IQRA NATIONAL UNIVERSITY

**DEPORTMENT: CIVIL ENGINEERING**

**Assignment : Pre-Columbian Architecture (Ancient Architecture of North America)**

 **SEMESTER: 2ND**

**STUDENT:16595**

**NAME: NIAMAT ULLAH**

## Pre-Columbian Architecture :- Mesoamerican architecture is the set of architectural traditions produced by pre-Columbian cultures and civilizations of Mesoamerica, traditions which are best known in the form of public,

## History & Location:-

|  |  |  |
| --- | --- | --- |
| **Period** | **Time span** | **Important cultures, cities, structures and styles** |
| Pre-Classic(Formative) | BC 2000–1000 | Gulf Coast cultures, [Olmec](https://en.wikipedia.org/wiki/Olmec), [Monte Alto Culture](https://en.wikipedia.org/wiki/Monte_Alto_Culture) |
| Early Pre-Classic | BC 2000–1000 | Olmec centers [San Lorenzo Tenochtitlan](https://en.wikipedia.org/wiki/San_Lorenzo_Tenochtitlan), [Chalcatzingo](https://en.wikipedia.org/wiki/Chalcatzingo%22%20%5Co%20%22Chalcatzingo), [San José Mogote](https://en.wikipedia.org/wiki/San_Jos%C3%A9_Mogote), [La Mojarra Steala 12](https://en.wikipedia.org/w/index.php?title=La_Mojarra_Steala_12&action=edit&redlink=1) |
| Middle Pre-Classic | BC 1000–400 | Late Olmec and Early Maya, [Izapa](https://en.wikipedia.org/wiki/Izapa%22%20%5Co%20%22Izapa), [La Venta](https://en.wikipedia.org/wiki/La_Venta), [Tres Zapotes](https://en.wikipedia.org/wiki/Tres_Zapotes%22%20%5Co%20%22Tres%20Zapotes), [Usulután ceramics](https://en.wikipedia.org/w/index.php?title=Usulut%C3%A1n_ceramics&action=edit&redlink=1), [Nakbé](https://en.wikipedia.org/wiki/Nakb%C3%A9%22%20%5Co%20%22Nakb%C3%A9), [Lamanai](https://en.wikipedia.org/wiki/Lamanai%22%20%5Co%20%22Lamanai), [Xunantunich](https://en.wikipedia.org/wiki/Xunantunich%22%20%5Co%20%22Xunantunich) [Naj Tunich](https://en.wikipedia.org/wiki/Naj_Tunich%22%20%5Co%20%22Naj%20Tunich) Cave, [El Mirador](https://en.wikipedia.org/wiki/El_Mirador), [Kaminaljuyú](https://en.wikipedia.org/wiki/Kaminaljuy%C3%BA%22%20%5Co%20%22Kaminaljuy%C3%BA) |
| Late Pre-Classic | BC 400 – 200 AD | [Preclassic Maya](https://en.wikipedia.org/wiki/Preclassic_Maya), Teotihuacan and Zapotec, Teuchitlan Tradition formative periods, [Teotihuacan](https://en.wikipedia.org/wiki/Teotihuacan), [Uaxactún](https://en.wikipedia.org/wiki/Uaxact%C3%BAn%22%20%5Co%20%22Uaxact%C3%BAn), [Tikal](https://en.wikipedia.org/wiki/Tikal), [Edzná](https://en.wikipedia.org/wiki/Edzn%C3%A1%22%20%5Co%20%22Edzn%C3%A1), [Monte Albán](https://en.wikipedia.org/wiki/Monte_Alb%C3%A1n) I & II, [Pyramid of the Sun](https://en.wikipedia.org/wiki/Pyramid_of_the_Sun), [Guachimontones](https://en.wikipedia.org/wiki/Guachimontones%22%20%5Co%20%22Guachimontones) |
| Classic | AD 200–900 | Classic Maya Centers, Teotihuacan, Zapotecs, Teuchitlan Tradition |
