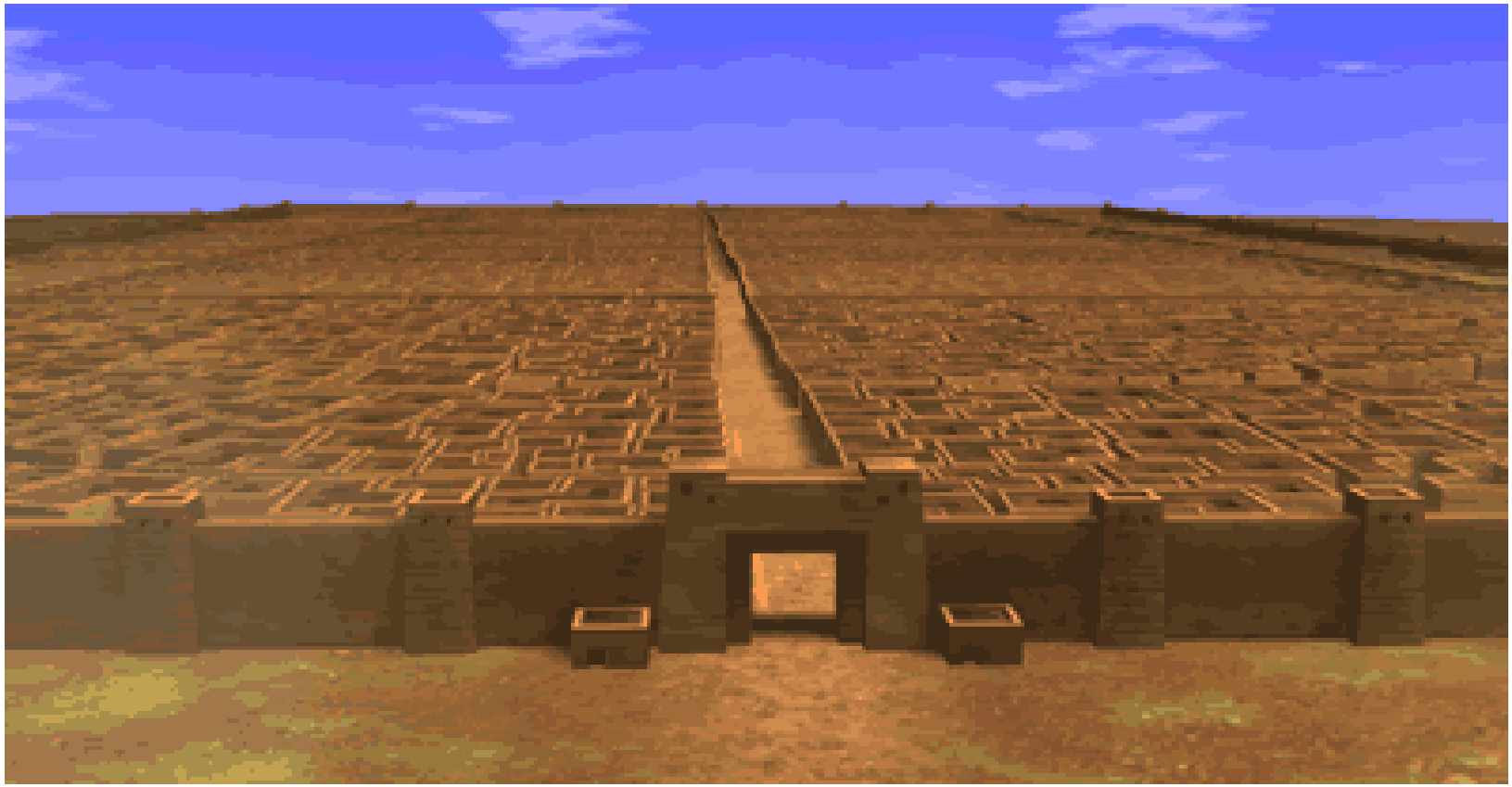
INDUS VALLEY CIVILIZATION



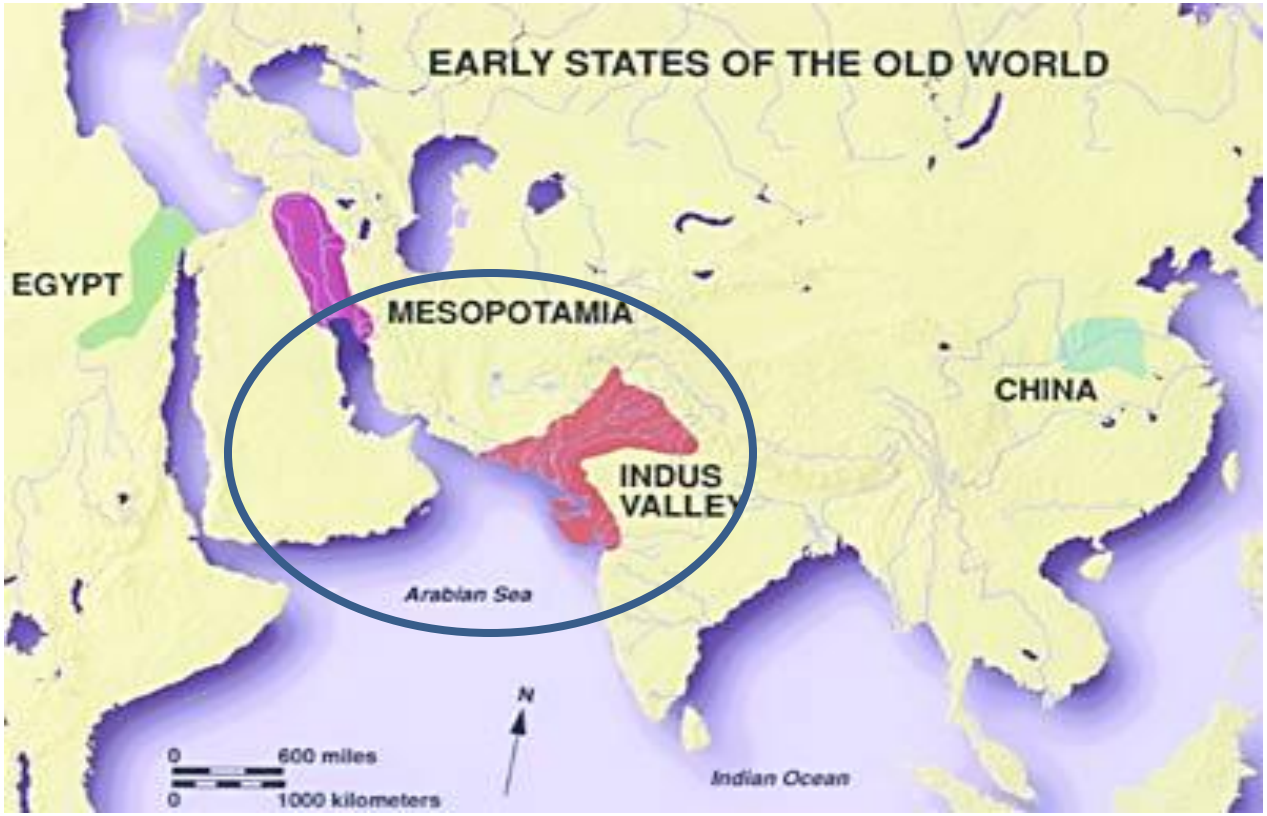
LECTURE 6

Aim : To understand the glorious past of one of the unique civilizations of the world- The Indus valley Civilization.

Objective: To study about the Harappan society, architecture, buildings, art and craft, food and clothes, believes and economy which made them one of the most advanced urban civilizations.

