CHAPTER VI
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CERAMIC INDUSTRY

The chapter proposes to study the ceramic industry of the Kushāṇa period found during excavations and explorations in and around the Mathurā region. The main source materials for the study of ceramic industry are the unpublished excavated materials of Mathurā excavations housed in the Reserved Collection of the Archaeological Survey of India, Purana Qila, New Delhi; Department of Archaeology, University of Calcutta (loaned by Shri M.C. Joshi to the Department) and the collections made during the fieldworks in and around Mathurā. Excavated potteries from the site of Sonkh have also been studied for getting a clear understanding about the subject concerned including their typo-technological significance.

Before analyzing the typo-technological features it will not be unwise to mention that only excavated materials of Mathurā and Sonkh give a general idea about the chronological sequences as well as the character of ceramic traditions of the Kushāṇa period in general and the representations of industrial development as attested by the production of numerous potteries and their functions. Our survey also made a successful attempt in understanding the nature of occurrences along with other details about the typological features of pottery types including the texture of clay preparation, firing and manufacturing techniques, fabrics, profiles, application of slips, tentative measurements etc. Our analysis also exhibits a comparative study among the contemporary ceramic tradition prevailed in and around the Mathurā region, particularly emphasizing the collection of the sites like Taxila (Sirkap), Hastināpura (Period IV), Ahichchhatra (Stratum IV) and Kauśāmbi (Period III).
It is worth mentioning that if we go through the excavation report of Sonkh one can hardly find any discussion on the overall technological parameters adopted by the potter communities of Sonkh and their relationship with its counter parts of Mathurā.

Regarding the manufacturing techniques, it has been generally observed that, the use of wheel is thoroughly noticeable and one could easily recognize the wheel made technique applied for mass production. However, there are some potteries, which exhibit the mixed up techniques between manual and wheel. It is also observed that moulding and totally hand made method have also been applied for the production of some potteries. Perhaps, there could be other techniques adopted for the manufacturing of pottery utilized for ritualistic purposes.

The study of the texture and fabrication of ceramics gives us some idea about the application of slip including their methodologies. Slip or wash was applied on bone-dry pot surfaces, after which the decoration was completed. The incised decorations were executed immediately before the pot was taken out of the wheel.

Now we are in a position to classify the entire pottery collection of the Kusāna period reported from the Mathurā region in to two broad categories- 1) Plain Pottery and 2) Decorated Pottery.

**PLAIN POTTERY:**

The classification of plain pottery has been done on the basis of shapes/functional types of potteries found during excavations at Mathurā and Sonkh and also from explorations in and around Mathurā.

**SPRINKLERS:** -

**Type I**- Fragment of a sprinkler having plano-convex grooved rim, elongated neck and topped with a medium grooved knob reported from
Period IV at Mathurā (MTR-2). It is wheel thrown. It is of a red polished ware of husky medium fabric and is treated externally with lustrous red slip. Another specimen of similar type has also been reported from the same Period at MTR-2. (IL.3)

**Variant I a** – Differs from the above in having a grooved neck. It is wheel thrown. It is of a red polished ware of husky medium fabric and is treated with lustrous red slip externally. The specimen was reported from Period IV at Mathurā (MTR-2). (IL.3)

**Variant I b** – Differs from the main type in having a grooved neck and a short grooved knob. It is wheel thrown. It is of a red polished ware of medium fabric and is also treated with lustrous red slip externally. This specimen was found from Period IV at Mathurā (MTR-4). (IL.3). An almost similar type of sprinkler of red ware has been collected during our field investigations in and around Mathurā. (Pl. CXVII, 2)

**Type II** – Fragment of a sprinkler having elliptical grooved rim and a medium grooved knob was reported from Period IV at Mathurā (MTR-2). It is wheel made. It is of a red polished ware of husky medium fabric and is treated externally with lustrous red slip. (IL.3)

**Variant II a** – Differs from the above in having a double grooved medium knob with prominent hole. It is wheel thrown. It is of a red polished ware of medium fabric and is treated externally with red slip. It was found from Layer 2 of Period IV at Mathurā (MTR- 2). (IL.4)

**Variant II b** – Differs from the main type in having slightly out-curved disc shaped rim. It has long neck, central cone with narrow channel. It is of a brick-red ware of medium fine fabric and is treated with red slip. The specimen was reported from Period V at Sonkh. (IL.4). A similar type has been unearthed from an early level of Period IV at Hastināpura. Hastināpura specimen has pointed flanged rim with a conical knobbed opening. (IL.41, i)
**Type III**- Fragment of a sprinkler having disc shaped grooved flange rim, short neck and a grooved short knob was reported from of Period IV at Mathurā (MTR- 15). It is wheel thrown. It is of a red ware of medium fabric and is treated with red slip externally. (IL.4) & (Pl. CXIII, 2)

**Variant III a**- Differs from the above in having straight flange rim and a medium grooved knob. (IL.4) It is wheel thrown. It is of red ware of husky medium fabric and is treated with red slip outwardly. The source of such specimen was from of Period IV (Layer 2) at Mathurā (MTR- 2).

**Type IV**- Fragment of a sprinkler having grooved flange rim and a conical long knob with grooved top was unearthed from Period IV (Layer 2) at Mathurā (MTR-2). It is wheel made. It is of red polished ware of medium fabric and is treated externally with a lustrous red slip. (IL.4). An almost similar type of fragmented sprinkler of red ware has been collected during our filed survey in and around Mathurā region. (Pl. CXVII, 1)

**Variant IV a**- Differs from the above in having straight a long knob with grooved top and grooved shoulders. (IL.4) It is wheel made. It is of a red ware of husky medium fabric and is treated with red slip outwardly. This has been found from Period IV (Layer 4) at Mathurā (MTR-2).

**Type V**- Fragment of a sprinkler having grooved undercut flanged rim, elongated neck, grooved shoulders and a long conical knob with grooved top was reported from Period IV (Layer 2) at Mathurā (MTR-15). It is wheel thrown. It is of a red polished ware of husky medium fabric and is treated externally with a lustrous red slip. (IL. 4)

**BOTTLE-NECKED VESSELS:**

**Type VI** - Neck fragment of a bottle-necked vessel having high cylindrical collar rim and a long concave neck was reported from Period V at Sonkh. It is of a brick-red ware of medium fine fabric and is treated with red slip. [IL.5 (A)]. An identical specimen with slightly short concave neck

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and a small hole at the base of the neck has been found from Period IV (Layer 4) at Mathura. (MTR-6). The Mathura specimen is of a red ware of husky medium fabric and is treated with red slip outwardly. It is wheel thrown. [IL.5 (B)] & (Pl. CXIII, 1).

**Variant VI a** - Differs from the main type in having a conical collar rim. It is of a brick-red ware of medium fine fabric and is treated with red slip. This specimen was reported from Period V at Sonkh.9 (IL 5). More or less similar specimens have been reported from Period IV at Hastināpura (mid level) and Period III at Kauśāmbī (Sub-Period V–VII). Hastināpura specimen10 has small vertically sharpened and externally collared rim and bottleneck. It is of medium fabric and is treated with a slip. (IL.4, ii). The specimen from Kauśāmbī11 bears vertical externally chamfered rim, a long bottle-neck and squarish shoulder. It is of fine to medium fabric and is treated with a bright red slip. (IL.42, i)

**Variant VI b** - Body portion of a bottle-necked vessel having ovoidal shape, flat bottom and horizontal double grooved shoulder. Neck portion of the vessel is missing, but probably of type VI or VI a. It is of a brick-red ware of medium fine fabric and is treated with smooth red slip. The specimen was reported from Period V at Sonkh.12 (IL.5)

**Type VII** - Neck fragment of a bottle-necked vessel with bevelled rim, long neck and slightly concave wall has been recovered from Period V at Sonkh.13 It is of a brick-red ware of medium fine fabric and is treated with a red slip. (IL.6)

**Variant VII a** - Differs from the main type in having concave bevelled rim and tapering ringed neck. It is of a brick-red ware of medium fine fabric and is treated with a smooth red slip. This type has been reported from Period V at Sonkh.14 (IL.6)

**Variant VII b** - Differs from the main type in having an in-bevelled rim, slender steep conical neck with prominent collar and two grooves. It is of a brick-red ware of medium fine fabric. It has an unoxidized core and is treated with red slip. This specimen has been found from Period V.
at Sonkh.\textsuperscript{15} (IL.6). A roughly similar type has been reported from Stratum IV at Ahichchhatra.\textsuperscript{16} The specimen has globular body, vertical neck and rounded base. (IL.40, i)

**Type VIII** – Small heart shaped bottle necked vessel of red ware having flat-topped rim, nearly cylindrical neck, horizontal ridge on shoulders and flat foot ahs been unearthed from Period V at Sonkh\textsuperscript{17}. It is of a dark brick-red ware of medium fine fabric and is partially treated with red slip. (IL.6)

**Type IX** – Fragment of a globular bottle-necked vessel having beaked rim, concave neck and vertical ridge on shoulder has been unearthed from Period V at Sonkh\textsuperscript{18}. It is of a brick-red ware of medium fine fabric. (IL.6)

**SPROUTED VESSELS/ SPOUTS:**

**Type X** – A globular spouted vessel having thick-banded rim, recurved neck and a slender tubular spout has been recovered from Period V at Sonkh.\textsuperscript{19} It is of medium fine fabric. (IL.7)

*Variant X a* – Differs from the main type in having ribbed band rim. The spout is missing. It is of a light brick-red ware of medium fine fabric. The specimen has been reported from Period V at Sonkh.\textsuperscript{20} (IL.7)

**Type XI** – A globular spouted vessel having concave topped flange rim, short bulging neck and a conical spout with dented base has been recovered from Period V at Sonkh.\textsuperscript{21} The vessel is decorated with grooved neck and stamped rayed arches and n\textit{and}y\textit{ā}v\textit{artas} around belly. It is of a light brick-red ware of medium coarse fabric. [IL.8 (A)]. A similar type of vessel, but small in size has been found from Period IV (Layer 3, at the depth of 1.78 m) at Mathurā (MTR-4). But the Mathurā specimen is
Type XII – A globular spouted vessel having deeply hollowed grooved rim, recurved neck and a carinated spout with beaded rim and dented base has been reported from Period V at Sonkh\textsuperscript{22}. The vessel is decorated with grooves below neck and stamped rosettes on shoulder. It is of a brick-red ware of medium fine fabric and has an unoxidized core. (IL.9). An almost similar type of carinated spout with beaded rim and dented base has been found from Period IV at Mathurā (MTR-2). It is of a red ware of medium fabric and is treated with red slip externally. (Pl. CXV, 1). During our field survey we have also collected such fragmented spouts from Mathurā and its surroundings regions. (Pl. CXVII, 3).

