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4.696 A Global History of Architecture Writing Seminar
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SLIDE 1—INTRODUCTION

- what immediately comes to your mind when you think of Africa? (say anything, I won't penalize you)
- it's already a given that Africa is represented in the news and media, but the images that we have of Africa rarely go beyond the ubiquitous misconceptions and clichés of the continent
- We're presented a place that is always in the midst of disintegration and chaos, so we tend to approach Africa with a sense of pity
- In reality, there is much more going on, that at the public level we're not always attune to
- these are conventions that have become a pathology, and this pathology is at the heart of what curator Okwui Enwezor calls "Afro-pessimism"
- his essay intro to the exhibition catalogue Snap Judgments is on your reading list for today
- The great thing that the study of art and architecture does is that it finds ways to upset these pervasive "Afro-pessimistic" conventions of imaging that we're both very attracted to and dangerously immune to the same time.
- Instead, what we want to do is to raise vital questions and to propose new possibilities of meaning for how we understand African cultures and societies, before European colonization, which is this "scramble for Africa" to which I'm referring

SLIDE 2—NATION-STATE/POLITICAL MAP OF AFRICA

- In this class, we're going to leave behind the political map of Africa that you all have probably seen dozens of times
- so in order to do that we're going to travel back in time and focus in on the year 1200 of the common era in Africa and try to understand the historical development of various architectural forms as a function of natural resources and the complex, changing societies and trading economies that depended on these resources
- in tandem with this, we're going to see how different architectural typologies evolved from and were influenced by environmental and climatic conditions

SLIDE 3—VEGETATION ZONES AND ENVIRONMENT

- so to do that, let's look at a map of Africa's environmental makeup as it was then
- the map on the right shows different vegetation zones in West Africa
- some of these resources, like **salt** (from the Sahara), **gold** (in today's Ghana, Mali, Côte D'Ivoire, Guinea, Burkina Faso, Togo, Benin), **iron** (), and **cattle** (which are not native to Africa but were domesticated) really shaped the flow of these goods throughout the continent and elsewhere in the world

SLIDE 4--Major Trade Routes 800-1500 and the Spread of Commodities

- trade flourished partly because of these different environmental zones, stretching east-west across the continent and comprised the Sahara desert, the Sahelian semi-desert, the Sudannic savanna and wooded grasslands, and finally the rainforests
- so what we see here is that east-west connectivity is very dynamic, but what this map fails to show us is that the north-south trading axis is very dynamic to
- this is one of the major take-home lessons for today, to understand that these maps are constructs in the same way that history itself is a construct, and that we have to be critical of them

SLIDE 5—EMPIRES OF THE SAVANNA

- forms of agricultural practice varied between zones and resulted in the need to exchange commodities
- and the successes reaped from this exchange of commodities led to the growth of states in West Africa, which were initially local and interregional, but later developed into complex empires with sophisticated economies
- some of these are the Ghana, which reach its height from the 8th century-mid-13th century; Mali (about 1233-1594); Songhai (1468-1591); Kanem-Bornu (1075-1846)
- prosperity generated through trade, coupled with the growth of settlements at important trade centers, gradually led to urbanization and foundation of states
- cities along these trading networks acted as crucibles of ideas, values and practices from afar that were then disseminated to the rural hinterlands

SLIDE 6—GOOGLE EARTH TRAJECTORY MAP

- So where are we going today? Just to give you an overview--
- Begin in Ait ben haddou in southern Morocco; then traveling down to Mali to look at the Great Mosque of Djenne and Dogon Communities in the Mopti region; then we're following the lines of trade across the sahel semi-desert and savanna to Lalibela in Ethiopia, where we'll go south to look at the Husuni Kubwa Palace in Tanzania, and finally we'll stop at Great Zimbabwe in what is now Zimbabwe

SLIDE 7—CASBAH AIT BEN HADDOU

- Let's begin our at the site of Ait Ben Haddou in southern Morocco
- but before we do that, let's get a sense of the historical backdrop