THERE ARE FOUR ANCIENT URBAN CIVILIZATIONS OF

EGYPT, MESOPOTAMIA, SOUTH ASIA & CHINA



CHINESE CIVILIZATION – ALONG YELLOW RIVER AND YANGTZE RIVER

EGYPTIAN CIVILIZATION – ALONG THE NILE RIVER

MESOPOTAMIA CIVILIZATION – ALONG THE TIGRIS AND EUPHRATES RIVERS

INDUS VALLEY CIVILIZATION – ALONG THE RIVER SINDHU WITH ITS FIVE TRIBUTARIES : THE JHELUM, CHENAB, RAVI, BEAS AND THE SUTLEJ

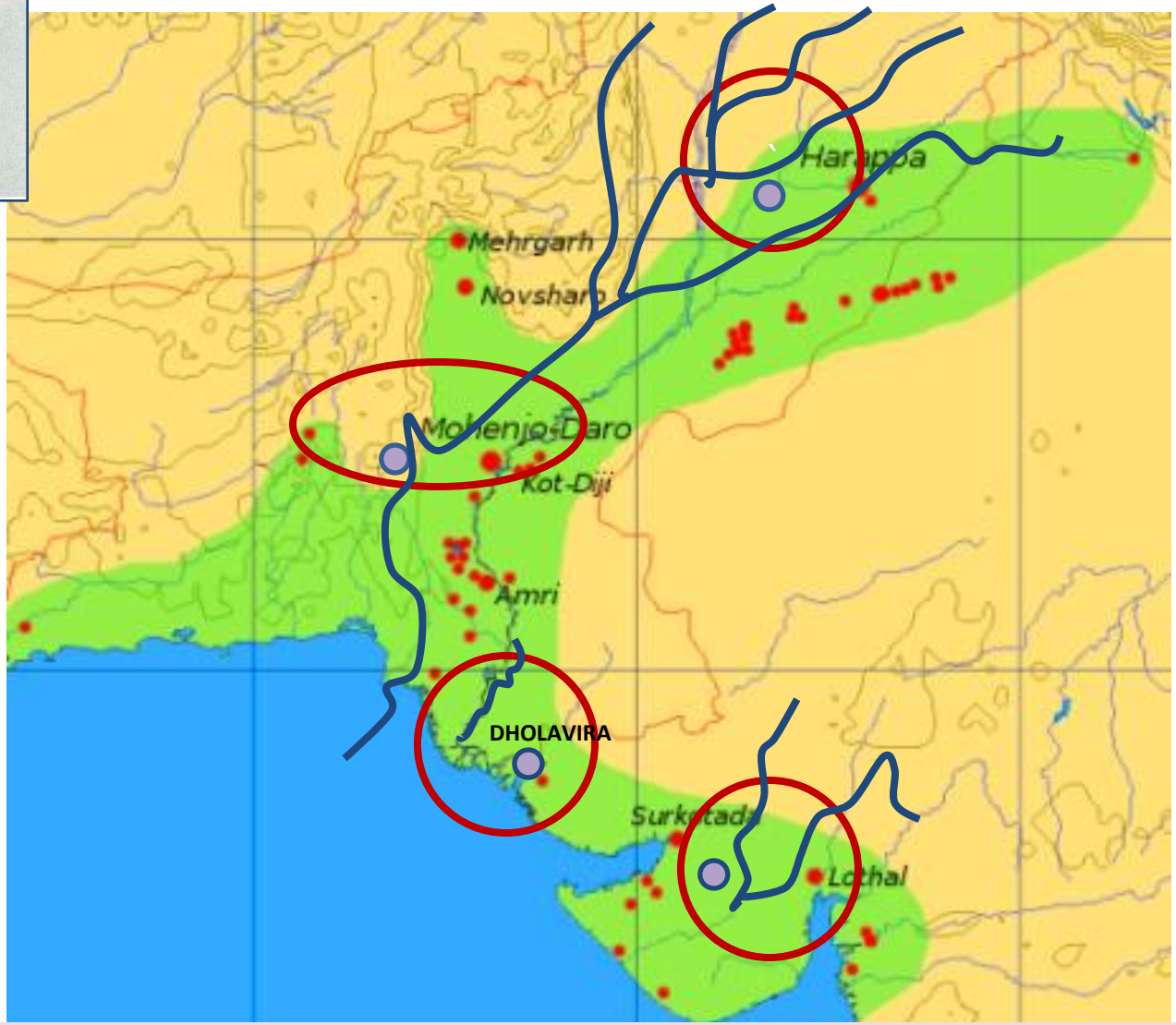
LATER THE RIVER SINDHU WAS KNOWN AS THE HINDU & THE GREEKS CALLED IT INDUS

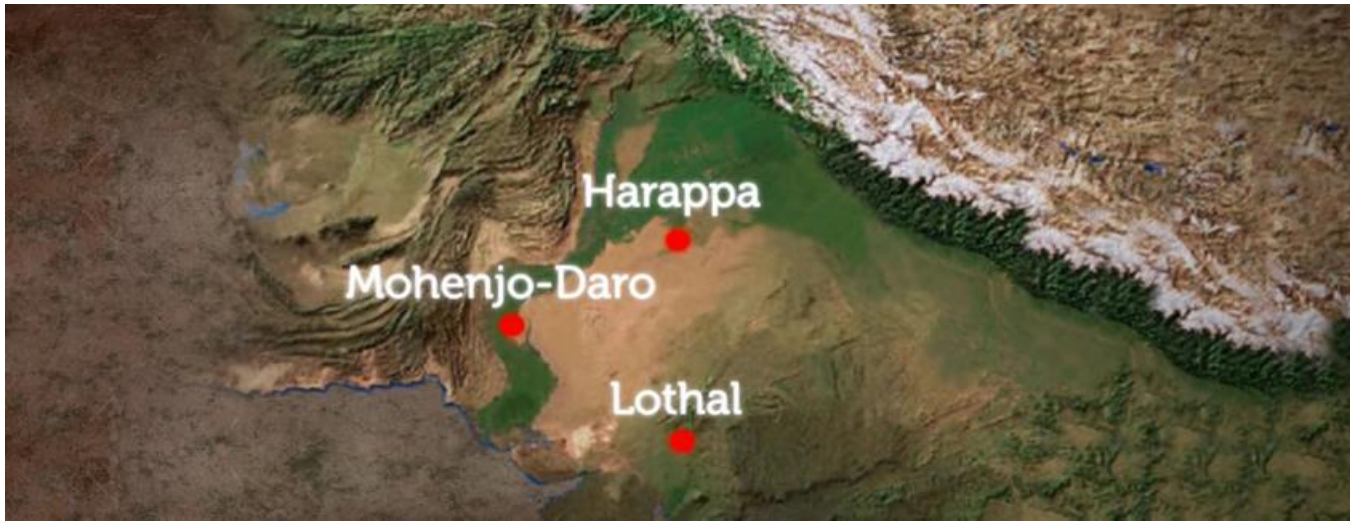

CENTRAL
ASIA
EAST
ASIA
INDUS
VALLEY
CIVILIZATION
MIDDLE
EAST
<----
Forest
hunter-
gatherers
Stone Age
farmers
and
cattle herders
SOUTH
EAST
ASIA
Hunter-
gatherer
peoples
TimeMaps

ALL GREAT CIVILIZATIONS DEVELOPED AND FLOURISHED IN THE RIVER VALLEYS

- River supplied a continuous flow of water for **agriculture**.
- Flood waters enriched the soil and made it fertile. It was much easier to cultivate the fertile land and grow a variety of crops. It not only helped the Harappan's to produce enough food grains for themselves but also keep surplus.
- The main crops grown were wheat, barley and peas and in some places rice was also grown.
- Rivers were used for **transportation of goods.** This was the easiest and cheapest form of transport which later helped in the development of trade. People could go too far off places by using their crude boats.
- Rivers also posed challenges. Farmers had to **control floods** and **channelize water to their crops.**

INDUS VALLEY CIVILIZATION DEVELOPED ALONG THE RIVER INDUS 3000 YEARS AGO.





GEOGRAPHY

- Confined to the North and West by **mountains**, and to the **East** by **desert**
- Area of half a million sq miles.
- Rich agricultural lands being **surrounded by highlands, desert, and ocean**
- Indus Valley sites have been found most often on rivers, but also on the ancient seacoast for example, Balakot, and on islands, for example, Dholavira.
- There is evidence of dry river beds overlapping with the Hakra channel in Pakistan and the seasonal Ghaggar River in India. Many Indus Valley sites have been discovered along the Ghaggar-Hakra beds.
- In terms of geographical extent this civilization was the largest in the world in its time.

TRADE AND TRANSPORT

- **Economy** depended significantly on **trade.**
- Facilitated by major advances in transport technology.
- The Indus Valley Civilization may have been the first civilization to **use wheeled transport - may have included bullock carts**
- **Boats** were probably small, flat-bottomed craft, perhaps driven by sail
- **The trade networks**
  - portions of Afghanistan
  - the coastal regions of Persia
  - northern and western India
  - Mesopotamia
- **Trade goods** included terracotta pots, beads, gold and silver, coloured gem stones such as turquoise and lapis lazuli, metals, flints, seashells and pearls.

