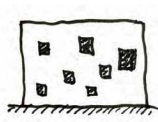
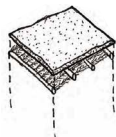
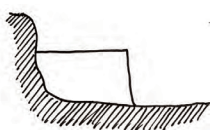
A marching line of earth brick arches move in and out following the profile of the cliff-face. They lean against the wall to create an enclosure - one side, raw rock; the other, a careful manipulation. The mountain shelter facilitates an inward experience; here one takes refuge from the harsh elements of the desert. In the sweltering summers, the space is nearly completely shaded from the sun's rays. During winters - when temperatures often drop below freezing - a fire can be lit in the hearth and the high thermal mass of the earthen materials will absorb the heat and radiate it through the night.

A ladder on the shelter's exterior gives trekkers access to the roof deck where an observatory is located. Here Bedouin guides tell stories of how their ancestors used the night sky to navigate and predict weather patterns. There is additional space on the roof for outdoor cooking. When the weather allows, trekkers can sleep comfortably here, under the stars.



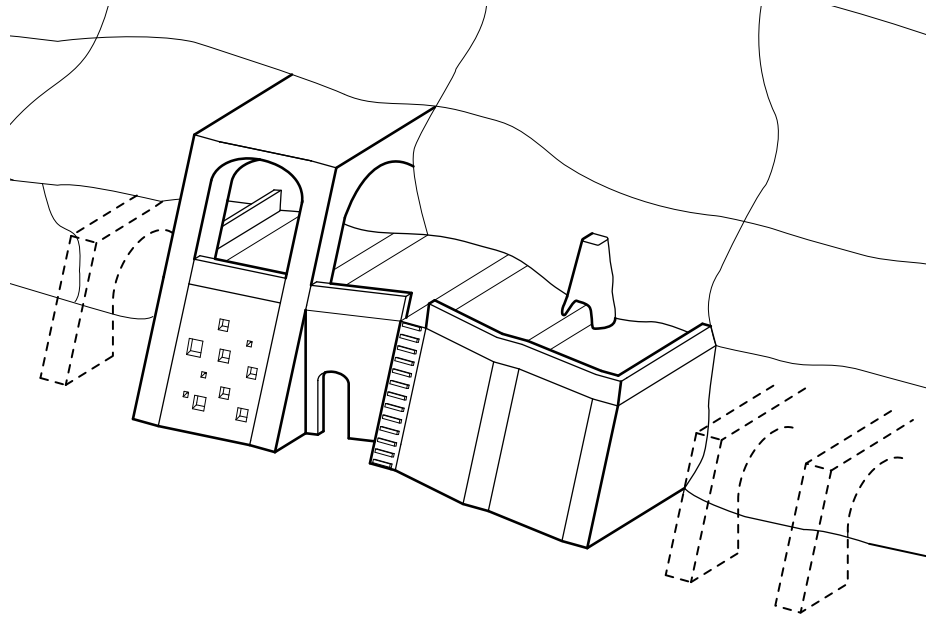
[57] sharing Bedouin tea in the community room

Patterns:

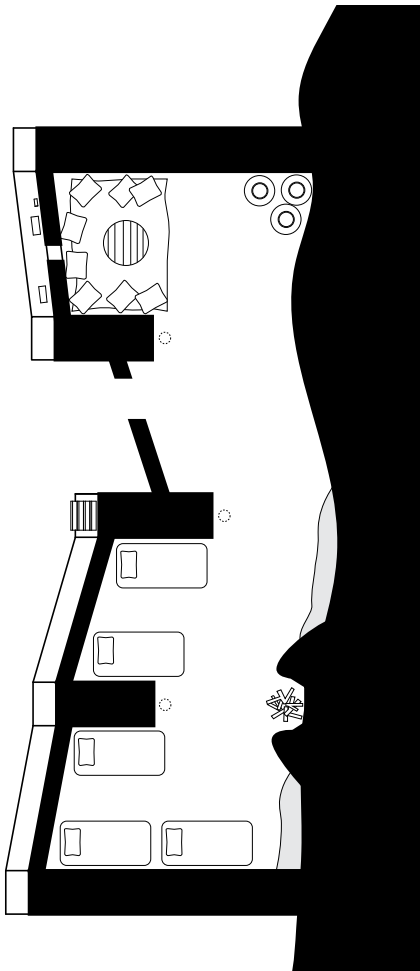


Relationship to Trail

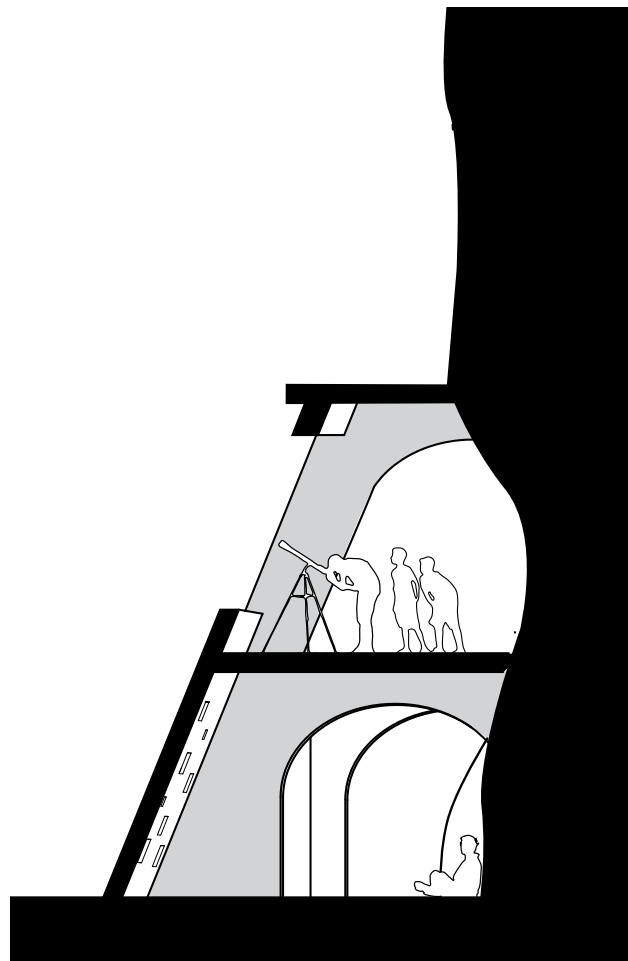




[58]



[59]



[60]

DAY 18

LOCATION: WADI ISLA

GUIDE: SALEM

TRIBE: AWLAD SAID

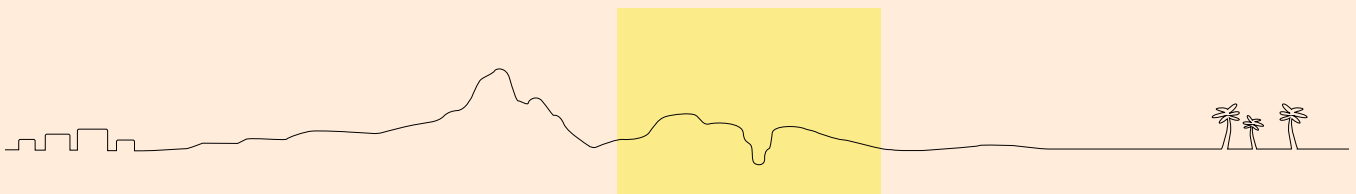


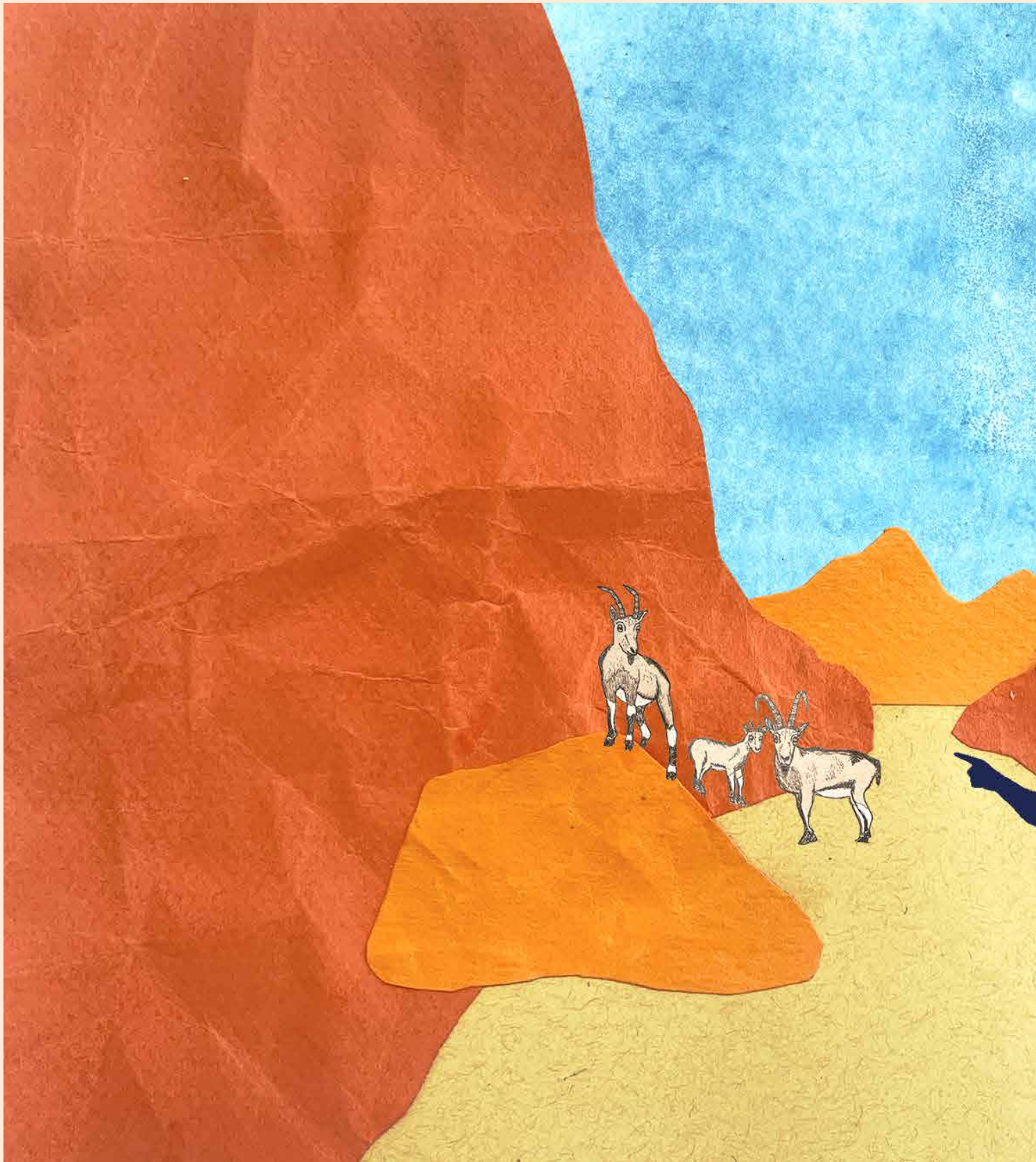
[61] Cleome Herb Sketch

The sun rises late in the day when you're deep in a narrow canyon. Because it rained yesterday, Salem takes us on a bit of a detour to a spot where rainwater collects. We take a few drinks of the crystal clear water before filling our water bottles. Rain here is unlike anything I have ever seen – it transforms the landscape; Streams and waterfalls appear where just seconds before the Earth had been cracking and dry. The water courses over the impermeable granite, making visible the paths of least resistance. “Flash floods have long been killers in the Sinai” Salem informs me.