Type XIII – A globular spouted vessel having concave banded rim, concave neck, lenticular bottom and a steep spout and wide eared loop-handle from belly to rim has been found from Period V at Sonkh\textsuperscript{23}. Bases of the spout and handle are dented. It is of a brick-red ware of fine fabric and is treated with red slip. The specimen has an unoxidized core. (IL.9)

Type XIV – A miniature globular spouted vessel (identified by Härtel as a libation vessel) having featureless rim and a slender tube spout and lug handle has been recovered from Period V at Sonkh\textsuperscript{24}. It is of a brick-red ware of fine fabric. It is hand modelled. [IL.10 (A)] An alike specimen has been found from Period IV (Layer 2) at Mathurā (MTR- 4). It is of a red ware of medium fabric and is treated with red slip externally. [IL.10 (B)]

Type XV – A spouted bowl of red ware having in-leaning band rim, lenticular bottom and wall and a flaring open spout ahs been reported from Period V at Sonkh\textsuperscript{25}. It is of a reddish ochre ware of medium fine fabric and is treated with smooth red slip outwardly. (IL.10)
**Type XVI** – Tube spout of a spouted vessel in shape of a *makara*’s head has been reported from Period V at Sonkh. It is of a brick-red ware of fine fabric and is treated with a red slip. (IL.11)

**Type XVII** – Fragment of a spouted vessel having inflected club rim, bulging wall and tube spout in shape of a lion’s or tiger’s head, framed by applied notched ridges has been reported from Period V at Sonkh. It is hand made. It is of a brick-red ware of coarse fabric. It has an unoxidized core and is treated with ochre slip. (IL.11)

**Type XVIII** – Tube spout of a spouted vessel, which is curved up and decorated with grooves and *makara*’s nostrils. Its base is dented with pit marks, flanked by ears, wall decorated with incised grooves and impressed circles, semi-circles and dots. It is of a brick-red ware of fine fabric. It is hand modelled. The specimen has been found from Period V at Sonkh. (IL.12)

**Type XIX** – Crop spout of a spouted vessel with four notches on each side of the base and a grooved upper end has been reported from Period V at Sonkh. It is of a light brick-red ware of medium fine fabric and is treated with fine red slip. (IL.12)

**Type XX** – Tube spout of a non-globular vessel with beaded rim has been found from Period V at Sonkh. It is of a brick-red ware of fine fabric and is treated with red slip. (IL.12)

**Type XXI** – Conical tube spout of a spouted vessel with small-applied longitudinal keel has been recovered from Period V at Sonkh. It is hand modelled and of medium fine fabric. (IL.12)
**Type XXII** – Tube spout of a vessel with crop has been reported from Period V at Sonkh.\(^{32}\) It is of a red ware of medium fine fabric. (IL.12)

**BOWLS:**

**Type XXIII** – A heavy bowl having incurved rim, tapering sides and flat base has been reported from Period IV (Layer 4) at Mathurā (MTR-6). It is of a red ware of coarse fabric with partly unoxidized core and is treated with red slip externally. It is wheel thrown. (IL.13). An identical specimen has been found at Taxila (Sirkap). \(^{33}\) (IL.43, iii)

**Type XXIV** – A heavy bowl having funnel wall, slightly in-curved carinated and grooved rim, tapering edges and flat bottom has been found from Period V at Sonkh.\(^{34}\) It is of a brick-red ware of coarse fabric with unoxidized core. [IL.13 (A)]. Similar type of specimen has been unearthed from Period IV (Layer 3) at Mathurā (MTR-8). It is of a red ware of medium coarse fabric and is treated externally with a red slip. It is wheel thrown. [IL.13 (B)]. An identical specimen has been unearthed from Taxila.\(^{35}\) (IL.43, iv)

**Variant XXIV a** – Differs from the main type in having nearly hemispherical shape and in-curved band rim. It is of a brick-red ware of medium coarse fabric. This type has been found from Period V at Sonkh.\(^{36}\) (IL.13)

**Type XXV** – A funnel-shaped bowl having funnel shape, carinated rim, tapering sides and protruding base has been reported from Period V at Sonkh 37. It is of a brick-red ware of medium coarse fabric and has an unoxidized core [IL.14 (A)]. Similar type has been found from Period IV (Layer 3) at Mathurā (MTR- 4). It is of a red ware of medium fabric and is devoid of any slip. It is wheel thrown. [IL.14 (B)]. A more or less roughly similar specimen has been recovered from mid level of Period IV at
Hastinapura. Hastinapura specimen has a less pronounced sharpened rim, tapering sides and flat base. It is of medium fabric. (IL.41, iii)

**Type XXVI** – A bowl having in-curved rim, tapering sides with slightly convex wall and flat base has been recovered from Period IV (Layer 3) at Mathurā (MTR-6). It is of a red ware of medium fabric and is treated with red slip externally (IL.14). An identical type has been reported from Taxila (Sirkap).39 (IL.43, i)

**Variant XXVI a** – Differs from the main type in having funnel shaped wall. It is of a dull red ware of medium fine fabric and is treated with red slip externally. The specimen has also been reported from Period IV (Layer 4) at Mathurā (MTR-6) (IL.14). Roughly similar specimens have been reported from Taxila (Sirkap), Period III (sub Period V-VIII) at Kauśāmbī and Stratum IV at Ahichchhatra. The Taxila specimen is almost similar to that found from Mathurā (IL.43, ii). The Kauśāmbī specimen has externally obliquely cut rim, tapering sides and thick base. (IL.42, ii). The Ahichchhatra specimen bears in-turned rim and tapering sides (IL. 40, ii)

**Type XXVII** - A heavy funnel-shaped bowl having grooved club rim and flat base has been reported from Period V at Sonkh. It is of a brick-red ware of coarse fabric. (IL.15)

**Variant XXVII a** – Differs from the main type in having a club rim with concave neck. It is of a brick-red ware of medium fine fabric and is treated internally with a red slip. The specimen has been reported from Period V at Sonkh. (IL.15)

**Type XXVIII** – A funnel shaped bowl having out curved plain rim, flat base and double grooves in the interior portion has been reported from Period V at Sonkh. It is of a brick-red ware of medium fine fabric. It has an unoxidized core and is partially treated with red slip. (IL.15)
**Type XXIX** - A large bowl (IL.15) having everted rim with hanging lug-handle, carinated concave neck and lenticular bottom has been found from Period V at Sonkh. It is of a reddish-ochre ware of medium fine fabric.

**Type XXX** - A bowl having slightly beaded rim and lenticular bottom has been reported Period V at Sonkh. It is of a brick-red ware of fine fabric and is treated with smooth red slip. (IL.16)

**Type XXXI** - Fragment of a bowl having inner carinated banded rim, slightly conical convex walls and lenticular bottom has been found from Period V at Sonkh. It is of a light brick-red ware of fine fabric and is treated with smooth red slip. (IL.16)

**Type XXXII** - A deep bowl having short bow rim, cylindrical upper wall, hemispherical lower wall and narrow concave bottom has been reported from Period V at Sonkh. It is of a brick-red ware of fine fabric and is treated with smooth red slip. (IL.16)

**Type XXXIII** - A deep bowl (reported/identified by HärTEL as a cup) having globular shape and thick beaded rim has been unearthed from Period V at Sonkh. It is of a reddish-ochre ware of fine fabric with mica dust present on the sections. (IL.16)

**Type XXXIV** - Small shallow funnel shaped bowl (identified by HärTEL as a dish/saucer) of red ware having band rim and flat distinct foot has been reported from Period V at Sonkh. It is of a brick-red ware of medium fine fabric. [IL.16 (A)]. Similar type of bowl has been reported from Period IV (Layer 4, 1.95 m) at Mathurā (MTR-5). It is of a dull red ware of medium fabric and is treated with red slip outwardly. It is wheel thrown. [IL.16 (B)]. An almost similar type of bowl has been reported from an early level of Period IV at Hastināpura.
has an obliquely bevelled rim and thickened sides. It is of medium fabric. (IL.41, iv)

**Type XXXV** – Small funnel shaped bowl having flaring up-curved rim and flat base has been found from Period V at Sonkh\(^53\). It is of a brick-red ware of fine fabric. [IL.17 (A)]. An identical specimen has been found from Period IV (Layer 3) at Mathurā (MTR-9). It is of a red ware of medium fabric and is devoid of any slip. It is wheel thrown. [IL.17 (B)]

**Type XXXVI** – Small funnel shaped bowl (identified by Hārtel as a dish) having horizontal flange and flat bottom has been reported from Period V at Sonkh.\(^54\) It is of a brick-red ware of medium fine fabric. [IL 17 (A)]. Similar type has been unearthed from Period IV (Layer 4) at Mathurā (MTR-5). It is of a red ware of medium fabric and is treated with red slip externally. [IL.17 (B)]

**Type XXXVII** – A small bowl (identified by Hārtel as a dish) having beaded rim, up-curved wall and flat bottom has been reported from Period V at Sonkh.\(^55\) It is of coarse fabric and is treated with red slip. [IL.17 (A)]. An almost similar specimen has been discovered from Period IV (layer 4) at Mathurā (MTR- 13). It is of a red ware of coarse fabric and is devoid of any slip or wash. [IL.17 (B)]

**Type XXXVIII** – Small funnel shaped bowl (identified by Hārtel as a dish) having thick corrugated band rim and flat foot has been recovered from Period V at Sonkh.\(^56\) It is of a brick-red ware of fine fabric. [IL.17 (A)]. An identical specimen has been found from Period IV (Layer 4) at Mathurā (MTR- 8). It is of medium fabric. [IL.17 (B)]

**Type XXXIX** – Small bowl having corrugated rim, slightly conical wall and distinct flat foot has been reported from Period V at Sonkh \(^57\). It is of a brick-red ware of fine fabric. (IL.17)
**Type XI** – A small bowl (identified by Hārtel as a cup) having bevelled rim, carinated body, concave corrugated wall and flat bottom has been reported from Period V at Sonkh. It is of a brick-red ware of fine fabric. ([IL.17]) An almost similar type of specimen has been reported from Period IV (Layer 4) at Mathurā (MTR 5). The Mathurā specimen has slightly concave base. It is of a red ware of medium fabric and is treated with red slip outwardly. (Pl. CXIV, 2)

**Type XLI** – A small moulded bowl having hemispherical shape, in-bevelled grooved rim with groove below and concave foot has been reported from Period V at Sonkh. The exterior surface is reliefed with lotus pattern. It is of a brick-red ware of fine fabric and is treated with red slip. (IL.17)

**Type XLII** – A small moulded bowl having lenticular shape and bevelled rim has been reported from Period V at Sonkh. The exterior surface is reliefed with lotus and festoon patterns. It is of a brick-red ware of medium fine fabric and has an unoxidized core. (IL.17)

**Type XLIII** – A small moulded bowl having beaked rim, up-curved wall and convex bottom has been recovered from Period V at Sonkh. The exterior surface is reliefed with cordons of tetragons, rings and rosettes. It is of a brick-red ware of fine fabric. (IL.17)

**LIDS:** -

**Type XLIV** - Lid of a bowl having angular sloping flange, flat bottom and a central knob has been reported from Period V at Sonkh. It is of a brick-red ware of medium fine fabric. ([IL.18 (A)]). Similar type of specimen has been recovered from Period IV (Layer 4) at Mathurā (MTR 1) ([IL.18 (B)]). The Mathurā specimen is of medium fabric and is treated with red
slip externally. We have also collected a similar type of fragmented lid during our field survey in and around this region. (Pl. CXVII, 4)

**Type XLV** – Lid of a bowl having concave flange and a conical central knob has been recovered from Period V at Sonkh63. It is of fine fabric and has a smooth surface. [IL.18 (A)]. Similar type of specimen has been reported from Period IV (Layer 3) at Mathurā (MTR 1). It is of a red ware of medium fabric and is treated with red slip externally. It is wheel thrown. [IL.18 (B)]

**Type XLVI** – Lid of a bowl (IL.18) having double-beaded flange and flat bottom and a central knob has been unearthed from period V at Sonkh64. It is of a brick-red ware of fine fabric and is treated internally with a red slip.