NATURE OF URBANIZATION

1. Street Planning
2. Granary
3. Great Bath
4. Social Organization

- Settled cultures emerged around 7000BCE (hills of Baluchistan).
- Allowed farming in flat lands of Indus river valley and herding and hunting in the hills and mountains.
- Did not develop ritual sites, not even burial sites.
- Strategically located – important gateway connecting to the rest of the continent.

CHARACTERISTIC FEATURES

Harappa and Mohenjodaro show a surprising similarity despite being 350 miles apart Important features of these two cities:-

- Both cities consist of an **acropolis** and a lower city, each **fortified separately**.
- The acropolis contains large assembly halls, granaries and edifices for religious purposes.
- There are **large public baths** built on highly scientific lines.
- The lower cities are divided into rectangles by broad streets.

Graphic reconstruction of the gate

DRAINAGE SYSTEM - All the houses were connected directly to the well planned drainage system of covered drains.

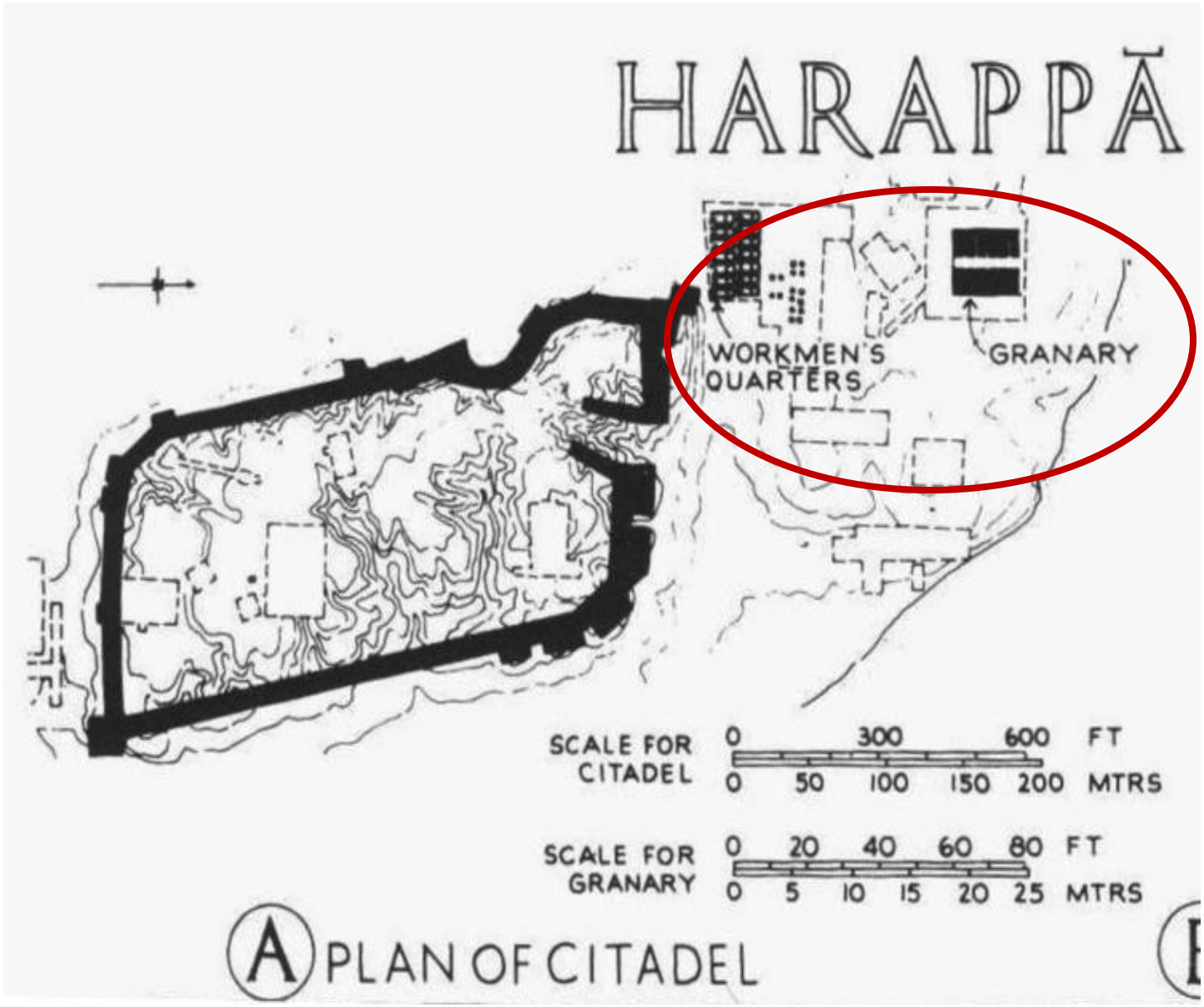
HOUSES

Each house had a **courtyard, private wells and bathrooms** and was built with well baked standardized bricks.

The **cities** of the Indus Valley Civilization were well-organized and solidly built out of **brick and stone.**

- Their drainage systems, wells and water storage systems were the most sophisticated in the ancient world.

- The city was divided into two sections.
  - **The Citadel** - was the smaller and higher section.
  - **The Lower Town** – was the larger and lower section.
- The two were physically separated but both were walled cities.
- **Sundried bricks** were used to build houses.
- Roads and streets were carefully laid out intersecting at right angles.
- Each city boosted of a **planned drainage system.**
- The massive walls of Indus cities most likely protected the Harappans from floods and may have dissuaded military conflicts.
- **The Citadel:** The Buildings were constructed on mud brick platforms and was separated from the lower town. The Structures built were for Public use.
  - The Great Bath and the Granary.


HARAPPĀ
WORKMEN'S QUARTERS
GRANARY
SCALE FOR CITADEL
0 300 600 FT
0 50 100 150 200 MTRS
SCALE FOR GRANARY
0 20 40 60 80 FT
0 5 10 15 20 25 MTRS
A PLAN OF CITADEL

UNIT OF MEASUREMENT

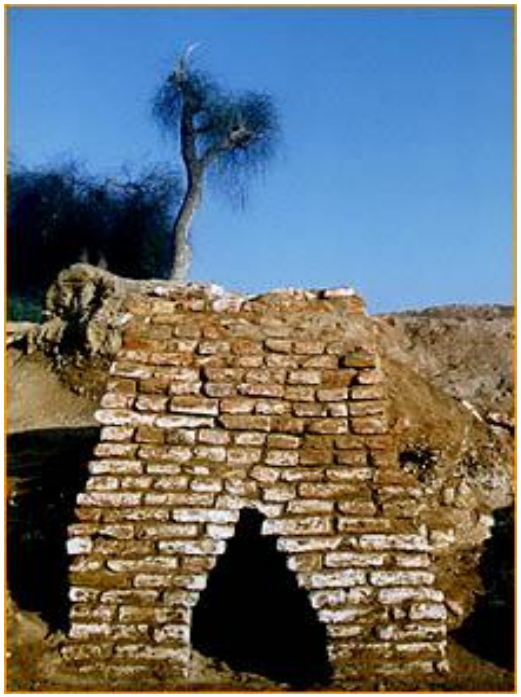
The cubit is an ancient unit based on the forearm length from the **tip of the middle finger** to the bottom of the elbow.

Cubits of **various** lengths were employed in many parts of the world in antiquity, during the Middle Ages and as recently as Early Modern Times.