| Early Classic | AD 200–600 | Teotihuacan apogee, Monte Albán III, [Palenque](https://en.wikipedia.org/wiki/Palenque), [Copán](https://en.wikipedia.org/wiki/Cop%C3%A1n), [Classic Veracruz culture](https://en.wikipedia.org/wiki/Classic_Veracruz_culture), [Talud-tablero](https://en.wikipedia.org/wiki/Talud-tablero%22%20%5Co%20%22Talud-tablero), Hieroglyphic stairs of [Copán](https://en.wikipedia.org/wiki/Cop%C3%A1n), Tomb of [Pacal the Great](https://en.wikipedia.org/wiki/Pacal_the_Great%22%20%5Co%20%22Pacal%20the%20Great), |
| Late Classic | AD 600–900 | [Xochicalco](https://en.wikipedia.org/wiki/Xochicalco), [Cacaxtla](https://en.wikipedia.org/wiki/Cacaxtla%22%20%5Co%20%22Cacaxtla), [Cancuen](https://en.wikipedia.org/wiki/Cancuen%22%20%5Co%20%22Cancuen), [Quiriguá](https://en.wikipedia.org/wiki/Quirigu%C3%A1%22%20%5Co%20%22Quirigu%C3%A1), [Uxmal](https://en.wikipedia.org/wiki/Uxmal), [Toniná](https://en.wikipedia.org/wiki/Tonin%C3%A1%22%20%5Co%20%22Tonin%C3%A1), [Classic Veracruz Culture](https://en.wikipedia.org/wiki/Classic_Veracruz_Culture), [Puuc](https://en.wikipedia.org/wiki/Puuc%22%20%5Co%20%22Puuc) style, [Rio Bec style](https://en.wikipedia.org/wiki/Rio_Bec_style), [Cobá](https://en.wikipedia.org/wiki/Cob%C3%A1%22%20%5Co%20%22Cob%C3%A1), [Yaxchilan Lintel 24](https://en.wikipedia.org/wiki/Yaxchilan_Lintel_24%22%20%5Co%20%22Yaxchilan%20Lintel%2024) |
| Post-Classic | AD 900–1519 | Maya [Itzá](https://en.wikipedia.org/wiki/Itz%C3%A1%22%20%5Co%20%22Itz%C3%A1)[[*disambiguation needed*](http://dispenser.info.tm/~dispenser/cgi-bin/dab_solver.py?page=Mesoamerican_architecture&editintro=Template:Disambiguation_needed/editintro&client=Template:Dn)], [Chichen Itza](https://en.wikipedia.org/wiki/Chichen_Itza%22%20%5Co%20%22Chichen%20Itza), [Mayapan](https://en.wikipedia.org/wiki/Mayapan%22%20%5Co%20%22Mayapan), [Tayasal](https://en.wikipedia.org/wiki/Tayasal%22%20%5Co%20%22Tayasal), and [Kowoj](https://en.wikipedia.org/wiki/Kowoj%22%20%5Co%20%22Kowoj) [Topoxte](https://en.wikipedia.org/wiki/Topoxte%22%20%5Co%20%22Topoxte), [Toltec](https://en.wikipedia.org/wiki/Toltec), [Purépecha](https://en.wikipedia.org/wiki/Pur%C3%A9pecha_culture%22%20%5Co%20%22Pur%C3%A9pecha%20culture), [Mixtec](https://en.wikipedia.org/wiki/Mixtec%22%20%5Co%20%22Mixtec), [Totonac](https://en.wikipedia.org/wiki/Totonac%22%20%5Co%20%22Totonac) |
| Early Post-Classic | AD 900–1200 | [Cholula](https://en.wikipedia.org/wiki/Cholula_%28Mesoamerican_site%29), [Tula](https://en.wikipedia.org/wiki/Tula_%28Mesoamerican_site%29), [Mitla](https://en.wikipedia.org/wiki/Mitla%22%20%5Co%20%22Mitla), [El Tajín](https://en.wikipedia.org/wiki/El_Taj%C3%ADn), [Tulum](https://en.wikipedia.org/wiki/Tulum), [Kaminaljuyú](https://en.wikipedia.org/wiki/Kaminaljuy%C3%BA%22%20%5Co%20%22Kaminaljuy%C3%BA) |

## Pre-Columbian Architecture:- Mesoamerican architecture is the set of [architectural](https://en.wikipedia.org/wiki/Architecture) traditions produced by [pre-Columbian](https://en.wikipedia.org/wiki/Pre-Columbian) cultures and civilizations of [Mesoamerica](https://en.wikipedia.org/wiki/Mesoamerica), traditions which are best known in the form of public, ceremonial and urban monumental buildings and structures.

