Beginning in late fourth millennium BC and continuing to the end of second millennium BC the material culture of the Neolithic period has been reported from several places in Kashmir in the past. However, more recently in a systematic survey of North West Kashmir six more sites from Baramulla District were added to the list. Systematically studying these new sites permitted some attempts to characterise settlement patterns during this period in the district, through understanding types of sites, landscape features, material culture and any evidence for interactions inside and outside Kashmir. Burzahom, Gufkral and Kanispora, (the key excavated sites of Kashmir), and several others thought to be Neolithic on the grounds of surface finds, have already provided some information about interactions during the Neolithic period in Kashmir with South Asia more closely with Pakistan.

Through this paper, I aim to contextualise new interpretations in the broader region of South Asia and understand the level of interactions between Kashmir and Swat during Neolithic times. This is achieved by considering findings and results of the material culture from new sites in Baramulla as well as the previously known in the Kashmir region.

**Introduction**

The Kashmiri Neolithic sites date from the beginning of the 4th to the mid-2nd millennia BCE. This is a critical period in the history of Inner Asia and yet one where only a handful of sites are known which led to a number of ingrained beliefs about the Neolithic people and their material culture in Kashmir (Khazanchi 2004: 40; Sankalia 1974: 303). Kashmiri Neolithic has been contested different from Indian plains Neolithic by a number of scholars (Allchin and Allchin 1993a: 160, 1993b: 116; Ghosh 1989: 49; Kaw 1979: 227). It has been suggested by a few that Kashmiri Neolithic had cultural correlations not only with people of Central Asia but also with those in West Asia and beyond to Europe (Bandey 2009). Many drew analogies between the material culture of Kashmir Neolithic and Northern China Neolithic (Yangshao and Longshan cultures), Siberia, Mongolia, and Manchuria (Fairservis 1975: 317–318; Khazanchi 2004: 40–41). Stacul (1987: 125, 1989: 249) described the homogeneous Neolithic material culture as exotic and a confluence of different styles and traditions.

The Kashmiri Neolithic is of much broader interest, the origins of which is poorly understood, but is most likely centred towards north rather than south to the Indus as might be expected. It is likely that they are part of an important early complex that until now has remained hidden behind the mountains and valleys of the Pamirs, the Hindu Kush and the Karakoram ranges. Similar sites have been found in the Swat Valley in Pakistan (Stacul 1987; Vidale et al. 2011; Khail, 2013) and looser parallels can be drawn with sites further afield, mainly to the southwest (Yatoo & Bandey 2014). Important as it is to discuss the material culture of the new six Neolithic sites in relation to known sites in Kashmir, it is also worthwhile reflecting on the wider perspective beyond Kashmir. The results from the new Neolithic sites has shown similarities (and analogies) in material culture with sites located in northern areas of Pakistan, as well as with the sites of Burzahom, Gufkral and Kanispora in Kashmir itself. These similarities were mainly in pottery, stone tools, and botanical remains from pits (Spate et al. 2017). Therefore, based on the homogeneity in material culture these sites have been described sometimes as part of ‘Inner Asian Complex’ (Stacul 1987, 1993, 1994) and sometimes ‘Northern Neolithic Complex’ (Allchin and Allchin 1993a: 160, 1993b: 116; Pande 1969: 134, 1970).

**Geographic Context**

**Kashmir**

Kashmir is flanked by the Himalayas on the north east, and by the Pir Panjal range on the south west forming an oval shaped valley. The Himalayan and the Pir Panjal mountain ranges protect Kashmir from the heat and summer monsoon of the plains, rising to heights of 5547...
masl and 4999 masl respectively (Agrawal 1992; De Terra and Paterson 2003). Climatically it is more similar to the Mediterranean system than the Indian Ocean system (Agrawal 1992: 2; Agrawal et al. 1989), and it is this influence that makes Kashmir distinct from other regions in South Asia (Husain 2008: 32). The central region of the valley comprises the floodplain of the river Jhelum and its tributaries, which flow from the south of the valley to Baramulla Gorge in the northwest, where the watercourse exits into Pakistan. The Pir Panjal range has a length of c. 240 km and a width of c. 105 km and ranks second only to the Himalayas in its importance in South Asia (Agrawal 1992: 2; De Terra and Paterson 2003). The average height of Kashmir is 1828 masl. Kashmir itself is distinctly basin shaped, c. 140 km in length and 55 km in width (De Terra and Paterson 2003: 17; Husain 2008: 27). The flood plain of the Kashmir is flanked by the elevated lacustrine terraces locally known as karewas, created through tectonic upthrust and then built up by aeolian processes (Agrawal, 1992). Due to their elevation and close proximity to the water sources (such as the Jhelum, wetland reserves), a clustering of Neolithic settlements has taken place on these karewa tablelands (Yatoo, 2012).