HARAPPA

- Standardized system of weights and measures – Foot (300-335mm) and Cubit (515-528)mm
- Granaries were 10 cubits wide and 30 cubits long
- Use of **pictographic inscriptions**
- **Decorative motifs** on seals included intaglio designs depicting men, animals and grotesques
- Stone **sculpture** limited to a few representations of **men and gods**
- Harappan craft industry – efficient mass production of artifacts
- **No major temple** or shrine like buildings
- **Burial** in the form of inhumation in **cemetery sites**

HARAPPA



Corbelled drain

- Harappa is located near the Ravi River
- City was on periphery, hence served as gateway cities into the main region
- It is spread over 450,000 Sqm of space
- Layout was similar to that of Mohenjodaro

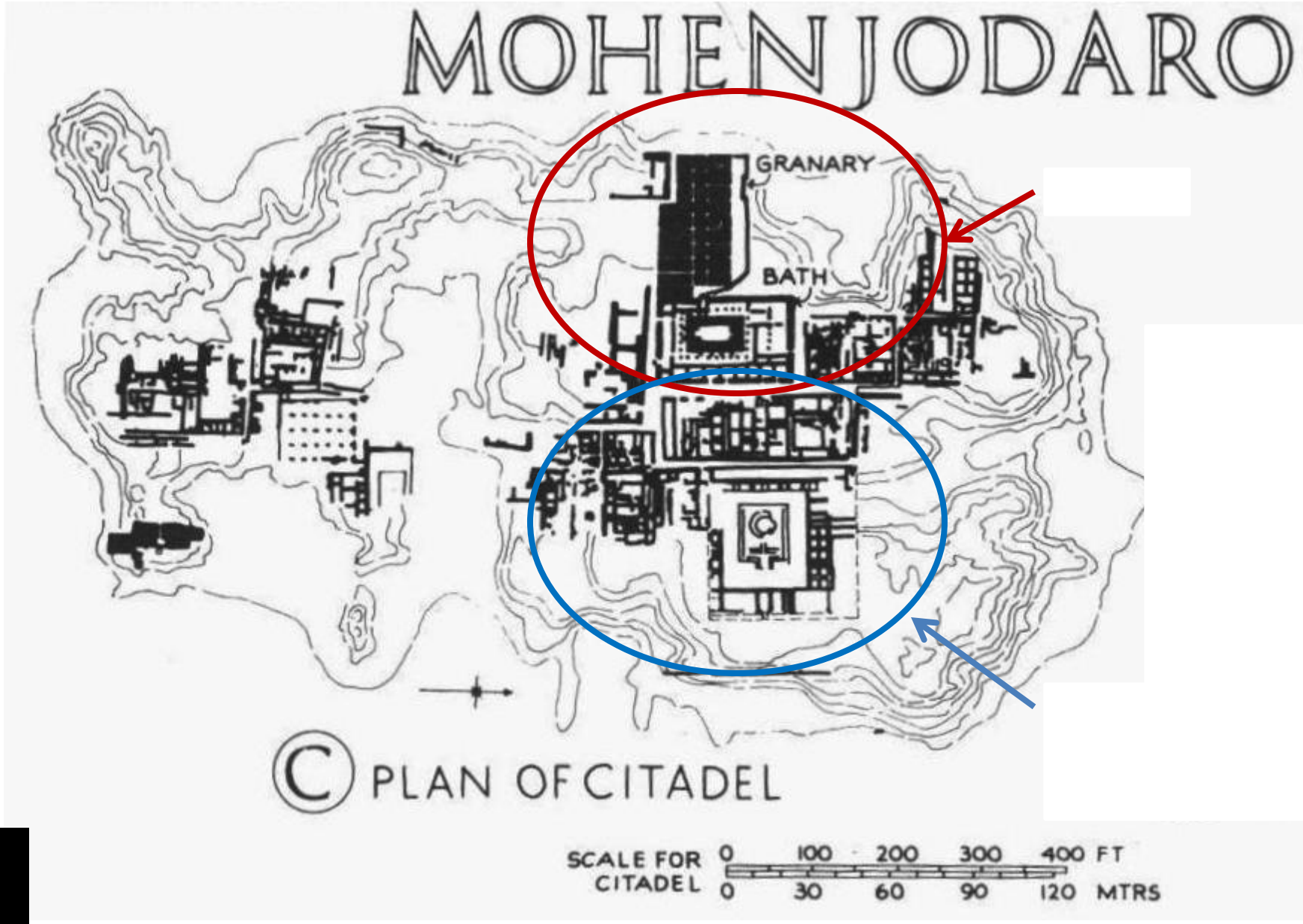
HARAPPA

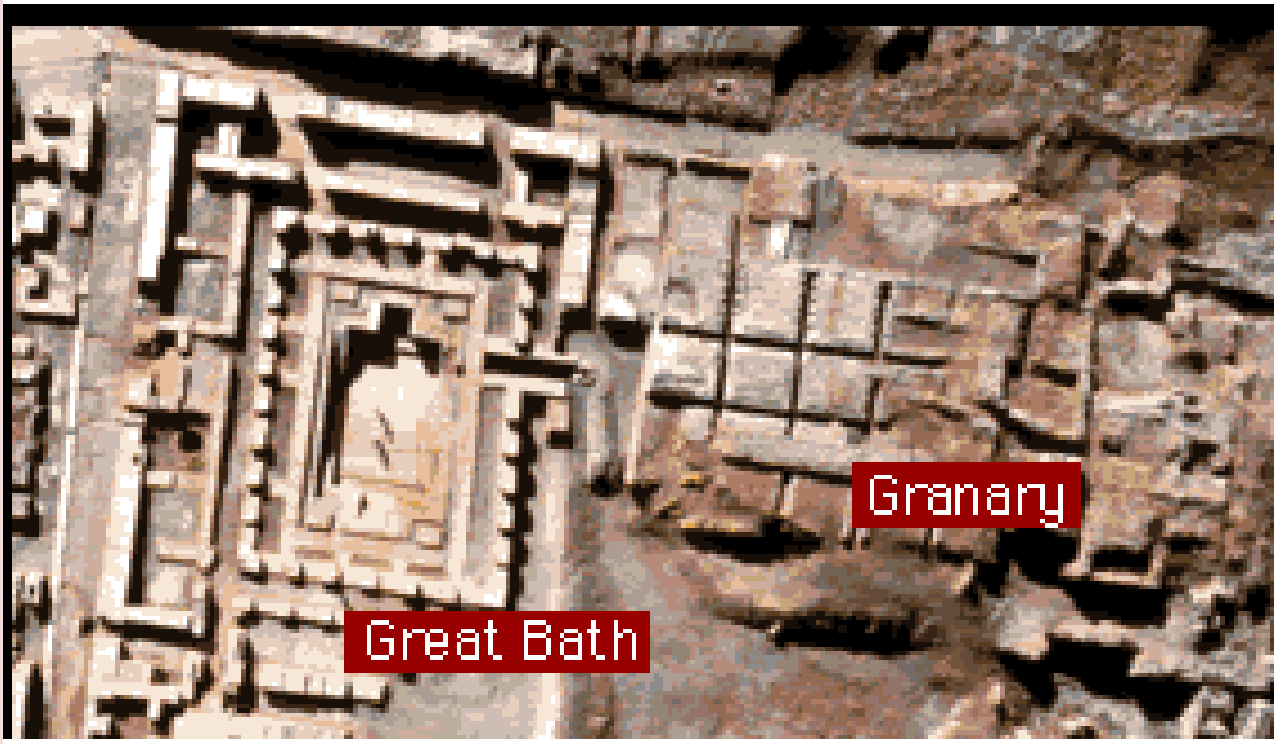
- The "Great Granary“,
- Not a part of the public buildings in the citadel.
- Situated between the citadel and the river.

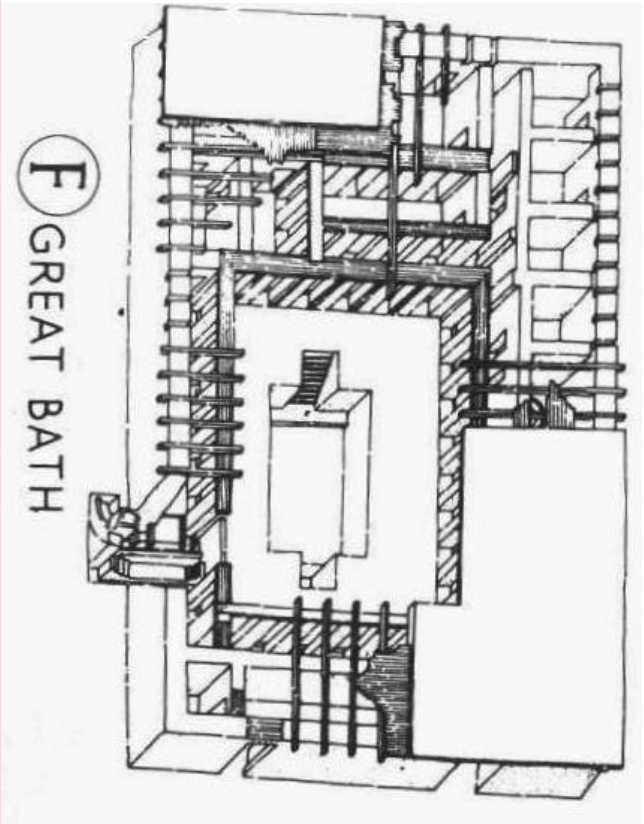
- There were 12 granaries, 16m x 6m each, on a massive brick or mud-brick platform, aligned in two rows with a wide central passage.