Today we are switching things up a bit – doing some climbing to take a break from weeks of walking. Salem is an avid rock climber. He leads us to a place he calls the Climber's Camp located in an area where the canyon has constricted and its walls are particularly vertical and menacing. We outfit ourselves with gear from the storage room and Salem directs me to one of the easier routes. I enjoy the slow pace of the climb and the opportunity to see the canyon from a new perspective.

With a final burst of effort, I pull myself up onto the crest of the canyon wall. The view that stretches out before me is impressive - a maze of heaving domes and jagged ravines painted in orange and red, animated by the interplay of sunlight and shadow. This stretch of trail has been particularly beautiful in its contrasts – dark and light, ruggedness and beauty, grandeur and desolation. I turn around to look back towards the canyon, and am surprised to see three ibex clinging to the cliffside across the chasm. They gaze back at me with astonishment, seemingly irked by the unexpected intruder of their solitude.





[62] The Journey: Through Wadi Isla



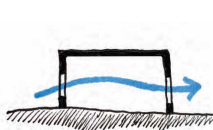
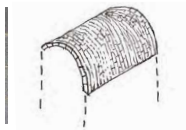
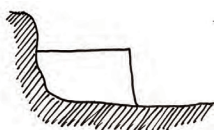
Climber's Camp

Two tiers of arches nestled at the base of the canyon wall. The bottom row is heavy and earthen - a dark, cool place to store jugs of water and climbing gear. The top row is light and airy - made of palm fronds held in place by a frame of acacia branches. Here one can relax in a hammock after a long day of climbing and be protected from the harsh sun, but still feel the breeze coursing through the canyon. The system is modular and scalable - able to adapt to different wall profiles and expected capacities. The sturdy base is built to withstand powerful flash floods, while the second tier - protected somewhat by its height - is less permanent, adaptable, and replaceable.



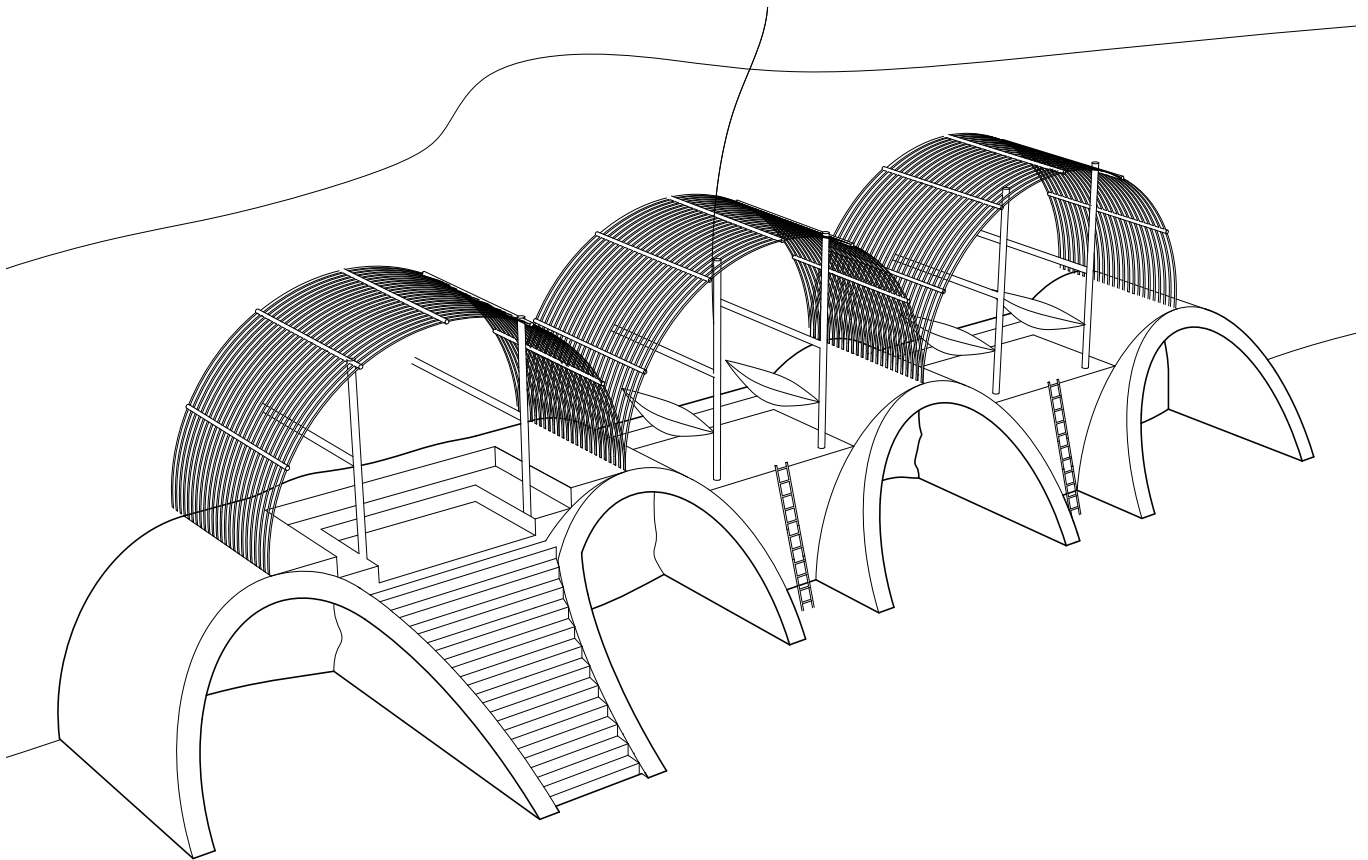
[63]

Patterns:

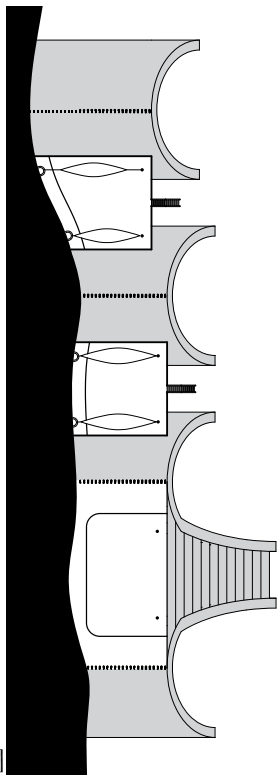


Relationship to Trail

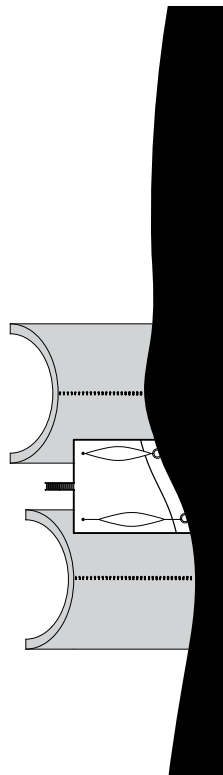




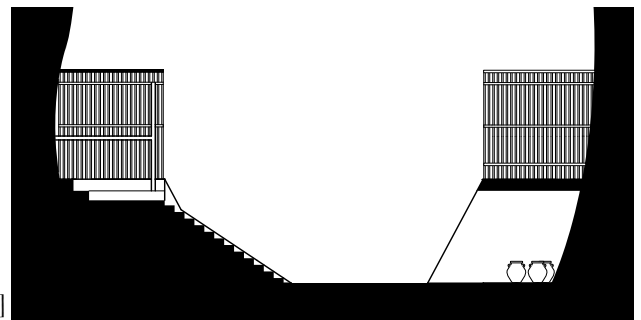
[64]



[65]



[66]

