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NOTES ON GLEANINGS

BOOK REVIEW

Gopinathpur Temple Inscription at the Time of Gajapati Kapilendradeva

Subrata Kumar Acharya

Gopinathpur (20° 31′ Lat. and 86° 4′ Long.) is a small village in the Salepur tahsil of Cuttack district of Odisha. It is about eight kilometres from Salepur and about twenty kilometres from the district headquarters of Cuttack. It stands on the Birupa, a branch on the northern side of the river Mahanadi. On the western side of the village there is a temple of Lord Jagannath (locally known as Baladevajiu temple) erected within a spacious compound on the line of the Jagannath temple at Puri. This is a protected monument of the State Department of Archaeology, Odisha.[1] At present the temple is in a ruined condition and the present structure, which is rising to a height of 20 feet and built of sandstone, is a renovated one and has been erected on the plinth of the original shrine. It is a living temple and the images of Jagannatha, Balabhadra and Subhadra, and Gopinatha are being worshipped. Carved stones of the original structure are still found scattered within the premises of the present temple complex. The inscription under review is engraved on a stone slab and fixed on the left wall of the eastern gateway of this dilapidated Jagannath temple. The size of the inscribed stone slab is 45" x 29". The letters are legible except in the middle and right side of the stone slab. The slab has a raised border apparently to preserve the writing on it.

The inscription was first noticed by M. M. Chakravarti in 1899.[2] N. N. Vasu also studied the inscription and made an attempt of translating the text into Bengali.[3] Full text of Bengali version is provided in Annexure I. Following Vasu, Visvanatha Kar published a paper on the purport of the inscription in Oriya in the year 1900.[4] In 1928, Hareskrishna Panda, a Sanskrit scholar attached to the *maṭha* (monastery) in the said village,

rendered the translation of the original Sanskrit text into Oriya verse and it was published by Madana Mohana Das Gosvami, the pontiff of the monastery.[5]

The inscription is written in thirty lines.[6] The language of the inscription is Sanskrit and it is in verse. There are twenty-seven verses written in different metres. The verses exhibit metrical skill of the composer. The inscription is in fact a panegyric of Gopinātha Mahāpātra who was a minister in the court of Kapilendradeva, the Sūryavaṁśī Gajapati king of Odisha. The Jagannath temple at Gopinathpur was built under his supervision. There is reason to believe that the village was also founded during the reign of Kapilendradeva and named after his minister. There is a prose passage at the opening of the inscription and another following verse twenty-six. The former is a salutation to the Lord while the latter reveals the name of the composer and the engraver of the inscription.

The script is in early Oriya of the 15th century CE. Most of the letter-forms with the exception of *ja, ṭa, ḍa, ta, bha,* etc., are closely akin to their respective modern Oriya counter parts. The upper portions of a majority of letters are rounded. The vowels like *a (asāra,* l. 20), *ā (āvairiṁ,* l. 28), *u (uttānam,* l. 21; *udyānāni,* ll. 23-24) and *e (ekaḥ,* l. 15) are used. The letter-forms of *bha, ra,* etc., are denoted by a slanting stroke at the bottom. The semi-vowel *la* is distinguished from the retroflex *ḷa* by the addition of a slanting stroke or a tail at the bottom (cf. *trilokī-niḷaya,* l. 4; *tuḷitayat-tuḷā-puruṣa-dāna-kāḷe=rpitān-trilokya,* l. 6; *māḷava-dhvaṁsa-liḷā-jaṁhālo,* l. 7). Similarly, the semi-vowel *ya* is distinguished from *ya* which is pronounced like the class consonant *ja* by the addition of a tail (cf. *tvayi yātayaṁ,* l. 25*).* Occasionally, the outward curve in the left limb of the letter *ya* is missing and it looks more like *pa* as in *maḷayajaiḥ,* l. 1; *nārāyaṇaḥ,* l. 12, etc. There is hardly any difference between the letter-form of *u* and *ḍa* (cf. *udyāna,* l. 23 and *garuḍaḥ,* l. 25*).* The medial *i* when joined to *dha* is always denoted by a downward curve from the middle left of the letter. Of the other letters of palaeographical interest, mention may be made of the use of *ya* as a second member in a ligature. Optionally it is represented fully as in *tyājito,* l. 28.