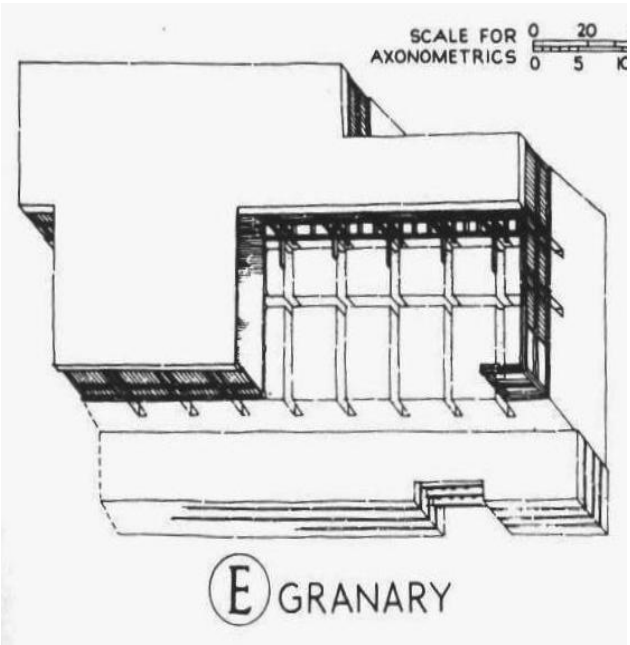
- The foreground well is both a public and private well

- Most of the water used by the population probably came from the adjacent Ravi River .


MOHENJODARO
GRANARY
BATH
© PLAN OF CITADEL
SCALE FOR CITADEL
0 100 200 300 400 FT
0 30 60 90 120 MTRS

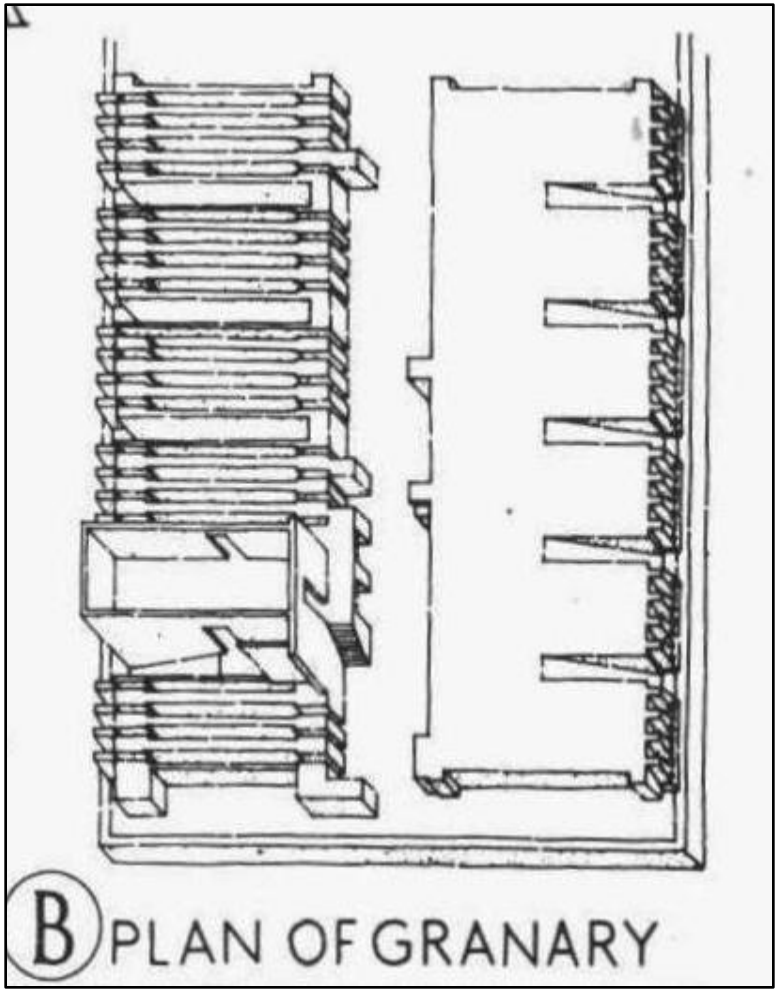

Granary
Great Bath


F GREAT BATH


SCALE FOR AXONOMETRICS
0 20
0 5
E GRANARY

PUBLIC BUILDINGS

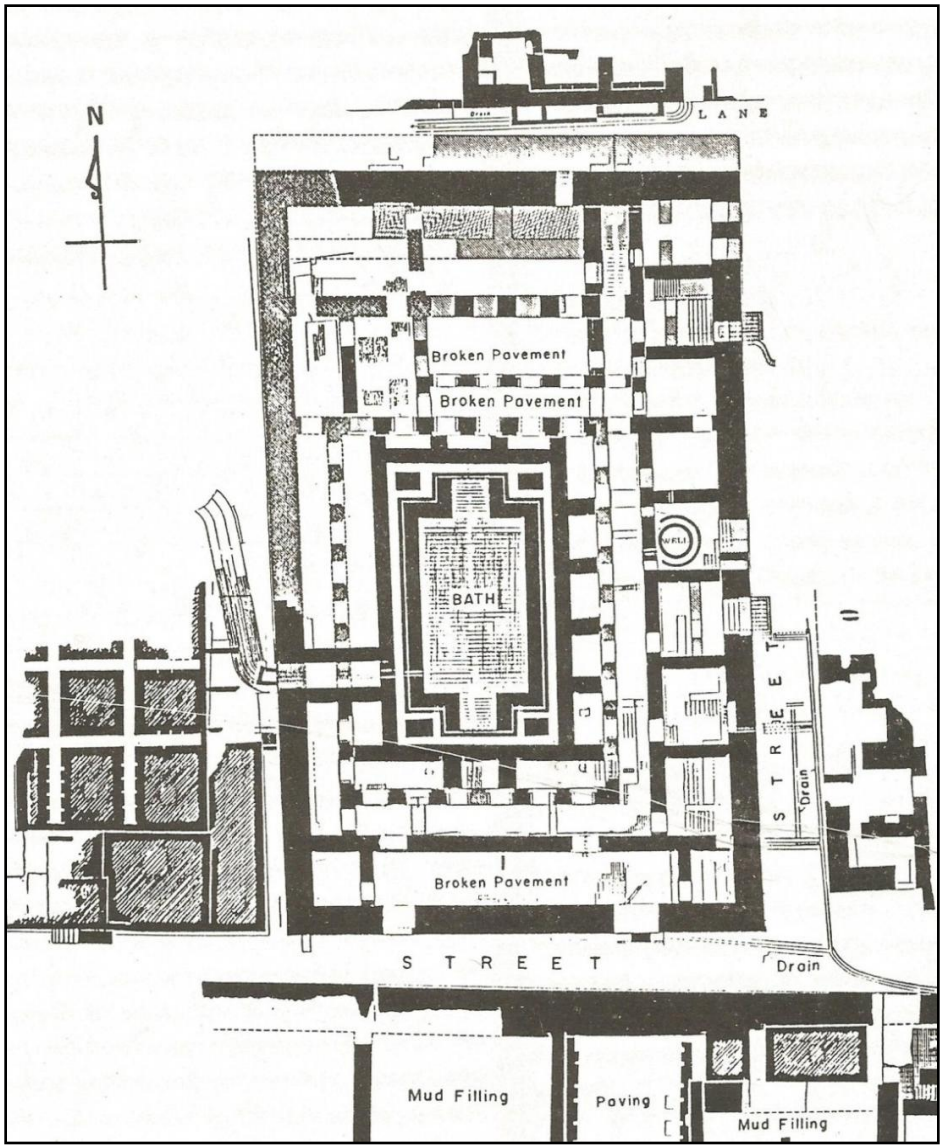
There were also public buildings, the most famous being the **Great Bath** at Mohenjo-Daro and the vast **granaries.**



A STRUCTURE ONCE CONSIDERED TO BE A GRANARY IS NOW THOUGHT TO HAVE BEEN A LARGE BUILDING WITH **VENTILATED AIR DUCTS.**

CROPS MAY HAVE BEEN BROUGHT FOR STORAGE IN THE 'GRANARY' AND LATER DISTRIBUTED TO CRAFTSMEN SUCH AS POTTERS, JEWELERS AND MERCHANTS WHO RESIDED IN THE CITY.