Swat

The Swat valley is located to the south of Chitral and east of Dir measuring 6150 square kilometres in area, of which more than 3207 square kilometres consist of mountains (U. Ali 2008: 53–54). Swat valley is surrounded by mountains on all sides, these mountains have many high and perilous passes and it is through many such passes Swat has contacts with the outside world (Tucci 1966:43). The average altitude of Swat is 980 masl. with a cooler and wetter climate in comparison to the rest of Pakistan. River Swat flows through a corridor towards the south and the River Indus acts as its eastern border. Swat River and its tributaries are the main source of the deposition of the fertile alluvial soils, giving shape to terraced fields on which the agriculture is predominantly practiced in the Swat region (U. Ali 2008).

Similarities observed in material culture – infiltration or interactions!

The analysis and subsequent interpretations of the material culture from the six new Neolithic sites from north west Kashmir suggest that the material remains are as varied and distinctive as had earlier been found at Burzahom, Gufkral and Kanispora in Kashmir (see Figure 1). It is also

Figure 1: New Neolithic sites located in Baramulla District.
clear that this distinctive material culture had affinities and parallels beyond these sites in Kashmir, with relative comparators in northern Pakistan and Central Asia (Yatoo 2012; See *Figure 2*).

These similarities were mainly in pottery, stone tools, and wattle and daub with reed impressions associated with pits (Yatoo & Bandey 2014). Stacul (1987: 45–48, 1993: 71–78, 1997: 369) and Lahiri (1992: 150) mention that the black burnished ware, fine gray ware and gritty red or buff ware from the Swat region of Pakistan from period III (1950–1920 cal. BC) and period IV (1730–1690 to 1500 cal. BC) are similar to types found at Burzahom (Stacul 1987: 45, 58, 167). Similar types of pottery were found at the new sites in Baramulla District, and these are similar in many ways to Burzahom in Kashmir (c. 2500 to 1700 BC). The mat impressions or basket impressions on pot bases of burnished and fine ware pottery and plastic decoration on gray ware from Swat are also worth noting (Stacul 1987: 47–48, 1992: 118–119, 1997). These similarities are conspicuous among comparable pottery types at Burzahom in Kashmir (Ghosh 1964; Mitra 1984) and now observed among the pottery assemblages from the new sites in Baramulla District (see *Figures 3 and 4*).

Moreover, the evidence of mat impressed pottery is also reported from Taxila (Sarai-Khola, mid-fourth millennium BC) and Baluchistan (Kili Gul Mohammed) both in Pakistan (Allchin and Allchin 1997: 139; Sharif and Thapar 1999: 134), the central plain (Yangshao and Longshan cultures) in China and Mongolia (Gobi culture) in Inner Asia (Fairservis 1975: 317). There is also uniformity among the shapes such as oval jars, bowls and dishes on stand that were commonly found at Swat in Pakistan, Burzahom and Gufkral in Kashmir and the new sites located in Baramulla District (Stacul 1987: 45, 1993: 78).