Matrial use:

Local materials use in there structure .

E.g ston,stucco ,mud-brick, etc.

An important part of the [Mesoamerican religious](https://en.wikipedia.org/wiki/Mesoamerican_religion) system was replicating their beliefs in concrete tangible forms, in effect making the world an embodiment of their beliefs.[[1]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-1) This meant that the Mesoamerican city was constructed to be a [microcosm](https://en.wikipedia.org/wiki/Macrocosm_and_microcosm), manifesting the same division that existed in the religious, mythical geography—a division between the underworld and the human world. The underworld was represented by the direction north and many structures and buildings related to the underworld, such as tombs, are often found in the city's northern half. The southern part represented life, sustenance, and rebirth and often contained structures related to the continuity and daily function of the city-state, such as monuments depicting the noble lineages, or residential quarters, markets, etc. Between the two halves of the north/south axis was the plaza, often containing stelae resembling the [world tree](https://en.wikipedia.org/wiki/World_tree) the Mesoamerican [axis mundi](https://en.wikipedia.org/wiki/Axis_mundi), and a [ballcourt](https://en.wikipedia.org/wiki/Mesoamerican_ballcourt%22%20%5Co%20%22Mesoamerican%20ballcourt) which served as a crossing point between the two worlds.

Some Mesoamericanists argue that in religious symbolism the Mesoamerican monumental architecture pyramids were mountains, stelae were trees, and wells, ballcourts and [cenotes](https://en.wikipedia.org/wiki/Cenote%22%20%5Co%20%22Cenote) were caves that provided access to the underworld.[[2]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-2)

#### Orientation[[edit](https://en.wikipedia.org/w/index.php?title=Mesoamerican_architecture&action=edit&section=5" \o "Edit section: Orientation)]

Mesoamerican architecture is often designed to align to specific celestial events. Some pyramids, temples, and other structures were designed to achieve special lighting effects on particular days important in the Mesoamerican cosmovision. A famous example is the "[El Castillo](https://en.wikipedia.org/wiki/El_Castillo%2C_Chichen_Itza)" pyramid at [Chichen Itza](https://en.wikipedia.org/wiki/Chichen_Itza%22%20%5Co%20%22Chichen%20Itza), where a light-and-shadow effect can be observed during several weeks around the equinoxes. Contrary to a common opinion, however, there is no evidence that this phenomenon was the result of a purposeful design intended to commemorate the equinoxes.[[3]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-3)

Much Mesoamerican architecture is also aligned to roughly 15° east of north.[[4]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-4) Vincent H Malmstrom has argued[[5]](https://en.wikipedia.org/wiki/Mesoamerican_architecture%22%20%5Cl%20%22cite_note-5) that this is because of a general wish to align the pyramids to face the sunset on August 13, which was the beginning date of the Maya [Long Count](https://en.wikipedia.org/wiki/Mesoamerican_Long_Count_calendar) calendar. However, recent research has shown that the earliest orientations marking sunsets on August 13 (and April 30) occur outside of the Maya area. Their purpose must have been to record the dates separated by a period of 260 days (from August 13 to April 30), equivalent to the length of the sacred Mesoamerican calendrical count. In general, the orientations in Mesoamerican architecture tend to mark the dates separated by multiples of 13 and 20 days, i.e. of basic periods of the calendrical system. The distribution of these dates in the year suggests that the orientations allowed the use of observational calendars that facilitated the prediction of agriculturally significant dates.[[6]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-6)[[7]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-7) These conclusions are supported by the results of systematic research accomplished in various Mesoamerican regions, including central Mexico,[[8]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-8) the Maya Lowlands,[[9]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-9)[[10]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-10) Oaxaca, the Gulf Coast lowlands,[[11]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-11) and western and northern Mesoamerica.[[12]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-12) While solar orientations prevail, some prominent buildings were aligned to Venus extremes,[[13]](https://en.wikipedia.org/wiki/Mesoamerican_architecture%22%20%5Cl%20%22cite_note-13) a notable example being the Governor's Palace at Uxmal.[[14]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-14) Orientations to lunar standstill positions on the horizon have also been documented;[[15]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-15) they are particularly common along the Northeast Coast of the Yucatán peninsula, where the worship of the goddess Ixchel, associated with the Moon, is known to have had an outstanding importance during the Postclassic period.[[16]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-16)