MOHENJO DARO



THE GREAT BATH

- Huge communal bath, social centre
- Located at the major intersection of north-south and east-west streets
- Pool – 12 meter by 7 meter and 3 meters deep.
- Access- symmetrical stairs on north and south.
- Surrounded by a narrow deep water channel and an outlet from one corner of the bath leads to a high-corbeled drain

PUBLIC BUILDINGS

The Great Bath was a large rectangular tank in a courtyard surrounded by a corridor on all four sides.

- There were two flights of steps on the **North and South** leading into the tank which was made water tight by using mortar made of gypsum.
- There were rooms on three sides in one of which was a large well.
- Water from the tank flowed in to a huge drain. There were bathrooms connected to drains that ran along the corridor.

RITUAL BATHING MAY HAVE BEEN CARRIED OUT AT THE 'GREAT BATH'.

MOHENJO DARO

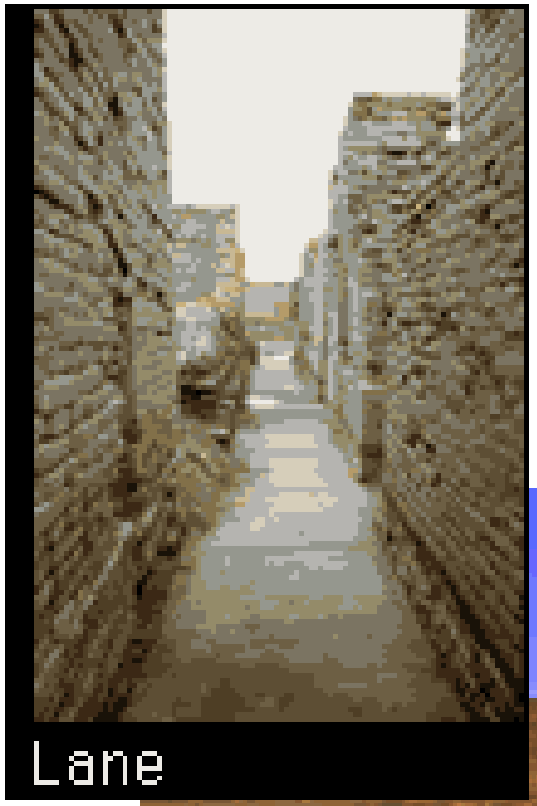
THE GREAT BATH

Burnt bricks lined the pool, bitumen was used for waterproofing.

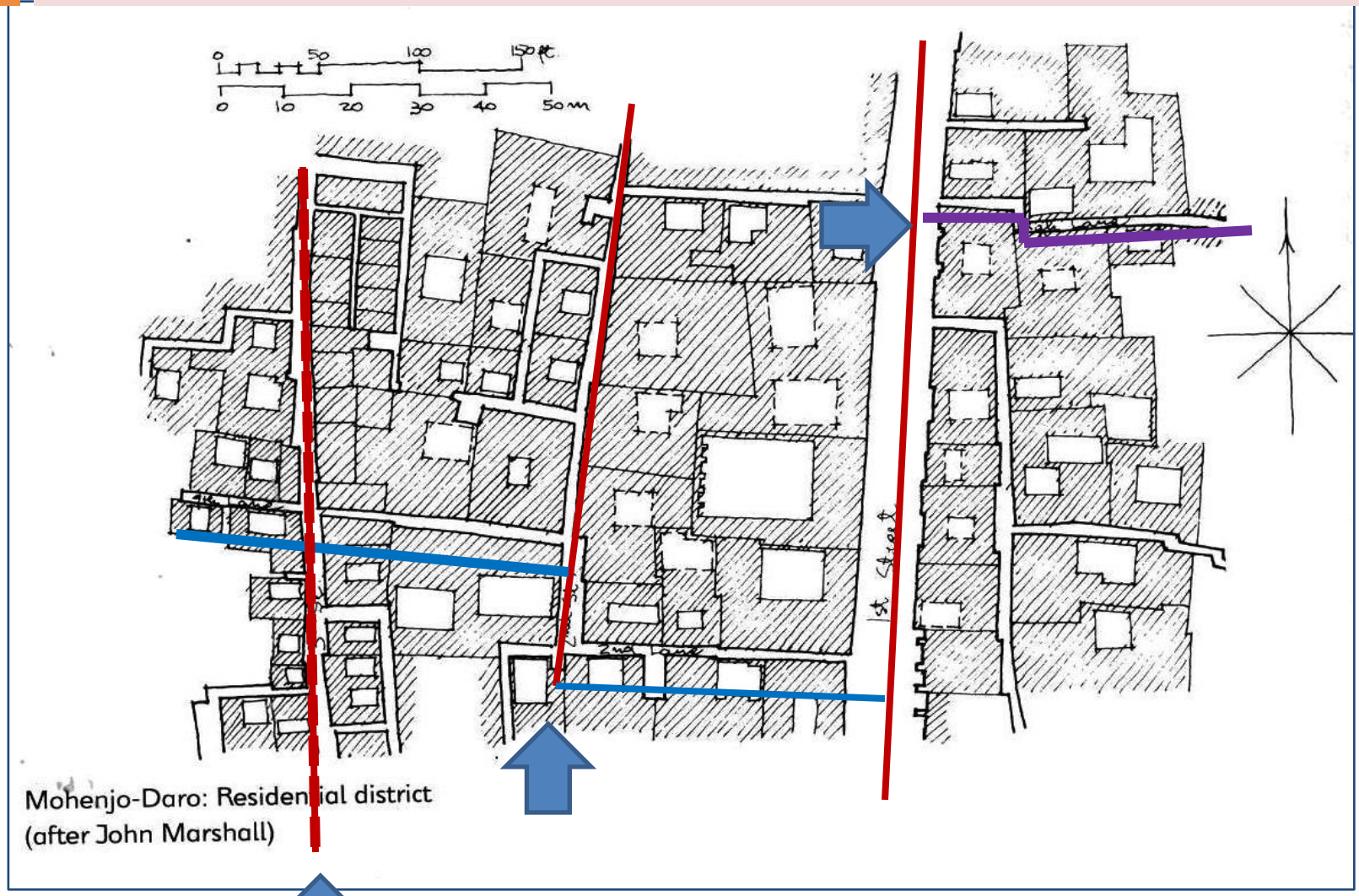
Bath was surrounded by a brick colonnade, behind them were a series of rooms.

The whole structure had a wooden second storey.

Next to the large bath was a huge open space—a granary where food was stored from possible floods.



COMPUTER GENERATED VIEW



Mohenjo-Daro: Residential district
(after John Marshall)

WE WILL SEE THESE STREETS IN SOME DETAIL
COMMERCIAL STREET
RESIDENTIAL STREET

THE MAIN STREETS RAN NORTH SOUTH
THE CROSS STREETS RAN EAST WEST
ONE ROOM GUARD ROOMS WERE BUILT INTO THE CORNERS OF INTERSECTING THOROUGHFARES

"First Street"

THE TOWN WAS SERVED BY :

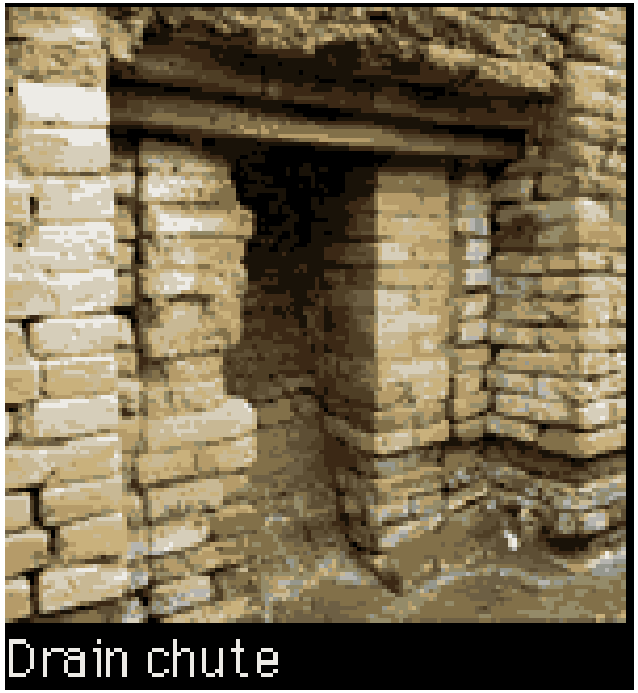
30 ft - WIDE MAIN STREET

10 ft WIDE **SECONDARY STREETS** CONNECETED BY HIGHER

3 -6” WIDE **CROSS LANES**

Drain

DUE TO THE RISING WATER TABLE, MOST OF THE SITE REMAINS UNEXCAVATED, AND ITS EARLIEST LEVELS HAVE NOT BEEN REACHED.