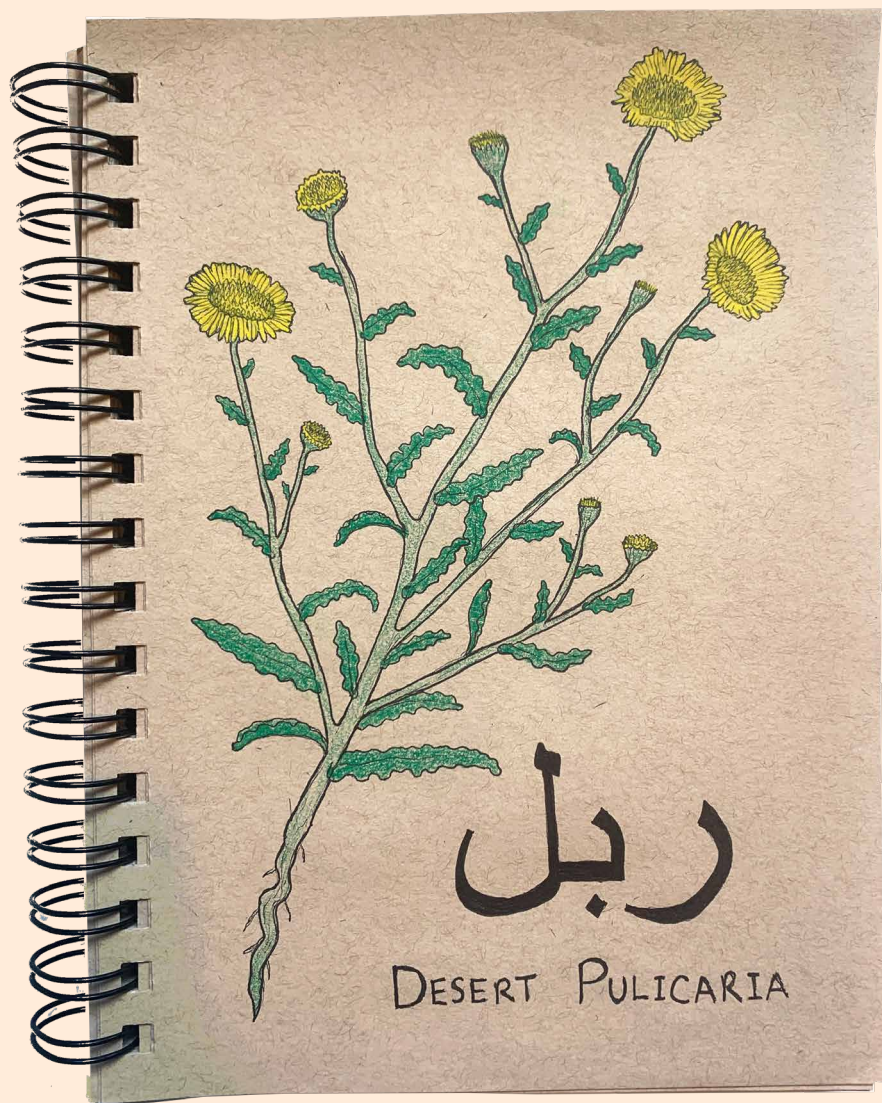


DAY 25

LOCATION: EL RAMLA

GUIDE: FARAJ

TRIBE: ALEGAT



[67] Desert Pulicaria Sketch

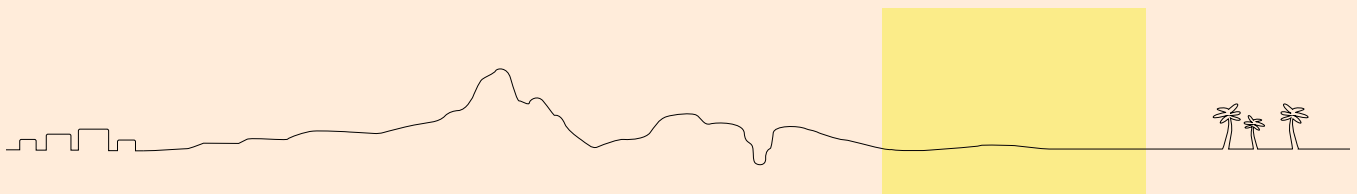
It's early, my legs are sore, and I really don't want to get out of my sleeping bag. The smell of freshly brewed cardamom coffee and Faraj's friendly encouragement help. We have a long day of hiking ahead of us, so we eat a quick breakfast of libba – unleavened bread that is cooked directly on the sand in a bed of hot ashes. Then, we pack our things and depart. We walk into the sunrise with the ghostly full moon following along behind us. Today, we continue deeper into El Ramla – which is Arabic for simply "the sand". It is the largest sand desert in South Sinai. The land is interrupted by rocky tabletop mountains, scattered across the sandy plain. I notice that Faraj stops our camel and checks our water reserves.

"This might be hard to believe, but we have been experiencing a drought for decades here you know," he says. "Water is harder to find than ever. The ground water level recedes lower and lower. Many wells have run dry. Sometimes you have to dig down one hundred feet to find water."

Not exactly the news I wanted to hear...

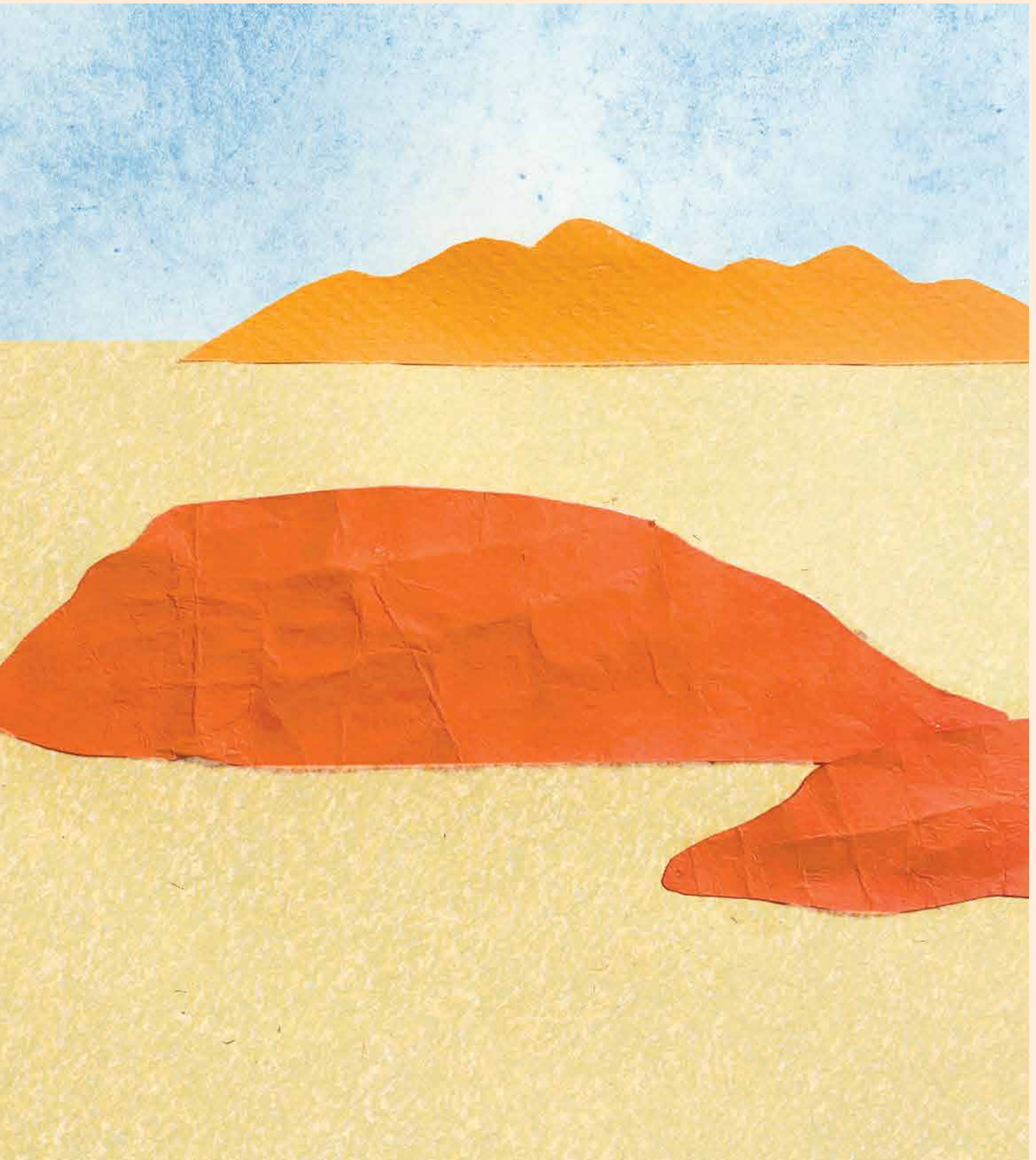
He notices my silence and reassures me, "Don't worry, I know of a reliable spot a few kilometers ahead. It's called manzil birr, the 'well house'. There is a solar-powered pump there that brings water to the surface from deep within the Earth."

We arrive at the well house. We fill our water bottles from the stream of water - the first cold water I have had in weeks. Faraj folds down an articulated tent pod made of goat's hair from one of the stone arches. "This is where we will sleep for the night." he says.





[68] The Journey: Trekking Across El Ramla



Well House

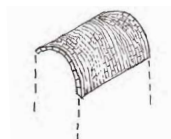
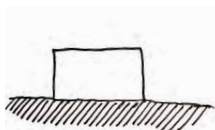
A gathering place highlighting the importance and ritualized process of collecting water in the desert. Here trekkers can stop for a meal and replenish water reserves. A solar pump provides access to water deep underground. The pump feeds two sources: a fountain that, in a welcoming gesture, extends towards the central gathering space and a camel trough located just outside the main enclosure. An aperture in the ceiling allows smoke to escape so trekkers can come together to cook communal meals, while also providing a unique and isolated perspective of the clear desert sky.

Articulated hemispheres made of goat's hair can be folded down from the four arches that lie off the primary axis. These provide additional, more intimate spaces as well as somewhere to take shelter or sleep during inclement weather. This light, adaptable design harkens back to traditional Bedouin tents.



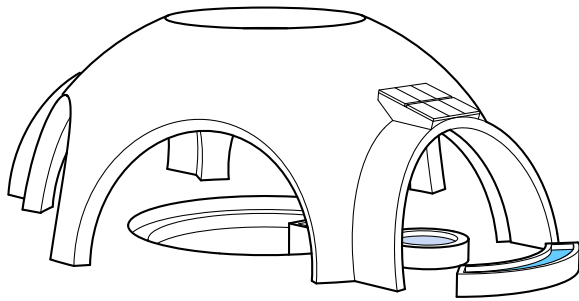
[69] filling up a water bottle from the solar-powered fountain

Patterns:

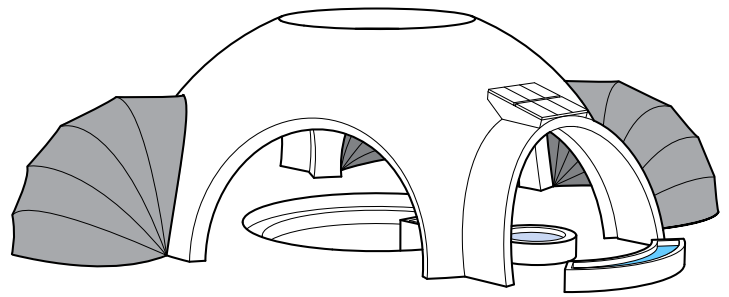


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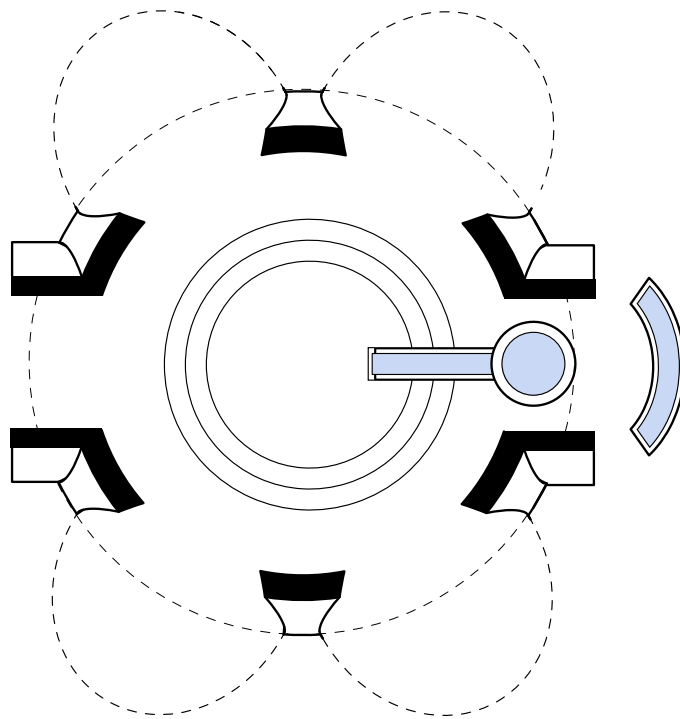