### The Plaza[[edit](https://en.wikipedia.org/w/index.php?title=Mesoamerican_architecture&action=edit&section=6" \o "Edit section: The Plaza)]



View of the main plaza in [Teotihuacan](https://en.wikipedia.org/wiki/Teotihuacan)

Nearly every known ancient Mesoamerican city had one or more formal public plazas. They are typically large impressive spaces, surrounded by tall pyramids, temples, and other important buildings. Activities that would take place in these plazas would include private rituals, periodic markets, mass spectator ceremonies, participatory public ceremonies, feasts, and other popular celebrations.

The size of the main plazas in Mesoamerican cities differed greatly, the largest being located in [Tenochtitlan](https://en.wikipedia.org/wiki/Tenochtitlan) with an estimated size of 115,000 square meters. This plaza is an outlier due to the population of the city being so large. The next largest estimated plaza is located in the Gulf Coast in the city of [Cempoala](https://en.wikipedia.org/wiki/Cempoala%22%20%5Co%20%22Cempoala) (or Zempoala), measuring at 48,088 square meters.[[17]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-17) Most plazas average at around 3,000 square meters, the smallest being at the site of Paxte which is 528 square meters. Some cities contain many smaller plazas throughout, while some focus their attention on a significantly large main plaza.

#### Tenochtitlan[[edit](https://en.wikipedia.org/w/index.php?title=Mesoamerican_architecture&action=edit&section=7" \o "Edit section: Tenochtitlan)]

*Main article:*[*Tenochtitlan*](https://en.wikipedia.org/wiki/Tenochtitlan)



Reconstructed scale model of the Great Temple of Tenochtitlan

[Tenochtitlan](https://en.wikipedia.org/wiki/Tenochtitlan) was an Aztec city that thrived from 1325 to 1521. The city was built on an island, surrounded on all sides by [Lake Texcoco](https://en.wikipedia.org/wiki/Lake_Texcoco). It consisted of an elaborate system of canals, aqueducts, and causeways allowing the city to supply its residents. The island was about 12 square kilometers and had a population of approximately 125,000 people, making it the largest Mesoamerican city ever recorded. The main plaza of Tenochtitlan was approximately 115,000 square meters, or 11.5 ha (28 acres).[[18]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-18) The main temple of Tenochtitlan known as [Templo Mayor](https://en.wikipedia.org/wiki/Templo_Mayor%22%20%5Co%20%22Templo%20Mayor) or the Great Temple was 100 meters by 80 meters at its base, and 60 meters tall.[[19]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-19) The city ultimately [fell in 1521](https://en.wikipedia.org/wiki/Fall_of_Tenochtitlan) when it was destroyed by the Spanish conquistador [Hernán Cortés](https://en.wikipedia.org/wiki/Hern%C3%A1n_Cort%C3%A9s%22%20%5Co%20%22Hern%C3%A1n%20Cort%C3%A9s) in 1521. Cortés and the Spaniards raided the city for its gold supply and artifacts, leaving little behind of the Aztec's civilization.