**Type XLVII** – Lid of a bowl having inverted conical shape, sloping flange and ink-pot like central cup or grip hole has been reported from Period V at Sonkh65. It is of fine fabric. (IL.18)

**Type XLVIII** – Lid of a bowl having convex flange, flat base and ink-pot like central cup or grip hole has been reported from Period V at Sonkh66. It is of a light brick-red ware of medium fine fabric and is treated with red slip internally. (IL.18)

**Type XLIX** – A lid having thickened pointed rim, convex bottom and ink-pot like central cup or grip hole has been recovered from Period IV (Layer 5) at Mathurā (MTR 6). It is of a red ware of medium fabric and is treated with red slip externally. (IL.18). An alike specimen has been found from an early level of Period IV at Hastināpura. Hastināpura67 specimen has medium fabric and is devoid of any slip or wash. (IL.41, v)
**Type L** – Lid of a bowl having inward protruding folded flange and flat bottom has been reported from Period V at Sonkh\(^6^8\). It is of a brick-red ware of medium fine fabric. (IL.18)

**JARS:**

**Type LI** – A storage jar (IL.19) having elongated ovoidal shape, club rim, short neck and pointed base has been unearthed from Period V at Sonkh\(^6^9\). It is of coarse fabric and is treated with a slurry wash. It is hand made.

*Variant LI a* - Differs from the main type in having tapering flat base has been reported from Period V at Sonkh\(^7^0\). (IL.20) It is of a brick-red ware of medium coarse fabric and is treated with red slip. It is hand made.

*Variant LI b* – Differs from the main type in having club rim without neck, wide mouth and tapering convex base has been recovered from Period V at Sonkh\(^7^1\). It is of a reddish-ochre ware of coarse fabric and is treated with a slurry wash. It is hand made. (IL.21)

**Type LII** – Fragment of a big jar having ovoidal shape with out-leaning banded rim and recurved neck has been found from Period V at Sonkh\(^7^2\). It is of ochre-red or brick-red ware of medium fine fabric and has an unoxidized core. (IL.22)

**Type LIII** – A jar having pyriform shape, beaked rim and out-curved neck with ridge below has been reported from Period V at Sonkh\(^7^3\). It is of a brick-red ware of fine fabric. (IL.23)

**Type LIV** – A globular jar having chamfered collar rim, recurved neck, ledged shoulder has been reported from Period V at Sonkh\(^7^4\). It is of medium fine fabric having light red spots on the external surface. (IL.24)
**Type LV** – A globular jar having bevelled rim, recurved neck with groove below has been reported from Period V at Sonkh. It is of a light brick-red ware of medium fine fabric. (IL.24)

**Type LVI** – Fragment of a globular or ovoidal jar having chamfered banded rim and cylindrical neck has been reported from Period V at Sonkh. It is of a brick-red ware of medium fine fabric having a smooth surface. [IL.25 (A)]. Similar type of specimen has been unearthed from Period IV (Layer 5) at Mathurā (MTR 6). It is of a red ware of medium fabric and is devoid of any slip. It is wheel made. [IL.25 (B)]

**Type LVII** – Fragment of a big jar having out-turned grooved rim decorated with notch motifs in series and horizontal parallel bands painted in black present on the shoulder of the exterior surface and on the rim of the interior surface has been reported from Period IV (Layer 4, at the depth of 1.2 m) at Mathurā (MTR 2). It is of a red ware of coarse fabric and is treated with red slip externally. It is wheel thrown. (IL.26)

**Type LVIII** – Fragment of a globular jar having flaring externally grooved in - beaded rim and wide mouthed short funnel neck with ridges below has been found from Period V at Sonkh. The specimen is decorated with stamped festoons of rays on shoulders. It is of a dark brick-red ware of medium fine fabric and is treated with red slip. (IL.26)

**Type LIX** – Fragment of a globular jar (IL.27) having concave oblique band rim and short neck has been reported from Period V at Sonkh. It is of a dark brick-red ware of medium coarse fabric and has an unoxidized core.

**Type LX** - Fragment of a big jar having banded grooved rim has been reported from Period V at Sonkh. It is of a brick-red ware of medium fine fabric. [IL.27 (A)]. A similar type of specimen has been found from
Period IV (Layer 3) at Mathurā (MTR 13). It is of a dull red ware of coarse fabric and is treated with red slip externally. [IL.27 (B)]. It is wheel thrown.

**Type LXI** — Fragment of globular jar having beaded rim, short bulging funnel neck with ridge below, grooved shoulder stamped with *nandāavartas* and rosettes has been reported from Period V at Sonkh\(^80\). It is of fine fabric having smooth surface. (IL.28)

**Type LXII** — Fragment of globular jar having corrugated collar rim, recurved neck decorated with grooves and stamped *nandyāvartas* has been found from Period V at Sonkh\(^81\). It is of a brick-red ware of medium coarse fabric. It has an unoxidized core and is treated with smooth red slip on upper half and inside portion of neck. (IL.28)

**Type LXIII** — Fragment of a jar having beaded rim, capstan neck, impressed and incised linear ornaments on shoulder has been reported from Period V at Sonkh\(^82\). It is of medium fine fabric. [IL.29 (A)]. A similar type has been unearthed from Period IV (Layer 3) at Mathurā (MTR 9). It is of a red ware of medium fabric with partly unoxidized core and is treated with red wash outwardly. It is wheel thrown. [IL.29 (B)]

**Type LXIV** — Fragment of jar having flaring bevelled rim, funnel neck with ridge below has been reported from Period V at Sonkh\(^83\). It is decorated with grooves and stamped *nandyāvarta* on shoulders. It is of a brick-red ware of fine fabric and has an unoxidized core. (IL.29)

**Type LXV** — Fragment of a globular jar having flaring ringed rim, short recurved neck and shoulder decorated with grooves and three parallel vertical incised strokes has been found from Period V at Sonkh\(^84\). It is of a brick-red ware of fine fabric. [IL.30 (A)]. An identical specimen has been reported from Period IV (Layer 2) at Mathurā (MTR 4). It is of a red ware
of medium fabric and is treated with red slip externally. It is wheel thrown. [IL.30 (B)]

**Type LXVI** - Fragment of a globular jar having grooved band rim, up curved neck and carinated shoulder with upturned edge has been recovered from Period V at Sonkh. It is of a brick-red ware of medium fine fabric. (IL.30)

**Type LXVII** - Fragment of a heart shaped jar having beaked rim and short wide recurved neck has been reported from Period V at Sonkh. It is of a light brick-red ware of fine fabric. [IL.31 (A)]. A similar type of specimen has been recovered from Period IV (Layer 5) at Mathurā (MTR 6). It is of a red ware of medium fabric and is treated with red slip externally. [IL.31 (B)]

**MINIATURE VESSELS:**

**Type LXVIII** - A miniature globular vessel having beaded rim, recurved neck, flat base and groove on belly has been reported from Period V at Sonkh. It is of a reddish-ochre ware of medium coarse fabric. (IL.32)

**Type LXIX** - A miniature vessel (IL.32) having carinated body, flaring bevelled rim, wide mouth, short recurved neck and flat base has been found from Period V at Sonkh. It is of a dark brick-red ware of medium fine fabric.

**Type LXX** - A miniature vessel (probably a vase) having flaring out turned rim, recurved neck with grooves below, carinated body and flat base has been recovered from Period IV (Layer 3) at Mathurā (MTR 8). It is of a red ware of medium fabric and is treated with red slip externally. It is wheel thrown. (IL.32) & (Pl. CXVI)
**Type LXXI** - A miniature vessel (probably a vase) having flaring out turned rim, recurved neck, slightly concave body and flat base has been reported from Period IV (Layer 3) at Mathurā (MTR 2). It is of a red ware of medium fine fabric and is treated with red slip externally. It is wheel thrown. (IL.32) & (Pl. CXIII, 3)

**Type LXXII** - Ovoidal miniature vessel having banded rim, slightly concave neck and flat bottom has been unearthed from Period V at Sonkh₉⁹. It is of a brick-red ware of medium coarse fabric. (IL.32)

**Type LXXIII** - Fragment of a miniature pot (probably a vase) having thick convex wall, grooved upper wall and protruding flat base has been reported from Period V at Sonkh₉⁰. It is of a light brick-red ware of medium fine fabric and has an unoxidized core. (IL.32)

**Type LXXIV** - Globular miniature vessel having flat topped rim, steep funnel neck with ridge below and grooves on belly has been reported from period V at Sonkh₉¹. It is of medium coarse fabric and black dots are present on the interior surface. (IL.32)

**Type LXXV** - A miniature globular vessel having tapering edged rim and funnel neck and rounded base has been reported from Period V at Sonkh₉². It is hand made and of fine fabric. [IL.33 (A)]. An identical specimen of red ware with slightly tapering body has been recovered from Period IV (Layer 5) at Mathurā (MTR 5). It is of fine fabric and is treated with red slip externally. It is wheel thrown. [IL.33 (B)]

**Type LXXVI** - A miniature vessel having bevelled rim, recurved neck and flat base has been unearthed from Period V at Sonkh₉³. It is of a dark brick-red ware of medium coarse fabric and is treated with smooth red slip. (IL.33)
**Variant LXXVI a** – Differs from the main type in having carinated body. It is of brick-red ware of fine fabric. This specimen has been reported from Period V at Sonkh.94 (IL.33)