SLIDE 8—MAPS OF TRADE NETWORKS THROUGHOUT NORTH AFRICA

- it's the middle of the 8th century, and the Arab conquests under the Umayyad dynasty based in Damascus are penetrating full force into the Maghrib, which literally in Arabic refers to the western-most region where Islam spread (which is presently know as Morocco, Algeria, and Tunisia)
- though the people who inhabit the Maghrib are most readily known by Westerners as Berbers, this term is actually a pejorative and derogatory one, coined by the Roman occupiers of the region in ancient times as “barbarians”—these peoples call themselves Imazighen, which in their language (which fits into the Afro-Asiatic linguistic family) means “free men”
- the Imazighen people put up a good fight against the incoming Muslims in the 8th century, but the advantages to fully submitting to Islam far outweighed the disadvantages posed by rebellion
- by 1100 Maghribi kingdoms began to mobilize their power and it is under the Almoravids, or Almurabitun (in Arabic) dynasty that Algeria, Morocco and the Iberian peninsula became unified

SLIDE 9—AIT BEN HADDOU

- but protecting this territory wasn't an easy task and the Almoravids had to build strongholds to sustain their hegemony
- Ait Ben Haddou is an example of this type of defensive architecture
- It is essentially a casbah, which is the Arabic word for a fortified city, and its location on a hill demonstrates that defense tactics were of paramount concern
- It's location is strategic too, in that it is situated along a former caravan route between the Sahara and Marrakech
- Built out of a combination of stone and mud brick,
- upper parts of some of these two- or three-storey buildings have crenellations, or openings at the tops for shooting arrows or other weapons

- roof-terraces resting on beams made from the trunks of palm-trees
- today, its inhabitants have moved out and over to the other side of the wadi (river valley), nearer to the main road; 84 families live in this modern settlement, sustained as a UNESCO world heritage site
- but why is this site so important, you might ask? Because this region, called the Ouarzazate in Morocco, contains 300 of the thousand or so kasbahs that have been identified in the whole country, indicating what a vitally important node this was for trade

SLIDE 10—GOOGLE MAP AND INTRO TO DJENNE MOSQUE

- so now we're going to go south to what is in the present-day Mali, to the city of Djenne which was directly connected to villages like Ait Ben Haddou in Northern Africa, even before Muslims came on the scene

SLIDE 11—INTRO TO DJENNE MOSQUE AND ITS RELATION TO TRADE

- the rise in exports of West African gold, ivory, salt and slaves were major factors in the rise of the grassland kingdoms, but what's unique about Djenne was that it, as a city was never subsumed into any kingdom and remained independent, even though it did benefit from the stability of the nearby Ghana Empire, which thrived on its gold
- in fact the first known large-scale states, with capitals located near the desert fringe, also pre-date Muslim trading contacts.
- some Hellenistic beads have even been excavated in Djenné, and the original settlement dates back to 250 BCE
- by c. 700 CE a solid trading network was taking shape in the west Africa
- Djenne was a site of religious contestation initially however, even though Islam widely practiced in Mali today

SLIDE 12—DJENNE MOSQUE—SUQ/Bazaar outside w/YOUTUBE VIDEO (0-0:23; 2:02-3:30)

- so let's look at the Great Mosque of Djenne
- although the original structure of the mosque at Djenné dates to the 13th century, when it was founded by a local Djenne chief named Konboro, by the early 19th century it was largely demolished and then reconstructed in similar form under French colonial direction in 1907

- Youtube clip shows that the local masons regard the yearly application of mud a tradition; its practice involves inheriting esoteric knowledge from elders

SLIDE 13—DJENNE MOSQUE—FLOOR PLAN

- This mud mosque satisfies all the standards of mosque architecture-- with a mihrab-marked qibla wall and the interior space delineated by transverse naves and a hypostyle courtyard for its prayer hall
- But these canonical forms are at the same time abstracted by mud, or ferey (which is what it is called in the local Bambara language) a material which was used at Ait Ben Haddou
- West African mud architecture is directly related to local domestic architecture
- As a medium, mud is not only economical but cooling in the hot climate
- mud mortar and mud plaster are created and palm wood is used for support as a part of the scaffolding
- Masons have integrated palm wood scaffolding into the building's construction
- As you saw from the clip, this permanent scaffolding serves the workers who apply plaster annually during the spring festival to restore the mosque
- these palm beams also minimize the stress that comes from the extreme temperature and humidity changes typical of the climate.
- Towers are often topped with a spire capped by an ostrich egg, symbolizing fertility and purity

SLIDE 15—DOGON COMMUNITIES

- just north of Djenne we have the fascinating Dogon communities which settled in the Mopti region of Mali in the 12th century
- live on the edges of a sandstone escarpment which is today known as the Baniagara
- it's believed that they are descendents of an Early Iron Age community