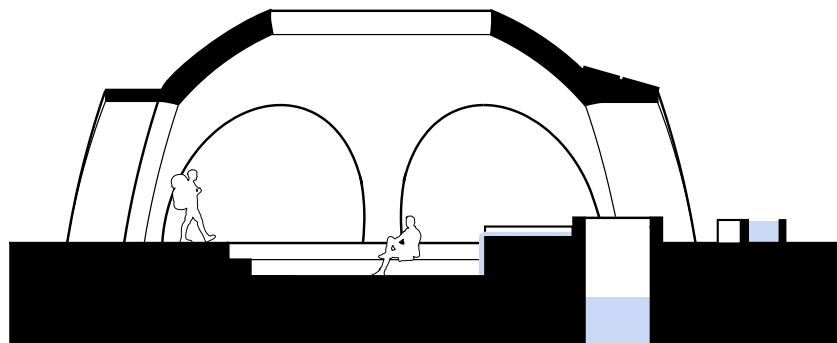
[70]



[71]



[72]



[73]

DAY 36

LOCATION: EIN HUDERA

GUIDE: RAMADAN

TRIBE: TARABIN

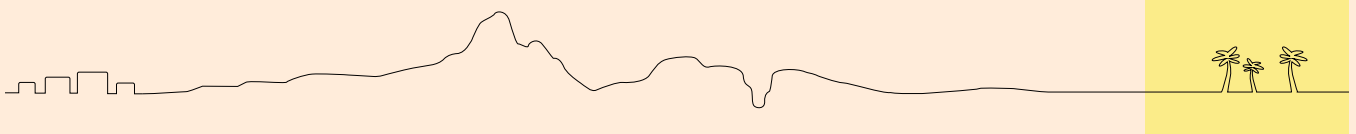


[74] Date Palm Sketch

“Yalla bina!” Ramadan tugs on a rope attached to our camel’s harness. The camel stares blankly back at him through its long lashes, then slowly turns and starts walking deeper into the sandstone-etched gorge. The camel’s wide flat feet leave surprisingly shallow impressions in the sand. It’s early in the afternoon and the air is shimmering-hot. We walk in full sun, sweat stinging our eyes. We stop for a drink and Ramadan points out a large reddish-brown boulder with ancient petroglyphs carved into it; the desert graffiti is a reminder that I am just one in a long lineage of those that have traversed this scorched land. After a few hours, I see what appears to be a dense clump of greenery ahead. The gorge opens up and suddenly we are beneath lush towering palm trees. We have reached Ein Hudera, an oasis and small Bedouin settlement.

Ramadan leads me to a gathering place centered around a tall conical chimney-like structure. He exchanges a few words with an elderly Bedouin woman before returning to my side. “I hope you are hungry,” he says with a smile. We sit in a circle under the dappled shade of the date palms. Eventually the woman returns with two children alongside her. Each carries a big tray of food: rice with dried apricots and almonds, lentil soup, and stewed goat. The children speak good English. They observe me closely and have lots of questions – about the clothes I am wearing and where I come from.

Ramadan entertains all with a legend about a treasure trove hidden deep beneath Ein Hudera. One of the children fetches Ramadan a three-stringed rababah and he recounts the tale through song, this time in Arabic. It has become late and I am tired from the day’s trek so I give my thanks and head off to bed. The night has ushered in mild weather, so I decide to lie down on the roof under the stars. I close my eyes. The smooth wafting notes of the rababah resonate in the distance.





[75] The Journey: Arriving in the Oasis



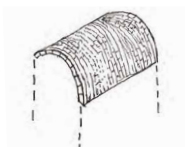
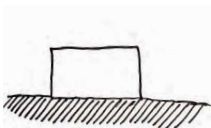
Oasis Lodge

A large gathering place, kitchen, and cafe under the shade of towering date palms. Curved seating alcoves accommodate Bedouin eating patterns - six to eight people eating from one large round plate.⁴⁶ The kitchen structure serves as both a place for trekkers to work together and prepare a communal meal, as well as a place for Bedouins who live in the surrounding settlement to prepare a meal for others. A platform elevated on palm trunk columns provides additional seating as well as a new perspective of the surrounding vegetation. The spaces are organized around a tall conical chimney, both a heating element for cool desert nights and where food is prepared. This is a place for relaxation, storytelling, laughter, and song.



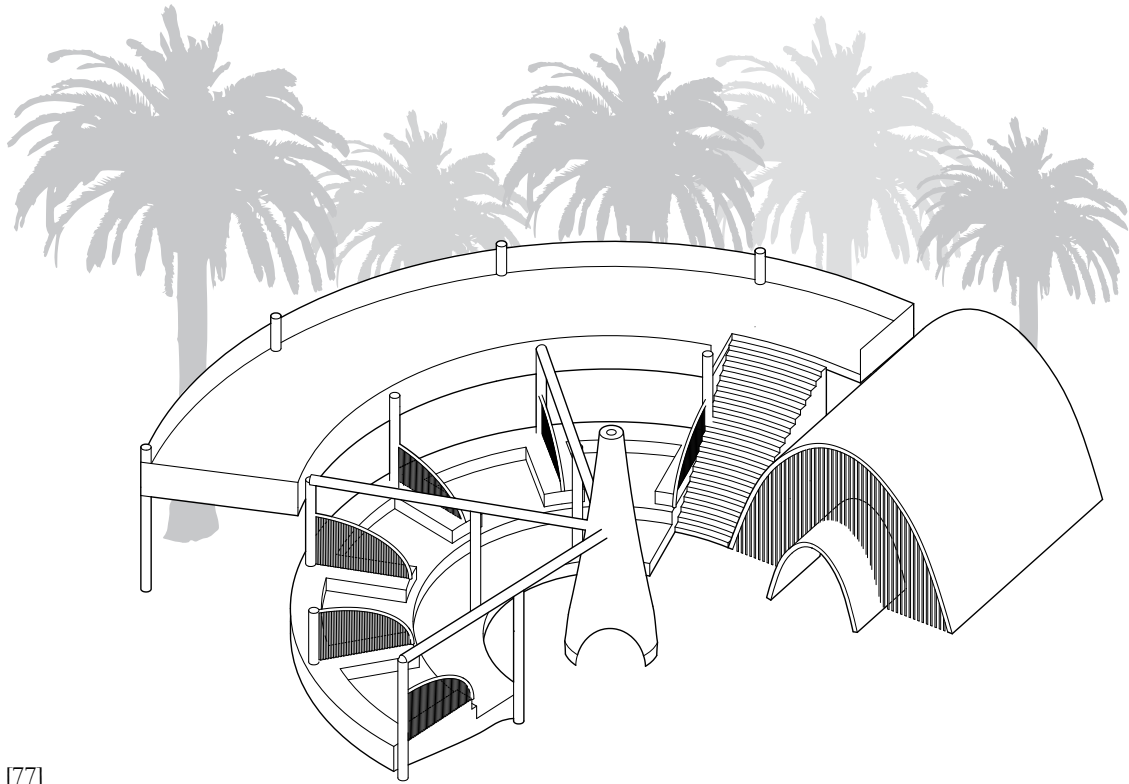
[76] awaiting a hot meal in the dining alcove

Patterns:

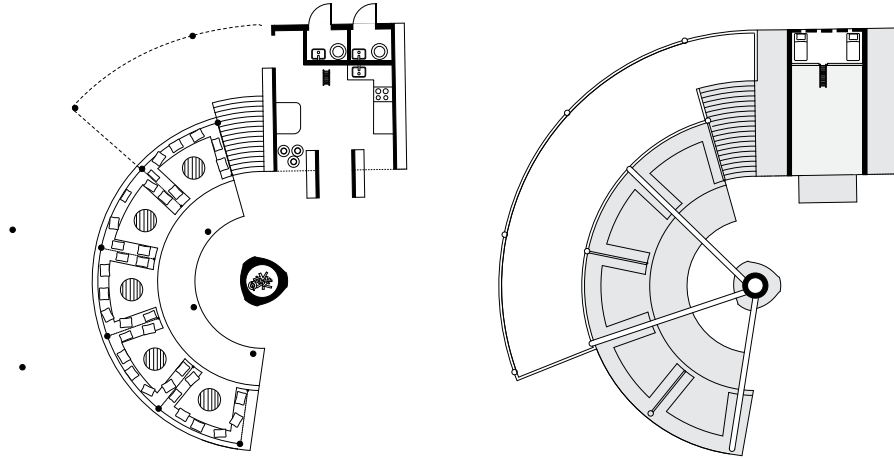


Relationship to Trail

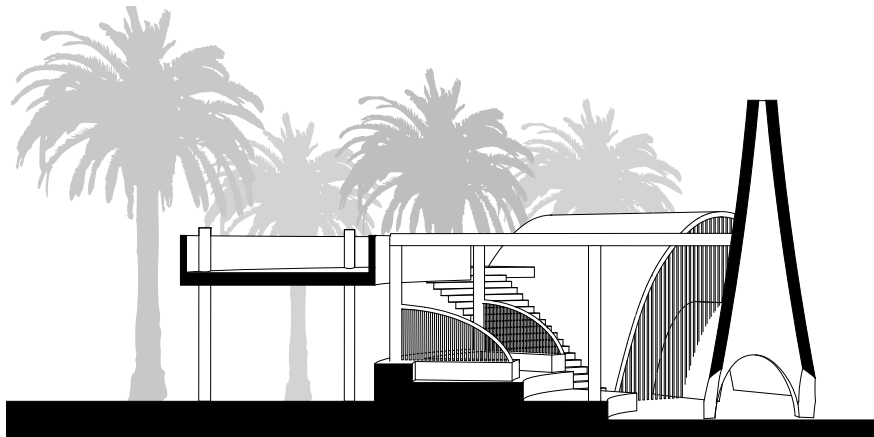




[77]