**Type LXXVII** - A miniature double carinated vessel having bevelled collar rim, concave wall, short neck and flat foot has been reported from Period V at Sonkh95. It is of a brick-red ware of fine fabric. (IL.33). An almost identical specimen has been unearthed from Period IV (Layer 3) at Mathurā (MTR 6). It is of medium fabric and treated with red slip externally. (Pl. CXIV, 3) Analogous types have been reported from Phase II at Sirkap (Taxila), Period III (Sub-Period IV – VIII) at Kauśāmbi, Period IV (early level) at Hastināpura and Stratum IV at Ahichchhatra. The Taxila96 specimen has double carination and a flat base. It is of coarse fabric. (IL.43, v). The Kauśāmbi97 specimen bears an out-turned rim, curved shoulder, a ridge waist and a flat base. (IL.42, iii) The Hastināpura98 specimen has out-turned featureless rim, a ledged shoulder, a low girth and a sharp constriction above a flat base. It is of medium fabric. (IL.41, vi). The Ahichchhatra99 specimen bears a slightly concave profile above the basal carination. (IL. 40, iii)

**Type LXXVIII** – A miniature vessel having plain rim, steep funnel neck, shoulder ridge and flat base has been reported from Period V at Sonkh100. It is of a brick-red ware of fine fabric. (IL.33)

**Type LXXIX** – A miniature double carinated vessel having banded rim, short neck and flat base has been reported from Period V at Sonkh101. It is of a brick-red ware of medium fine fabric. (IL.33)

**Type LXXX** - A miniature carinated vessel having bevelled rim, angular short neck and flat foot has been reported from Period V at Sonkh102. It is of a brick-red ware of medium fine fabric. (IL.33)
**Type LXXXI** - A miniature carinated vessel having angular funnel neck and sagger base has been recovered from Period V at Sonkh. It is of a brick-red ware of medium fine fabric. (IL.33)

**Type LXXXII** - A miniature vessel having up turned carination, hemispherical lower trunk, beaked rim, short recurved neck, conical shoulder and flat base has been reported from Period V at Sonkh. It is of a brick-red ware of fine fabric. (IL.33)

**COOKING VESSELS: -**

**Type LXXXIII** - A cooking vessel having band rim, carinated body, out curved neck, conical wall and lenticular bottom has been reported from Period V at Sonkh. It is of a brick-red ware of medium fine fabric. (IL.34 [A]). Similar type has been found from Period IV (Layer 4) at Mathurā (MTR 9). It is of a red ware of coarse fabric and is devoid of any slip. It is wheel thrown. (IL. 34 [B]).

**Type LXXXIV** - A big cooking vessel having carinated body, flaring rim with grooved on top, recurved neck, slightly convex shoulders and hemispherical lower trunk has been recovered from Period V at Sonkh. It is of a brick-red ware of medium fine fabric with grey core. (IL.35)

**Variant LXXXIV a** - Differs from the main type in having lenticular bottom. The specimen has micaceous slip on the lower portion of the exterior surface for absorbing heat. It is of a brick-red ware of medium fine fabric. The specimen has been reported from Period V at Sonkh. (IL.36). A similar type of potsherd with micaceous slip has been found during our field survey in and around Mathurā. (Pl. CXVII, 5)

**Type LXXXV** - Fragment of a cooking vessel (IL.36) having finger-dented part of rim, grooved angular neck and conical shoulders has been
reported from Period V at Sonkh\textsuperscript{108}. It is of a light brick-red ware of medium fine fabric.

**Type LXXXVI** – A cooking vessel, probably a cauldron having double - beaded rim, concave wall, sagger base and lug handles attached to rim has been reported from Period V at Sonkh\textsuperscript{109}. It is of a brick-red ware of coarse fabric. (IL.37)

**Type LXXXVII** - A cooking vessel, probably a cauldron having steep funnel shape, club rim and flat bottom has been recovered from Period V at Sonkh\textsuperscript{110}. It is hand made. The specimen is of a brick-red ware of coarse fabric and has an unoxidized core. (IL.38)

**STRAINER:** -

**Type LXXXVIII** - A strainer having hemispherical shape, direct rim attached with lug handles and wide hole in bottom has been reported from Period V at Sonkh\textsuperscript{111}. It is of a brick-red ware of medium coarse fabric and has an unoxidized core. (IL.38)

**DISH/PAN:** -

**Type LXXXIX** – Fragment of a large dish or pan having cylindrical wall, carinated base, grooved middle part, flat bottom and two vertical eared loop handles on rim has been reported from Period V at Sonkh\textsuperscript{112}. It is of a brick-red ware of medium coarse fabric and has an unoxidized core. The bottom portion is treated with micaceous slip on both sides. (IL.39).
LAMPS: -

Type XC – Fragment of a lamp with scalloped rim, funnel-shaped bowl and capstan-shaped pedestal has been reported from Period V at Sonkh\textsuperscript{113}. It is hand made and of medium fabric. (IL.39)

Type XCI – Fragment of a lamp (IL.39) with hollow pedestal and long loop handle has been unearthed from Period V at Sonkh\textsuperscript{114}. It is of fine fabric.

RING - STANDS: -

Type XCII – A ring-stand having bevelled lower rim, beaked upper rim, conical wall, decorated with grooves and scratched symbols has been reported from Period V at Sonkh\textsuperscript{115}. It is of a brick-red ware of medium fine fabric and has an unoxidized core. (IL.39)

Type XCIII – Fragment of a small reel-shaped ring stand has been found from Period V at Sonkh\textsuperscript{116}. It is of medium fine fabric. (IL.39)

GOBLET: -

Type XCIV- A goblet (may be identified as chalice) having carinated body, out-curved round-edged rim, short stem, funnel-shaped lower trunk and protruding flat foot has been reported from Period V at Sonkh\textsuperscript{117}. It is of a brick-red ware of medium fine fabric. (IL.39). An identical specimen has been reported from Taxila (Sirkap)\textsuperscript{118} (IL.43, vi). The Taxila specimen has ridged or grooved body and flaring mouth.
DECORATED POTTERY:

The classification of decorated pottery, found exclusively from the excavated collections of Mathurā and Sonkh and also from explorations in and around this region, has been done on the basis of motifs and designs depicted on the potsherds. The classification given below is an attempt to record the general trend of decorations available on the surface of the ceramic. Therefore, the present attempt may not be an exhaustive and conclusive one, rather it is a tentative and suggestive study.

Some following selected specimens of decorated pottery of the Kushāṇa period reported from the Mathurā region are described below:

1. Fragment of a pitcher having an out curved beak-shaped rim decorated with a stamped row of leaves with intervals placed within incised bands has been reported from Period IV at Mathurā. It is wheel thrown. It is of a red ware of husky medium fabric and is treated with red slip externally. (IL.44)

2. Fragment of a pitcher having an out turned beak shaped rim and grooved neck, decorated with stamped group of ovals filled with solid dots and separated by a series of elongated triangles made of minute strokes followed by a continuous line of chevrons has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of medium fabric and is treated externally with a lustrous red slip. (IL.44)

3. Fragment of a pitcher having an out-curved under-cut rim, decorated with a series of black painted thick and thin parallel horizontal bands and stamped patterns of twin garlands in a row with intervals has been reported from Period IV at Mathurā. It is an isolated specimen bearing painted and stamped motifs in overlapping manner. It is wheel made. It
is of a red ware of fine fabric and is treated with red slip outwardly. (IL.44). Such kind of black painting is also noticed on a jar fragment from Mathurā described above (Type LVII, IL.26). During our field survey, we have also collected few such kind of black painted potsherds from this region. (Pl. CXVII, 8) In this context we should mention that a similar type of black painting have also been reported from Hastināpura, Taxila and Rang Mahal.

4. Fragment of a pitcher having out - curved rim, decorated with stamped row of diamonds with dots inside confined within incised bands has been reported from Period IV at Mathurā. It is wheel- thrown. It is of a red ware of medium fabric with partly unoxidized core and is treated with lustrous red slip on both the sides. (IL.44). Similar type of decoration has also been found on a potsherd from Period IV at Hastināpura. (Pl. CXXX, 1)

5. Rim fragment of a storage jar having thickened rim, decorated with stamped dots and flowers of diamond shaped petals alternatively in a row has been reported from Period IV at Mathurā. It is handmade. It is of a red ware of excessively husky coarse fabric and is treated with slip externally. It has a partly unoxidized core. (IL.44)

6. Shoulder fragment of a pitcher decorated with stamped row of double curves (S-shaped) confined within incised bands followed by two rows of arc-shape festoons or semicircular creepers with pendants of flower and ‘nandipada’ respectively has been recovered from Period IV at Mathurā. It is made in mixed techniques. It is of a red ware of husky medium fabric and is treated externally with a red slip. It has a partly oxidized core. (IL.45). Another specimen reported from the Kushāṇa period at Mathurā shows similar type of stamped arc-shaped festoons hanging with flower motifs (Pl. CXVIII, 1). In this specimen nandipada symbol and S-shaped curves are absent. Excavations at Sonkh have also yielded a
storage jar (Pl. CXIX, 2) having stamped arc-shaped festoons hanging with flower motifs. This pot is now kept in the collection of the Mathura Museum.

7. Shoulder and rim fragment of a vessel decorated with stamped band of S-shaped designs followed by concentric double circles and svastikās respectively, has been unearthed from Period V (Level 21) Sonkh123. It is of a red ware and measures (10X9.2) cm. (IL.45) & (Pl. CXXIV, 26)

8. Shoulder fragment of a jar stamped with two rows of circles confined between wavy lines and followed by impressed rays and circles has been unearthed from Period V (Level 16) at Sonkh124. It is of a red ware and measures (15.6X7.5) cm. (IL.45) & (Pl. CXXIII, 15)

9. Shoulder fragment of a pitcher decorated with stamped rows of diamonds joining the festoons like knots has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated externally with red slip. It has a partly unoxidized core. (IL.46)

10. Shoulder fragment of a pitcher stamped with twin diamonds below an incised band has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated outwardly with red slip. (IL.46)

11. Shoulder and neck portion of a vessel richly stamped from bottom to top with horizontal rows of 'hands', rhomboid/diamond pattern with central dot, curved sets of short strokes and long vertical strokes respectively has been unearthed from Period V (Level 18/17) at Sonkh125. It is of a red ware and measures (11X14.1) cm. (IL.46) & (Pl. CXXV, 33)
12. Shoulder fragment of a pitcher (IL.46) stamped with row of chained triangle pendants/variation of leaves confined with incised bands has been recovered from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated with red slip externally.