Among the stone tools the most important artefacts reported were the rectangular/oval harvesters at Burzahom and Gufkral in Kashmir (Ghosh 1964; Kaw 1979; Mitra 1984). These harvesters are also reported

![Figure 2: New Neolithic sites located in Baramulla District shown in context with key sites of Kashmir and Pakistan.](image)
from Swat in Pakistan and Northern China, and are distinguished by holes in the middle. Stacul (1992: 115) mentions that Kashmir and Chinese harvesters are double holed while Swat harvesters are single holed. At two new sites (5.4 and 9.3) in Baramulla District two types of harvesters were collected making it only the third time such tools have been reported in Kashmir (Yatoo 2012; Yatoo & Bandey 2014). Although the rectangular specimen at site 5.4 in Baramulla District is a single holed harvester, a double-notched oval harvester was reported at site 9.3 (See Figure 5). Stacul (1987, 1992) mentions that these rectangular/oval harvesters are strong evidence of a homogeneous cultural complex, which he said was probably linked together by contacts and migrations of people through Transhimalayan paths (Stacul 1987: 124, 1992: 118–119). Besides these, there are other similarities with the Swat material, such as the presence of schist disks with a central perforation found at the new site 9.3 in Baramulla District (see Figure 6). This is a unique specimen and there is no mention of schist from the Burzahom, Gufkral or Kanispora sites in Kashmir. Stacul reported similar schist disks with central holes from Loebanr III (c. 1650 cal. BC) (Stacul 1976: 26, 1987: 167), and schist slabs from Aligrama (c. 1710–1690 cal. BC) (Stacul 1977: 174, 1993: 78). Stacul described them as “ritual” artefacts although he admits he does not understand their function (Stacul 1977). Law (2008: 138–139) interpreted similar schist disks from a Harappan site in Pakistan, which he called flat disks or palettes, as probably a by-product of some finished items.

**Figure 3:** Mat impressed base of a fine ware pot from one of the new sites (3.2) in Baramulla.

**Figure 4:** A burnished ware pot fragment with graffiti markings from site 3.3.
Extant similarities in material culture between Kashmir and Swat

In order to consider the Baramulla District in context within South Asia (Swat), some key characteristics of material culture are highlighted here.

1. The Swat Valley in Pakistan and Burzahom, Gufkral and Kanispora in Kashmir share similar pottery types with similarities in plastic decoration.
2. Mat impressions, or basket impressions, which are a common feature of Burzahom and Gufkral burnished and fine ware pottery, are also found among Swat, Taxila and Baluchistan pottery assemblages in Pakistan (Fairservis 1975: 317).
3. The presence of art forms such as graffiti on the burnished ware pottery have been noted on material from both Kashmir and Swat Neolithic period sites.
4. Evidence of perforated pottery from Kashmir Neolithic sites is documented.
5. There is evidence of miniature burnished or gray ware pots both from Kashmir and Swat Neolithic sites.
6. Stone tools retrieved from Kashmir Neolithic sites such as Burzahom, Gufkral and Kanispora are made

Figure 5: An oval double-notched harvester from site 9.3.

Figure 6: Schist disks from site 9.3.
from trap and basalt rock types, they have many types and most of them are ground or polished.

7. The presence of rectangular harvesters at Burzahom are similar to artefacts that have been found in Swat.
8. The oval double notched harvesters have only been found from the Swat sites in Pakistan.
9. The presence of pits possibly used for dwellings, have been recorded at Burzahom and Gufkral with similar types found in Swat, Pakistan.
10. Schist disks are reported from the Swat Neolithic sites in Pakistan.
11. There is evidence of terracotta bobbins retrieved from Swat Neolithic sites in Pakistan and also evidence of spindle whorls from Kashmir Neolithic sites.

How do the similarities observed in material culture discussed above in this new study fit within the extant similarities? Most of the similarities suggest that the new Neolithic sites in Baramulla District represent a material culture which is similar not only to Kashmir Neolithic but beyond Kashmir in Pakistan (Yatoo 2012; Yatoo & Bandey 2014). It is likely that similarities between the Baramulla District sites and other Neolithic sites in the wider region are due to a range of factors including trade, exchange, and possibly even contact through seasonal movement. This is indicated by observing similarities in the archaeological evidence from the new sites in Baramulla District (Yatoo 2012):