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[79]

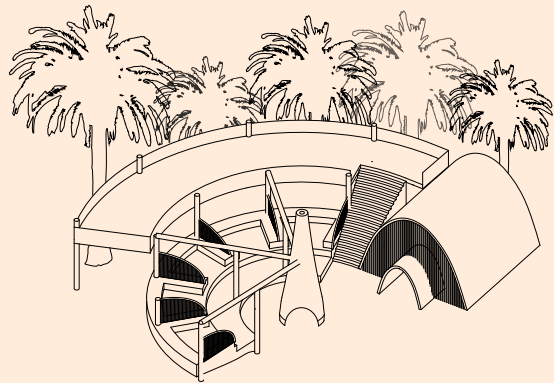
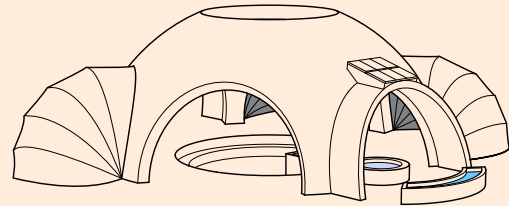
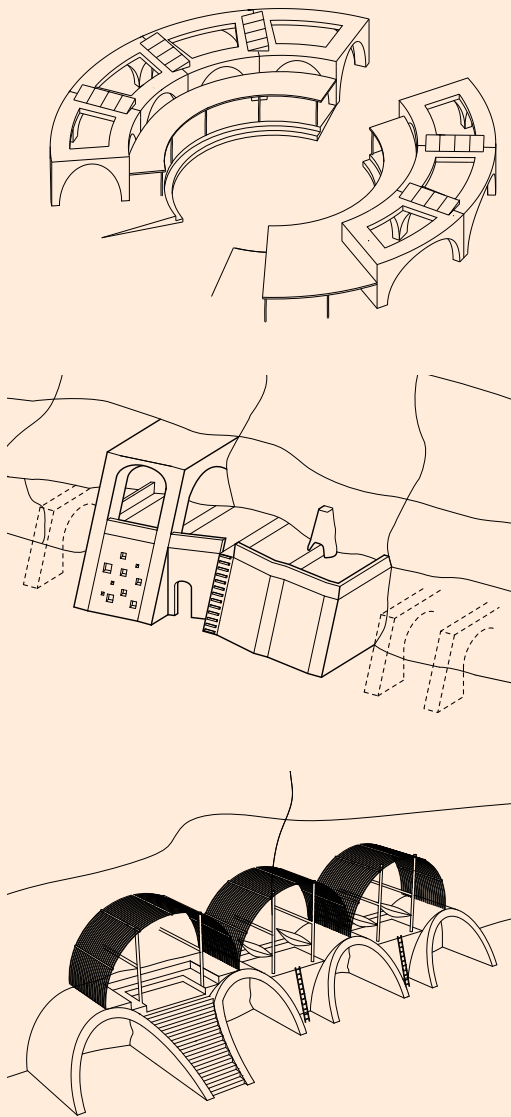
DAY 42 - THE RETURN

LOCATION: ST. KATHERINE



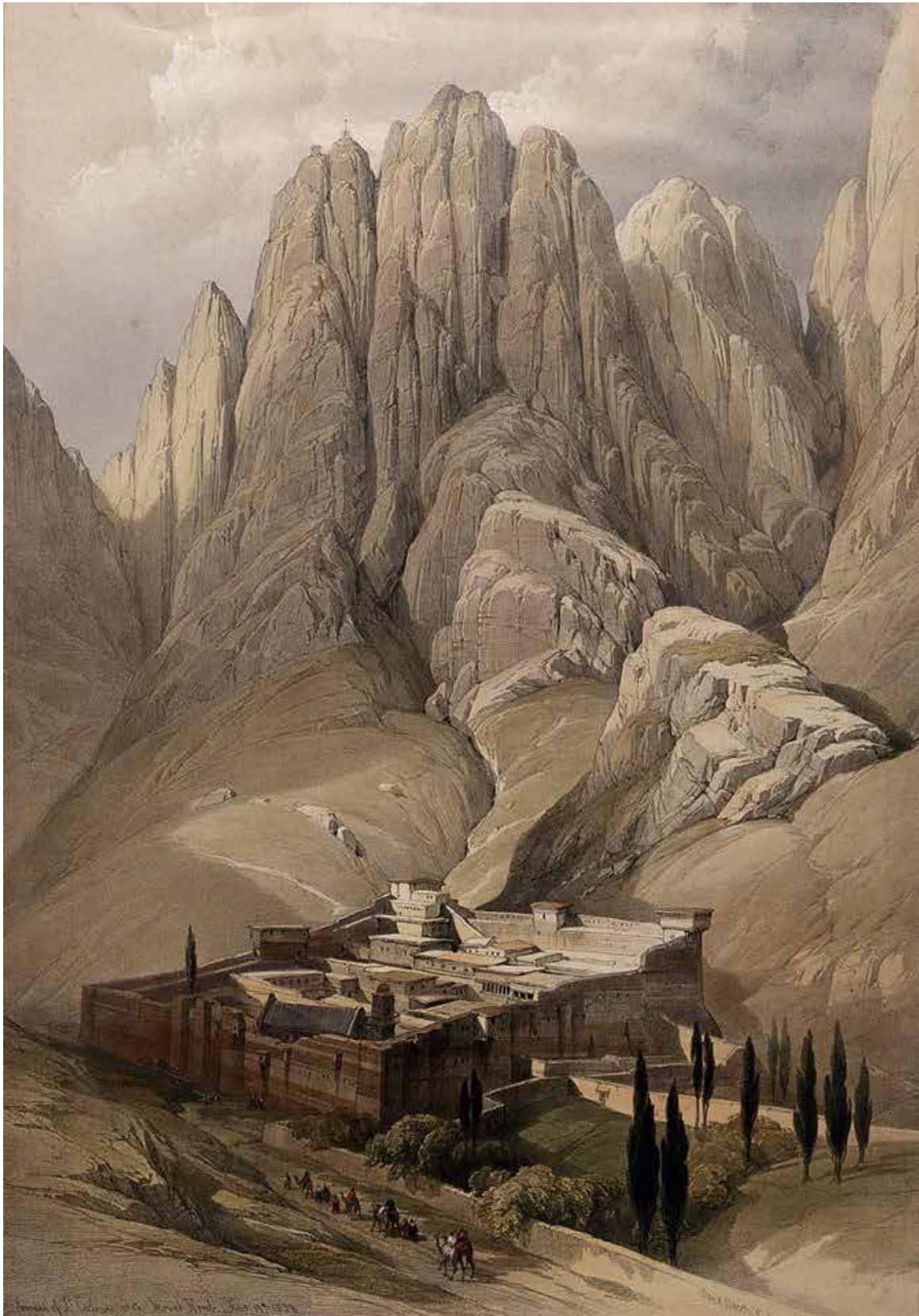
[80] Horsemint Sketch

Finally back in St. Katherine. It has been a transformational journey – over mountains, through winding wadis, and across sandy deserts. My body is exhausted, but in a way, I am healed. My mind is clear. My heart is full. I am thankful for the opportunity to slow down and start to understand this remarkable place at a deeper level. But I feel most fortunate for the friends I have made along the way.



[81] Trail Interventions





[82] Monastery of St. Katherine, colored lithograph by Louis Haghe from David Roberts painting (1849)

CHAPTER 6

CONCLUSION

How do you design for a place you have never been and a culture you are unfamiliar with? There is no substitute for first-hand experience – walking the land and talking with people. These will always be the best ways of understanding landscape and culture. However, in the absence of such opportunities, this thesis seeks to explore alternate means of observation. The explorations, strategies, and methods of representation expressed herein can aid designers in slowing down to contemplate some of the finer details. It is precisely these details that start to build a more holistic understanding of place. The goal of the exercises is not to take the place of field research, but rather to set the stage for more fruitful conversations and experiences in the future.

As such, the design proposals presented in the previous chapter are merely a starting point. They serve to provoke critical conversations about the forces colliding along the Sinai Trail: the landscape, existing Bedouin communities, and travelers. The built settings borrow from the Bedouin philosophy of ecocentrism by utilizing local materials and sustainable passive strategies to create structures that tread lightly on the landscape and blur the boundary between nature and culture. For Bedouins, they are places where one can both present their authentic identity and celebrate their rich cultural heritage. For travelers, the interventions along the trail highlight the surrounding landscape as well as important aspects of Bedouin culture. Rather than merely observing, travelers are invited to actively participate – to walk across the rugged mountains, to cook bread in the sand, to stargaze, to search for and collect water. Through these interactions, both groups of people learn more about one another, building cross-cultural understanding and empathy. The architecture works alongside the trail to provide the settings for these stories to unfold.

Taking time to carefully listen to and observe the world around us leads to more fulfilling experiences. For designers and travelers alike, it helps us be present and appreciative, ultimately developing a deeper connection with people and place. It is a marvelously rich and worthwhile way to investigate the world – one that I am happy to have explored through this thesis and am excited to continue developing in the future.

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END NOTES

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2. Hoffer, *Sinai: the Trekking Guide*, 71.
3. Bailey, *A Culture of Desert*, 1.
4. Gilbert, "Nature = Life," 44.
5. Bailey, "Bedouin Culture," 34.
6. Hoffer, *Sinai: The Trekking Guide*, 70.
7. Gilbert, "Nature = Life," 43.
8. Ibid.
9. Cole, "Where Have the Bedouin," 240-241.
10. Ibid, 236.
11. Marx, *Bedouin of Mount Sinai*, 22.
12. Cole, "Where Have the Bedouin," 237.
13. sinaitrail.net
14. Ibid.
15. El-Din, *Sinai: the Site*, 47.
16. Greenwood, *The Sinai: a Physical*, xii.
17. Perevolotsky, "Orchard Agriculture," 344.
18. Ibid, 338.
19. El-Din, *Sinai: the Site*, 47.
20. Perevolotsky, "Orchard Agriculture," 332.
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22. Rayan, "Water Supply," 78.
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24. Ibid, 88.
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27. Vignal, "The New Territories," 5.
28. Agarwal, *Managing Coastal Tourism*, 243.
29. sinaitrail.net
30. Moor, *On Trails*, 93
31. Ibid, 102.
32. Hobbs, *Bedouin Life*, 28.
33. Gilbert, "Nature = Life," 55.
34. Ibid. 56
35. Urry, *The Tourist Gaze*, 1.
36. Urry, *The Tourist Gaze*, 1.
37. Cole, "Where Have the Bedouin," 255.
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40. Ibid, 4.
41. Ibid, 46.
42. Ibid, 382.
43. Ibid, 117.
44. Ibid, 19.
45. Ibid, 95.
46. Ibrahim, *Appropriate Building Patterns*, 7.