SLIDE 16—DOGON GRANARIES and COSMOLOGICAL SYMBOLISM

- their villages are highly organized, according to a cosmological system which is at the core of the Dogon peoples' beliefs

- each house represents a man lying on his right side in the fetal position
- they base their philosophy on the idea of germinating cells which break out of a “world egg”, which gave the egg shape a special significance in designing their villages
- the parts of the house represent individual organs of the body
- this anthropomorphization of land emphasizes the fertility/reproductive symbolism
- the granaries reinforced these ideas, which are conical/hallow and intended to symbolize both male/female reproductive organs
- the houses/granaries built of combination of mud and small pieces of stone

SLIDE 17—GOOGLE MAP TRAJECTORY and INTRO TO LALIBELA

- now we’re going to move along this east-west axis of trade towards Lalibela, which is in present-day Ethiopia

SLIDE 18—MAP OF ETHIOPIA and NILE VALLEY

- Christianity was first established in Nubia in the 4th century CE
- Under the Zagwe dynasty in the early 12th century central authority in the north was established and the capital shifted from Aksum south to Lalibela in Lasta
- Here the maintenance of a religious economy was vital to the actual economy; it composed of the king, priests and farmers

SLIDE 19--LALIBELA

- In Aksum monasteries and churches existed in large numbers by the 6th century, although their numbers later declined as Islam was adopted in the region and the Aksumite civilization declined in the 8th century CE
- The 13th-century Zagwe dynasty in the Lasta region of Ethiopia left 11 churches, carved from solid rock under the direction of King Lalibela.
- Wealth came from the complex metal-casting industry predominant here
- Even today one can see bronze and iron remnants from the foundry
- This period of prosperity and firm centralized authority brought about a new wave of Christian conversion, and this conversion was helped by the site’s natural environment

- The church of Yemrehanna Krestos, which is shown here, is located at the mouth of a cave, which had a lake too
- So the church and its adjacent palace were built by establishing foundations, and they were separated by a floor made from olive wood beams which controlled access to the water at the base of the front of the church
- This was a shrewd move on the part of King Lalibela; he not only controlled the water supply but he also marketed the water as “holy water” enticing pilgrims, which helped the economy
- Church of Giyorgis has a water basin of its own that leads to a spring
- An man named Abba Libanos was responsible for the amazing hydro-engineering project whereby artesian wells in the Lasta mountains were manipulated so as to distribute water

SLIDE 20—GOOGLE MAP AND INTRO TO HUSUNI KUBWA, TANZANIA

- Now we’re going to go south along the East African Coast to Tanzania, but before we do that we need to situate ourselves historically and get a sense of Swahili culture
- The term Swahili comes from the Arabic word “Sahel” which means coast, but the Swahili language is Bantu in its structure and grammar (even though the language does have a lot of Arabic, Hindi, and Portuguese words incorporated in it)
- culture is really very much creolized
- but what was the impetus for coastal trade to begin with?

SLIDE 21—MONGOL EMPIRES OF THE 13th CENTURY

- the Mongol invasions of the 13th century had huge repercussions on world history, and even when Genghis Khan died in 1227 his empire was still growing
- masses of people in Iran and Central Asia were wiped out, and in 1258 Baghdad was sacked, which led to the end of the Abbasid caliphate; they plundered their subjects, turned them into serfs and taxed them ruinously
- as you can see from the map, their territorial expanse was vast and incomparable, and was divided in part out of rivalry and in part for administrative purpose, among Genghis Khan’s four sons

- their sheer presence and expanse allowed them to monopolize on the existing trading networks, and this was heightened by the jam system, or postal system, which as the best FedEx-type postal system in the world at the time

SLIDE 22—GOOGLE MAP OF MONGOL EMPIRES & SHIFTING TRADE ROUTES

- as a consequence, trade routes had to shift to avoid coming into their path

SLIDE 23--MONSOON CYCLES

- The oceanic trade depended on the regular annual cycle of monsoon winds
- South of Kilwa, which is relatively close to Husuni Kubwa, the winds were very unreliable and the oceanic currents were difficult