### The Pyramids[[edit](https://en.wikipedia.org/w/index.php?title=Mesoamerican_architecture&action=edit&section=8" \o "Edit section: The Pyramids)]

*Main article:*[*Mesoamerican pyramids*](https://en.wikipedia.org/wiki/Mesoamerican_pyramids)



Pyramid of the Moon in Teotihuacan

Often the most important religious temples sat atop the towering pyramids, presumably as the closest place to the heavens. While recent discoveries point toward the extensive use of pyramids as tombs, the temples themselves seem to rarely, if ever, contain burials. Residing atop the pyramids, some of over two-hundred feet, such as that at [El Mirador](https://en.wikipedia.org/wiki/El_Mirador), the temples were impressive and decorated structures themselves. Commonly topped with a [roof comb](https://en.wikipedia.org/wiki/Roof_comb), or superficial grandiose wall, these temples might have served as a type of propaganda.

#### The Pyramid of the Sun[[edit](https://en.wikipedia.org/w/index.php?title=Mesoamerican_architecture&action=edit&section=9" \o "Edit section: The Pyramid of the Sun)]

*Main article:*[*Pyramid of the Sun*](https://en.wikipedia.org/wiki/Pyramid_of_the_Sun)

The [Pyramid of the Sun](https://en.wikipedia.org/wiki/Pyramid_of_the_Sun) is the largest structure created in the city of [Teotihuacan](https://en.wikipedia.org/wiki/Teotihuacan) and one of the largest structures in the entire Western Hemisphere. It stands at about 216 feet and is roughly 720 by 760 ft (220 by 230 m) at its base. The pyramid is located on the east side of the avenue of the dead which runs almost directly down the center of the city of Teotihuacan. After archaeologists discovered animal remains, masks, figurines, specifically one of the Aztec god [Huehueteotl](https://en.wikipedia.org/wiki/Huehueteotl%22%20%5Co%20%22Huehueteotl), and shards of clay pots in the pyramid, it was agreed upon that the pyramid was likely a ritual temple at one point.[[20]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-20)



Pyramid of the Sun

### The Temple of the Feathered Serpent[[edit](https://en.wikipedia.org/w/index.php?title=Mesoamerican_architecture&action=edit&section=10" \o "Edit section: The Temple of the Feathered Serpent)]

*Main article:*[*Temple of the Feathered Serpent*](https://en.wikipedia.org/wiki/Temple_of_the_Feathered_Serpent)



Temple of the Feathered Serpent

The [Temple of the Feathered Serpent](https://en.wikipedia.org/wiki/Temple_of_the_Feathered_Serpent%2C_Teotihuacan) was constructed after the [Pyramid of the Sun](https://en.wikipedia.org/wiki/Pyramid_of_the_Sun) and the [Pyramid of the Moon](https://en.wikipedia.org/wiki/Pyramid_of_the_Moon) had been completed. The temple marks one of the first uses of the architecture style of [talud-tablero](https://en.wikipedia.org/wiki/Talud-tablero%22%20%5Co%20%22Talud-tablero). On the surfaces, the temple had murals illustrated on them just like so many temples that were built at the same time and by the same people. The *tableros* featured large serpent heads complete with elaborate headdresses. The feathered serpent refers to the Aztec god [Quetzalcoatl](https://en.wikipedia.org/wiki/Quetzalcoatl).[[21]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-21)

### The Ballcourt[[edit](https://en.wikipedia.org/w/index.php?title=Mesoamerican_architecture&action=edit&section=11" \o "Edit section: The Ballcourt)]

*Main article:*[*Mesoamerican ballcourt*](https://en.wikipedia.org/wiki/Mesoamerican_ballcourt)



Layout chart of a typical Mesoamerican ball court.

The [Mesoamerican ballgame](https://en.wikipedia.org/wiki/Mesoamerican_ballgame) ritual was a symbolic journey between the underworld and the world of the living, and many ball courts are found in the mid-part of the city functioning as a connection between the northern and southern halves of the city.[[22]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-22) All but the earliest ball courts are masonry structures. Over 1300 ball courts have been identified, and although there is a tremendous variation in size, they all have the same general shape: a long narrow alley flanked by two walls with horizontal, sloping, and sometimes vertical faces. The later vertical faces, such as those at Chichen Itza and [El Tajin](https://en.wikipedia.org/wiki/El_Tajin), are often covered with complex iconography and [scenes of human sacrifice](https://en.wikipedia.org/wiki/File%3ABeheadingPanelSBCTajin.JPG).