13. Shoulder fragment of a jar stamped with a variation of leaves followed by horizontal grooves and a zigzag border has been unearthed from Period V (Level 21) at Sonkh.126 It measures (9.5X5.6) cm. It is of a red ware. (IL.46) & (Pl. CXXVI, 41)

14. Mid fragment of a vessel stamped with śrīvatsa and flower alternatively in a row has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of medium fabric is treated with slip externally. It has a partly unoxidized core. (IL.47)

15. Shoulder and neck portion of a jar stamped with śrīvatsas has been unearthed from Period V (Level 22) at Sonkh.127 It measures (6.9X4.1) cm. (IL.47) & (Pl. CXXV, 37)

16. Shoulder fragment of a spouted pitcher stamped with śīvatsas in a row confined within incised bands. The root of the spout is decorated with finger tipped pattern. It is made in mixed techniques. It is of a red ware of medium fabric and is treated with red slip externally. This specimen has been recovered from Period IV at Mathurā. (IL.47)

17. Shoulder fragment of a pitcher stamped with śrīvatsa followed by incised bands has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of coarse fabric and is treated externally with red slip. It has a partly unoxidized core. (IL.47). A similar type of śrīvatsa symbols has been found on potsherds from Stratum IV at Ahichchhatra.128 (IL.55, i)
18. Shoulder fragment of a vessel stamped with a rare type of śrivatsa symbol has been unearthed from Period V (Level 21) at Sonkh129. It is of a red ware and measures (7.1X6.8) cm. (IL.47) & (Pl. CXXV, 30)

19. Shoulder fragment of a narrow necked pitcher stamped with stylistic form of fishes in friezes within incised bands has been reported from Period IV at Mathurā. It is made in mixed techniques. It is of a red ware of husky medium fabric and is treated with a wash. It has a partly unoxidized core. (IL.48) Similar type of decoration has been found on a vase fragment from Period IV at Hastināpura.130 (Pl. CXXX, 2) Another identical specimen with twin fish has been found from Stratum IV at Ahichchhatra.131 (IL.55, ii)

20. Shoulder fragment of a pitcher stamped with a row of ‘vajra’ like pendants enclosed by incised parallel bands has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated with slip externally. It has a partly unoxidized core. (IL.48) Roughly similar type of decoration has been noticed on a potsherd reported between phases I and II at Sirkap (Taxila).132 Here the design consisting of a circlet surmounted by three parallel lines with an arrow at the top. (IL. 57, i)

21. Mid fragment of a vase stamped with a row of conchs (sankha) in stylistic form has been reported from Period IV at Mathurā. It is hand made. It is of a red ware of fine fabric and is treated externally with a lustrous red slip. (IL.48) An identical specimen having a row of conch-shells has been found on a potsherd from Phase I at Sirkap (Taxila).133 (IL.57, ii)

22. Shoulder fragment of a vessel stamped with conch (sankha) suspended below a group of incised horizontally parallel bands has been
recovered from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of medium fabric and is treated with red slip externally. (IL.48)

23. Mid fragment of a vessel stamped with svastikā in clockwise direction and floral crowned arms has been recovered from Period IV at Mathurā. It is of a red ware of husky medium-coarse fabric and is treated with red slip externally. It has a partly unoxidized core. (IL.48). Similar type of svastikā symbol has found on a potsherd from Stratum IV at Ahichchhatra.134 (IL.55, iii)

24. Mid fragment of a pitcher stamped with svastikā having hooks/arms arranged in anti-clockwise direction enclosed by incised bands has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated with red slip outwardly. (IL.48) Almost similar types of impressed svastika symbols have been found on a red slipped vase fragment from Period IV at Hastināpura.135 (Pl. CXXX, 3) and a potsherd from Phase III at Sirkap (Taxila).136 (IL.57, iii)

25. Shoulder fragment of a jar stamped with a band of angular svastikās having two hooks/arms arranged in anti-clockwise direction has been unearthed from Period V (Level 21) at Sonkh137. It is of a red ware and measures (1.9X4.8) cm. (IL.48) & (Pl. CXXIV , 27) An alike specimen with band of anti-clockwise svastikās along with nandipada symbol has been reported from Stratum IV at Ahichchhatra.138 (IL.56, iv)

26. Shoulder fragment of a spouted pitcher stamped with an anthropomorphic figure has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of medium fabric and is treated a dull ochre hue. (IL.49)

27. Shoulder fragment of a jar decorated with stamped ‘hands’ and appliqué rib looking like a twisted cord has been unearthed from Period
28. Shoulder fragment of a pitcher stamped with row of concentric circles enclosed by a frieze of ‘hands’/ pāṇchāṅguli (palm with five fingers) has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabrics and is treated with red slip externally. (IL.49)

29. Shoulder and neck fragment of a jar stamped from top to bottom with concentric double circles, a design looking like hands with six fingers and remains of alternating nandyāwartas and rosettes separated by grooved horizontal lines has been unearthed from Period V (Level 17/16) at Sonkh. It is of a red ware and measures (10.4X5.5) cm. (IL.49) & (Pl. CXXV, 32)

30. Shoulder fragment of a pitcher stamped with pāṇchāṅguli / ‘hands’ on horizontally incised parallel bands filled with wavy line has been reported from Period IV at Mathurā. It is wheel thrown. It is of a red ware of husky medium fabric and is treated with red slip externally. (IL.49) Alike design has been found on a vase fragment from Period IV at Hastināpura. (Pl. CXXX, 4)

31. Shoulder fragment of a jar richly stamped from top to bottom with crossing wavy garlands, flower-bowls (?) placed upside down and a rib of oblique notches has been unearthed from Period V(Level 20) at Sonkh. It is of a red ware and measures (11.5X5.7) cm. (IL.49) & (Pl. CXXV, 29)

In this context it is to be mentioned that the symbols termed as ‘flower bowls’ could be identified as ‘hands’ or pāṇchāṅguli, as we have identical materials found from Mathurā stated above.
32. Mid fragment of a vessel stamped with pipal leaf has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated with slip externally. It has a partly unoxidized core. (IL.50) Similar types of leaf designs have been found on a red slipped vase fragment from Period IV at Hastināpura¹⁴³ (Pl. CXXX, 5) and on a potsherd from Stratum IV at Ahichchhatra.¹⁴⁴ (IL.56, v)

33. Sherd of a vessel decorated with a stamped leaf and two rows of notches has been unearthed from Period V (Level 21) at Sonkh¹⁴⁵. It is of a red ware and measures (9X7.3) cm. (IL.50) & (Pl. CXXVI, 38)

34. Shoulder fragment of a pitcher stamped with floral pattern and pipal leaf followed by incised horizontally bands has been recovered from Period IV at Mathurā. It is Wheel-thrown. It is of a red ware of husky medium fabric and is treated with red slip externally. It has a partly unoxidized core. (IL.50)

35. Shoulder fragment of a pitcher stamped with a row of ‘pallavas’ (leaves) hanging from an incised band followed by series of leaves having serrated edges has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of medium fabric and is treated with red slip externally. (IL.50)

36. Shoulder fragment of a jar stamped with a band of different leaves followed by a nandīvarta (IL.50) & (Pl. CXXVI, 39) has been unearthed from Period V (Level 21) at Sonkh¹⁴⁶. It measures (9.9X5.9) cm. It is of a red ware.

37. Shoulder fragment of a pitcher stamped with leaf motif enclosed by incised horizontal bands has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of medium fabric and is treated with red slip externally. (IL.50) Identical leaf motifs in a row have been found
on a neck fragment of a jar between Phases I and II at Taxila (Sirkap).\textsuperscript{147} (IL.57, iv)

38. Shoulder fragment of a pitcher stamped with palm leaf motif below grooved horizontal band has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of medium fabric and is treated with red slip externally. (IL.50)

39. Sherd of a vessel stamped with a tree like design has been unearthed from Period V (Level 20) at Sonkh\textsuperscript{148}. It is of a red ware and measures (6.2X5.3) cm. (IL.50) & (Pl. CXXIV, 21)

40. Mid fragment of a vessel stamped with \textit{hamsa}/ swan in stylistic form followed by arc-shaped festoons has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of ill baked fabric and is treated with slip externally. (IL.51)

41. Shoulder fragment of a pitcher decorated with a series of grooved and incised horizontal parallel bands filled with stamped \textit{hamsa}/ swan in stylistic form and incised notches has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of medium fabric and is treated with slip outwardly. It has a partly unoxidized core. (IL.51)

42. Shoulder and rim fragment of a vessel richly decorated with horizontal grooves, a band of oblique rows of notches, short strokes and stamped \textit{hamsas}/ swans between \textit{nandyāvartas} has been recovered from Period V at Sonkh.\textsuperscript{149} It measures (18X6.1) cm. It is of a red ware. (IL.51) & (Pl. CXXIV, 24)

43 & 44. Mid fragments of vessels stamped with a motif very much alike to a ‘\textit{Brāhmi}’ alphabet. Both the fragments are of red ware of medium
fabric and are treated externally with red slip. Both the specimens have been reported from Period IV at Mathurā. (IL.51)

45. Mid fragment of a vessel stamped with *nandipadas* in a row has been reported from Period IV at Mathurā. It is wheel-made. It is of a red ware of husky medium fabric and is devoid of slip or wash. It has a partly unoxidized core. (IL.52)

46. Shoulder fragment of a pitcher decorated with a row of stamped *nandipadas* confined within incised horizontal bands followed by a frieze of *nandipadas* and rosettes in alteration has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated with red slip externally. (IL.52) & (Pl. CXX, 4)

47. Sherd of a red ware vessel showing stamped *nandyāvarta*. This symbol may be termed as *nandipada*. It is of a red ware and measures (5X3.4) cm. It has been unearthed from Period V at Sonkh.\(^{150}\) (IL.52) & (Pl. CXXVII, 50). Almost Similar type of symbol has been found on a red slipped vase fragment from Period IV at Hastināpura.\(^{151}\) Here the symbol is identified as 'triratna'. (Pl. CXXX, 6) Excavations at Mathurā have also yielded potsherds with almost similar types of *nandipada* symbols. (Pl. CXXI, 1, 2 and 3)

48. Mid fragment of a vessel stamped with flower and *nandipada* alternately in a row has been found from Period IV at Mathurā. It is hand made. It is of a red ware of husky medium fabric and is treated with red slip externally. (IL.52)

49. Fragment of a pitcher stamped with *nandipada* suspended from festoons or semi-circular creepers in series has been unearthed from Period IV at Mathurā. It is made in mixed techniques. It is of a red ware of husky medium fabric and is treated with red slip outwardly. (IL.53)
Similar type of depiction has been found on a potsherd from Stratum IV at Ahichchhatra.\textsuperscript{152} (IL.56, vi)

50. Shoulder fragment of a jar decorated with stamped multiple rhomboid designs and semi-circular creepers has been unearthed from Period V (Level 22) at Sonkh\textsuperscript{153}. It is of a red ware and measures (7.9X7.2) cm. (IL.53) \& (Pl. CXXIII, 11). Excavations at Sonkh have also yielded a spouted vessel decorated with a row of semi-circular creepers. This pot is now housed in the collection of the Mathura Museum. (Pl. CXIX, 1) Excavations at Mathurā have also yielded potsherds with identical semi-circular creepers from the Kushāṇa period. (Pl.CXXI, 4 and Pl.CXV, 2). During our fieldwork in this region, we have also collected alike stamped potsherds having rhomboid and semi-circular creeper designs. (Pl. CXVII, 6) Similar type of impressed semi-circular creepers or loops has also been found on a red ware vase fragment from Period IV at Hastināpura.\textsuperscript{154} (Pl. CXXX, 7)

51. Shoulder fragment of a pitcher stamped with V-shaped festoon or garland below incised bands (IL. 53) has been reported from Period IV at Mathurā. It is wheel made. It is of a red ware of husky medium fabric and is treated with red slip externally. It has a partly unoxidized core.