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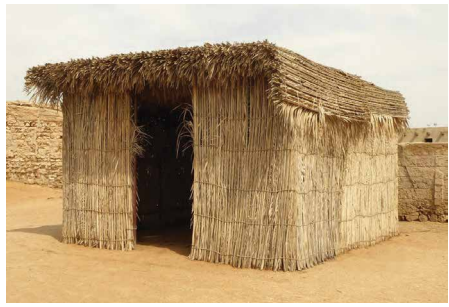
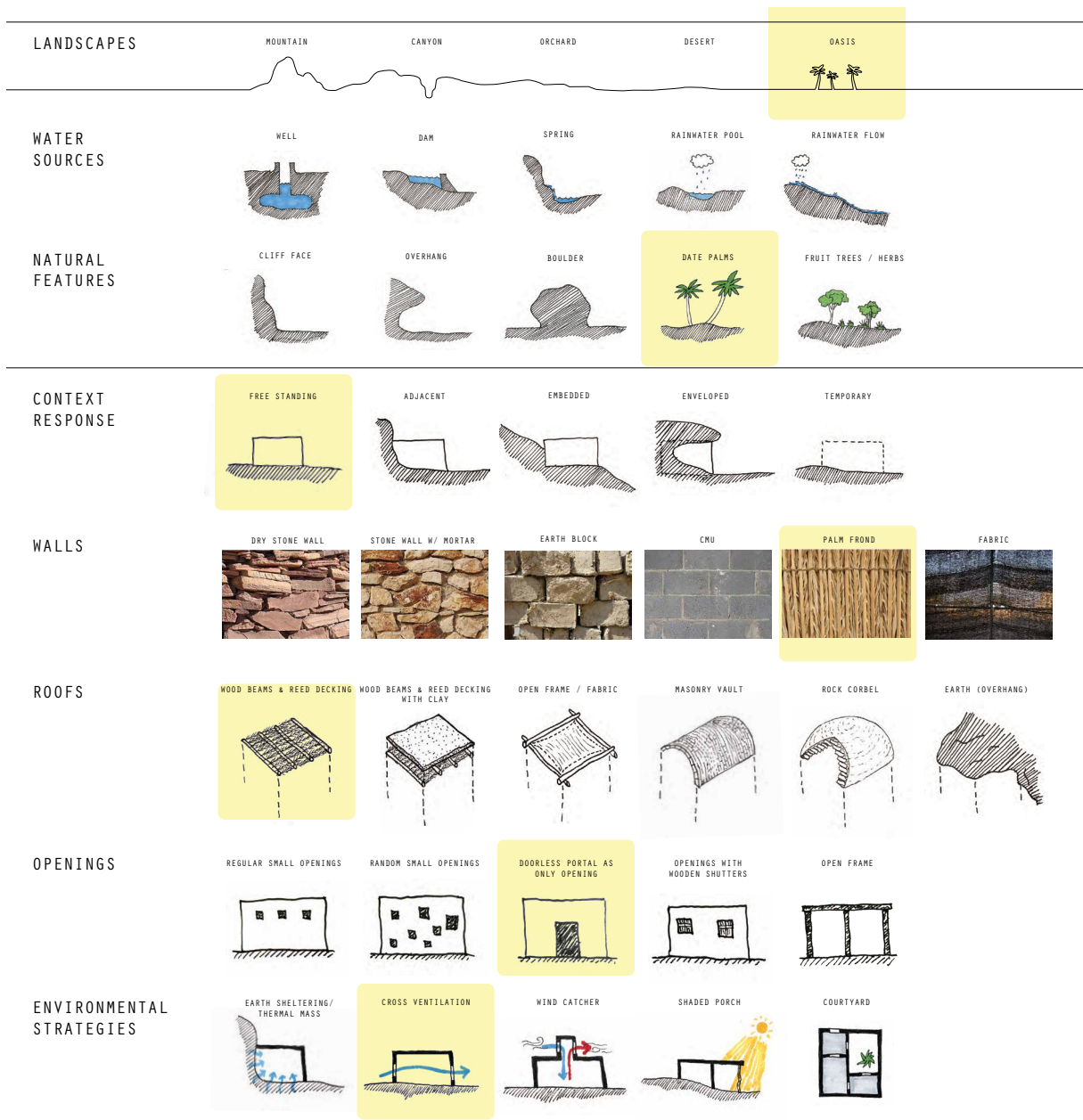
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- Figure 36: South Sinai Shelter 4
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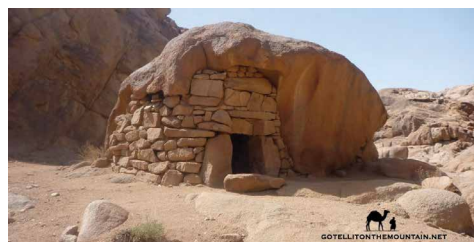
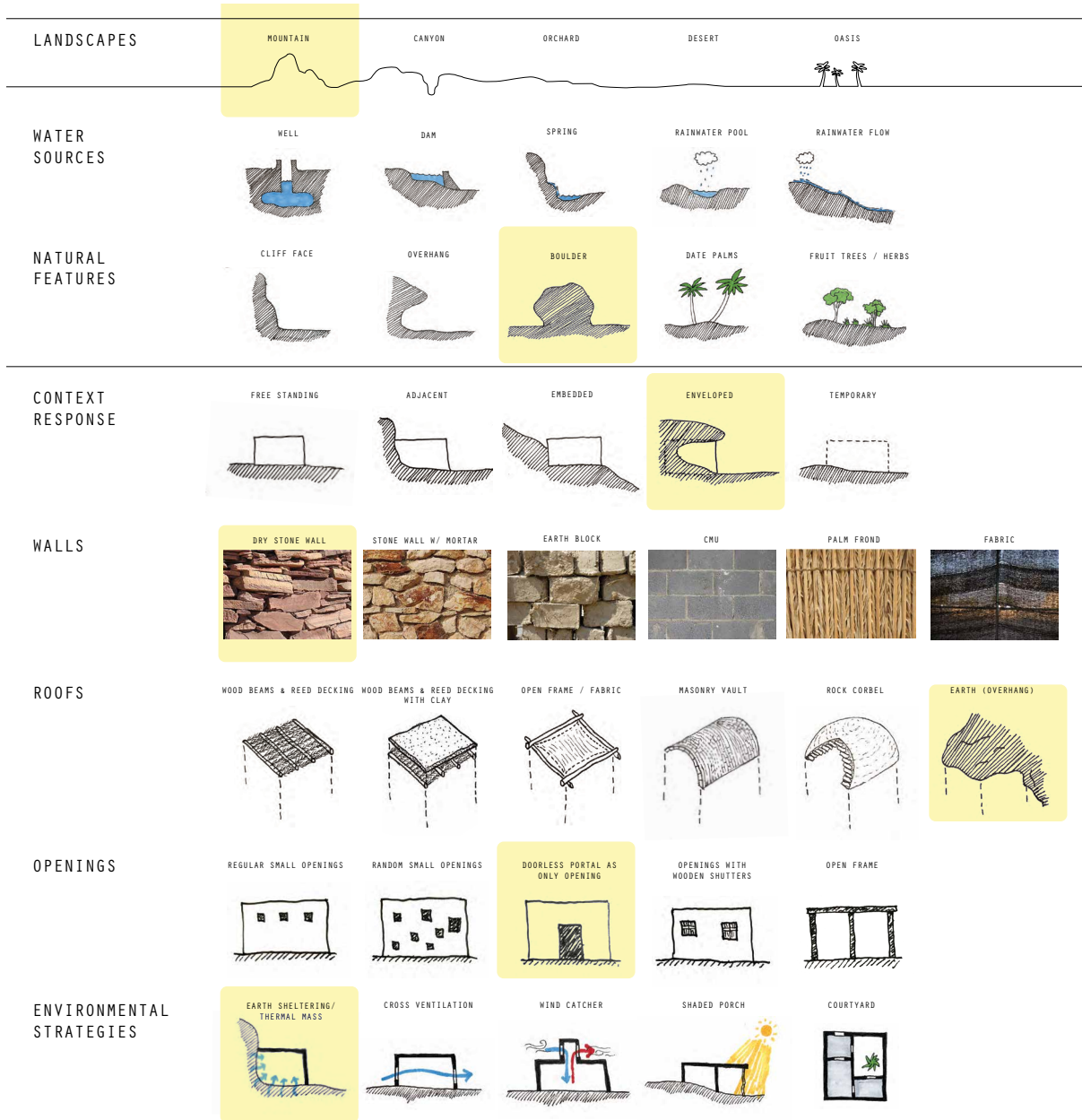
APPENDIX

LANDSCAPES	MOUNTAIN	CANYON	ORCHARD	DESERT	OASIS	
WATER SOURCES	WELL	DAM	SPRING	RAINWATER POOL	RAINWATER FLOW	
NATURAL FEATURES	CLIFF FACE	OVERHANG	BOULDER	DATE PALMS	FRUIT TREES / HERBS	
CONTEXT RESPONSE	FREE STANDING	ADJACENT	EMBEDDED	ENVELOPED	TEMPORARY	
WALLS	DRY STONE WALL	STONE WALL W/ MORTAR	EARTH BLOCK	CMU	PALM FROND	FABRIC
ROOFS	WOOD BEAMS & REED DECKING	WOOD BEAMS & REED DECKING WITH CLAY	OPEN FRAME / FABRIC	MASONRY VAULT	ROCK CORBEL	EARTH (OVERHANG)
OPENINGS	REGULAR SMALL OPENINGS	RANDOM SMALL OPENINGS	DOORLESS PORTAL AS ONLY OPENING	OPENINGS WITH WOODEN SHUTTERS	OPEN FRAME	
ENVIRONMENTAL STRATEGIES	EARTH SHELTERING / THERMAL MASS	CROSS VENTILATION	WIND CATCHER	SHADED PORCH	COURTYARD	