Drain chute

Drain

SOME HOUSES HAD ROOMS WITH WELLS, BATHING ROOMS PAVED WITH FIRED BRICKS AND EVEN TOILETS.

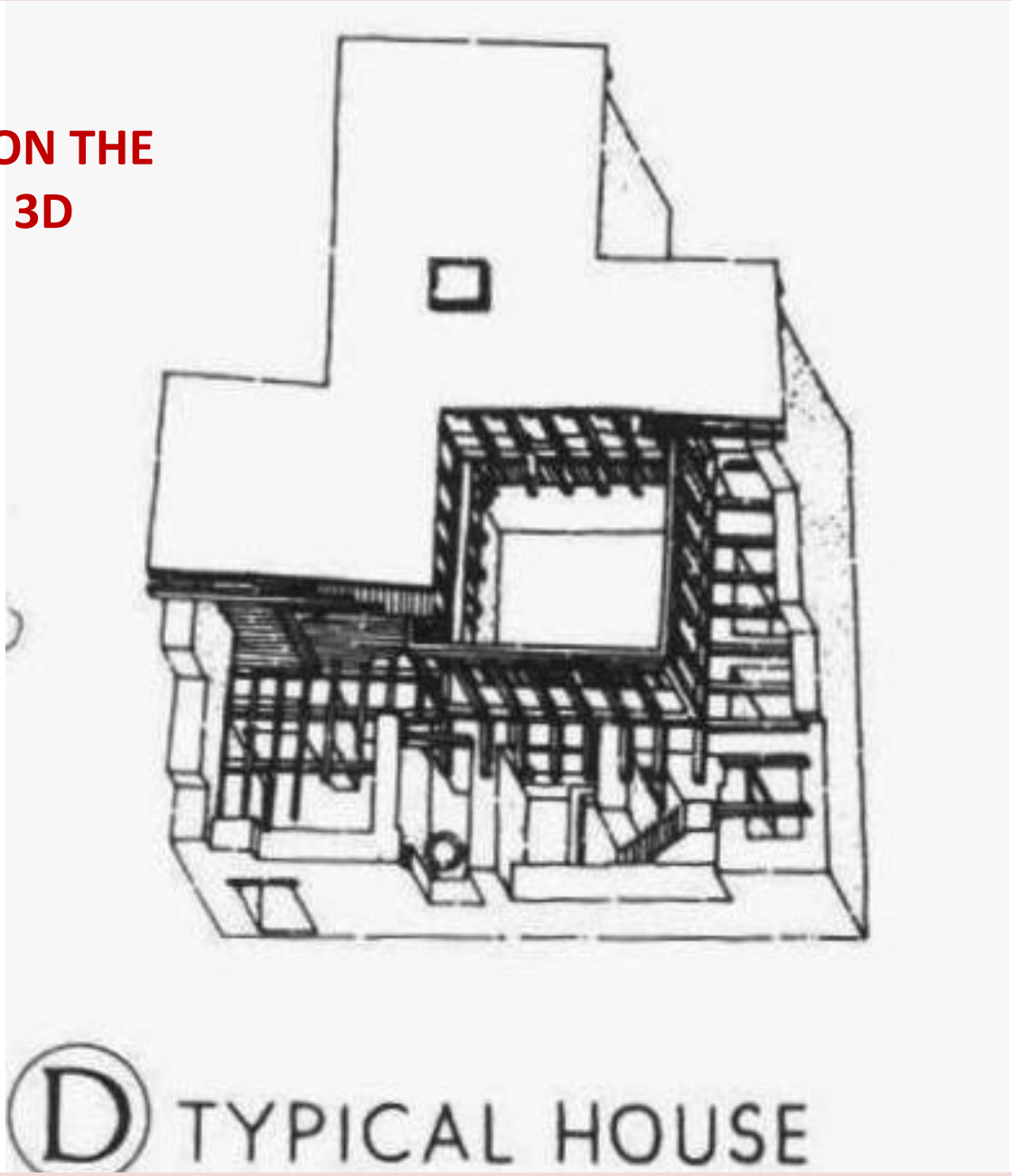
WASTE WATER WAS DRAINED OUT OF THE HOUSES THRU DRAIN CHUTES BUILT INTO THE SIDE WALLS