Although the alleys in early ball courts were open-ended, later ball courts had enclosed end-zones, giving the structure an -shape when viewed from above. The playing alley may be at ground level, or the ball court may be "sunken".

Ball courts were no mean feats of engineering. One of the [sandstone](https://en.wikipedia.org/wiki/Sandstone) stones on El Tajin's South Ball court is 11 m long and weighs more than 10 [tons](https://en.wikipedia.org/wiki/Tonne).[[23]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-23)

### Residential quarters and Palaces[[edit](https://en.wikipedia.org/w/index.php?title=Mesoamerican_architecture&action=edit&section=12" \o "Edit section: Residential quarters and Palaces)]



Governor's Palace, [Uxmal](https://en.wikipedia.org/wiki/Uxmal)

Large and often highly decorated, the palaces usually sat close to the center of a city and housed the population's elite. Any exceedingly large royal palace, or one consisting of many chambers on different levels might be referred to as an acropolis. However, often these were one-story and consisted of many small chambers and typically at least one interior courtyard; these structures appear to take into account the needed functionality required of a residence, as well as the decoration required for their inhabitants stature.

Archaeologists seem to agree that many palaces are home to various tombs. At [Copán](https://en.wikipedia.org/wiki/Cop%C3%A1n), beneath over four-hundred years of later remodeling, a tomb for one of the ancient rulers has been discovered and the [North Acropolis](https://en.wikipedia.org/wiki/North_Acropolis%2C_Tikal) at [Tikal](https://en.wikipedia.org/wiki/Tikal) appears to have been the site of numerous burials during the [Terminal Pre-classic](https://en.wikipedia.org/wiki/Mesoamerican_chronology) and [Early Classic](https://en.wikipedia.org/wiki/Mesoamerican_chronology) periods.

### Building materials[



Teotihuacan style architecture displaying decorative ornamentation made of obsidian and shell inlaid into a painted [cantera](https://en.wikipedia.org/wiki/Cantera_%28stone%29%22%20%5Co%20%22Cantera%20%28stone%29) surface set upon a [tezontle](https://en.wikipedia.org/wiki/Tezontle%22%20%5Co%20%22Tezontle) interior.

The most surprising aspect of the great Mesoamerican structures is their lack of many advanced technologies that would seem to be necessary for such constructions. Lacking metal tools, Mesoamerican architecture required one thing in abundance: manpower. Yet, beyond this enormous requirement, the remaining materials seem to have been readily available. They most often utilized [limestone](https://en.wikipedia.org/wiki/Limestone), which remained pliable enough to be worked with stone tools while being quarried, and only hardened once when removed from its bed. In addition to the structural use of limestone, much of their mortar consisted of crushed, burnt, and mixed limestone that mimicked the properties of cement and was used just as widely for [stucco](https://en.wikipedia.org/wiki/Stucco) finishing as it was for mortar. However, later improvements in quarrying techniques reduced the necessity for this limestone-stucco as their stones began to fit quite perfectly, yet it remained a crucial element in some [post and lintel](https://en.wikipedia.org/wiki/Post_and_lintel) roofs.

A common building material in central Mexico was [tezontle](https://en.wikipedia.org/wiki/Tezontle%22%20%5Co%20%22Tezontle) (a light, volcanic rock). It was common for palaces and monumental structures to be made of this rough stone and then covered with stucco or with a [cantera](https://en.wikipedia.org/wiki/Cantera_%28stone%29%22%20%5Co%20%22Cantera%20%28stone%29) [veneer](https://en.wikipedia.org/wiki/Stone_veneer). Very large and ornate architectural ornaments were fashioned from a very enduring stucco (kalk), especially in the Mayan region, where a type of hydraulic limestone cement or concrete was also used.[[24]](https://en.wikipedia.org/wiki/Mesoamerican_architecture#cite_note-24) In the case of the common houses, wooden framing, [adobe](https://en.wikipedia.org/wiki/Adobe), and thatch were used to build homes over stone foundations. However, instances of what appear to be common houses of limestone have been discovered as well. Buildings were typically finished with high slanted roofs usually built of wood or thatch although stone roofs in these high slant fashions are also used rarely.