52. Shoulder fragment of a jar showing horizontal grooves followed by a series of V-shaped garlands (IL.53) \& (Pl. CXXIII, 13) has been unearthed from Period V (Level 21/20) at Sonkh\textsuperscript{155}. It measures (7X4.9) cm. It is of a red ware.

53. Shoulder fragment of a pitcher decorated with a series of horizontally incised bands, frieze of floral motifs followed by arc-shaped festoons has been reported from Period IV at Mathurā. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated with red slip externally. It has a partly unoxidized core. (IL.54)
54. Shoulder fragment of a jar decorated with horizontally grooved lines and row of rare floral (?) motifs has been unearthed from Period V (Level 19) at Sonkh. It is of a red ware and measures (9.1X4.1) cm. (IL. 54) & (Pl. CXXIV, 22)

55. Shoulder fragment of a pitcher decorated with stamped festoons and flowers having diamond shaped petals in series divided by an incised band (IL.54) has been reported from Period IV at Mathura. It is wheel-thrown. It is of a red ware of fine fabric and is treated with red slip externally.

56. Shoulder fragment of a vessel decorated with horizontal grooves with fan-like pendants and a stamped star-rosette with short rays outside and elevated dots inside the central circle has been unearthed from Period V (Level 19/18) at Sonkh. It is of a red ware and measures (12.8X9.4) cm. (IL. 54) & (Pl. CXXVII, 48)

57. Mid fragment of a vessel stamped with floral patterns in a row enclosed by group of incised horizontal and parallel bands has been recovered from Period IV at Mathura. It is wheel-thrown. It is of a red ware of husky medium fabric and is treated with slip externally. It has a partly unoxidized core. (IL.54)

58. Sherd of a vessel stamped with ‘stars’ consisting of rays around two concentric circles with a dot in center has been recovered from Period V (Level 18) at Sonkh. It is of a red ware and measures (6.3X3.4) cm. (IL.54) & (Pl. CXXVI, 43)

59. Mid fragment of a spouted pitcher with narrow neck, stamped with a frieze of flowers confined within incised bands has been reported from Period IV at Mathura. It is made in mixed techniques. It is of a red ware
of husky medium fabric and is treated with slip externally. It has a partly unoxidized core. (IL.54)

60. Shoulder fragment of a vessel decorated with a semicircle of notches and a stamped rosette with eight petals has been unearthed from Period V (Level 19) at Sonkh\textsuperscript{159}. It is of red ware and measures (7.7X6.3) cm. (IL.54) & (PI. CXXVII, 51)

61. Shoulder fragment of a vessel decorated with painted horizontal bands and stamped loops painted with a gold-coloured wash has been unearthed from Period V (Level 16/15) at Sonkh\textsuperscript{160}. It is of a red ware and measures (12X9) cm. (Pl. CXXII, 1)

62. Sherd of a vessel decorated with an incised band of rhomboid pattern has been reported from Period V (Level 18) at Sonkh\textsuperscript{161}. It is of a red ware and measures (5.6X5.8) cm. (Pl. CXXII, 2)

63. Fragment of a jar decorated with an appliqué rib looking like a twisted cord and followed by an incised and pricked wavy tendril has been unearthed from Period V (Level 18) at Sonkh\textsuperscript{162}. It measures (10X5.3) cm. It is of a red ware. (Pl. CXXII, 3)

64. Base fragment of a small bowl decorated with incised triangular ‘petals’ around central circle on the inside has been reported from Period V (Level 18) at Sonkh.\textsuperscript{163}. (Pl. CXXII, 4)

65. Sherd of a jar decorated with an appliqué rib looking like a twisted cord unearthed from Period V (Level 22) at Sonkh\textsuperscript{164}. It is of a red ware and measures (12.5X6.8) cm. (Pl. CXXII, 5)

66. Sherd of a jar decorated with appliqué bands of a design of finger-impressions alternating with a twisted - cord-rib has been recovered from
Period V (Level 16) at Sonkh. It is of a red ware and measures (11X6.2) cm. (Pl. CXXII, 6)

67. Rim of a bowl or lamp decorated with appliqué double-crescents has been reported from Period V (Level 17/16) at Sonkh. It is of a red ware and 4.1cm in length. (Pl. CXXII, 7)

68. Sherd of a jar decorated with grooves and impressed fish-scale patterns has been reported from Period V (Level 20/19) at Sonkh. It is of a red ware and measures (13.5X11.4) cm. (Pl. CXXII, 8)

69. Sherd of a jar decorated with an appliqué band showing a row of finger-impressions has been unearthed from Period V (Level 16) at Sonkh. It is of a red ware and measures (17.4X7.9) cm. (Pl. CXXII, 9)

70. Sherd of a jar decorated with an appliqué angular svastikā showing incised notches has been reported from Period V (Level 19) at Sonkh. It is of a red ware and measures (13.7X10) cm. (Pl. CXXIII, 10) Such kind of appliqué svastikā has also been found on some potsherds unearthed from the Kushāṇa period (Period IV) at Mathurā. (Pl. CXVIII, 3)

71. Fragment of a jar decorated from top to bottom with horizontal grooves, vertical strokes and followed by stamped semi-circular garlands has been reported from Period V (Level 21/18) at Sonkh. It measures (14.5X11.8) cm. It is of a red ware. (Pl. CXXIII, 12)

72. Shoulder fragment of a jar stamped with three double circles on top and semi-circular garlands confined within two rows of horizontal grooves has been unearthed from Period V (Level 16) at Sonkh. It is of a red ware and measures (6X4.3) cm. (Pl. CXXIII, 14)
73. Sherd of a jar stamped with a band of crescents/enclosed circles and chevrons has been unearthed from Period V (Level 18) at Sonkh. It is of a red ware and measures (9.2X6.8) cm. (Pl. CXXIII, 16)

74. Sherd of a jar stamped with a row of double chevrons followed by a row of double- circles enclosing a dot has been reported from Period V (Level 18/17) at Sonkh. It is of a red ware. The specimen measures (7.4X4.1) cm. (Pl. CXXIII, 17)

75. Shoulder fragment of a jar decorated with horizontal rows of dots and circles above fan -like arranged rays hanging down from a horizontal groove has been unearthed from Period V (Level 16) at Sonkh. It is of a red ware and measures (9.9 X 5.9) cm. (Pl. CXXIV, 18)

76. Shoulder fragment of a jar stamped with rosettes and rare design of a flower vase alternatively in a row has been unearthed from Period V (Level 22) at Sonkh. It is of a red ware. The specimen measures (10.4X6.4) cm. (Pl. CXXIV, 19)

77. Sherd of a vessel stamped with a design looking like a vase placed upside down has been recovered from Period V (Level 22/21) at Sonkh. It is of a red ware and measures (5.4X4.6) cm. (Pl. CXXIV, 20)

78. Shoulder fragment of a jar decorated with a band of sankhas on grooved ground has been unearthed from Period V (Level 22/21) at Sonkh. It is of a red ware and measures (9.6X5.1) cm. (Pl. CXXIV, 23)

79. Shoulder fragment of a jar decorated with impressed vase design confined between two horizontal grooves has been recovered from Period V (Level 21/20) at Sonkh. The specimen measures (11.9X 10.6) cm. It is of a red ware. (Pl. CXXIV, 25)
80. Shoulder and neck fragment of a vessel stamped with a band of vases followed by a rib looking like a twisted cord has been reported from Period V (Level 19) at Sonkh. The specimen measures (5.6X7.5) cm. It is of a red ware. (Pl. CXXV, 28)

81. Sherd of a vessel stamped with śrīvatsa (Pl. CXXV, 31) has been unearthed from Period IV at Sonkh. It is of a red ware and measures (3.6X3.2) cm.

82. Sherd of a vessel stamped with a śrīvatsa confined between two horizontal grooved lines (Pl. CXXV, 34) has been unearthed from Period V (Level 21/20) at Sonkh. The specimen measures (6.6X4.5) cm. It is of a red ware.

83. Sherd of a vessel stamped with śrīvatsa has been recovered from Period V (Level 22) at Sonkh. It is of a red ware and measures (7.3X6) cm. (Pl. CXXV, 35)

84. Shoulder fragment of a vessel decorated with horizontal grooves separating a row of stamped leaf-variations above and a stamped nandyāvarta between S-shaped patterns below has been unearthed from Period V (Level 21) at Sonkh. It is of a red ware and measures (9.3X7.6) cm. (Pl. CXXVI, 40)

85. Shoulder fragment of a jar stamped with a row of rhomboid designs and ‘turning wheels’ (whirling sun) separated by a horizontal groove has been reported from Period V (Level 20) at Sonkh. It is of a red ware and measures (7.2X4.7) cm. (Pl. CXXVI, 42)

86. Rim fragment of a vase (Pl. CXXVI, 44) decorated with grooved horizontal lines and stamped with a row of leaves confined between two lines of stamped sun designs followed by stamped rhomboid patterns. It
is 7.5 cm in height and probably unearthed from the Kushāṇa Period at Sonkh.185

87. Sherd of a vessel stamped with a wheel or rosette has been unearthed from Period V (Level 21/20) at Sonkh186. The specimen measures (4.9 X 3.2) cm. It is of a red ware. (Pl. CXXVI, 45)

88. Shoulder fragment of a jar decorated with stamped sun wheels on the shoulder has been reported from Period V (Level 21/20) at Sonkh187. The specimen measures (9.7X9.5) cm. It is of a red ware. (Pl. CXXVI, 46)

89. Shoulder fragment of a vessel decorated with a horizontal border of impressed triangles followed by a stamped rosette with elevated dots in the inner circle (Pl. CXXVII, 47) has been unearthed from Period V (Level 21/20) at Sonkh188. The specimen measures (7.9X5.3) cm. It is of a red ware.