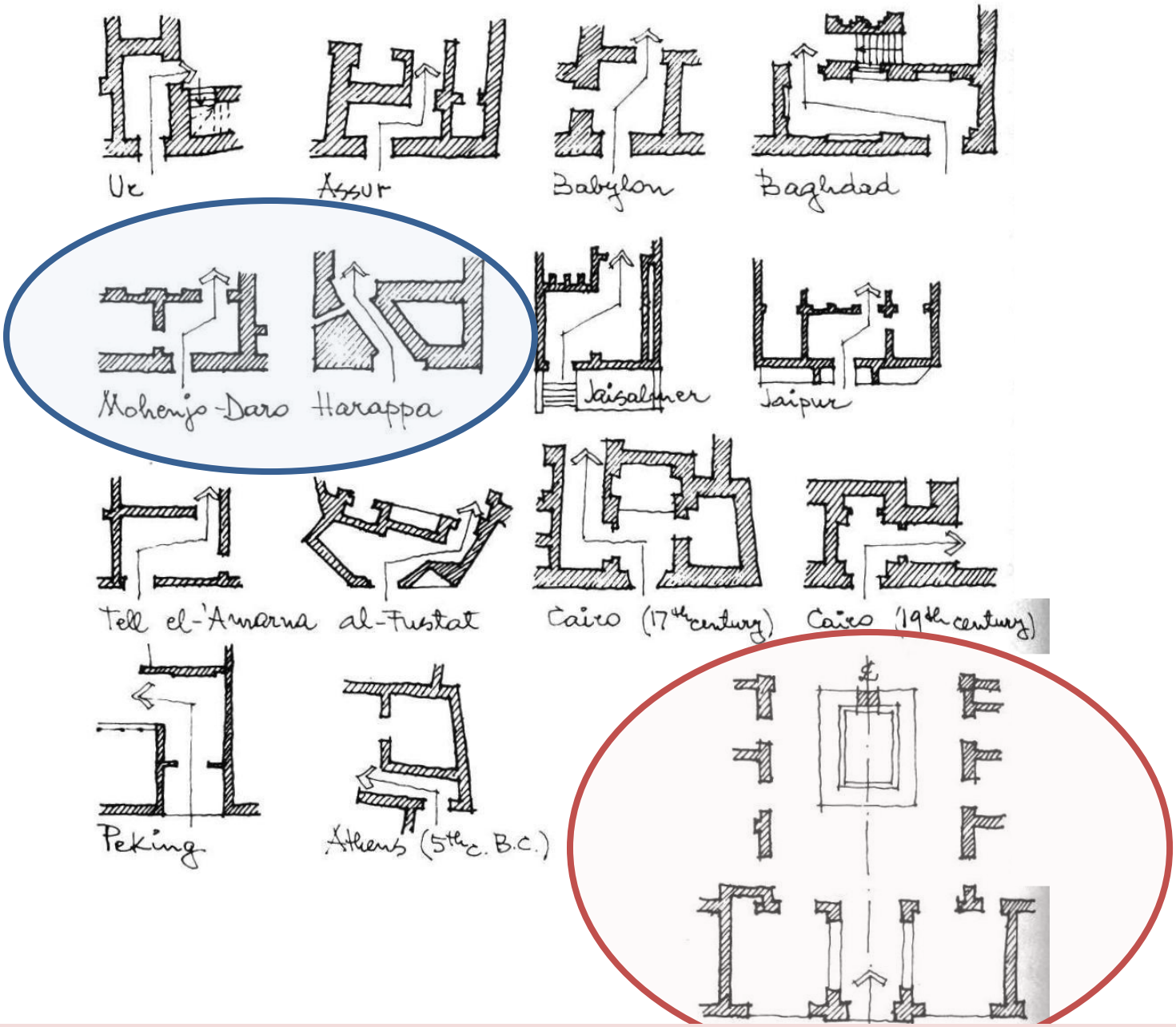
Dust bin on the side of a lane

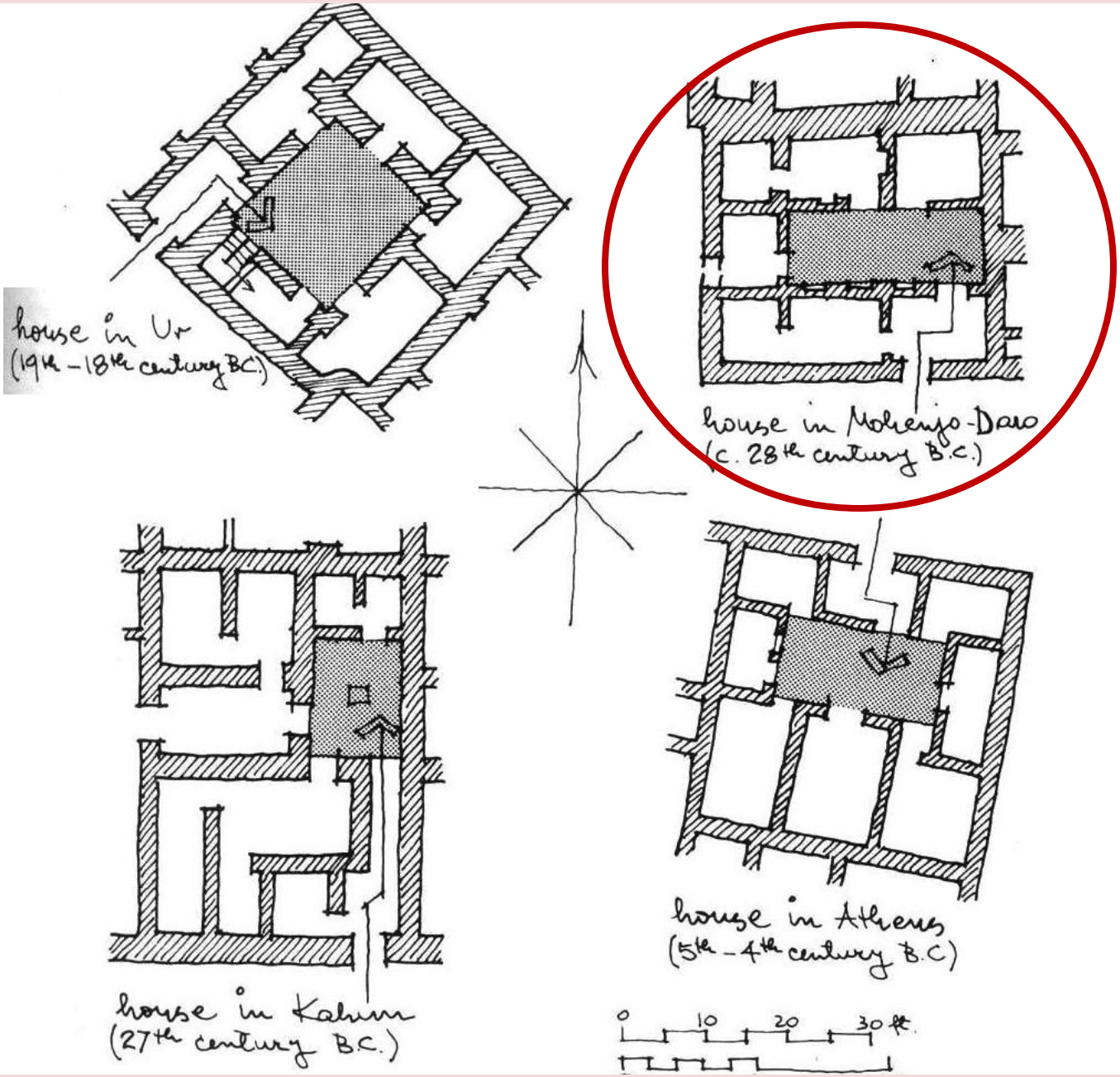
DRAINAGE WAS THRU COVERED DRAINS IN THE CENTER OF THE STREETS.

THERE WERE SMALL ROADSIDE ENCLOSURES THAT MAY HAVE SERVED AS DUSTBINS.

HOUSE NO 8 ON THE HIGH LANE IN 3D




Ur
Assur
Babylon
Baghdad
Mohenjo-Daro
Harappa
Jaisalmer
Jaipur
Tell el-'Amarna
al-Fustat
Cairo (17th century)
Cairo (19th century)
Peking
Athens (5th c. B.C.)


house in Ur
(19th – 18th century BC.)
house in Mohenjo-Daro
(c. 28th century B.C.)
house in Kahun
(27th century B.C.)
house in Athens
(5th – 4th century B.C.)
0
10
20
30 ft.

Stone construction - Dholavira

DHOLAVIRA

DHOLAVIRA IS LOCATED ON KHADIR BEYT, AN ISLAND IN THE GREAT **RANN OF KUTCH IN GUJRAT STATE**.

IT HAS BEEN EXCAVATED SINCE 1990. HERE LIMESTONE MASONARY IS USED FOR CONSTRUCTION

AS LARGE AS HARAPPA AND MOHENJO DARO, IT HAS SOME OF THE BEST PRESERVED STONE ARCHITECTURE

A TANTALIZING SIGNBOARD WITH INDUS SCRIPT HAS ALSO BEEN DISCOVERED. DHOLAVIRA APPREARS TO HAVE HAD SEVERAL LARGE RESERVOIRS, AND AN ELLANORATE SYSTEM OF DRAINS TO COLLECT WATER FROM CITY WALLS AND HOUSE TOPS TO FILL THEM

GHANERIWALA

IS IN PUNJAB, PAKISTAN NEAR THE INDIAN BORDER. IT IS THE FIFTY MAJOR URBAN CENTER. SPREAD OVER 80 HECTARES, IT IS ALMOST AS LARGE AS MOHANJO DARO. LOCATED NEAR THE DRY BED OF THE FORMER GHAGGAR OR SARASWATI RIVER, IT HAS NOT YET BEEN EXCAVATED

LOTHAL

LOTHAL IS ON THE TOP OF THE GULF OF KHAMBAT IN GUJRAT, NEAR THE SABARMATI RIVER AND THE ARABIAN SEA. IT IS THE MOST EXTENSIVELY RESEARCHED HARAPPAN COASTAL SITE.

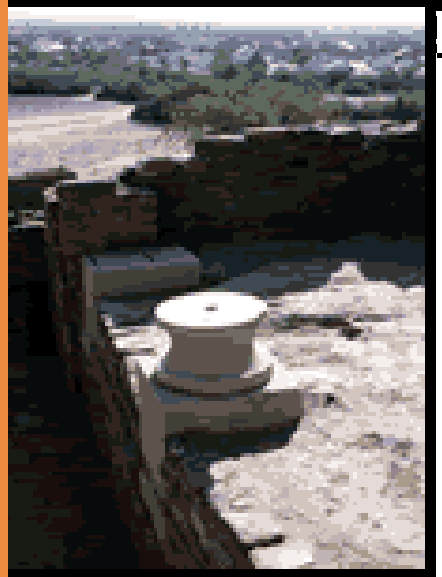
A BEAD FACTORY AND PERSIAN GULF SEAL HAVE BEEN FOUND HERE SUGGESTING THAT LIKE MANY SITES ON THE GULF OF KHAMBAT , IT WAS DEEPLY INTO TRADING.

RAKHIGARHI

RAKHIGARGHI IS A RECENTLY DISCOVERED CITY IN HARYANA. PARTIAL EXCAVATIONS HAVE REVEALED THAT IT IS AS LARGE AS HARAPPA, MOHENJO DARO AND GHANWERIWALA.

jnboard found on the "Citadel"

DHOLAVIRA IN GUJRAT



Part of a stone pillar

Excavation of the reservoir

Well, Lothal, Gujarat

Decline of the civilization

- Several explanations have been formulated like-- **repeated flooding** of towns located on the river banks and due to ecological changes.

- When the initial migrations of the Aryan people into India began about 1500 BC, the developed Harappan culture had already been practically wiped out.

Questions :

1. HOW DOES INDUS VALLEY CIVILIZATION FLOURISHED? DESCRIBE THE CHARACTERISTIC FEATURES OF HARAPPA AND MOHENJODARO CITIES WITH SKETCHES?

2. WRITE A SHORT NOTE ON:
   a) GRANARIES
   b) GREAT BATH