SLIDE 24—MAP OF EAST AFRICAN COAST

- Great Zimbabwe was surrounded by a network of towns which together organized and controlled the flow of gold and ivory to the East African coastal states
- From the 8th century the most active traders along the East African coast were Arabs from Oman and Persians from Shiraz, in southern Iran
- The earliest permanent Swahili settlements (e.g. Mogadishu, Brava, Manda) were founded in this period
- Except for gold-trails along the Zambezi river near Great Zimbabwe, these coastal traders for the most part didn't venture into the hinterland

SLIDE 25—HUSUNI KUBWA 1

- Founded in 1320 by Sultan Hassan Ibn Suleiman, the palace of Husuni Kubwa (which is Swahili for “large fort”) was at the entrance to the harbor of Kilwa
- Constructed on a high sandstone headland and actually built of coarse vesicular coral harvested from the reefs offshore (coral also used to make lime plaster); no columns throughout the structure, but timbers were embedded in the walls for reinforcement

SLIDE 26—HUSUNI KUBWA 2

- Private quarters of the sultan had two long rooms which, based upon digital reconstructions had barrel vaults and were decorated with panels and friezes of carved coral blocks
- Even an ornamental pool
- The diwan featured in the black and white photo was where the sultan held court, and the tiers of steps are probably where the courtiers sat

- Behind the palace and supporting the vaulted rooms was a quadrangle surrounded by 38 storage rooms, each opening off a wide corridor (they were windowless and guarded and controlled)
- At the corner of the great quadrangle, a wide flight of stairs led to a large platform formed by the roofs of the storage rooms; on this platform incoming goods could be received, taxed, recorded and taken into storage.
- A Chinese Yuan dynasty flask was found on floor of private quarters, dating to about 1300

SLIDE 27—GOOGLE MAP and INTRO TO GREAT ZIMBABWE

- The last stop today is Great Zimbabwe

SLIDE 28—IRON

- We also want to ask ourselves questions about the relationship between economic prosperity and architecture, and how prosperous times necessitate architecture
- I want you to keep in this in the back of your minds, and it's something we'll come back to—understanding the role of iron
- I'm not going to get into the historical details of the iron age, here, but I want you to understand that the development of techniques to smelt iron (from about 400 BC), and the subsequent creation of sturdy iron tools and weapons had profound effect on the agricultural gain, underlie the success of these West African kingdoms
- By 700 CE the new ideas and technologies were introduced to the dry grasslands on the Kalahari Desert of Botswana, and by 900 CE a settled, pastoral society flourished here
- [Ancient furnace technology in Africa used a kiln in the shape of a beehive, in which the heat could be raised to 2,000 degrees F]
- [Charcoal, which came from burning timber, had to come from the Levant in modern-day Lebanon; 1 ton of timber was needed to produce the charcoal necessary to fire a furnace for one iron smelt]
- The development of tools for agriculture helped the population growth and in turn led to complex urban settlements, reinforcing the trade routes and the importance of cattle herding

SLIDE 29—MAP OF ZIMBABWE and intro to GREAT ZIMBABWE

- these ruins are a unique testimony to the Bantu civilization of the Shona between the 11th and 15th centuries

SLIDE 30—GREAT ZIMBABWE

- the Monomatapa Empire (rulers of the this Later Iron Age) built an elliptical, drystone granite stone wall with a tall monument in the valley
- the stone wall enclosure—called a mazimbabwe—is where the name of the site and the country are derived
- the ruins can be broken down into three distinct architectural groups: the Hill Complex, the Valley Complex and the famous Great Enclosure (w/over 300 structures within the Great Enclosure)
- but these walls were key elements to the governments that formed in the region between the 11th and 15th centuries
- wall is 10m high and avg. of 3 m thick; the outer wall was constructed in granite blocks; near the top, thinner slabs of stone were worked into a double chevron pattern
- its main inhabitants were mainly farmers and herdsman, but the types of stone structures found indicate that there was a social hierarchy, with the ruling class situated further from the center
- the walls served a practical function in controlling cattle which was vitally important to the local economy
- the function of the conical tower is unclear, but it's thought that it might mark either the burial grounds for the chiefs, or it might have been where grain reserves were stored
- archaeological excavations in the area have shown that the people here traded gold from nearby mines for coastal imports, including Chinese porcelain and coins from the Arabian peninsula
- these luxuries point to the existence of a ruling elite
- eventually, however the site was abandoned, and scholars postulate that this was due to either extreme drought or disease
- unfortunately, when the region was colonized under Cecil Rhodes much of the artifacts were pillaged