90. Sherd of a vessel stamped with a rosette consisting of a wheel with spokes and hub surrounded by seven circles with a dot in center has been reported from Period V (Level 19) at Sonkh189. It is of a red ware and measures (8.4X6.4) cm. (Pl. CXXVII, 49)

91. Base fragment of a small bowl stamped on the inner side with a rosette consisting of a circle with a nandyāvarta in the center and semi-circular leaves on the outer edge (Pl. CXXVII, 52) has been unearthed from Period V (Level 17) at Sonkh190. It is of a red ware and measures (4.7X3.3) cm.

92. Shoulder fragment of a vessel stamped with nandyāvartas having a rare flower like top (Pl. CXXVII, 53) has been unearthed from Period V (Level 21) at Sonkh191. The specimen measures (7.5X4.8) cm. It is of a red ware.
93. Shoulder fragment of a vessel decorated with stamped leave-variations and *nandyāvarta* between horizontally grooved lines has been reported from Period V (Level 22) at Sonkh. The specimen measures (6.9 X 5.6) cm. It is of a red ware. (Pl. CXXVII, 54)

94. Sherd of a moulded caolin bowl with floral design under a horizontal geometrical border on the outside has been unearthed from Period V (Level 21) at Sonkh. The specimen measures (4.6X4.3) cm. It is of a red ware. (Pl. CXXVIII, 55)

95. Fragment of a moulded vessel decorated on the outer side from top to bottom with a circle of rosette leaves, a band with symbols like *svastikā*, cross-flower, vase, flower and *nandyāvarta*, separated from each other by a vertical double-line enclosing a row of pearls. Below, remains of a band of *hamsas* following one after another has been reported from Period V (Level 18) at Sonkh. The specimen measures (6.8X7) cm and is treated with smooth red slip. (Pl. CXXVIII, 56)

96. Fragment of a moulded caolin bowl reliefed with a lotus rosette and other floral ornaments has been reported from Period V (Level 18) at Sonkh. It is of a red ware. It is 3.4 cm in height and 9 cm in diameter. (Pl. CXXVIII, 57)

97. Fragment of a moulded bowl showing a lotus rosette and semi-circular loops attached to a horizontal borderline has been recovered from Period V (Level 20) at Sonkh. The specimen is 4.7 cm in height and 9.5 cm in diameter. It is of a red ware. (Pl. CXXVIII, 58)

98. Fragment of a small moulded bowl decorated on the outside with a crude type of rosette with triangular petals and leaves has been reported
from Period V (Level 18) at Sonkh. It is of a red ware. It is 3.5 cm in height and 7 cm in diameter. (Pl. CXXVIII, 59)

99. Fragment of a small moulded bowl decorated on the outside with a large svastikā (?) and a triangular geometrical border has been unearthed from Period V (Level 18/17) at Sonkh. It is of a red ware and measures (5X3.6) cm. (Pl. CXXVIII, 60)

100. Base fragment of a small moulded bowl (Pl. CXXVIII, 61) having a crude rosette and rows of short ridges on the outside has been unearthed from Period V (Level 18/17) at Sonkh. It is of a red ware and measures (7X5.9) cm.

101. Fragment of a small moulded bowl decorated on the outside with a turning star and an arrow-shaped design above a horizontal rib has been unearthed from Period V (Level 17) at Sonkh. The specimen measures (4.1X3.5) cm. It is of a red ware. (Pl. CXXVIII, 62)

102. Fragment of small moulded bowl decorated on the outside with tree-like pattern in a triangle, each separated by a vertical rib has been unearthed from Period V (Level 16) at Sonkh. The specimen measures (8.3X6) cm. It is of a red ware. (Pl. CXXVIII, 63) Similar type of tree-like pattern is also noticed on a potsherd found between phases I and II at Taxila (Sirkap). (IL.57, v)

103. Fragment of a small moulded bowl decorated on the outside with a simple design of twig-shaped ribs has been reported from Period V (Level 16/15) at Sonkh. It is of a red ware. It is 3.2 cm in height and 8 cm in diameter (Pl. CXXVIII, 64). We have also collected a potsherd with almost similar type of decoration during our fieldwork in this area. (Pl. CXVII, 7)
104. Sherd of a jar paddled with sets of parallel grooves has been unearthed from the area of Apsidal Temple 2 at Sonkh. It is of a red ware and measures (7.1X4.9) cm. (Pl. CXXIX, 65)

105. Shoulder fragment of a jar with vertical and horizontal incised and impressed grooves has been unearthed from the area of Apsidal Temple 2 at Sonkh. The specimen measures (21.2X11) cm. It is of a red ware. (Pl. CXXIX, 66)

106. Shoulder fragment of a jar stamped with hanging leaves (probably pipal leaves) between horizontal grooved lines has been recovered from the area of Apsidal Temple 2 at Sonkh. The specimen measures (13.25 X 10.2) cm. It is of a red ware. (Pl. CXXIX, 67)

107. Sherd of a jar stamped with a variation of leaves, rosettes and a V-shaped shoulder band has been unearthed from the area of Apsidal Temple 2 at Sonkh. The specimen measures (7.7X5.2) cm. It is of a red ware. (Pl. CXXIX, 68)

108. Shoulder fragment of a vessel stamped with a band of small nandyavarta symbols above and one such symbol below has been unearthed from the area of Apsidal Temple 2 at Sonkh. The specimen measures (6X7.4) cm. It is of a red ware. (Pl. CXXIX, 69)

109. Shoulder fragment of a vessel stamped with leave variations between horizontal grooved lines has been recovered from the area of Apsidal Temple 2 at Sonkh. The specimen measures (14.7X5.6) cm. It is of a red ware. (Pl. CXXIX, 70)

110. Sherd of a jar showing horizontal grooves and stamped V-shaped patterns as well as semicircular garlands / festoons has been recovered
from the area of Apsidal Temple 2 at Sonkh\textsuperscript{210}. The specimen measures (7.7X5.1) cm. It is of a red ware. (Pl. CXXIX, 71)

111. Sherd of a jar decorated with stamped rosettes, lozenges and arches has been recovered from the area of Apsidal Temple 2 at Sonkh\textsuperscript{211}. The specimen measures (12X7.1) cm. It is of a red ware. (Pl. CXXIX, 72)

112. Shoulder fragment of a jar decorated with a horizontal chain of broad lotus petals and a large stamped śrīvatsa has been recovered from the area of Apsidal Temple 2 at Sonkh\textsuperscript{212}. The specimen measures (9.9X8.1) cm. It is of a red ware. (Pl. CXXIX, 73)

113. Shoulder fragment of a jar showing lines of small and large stamped rosettes followed by a band of oblique-notched grooves has been recovered from the area of Apsidal Temple 2 at Sonkh\textsuperscript{213}. The specimen measures (10.5X8.6) cm. It is of a red ware. (Pl. CXXIX, 74)

114. Sherd of a jar stamped with bands of stamped stars and notches arranged in semicircles has been recovered from the area of Apsidal Temple 2 at Sonkh\textsuperscript{214}. The specimen measures (5.8X3.1) cm. It is of a red ware. (Pl. CXXIX, 75)

115. Fragment of a moulded vessel decorated with floral and geometric patterns (Pl. CXXIX, 76) has been recovered from the area of Apsidal Temple 2 at Sonkh\textsuperscript{215}. The specimen measures (4.5 X 4) cm. It is of a red ware.

116. Fragment of a moulded vessel decorated with appliqué conch (\textit{sankha}) and floral motifs has been recovered from Period IV (MTR-13) at Mathurā. It is of a red ware of medium fabric and is treated with red slip externally. (Pl. CXVIII, 2)
117. Fragment of a vessel decorated with stamped leaf, flower and a design looking like a vase placed upside down alternatively has been reported from Period IV at Mathurā. It is of a red ware of medium-coarse fabric and is treated with red slip externally. (Pl. CXX, 1)

118. Sherd of a red ware vessel decorated with a stamped three-arched hill with crescent above has been reported from Period IV (MTR-4) at Mathurā. It is of a dull-red ware of medium fabric and is treated with red slip externally. (Pl. CXX, 2)

119. Fragment of a vessel decorated with stamped nandipada and flower motifs has been found from Period IV at Mathurā. It is of a red ware of medium fabric and is treated with red slip externally. (Pl. CXX, 3)

Chart No. 5 shows a comparative distribution of stamped motifs found in the potsherds of the Kushāṇa period at Mathurā and Sonkh and those reported from the contemporary period at Hasrināpura, Ahichchhatra, Taxila, Satanikota, Rājghat, Rajgir, Vaisali, Kumrāhār and Charsada. (See in page no. 395)

In the foregoing pages we have discussed the typological characters of the ceramic tradition found in and around Mathurā during the Kushāṇa period. Though, our information may not be exhaustive to explain the characteristics of the ceramic tradition, which prevailed in this region. Although, we have meagre information regarding the numerical strength of pottery types reported from the Kushāṇa period at Mathurā and Sonkh, the present analysis has enough scope to elaborate the function, manufacturing techniques, designs available in the orientation of symbols, floral, faunal and other motifs as found on the potteries, application of slip and the preference of colour that was opted by the potters' community according to the demand of the consumers.
From the above analysis it is clear that the diagnostic pottery type of the Kushāṇa period in the Mathurā region was the Red Ware with surface hues of brick red, dull red, buff red and ochre red. A matured red slip, termed as Red Polished Ware came in to use during this period. The shapes in this ware were mainly represented by varieties of sprinklers. Fabric varies from coarse and medium to fine. At Mathurā, husk was used in clay body as organic tempering material which sometimes caused minute fractures on pot surfaces or porosity in sections after firing. Mica particles were also visible on pot surfaces along with sand.

Except large storage jars, the entire range of potteries are wheel thrown. Besides, a few moulded bowls have been found in the middle Kushāṇa levels at Sonkh. Bowls (mainly with incurved rims) and jars are the most predominant shapes in Red Ware. The other popular shapes found in Red ware are – sprinklers, spouted vessels, bottle-necked vessels, cooking vessels, miniature vessels, lids, strainers, lamps, ring stands, goblets/chalices etc. Most of the shapes had functional/utilitarian value and they were mainly used for household purposes, i.e. containers for cooking, storing, serving of foods/liquids and others. Sprinklers and miniature pots were probably used for ritualistic purposes. Regarding the sprinklers, the observation of M.C.Joshi requires further clarification. His opinion that the sprinklers “may have been introduced from Western India in to Mathurā along with Rang-Mahal pottery tradition”216 is certainly a significant assessment as well as observation that could be crucial when we intend to elaborate the entire ceramic mosaic of Mathurā and its relationship with its surroundings.