1. The new sites at Baramulla District have similar pottery types (design and decoration) as found at Swat in Pakistan and Burzahom, Gufkral and Kanispora in Kashmir.
2. Mat impressions, or basket impressions was observed on burnished and fine ware pot bases at new sites in Baramulla whereas graffiti was also observed on the burnished ware pottery.
3. Perforated pottery was observed at new sites in Baramulla District.
4. Miniature burnished or gray ware pots were observed at new sites in Baramulla District.
5. At the new sites in Baramulla District, stone tools of various types (mostly ground or polished), retrieved were mostly made from trap and basalt rock types.
6. Two types of harvesters (oval and rectangular) were recorded from the new sites in Baramulla District.
7. Schist disks are first time reported from the new sites in Baramulla District.
8. Terracotta bobbin is reported from one among the new sites in Baramulla District.
9. ‘pits’ were found at two of the six new sites from Baramulla District (see Figure 7 and 8).

Figure 7: Section of a pit at one of the new sites in Baramulla (site 3.2).
Implications of this new data from Baramulla District

From the above evidence, it is plausible to consider that Baramulla District (north west Kashmir) during the Neolithic period seems to be a part of the ‘Inner Asian’ or ‘Northern Neolithic Complex’ along with Burzahom (c. 2881–1730 cal. BC) or Gufkral (c. 2554–1772 cal. BC) in Kashmir. The homologous materials found at Pakistan in the north and Burzahom and Gufkral in south could be connected by Baramulla placed geographically in the centre of this wider region (Lahiri 1992: 243–244; Yatoo 2015). Baramulla District’s strategic location on the Jhelum Valley trade route is probably an indication of movement of people through the Himalayas, which might have played an important role in the development of a distinctive cultural complex within Kashmir, Pakistan, China and Central Asia. Therefore, the new data based on similarities in material culture presented above does not seem to contest those similarities previously developed about Burzahom and Swat, but rather Baramulla District fits into such extent similarities with some new understandings. Fairservis (1975: 318), observing some of these homogenous cultural correlations, stated “In any case Burzahom represents the southernmost expression of a widespread North Asian complex […]. It is so clearly inner Asian that one finds difficulty in including it as a part of subcontinental archaeology…”

Kashmir and Swat – a connection between the two through Baramulla District, a place of integration and interactions

Lattimore (1962: 470–71) said “mountain chains have often been the means for integration rather than isolation among the people from their facing slopes”. It is known
that Baramulla District is surrounded by Himalayan mountains towards the north west and the Pir Panjal mountain range towards the south. The Neolithic period material remains indicate that there are similarities and interactions between Baramulla District and northern Pakistan (Swat) in South Asia, and also with northern regions of Central Asia.

The similarities found among ceramics, stone and architecture (Pits), at the new sites in the Baramulla District and sites in Swat (in Pakistan) is probably due to the Jhelum Valley communication route that connected Baramulla to these regions (Fussman 1993; Lahiri 1992; Thapar 1997). The juxtaposition of Baramulla District between Kashmir and north western and north eastern regions of South and Central Asia seems to have lead to interactions and later spreading to other areas of the Kashmir such as Burzahom, Harwan, Kanispora, Semthan and Ushkar.

Conclusion
Alongside the similarities found in the material culture from the known sites in Kashmir, the material culture from the six new sites of Baramulla District was analysed alongside material from similar period sites in South Asia (particularly Swat). The results showed surprising similarities with the Neolithic material culture from the Swat sites. Earlier scholars, on the basis of identified common traits in the Neolithic material culture termed this a unique cultural complex calling it the ‘Inner Asian Complex’ or ‘Northern Neolithic Complex’ and it was explained as the interaction between sites in this region with each other due to trade (Allchin and Allchin 1993a, b; Fairservis 1975; Sharif and Thapar 1999; Thapar 1985; Stacul 1989, 1997).

In the present research it was learnt that similarities in material culture between the six new sites in Baramulla District, the known sites in Kashmir and South Asia Neolithic sites are considerable, and this suggests possible interactions due to trade and other reasons (seasonal movement such as transhumance) (Spate et al. 2017). The geographic position of Baramulla District at a cross roads of communications routes is important, perhaps allowing it to act as a hub between the northern regions of Pakistan and Central Asia on the north western side, and rest of Kashmir on south eastern side (Burzahom, Gufral and Kanispora). This centrality of Baramulla District is supported by the presence of the key Jhelum Valley route that passes through Baramulla and connects Kashmir with the northern areas of Pakistan.