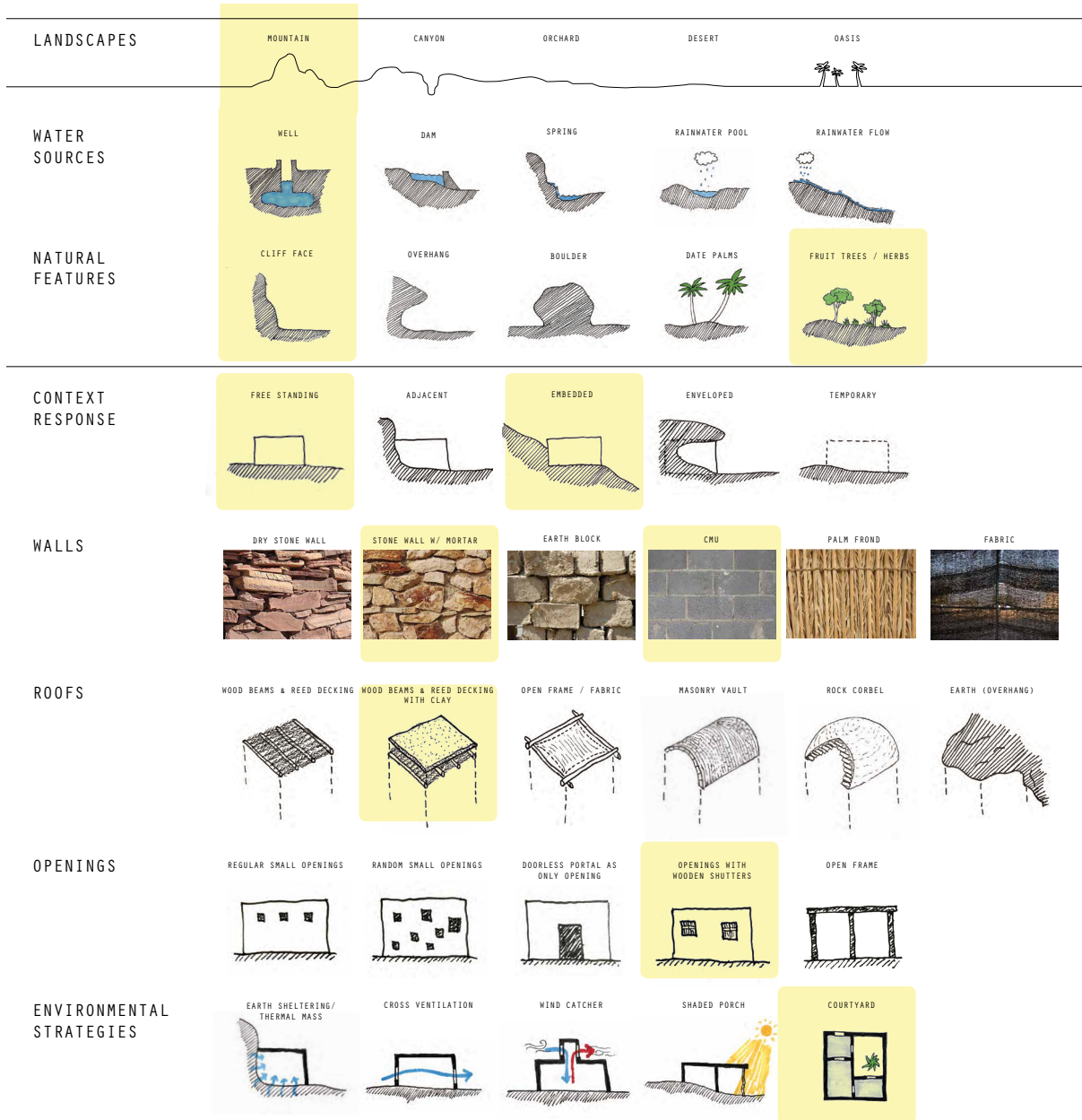




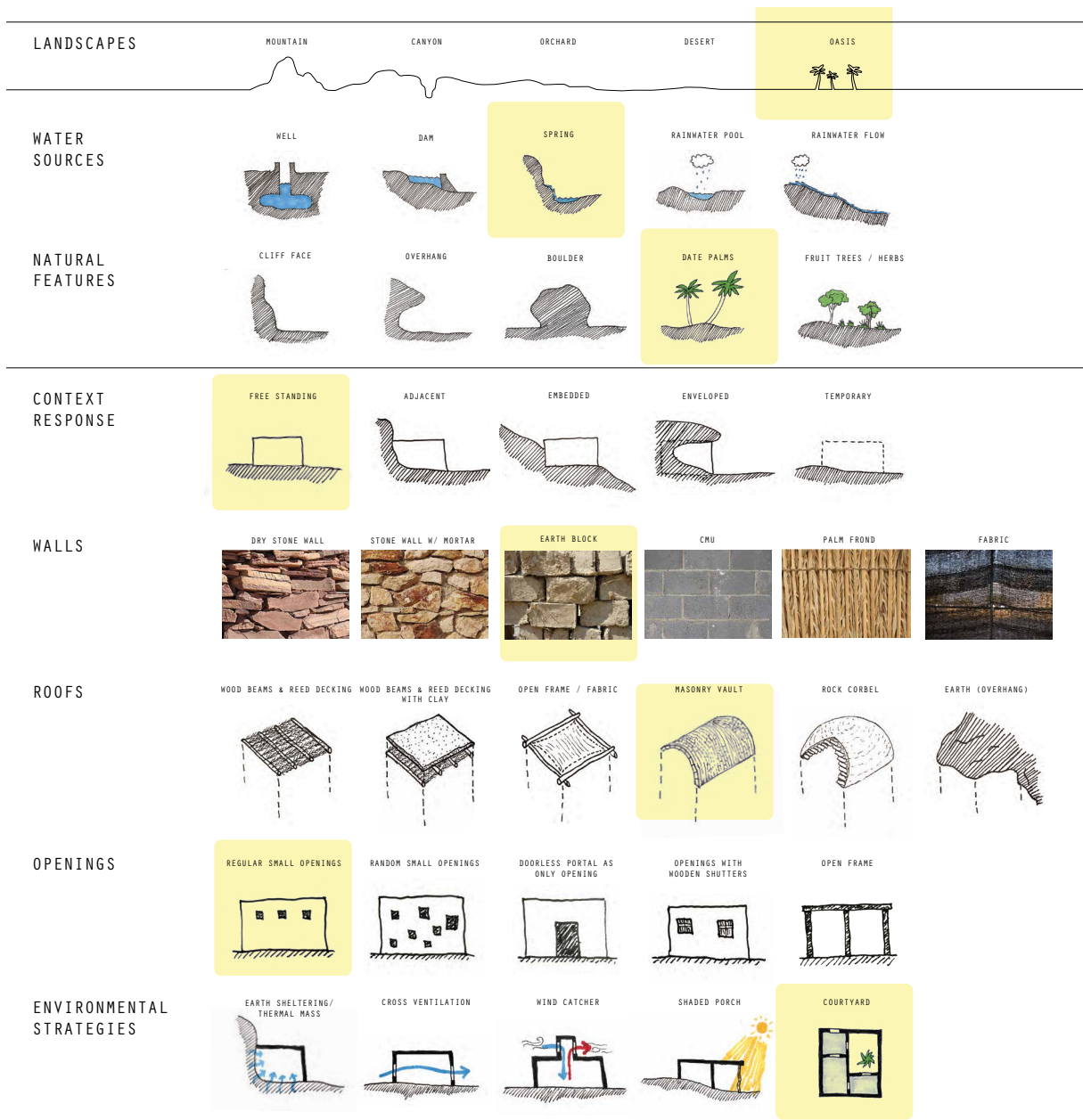
[84] Pattern Analysis 2



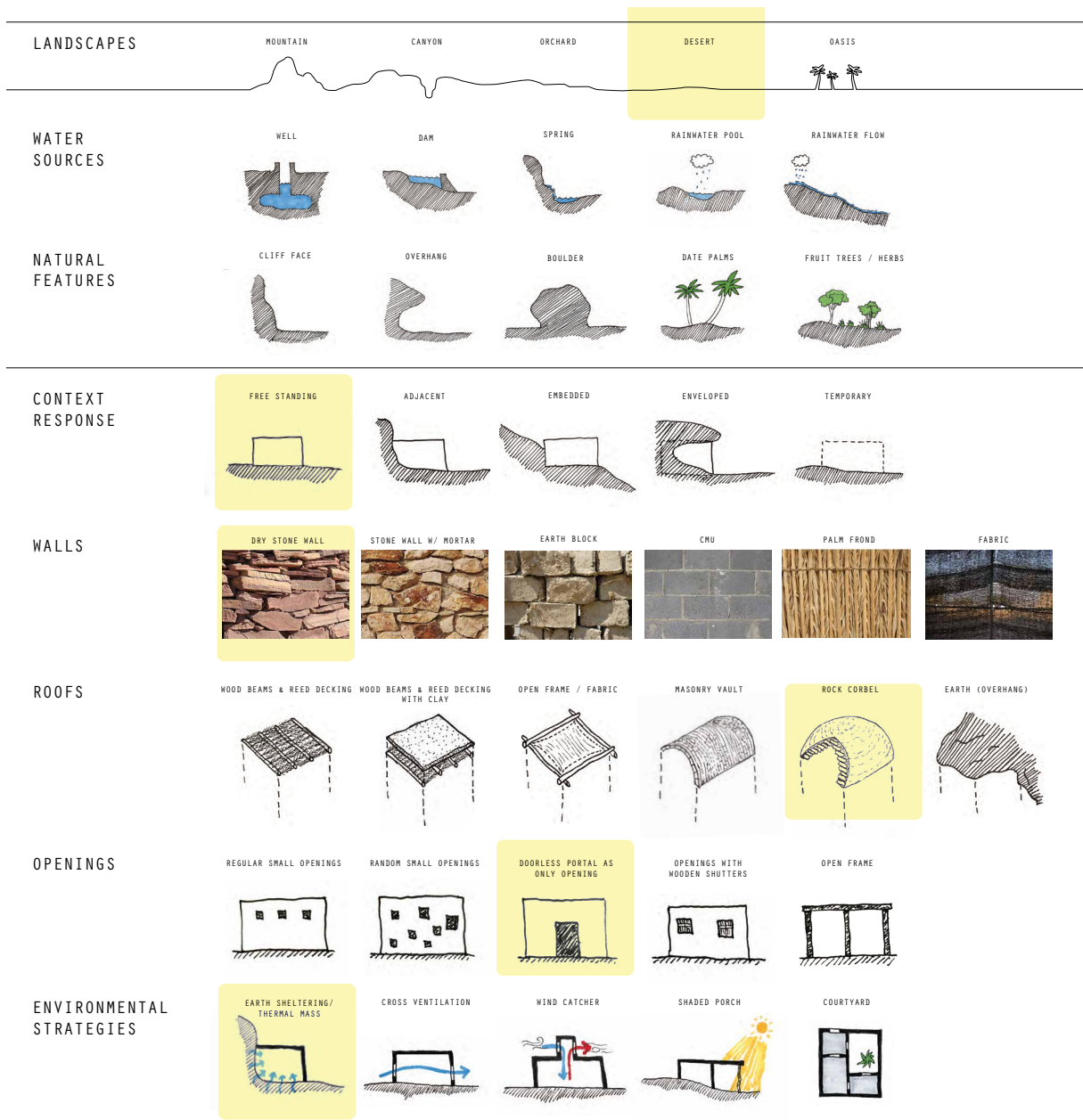
[85] Pattern Analysis 3



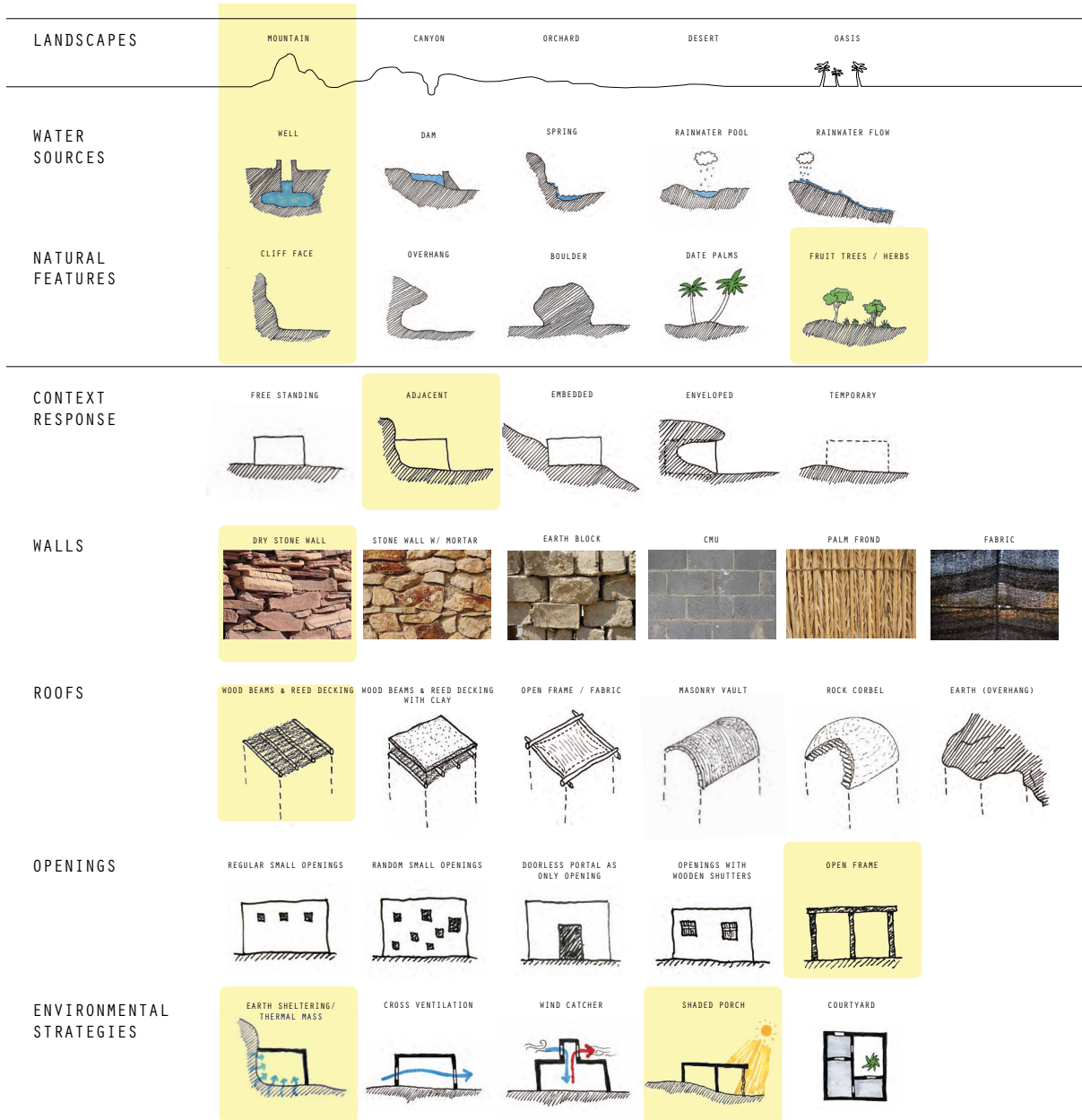
[86] Pattern Analysis 4



[87] Pattern Analysis 5



[88] Pattern Analysis 6

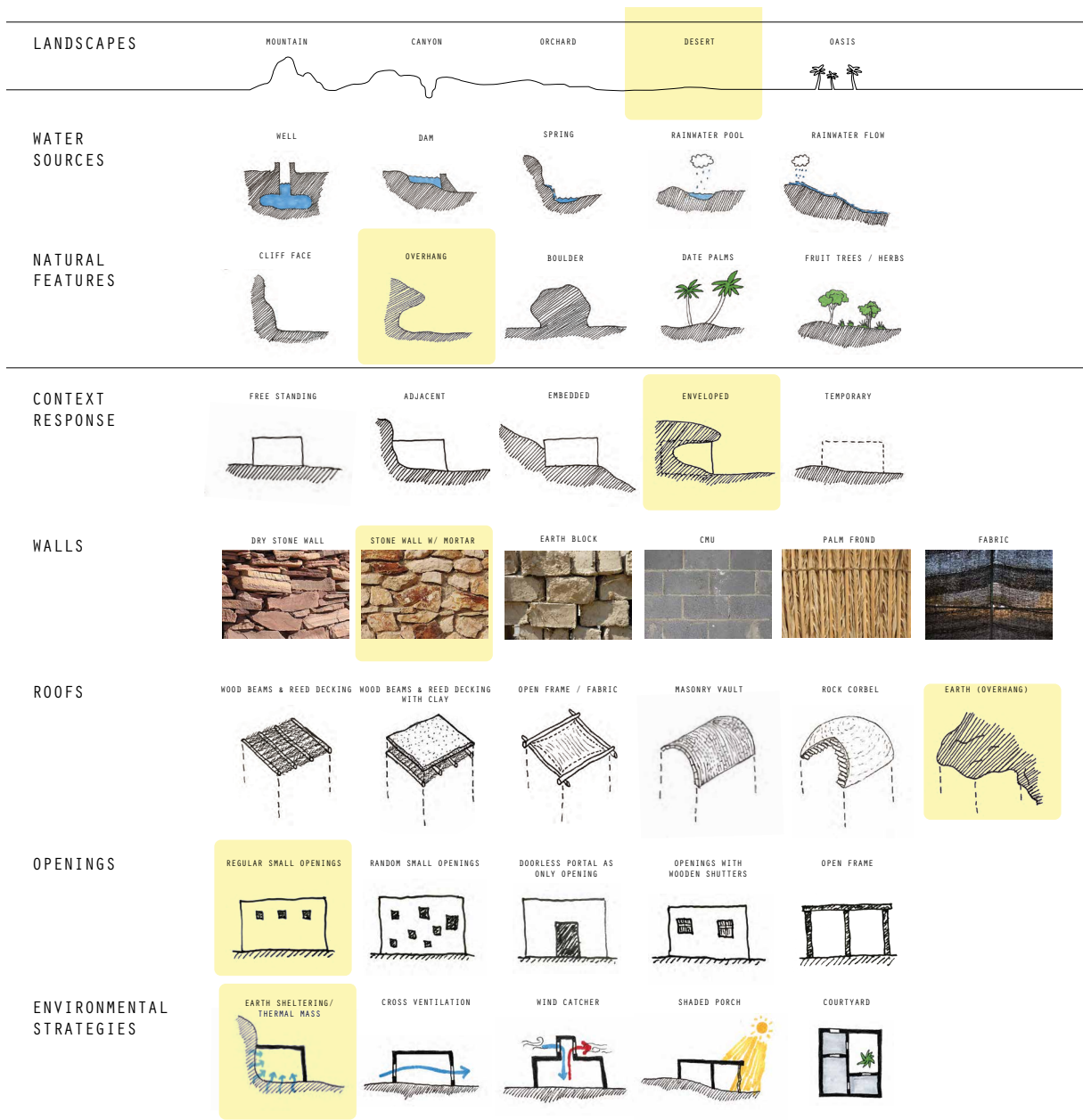


[89] Pattern Analysis 7

LANDSCAPES	MOUNTAIN	CANYON	ORCHARD	DESERT	OASIS	
WATER SOURCES	WELL	DAM	SPRING	RAINWATER POOL	RAINWATER FLOW	
NATURAL FEATURES	CLIFF FACE	OVERHANG	BOULDER	DATE PALMS	FRUIT TREES / HERBS	
CONTEXT RESPONSE	FREE STANDING	ADJACENT	EMBEDDED	ENVELOPED	TEMPORARY	
WALLS	DRY STONE WALL	STONE WALL W/ MORTAR	EARTH BLOCK	CMU	PALM FROND	FABRIC
ROOFS	WOOD BEAMS & REED DECKING	WOOD BEAMS & REED DECKING WITH CLAY	OPEN FRAME / FABRIC	MASONRY VAULT	ROCK CORBEL	EARTH (OVERHANG)
OPENINGS	REGULAR SMALL OPENINGS	RANDOM SMALL OPENINGS	DOORLESS PORTAL AS ONLY OPENING	OPENINGS WITH WOODEN SHUTTERS	OPEN FRAME	
ENVIRONMENTAL STRATEGIES	EARTH SHELTERING / THERMAL MASS	CROSS VENTILATION	WIND CATCHER	SHADED PORCH	COURTYARD	



[90] Pattern Analysis 8



[91] Pattern Analysis 9