Decorated potteries from the Mathurā region form a considerable percentage. The decoration consisted of stamped, incised, painted and moulded patterns. The stamped decoration comprised of floral and geometric designs like rosettes, leaves, flowers, ovals, triangles, dots,
chevrons, rhomboids, semi-circular creepers, circles, S-shaped designs, strokes etc. and varied auspicious symbols like fishes, śrīvatsas, svastikās, hamsas, sankhas, nandyāvartas/nandipadas/triratnas, pūrṇaghaṭas, cakras, vajra, pañchāṅgulis/palms, anthropomorphic figure etc. These stamped motifs are usually found on storage vessels, jars and pitchers. The painted decorations generally occurred in black on red slip or wash treated surfaces. Moulded decorations included geometrical designs, lotus petals, leaves, rosettes, svastikās etc and found on the exterior surfaces of tiny bowls.

Besides, a number of glazed potteries, mainly in forms of pinnacles stems have been unearthed from the undisturbed Kushāṇa levels at Sonkh.217

Our analysis clearly exhibits that inspite of minor additions and alterations in shapes; the ceramic tradition of the Kushāṇa period focuses a gradual development since the PGW phase. Moreover, in some cases this ceramic tradition of the Kushāṇa period found to be continued in the post-Kushāṇa phases.218 The most highlighting points are-

1. Storage jars and common bowls and some miniature jars of the Kushāṇa period supposed to have evolved from the PGW phase.

2. Pyriform jars, ovoidal miniature vessels, funnel shaped heavy bowls, cooking vessels with carinated walls, large dish or pan probably evolved or continued from the of the NBPW period (4th-3rd centuries B.C.).

3. The shapes supposed to have evolved or continued from the ceramic tradition of the 2nd-1st centuries B.C. are - funnel shaped or incurved bowls, ovoidal bottles with long necks, spouted bowls, libation vessels, Globular jars with corrugated necks or rims, goblets, miniature double carinated jars, bowl lids with central grip holes, lids with central knobs etc. In the Kushāṇa period the globular jars with corrugated rims or necks became spouted. In addition to the ovoidal bottles with long necks, there appeared
bottles with the sprinkler necks. Although there are still bowl-lids with central grip holes, but the majority are now represented by bowl-lids with central knobs.

4. The tradition of stamping the vessels with different motifs and symbols continued from the Ksatrapa (last quarter of the 1st century B.C.) period. The motifs supposed to have continued from the Ksatrapa period are- rosettes, nandyāvartas/nandipadas etc.

5. This ceramic tradition of the Kushāṇa period found to be continued in the post-Kushāṇa phases. At Sonkh, the shapes supposed to have continued from the Kushāṇa (Period V) to the Gupta-Medieval (Period VI) period are – bottle-necked jars, few types of sprinklers, double carinated jars, miniature carinated vessels, carinated cooking vessels, tiny bowls with corrugated walls, small funnel-shaped bowls, goblets etc.

Apart from the above it is worth mentioning that the ceramic tradition of the Kushāṇa period found at Mathurā certainly reflects the extension of a similar tradition exhibited at other centres like Hastināpura219, Ahichchhatra220, Kauśāṃbi221, Taxila222, Rang Mahal223 and Shaikhan Dheri224 in the Swat Valley. This similarity may be highlighted in the following points-

1. Typical Kushāṇa bowls from Mathurā and Sonkh are almost similar to the bowls found from Kauśāṃbi, Hastināpura, Ahichchhatra Rang Mahal, Taxila and Shaikhan Dheri.

2. Few types of Bottle-necked vessels from Mathurā and Sonkh are comparable to the specimens reported from Ahichchhatra, Hastināpura and Kauśāṃbi.

3. Certain types of sprinklers from Mathurā and Sonkh are almost similar to the sprinklers found from Rang Mahal and Hastināpura.

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4. Double-carinated miniature vessels from Sonkh are analogous to the specimens found from Taxila, Hastināpura, Kauśāmbī and Ahichchhatra.

5. Goblet from Sonkh is comparable to the goblets recovered from Taxila. Similar types of goblets have also been reported from Begram, Afghanistan. Goblet has also been reported from the contemporary levels at Shaikhan Dheri.

6. Inkpot lids from Mathurā and Sonkh are stylistically similar to the inkpot lids found from Hastināpura.

7. Knobbed lids from Mathurā and Sonkh are stylistically similar to the lids found from Shaikhan Dheri.

8. Storage jars from Sonkh are stylistically comparable to the storage jars found from Taxila.

9. Decorated potsherds with stamped svastikā symbol are almost similar to the svastikā symbols found on the potsherds from Taxila, Hastinapura and Ahichchhatra.

10. Śrīvatsa symbols found on the potsherds from Mathurā and Sonkh are comparable to the śrīvatsa symbols depicted on the potsherds from Ahichchhatra.

11. Conch motifs exhibited on the potsherds from Mathurā are similar to the conch motifs found on the potsherds from Taxila.

12. Nandipada symbols found on the potsherds from Mathurā and Sonkh are quite similar to the nandipada/triratna symbols found on the potsherds from Hastināpura and Ahichchhatra.

13. Leaf patterns depicted on the potsherds from Mathurā and Sonkh are comparable to the leaf patterns found on the potsherds from Hastināpura, Taxila and Ahichchhatra. Leaf motifs also found on the potsherds from Shaikhan Dheri.

14. Fish motifs depicted on the potsherds from Mathurā are analogous to the fish motifs found on the potsherds of Hastināpura and Ahichchhatra.
15. Palm or *pañchāṅguli* motifs found on the potsherds from Mathurā and Sonkh are almost similar to the palm motifs found on the potsherds of Hastināpura.

16. *Vajra* motif exhibited on a potsherd from Mathurā may be compared to a similar type of motif found from Taxila. In this context we should mention that the *Vajra* motif can be considered as an unique motif in Mathurā.

17. Similar types of semi-circular creepers / festoons and rhomboid patterns found on the potsherds from Mathurā and Sonkh as well as potsherds from Hastināpura and Ahichchhatra.

18. Black painted pottery from Mathurā are similar to the black painted pottery found from Hastināpura, Rang Mahal, Taxila and Shaikhan Dheri.

Besides, some motifs and symbols found on the potsherds of the Kushāṇa period at Mathurā and Sonkh exhibited the impact of Śaka-Pahlava and Śaka-Scythian styles. This influence could be visualize in the following points-

1. Potsherds from the Kushāṇa levels at Mathurā and Sonkh consisting of several stamped motifs like concentric circles within a dot, wavy lines, flower designs, twin fishes, rosettes, *nandinādas* etc. suggest a probable Śaka-Scythian affiliation.

2. The stylized S-shaped motif found on the potsherds from Sonkh was probably an impact of the Śaka-Scythian art.

3. Pottery spouts in form of *makara’s* head found from the Kushāṇa period at Sonkh probably had an indirect influence of the Śaka-Scythian tradition.
POTTERS' STAMPS: Various sites in the Middle and Upper Ganga Valley have yielded terracotta objects in form of potters' stamps. Their sizes and shapes are also observed in various categories, though their function may not be arbitrarily defined as we have limited idea about the significance of such objects in relation with transaction between producer and consumer. The collections of Sonkh possess a sizeable numbers of such types of objects having relationship with manufacturing of pottery.

At least twenty-three potters' stamps have been recovered from excavations at Sonkh. Among them twenty-one specimens belonged to the Kushāṇa period (nineteen from the Kushāṇa occupational levels and two from the Apsidal Temple No. 2). The potters' stamps are of different shapes with various designs. On the basis of their morphological features we can divide them into two types – 1. Stamps with handle and 2. Stamps without handle.

1. Stamps with handle:

Type I – This type has conical handles showing different types of nandīvarta symbols. One such specimen recovered from Level 20 at Sonkh is 4.8 cm in length.225 (Pl. CXXXI, 1)

Type II – This type has perforated conical handles showing different motifs. One such specimen unearthed from Level 20 at Sonkh has nandīvarta symbol with a length of 4.5 cm and a height of 2.6 cm.227 (Pl. CXXXI, 2). Another specimen from Apsidal Temple No. 2 bears hamsa motif and measures (3.7X3.4X3.7) cm.228 (Pl. CXXXI, 3)

Type III – This type has tapering handles carved with various symbols. One such specimen unearthed from Level 17 at Sonkh carved with a rosette of pointed leaves. (Pl. CXXXI, 4) It is 6.5 cm in length and 4.2 cm in diameter.229

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Type IV – This type has pedestal shaped handles bearing designs in the centre surrounded by a band of vertical strokes. One such specimen from Sonkh is 4.5 cm in length and 3.9 cm in diameter.\(^{230}\) (Pl. CXXXI, 5)

Type V – This type has stubby rounded handles carved with a nandyāvarta symbol of the leaf type. One such specimen (Pl. CXXXI, 6) unearthed from Level 16 at Sonkh is 3.7 cm in length and 2.5 cm in height.\(^{231}\)

2. **Stamps without handle:**

There are few stamps without handles and carved with different kinds of symbols. One such double-faced stamp unearthed from Level 18 at Sonkh bears 1) a large semi-circular design consisting of a row of holes and above it is a band of vertical strokes and 2) a small round rosette. It is 6.1/3.1 cm in diameter.\(^{232}\) (Pl. CXXXI, 7) Another stamp unearthed from Level 17 at Sonkh bears the motif of a sharply cut rosette having triangular leaves surrounded by two concentric circles forming the slightly deepened centre. It is 1.5 cm in height and 2 cm in diameter.\(^{233}\) (Pl. CXXXI, 8)

**Potters’ Moulds:** In absence of a sizeable collection of potters’ moulds in our study materials it is very difficult to analyze several vital issues related to the moulding techniques that appeared in the ceramic tradition of the Kushāṇa period. However, a single specimen certainly hinted towards the utility of mould in the manufacturing process of pottery and its relevance for the same. Non-availability of sizeable collection constrains us to elaborate the utility of such objects and its relevance in the pottery industry. A single specimen of such mould (Pl. CXXXI, 9) has been reported from the Kushāṇa Period (Level17) at Sonkh. It was apparently used for the decoration of a small bowl with a design of a rosette having punctured leaves. It is 7.9 cm in diameter. \(^{234}\)
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- Occurrences of different stamped motifs on pottery.

Chart 5: Comparative Distribution of Stamped Motifs on Pottery in Different Excavated Sites (Kushāṇa period, circa 1st -3rd century A.D.)