Competing Interests
The author has no competing interests to declare.
Sankalia, HD. 1974. Prehistory and Protohistory of India and Pakistan. Poona: Deccan College post graduate and research institute.

Sharif, M and Thapar, BK. 1999 [1992]. Food producing communities in Pakistan and northern India. In Dani, AH and Masson, VM (eds.), History of Civilizations of Central Asia, 1: 127–152. New Delhi: Motilal Banarsidas.

Spate, M, Zhang, G, Yatoo, M and Betts, A. 2017. “New Evidence for Early 4th Millennium BP Agriculture in the Western Himalayas: Qasim Bagh, Kashmir.” Journal of Archaeological Science: Reports, 11: 568–77. DOI: https://doi.org/10.1016/j.jasrep.2016.12.038

Stacul, G. 1976. Excavations at Loebanr III (Swat, Pakistan). East and West, 26(1–2), 13–30. Rome: IsMEO.

Stacul, G. 1977. Dwelling and Storage Pits at Loebanr III (Swat, Pakistan) 1976 Excavation Report. East and West, 27(1–4), 151–205. Rome: IsMEO.

Stacul, G. 1987. Prehistoric and Protohistoric Swat, Pakistan (c. 3000–1400 BC), XX. Rome: IsMEO.

Stacul, G. 1989. Continuity and Change in the Swat Valley (18th–15th Centuries BC). In Kenoyer, JM (ed.), Old Problems and New Perspectives in the Archaeology of South Asia, 249–251. Madison, Wisconsin: F & H Printing Company, Inc.

Stacul, G. 1992. Further Evidence for “The Inner Asia Complex” from Swat. In Possehl, G (ed.), South Asian Archaeology studies, 111–121. New Delhi: Oxford & IBH Publishing Co. Pvt. LTD.

Stacul, G. 1993. Kalako-deray, Swat: 1989–1991 Excavation Report, East and West, 43(1–4), 69–94. Rome: IsMEO.

Stacul, G. 1994. Neolithic Inner Asian traditions in northern Indo-Pakistani valleys. In Parpola, A and Koskikallio, P (eds.), South Asian Archaeology 1993, II: 707–714. Helsinki: Suomalainen Tiedeakatemia.

Stacul, G. 1997. Kalako-deray, Swat: 1994 and 1996 Excavation Report. East and West, 47: 363–378. DOI: https://doi.org/10.2307/1399910

Thapar, BK. 1985. Recent Archaeological Discoveries in India. Tokyo: Centre for East Asian Cultural Studies.

Thapar, BK. 1997. Archaeology of South Asia: A perspective in interrelationship. In Joshi, JP (ed.), Facets of Indian Civilisation; Recent Perspectives, 1: 69–74. New Delhi: Aryan Books International.

Tucci, G. 1966. Recent Explorations in Swat (Explorations recentes dans le Swat). Le Museon, LXIX: 42–58

Vidale, M, Micheli, R and Olivieri, L. 2011. “Iconography of Protohistoric Swat and the Agricultural Intensification of Period IV (2nd Millennium BCE).” Journal of Asian Civilizations, 34(1): 94.

Yatoo, MA. 2012. Characterising material culture to determine settlement patterns in north west Kashmir. BAR International Series, Archaeopress, UK (in press), Catalogued and online available at British Library www.uk.bl.ethos.555490.

Yatoo, MA. 2015. Iron Age Material Culture in South Asia – Analysis and Context of Recently Discovered Slag Sites in Northwest Kashmir (Baramulla District) in India. Ancient Asia, 6(3): 1–8. DOI: https://doi.org/10.5334/aa.12322

Yatoo, MA and Bandey, AA. 2014. Relations of Neolithic Kashmir with South and Central Asia, A Comparative Analysis of Material Culture from New Sites in Kashmir. The Journal of Central Asian Studies, XXI.