Avagraha has occurred several times in the inscription; vide ll. 7, 12, 15, 23, 25, 26, 27, and 29. However, it has been omitted at several places such as *bhāgepi,* l. 5; *kāḷerpitān,* I. 6; and *prasannostu,* l. 30. The final forms of *ta (bhramāt,* l. 7, *mahat,* l. 13, *asthāpayat,* l. 22, *gopināthāt,* l. 29); *na* (*parvatān,* l. 6, *vitaran,* l. 16, *'smin,* ll. 27-28, *śrīmān,* l. 30); and *ma (sadam,* l. 6) are used in the inscription. In the case of first two letters a *halant* sign is added at the bottom of the letter; while in the case of *ma* it is represented by the sign for *anusvāra* and a *halant* added to it at the bottom. The final form of *na* is occasionally joined to the following consonant as a superscript for example *samabhavan=kānanānte,* 1. 9; *vidvān=mahāpātra,* l. 11; *pārthivān=kāruṇy-ākalitā,* l. 15; and *yasmin=kailāsa,* l. 26.

As regards, orthography, the letter *ba* is always denoted by the sign of *va.* The class nasals in conjunction with the other consonants of the same group are not always represented, rather they are indicated by *anusvāras.* For example, the guttural nasal *ṅa* is correctly used in *pratyaṅgaṁ,* l.1; *gopaṅgan-āliṅginī,* l. 2; *niḥśaṅkaḥ paṅka,* l. 4; *kuṅkuma,* 1. 8; *paṅka niśaṅka,* 1. 20; *maṅgala,* l. 28; but at some other places it is indicated by an *anusvāra* sign before the consonant as in *saṁga raṁgaḥ,* l. 8; *bhaṁgī bhaṁga,* l. 20; *ratnālaṁkṛti,* l. 22; *saṁkhādi,* l. 23; and so on. The palatal nasal *ña* is similarly not used properly for example *caṁcala* is used for *cañcala,* l. 1; *muṁcatīha* for *muñcatīha,* l. 16; *kāṁci* for *kāñci,* l. 17; *kṛtaṁjalair* for *kṛtañjalair,* 1. 26; *saṁcāriṇo* for *sañcāriṇo,* l. 29; although it is correctly written once in the word *yajña,* l. 27. The dental *na* is occasionally indicated by *anusvāra* as in *vaṁdīnāṁ,* l. 10.

The inscription is not dated but it belongs to the reign of Kapilendradeva (1435-67 CE).

The inscription begins with the salutation to the Lord Puruṣottama *(oṁ namaḥ puruṣottamāya*) in prose and then an invocatory verse in praise of the god Gopinātha (Kṛṣṇa). According to S. N. Rajaguru this is an invocation to Bāla-Gopāla (Kṛṣṇa) and the same verse is cited in a Sanskrit *Alaṅkāra* titled *Kavi-Kalpadruma,* 10th *pallava,* by Jagannātha Miśra.[7] The following two verses (2 and 3) are invocations to Lord Purusottarna.[8]

Verses 4-5 introduce the reigning king Kapilendradeva as belonging to the Solar race and ruling over the Oḍra country by the orders of the

Lord Jagannātha who enthroned on the blue mountain (Nīla-śaila) and who is the Lord of the three worlds. The king lifted the earth drowned in the mud of vices like Varāha. He saved the kingdom by killing the sinners like Kalkī in the beginning of the Kali age. The war booty he brought from different conquests amassed like a mountain of gold and he made lavish gifts of all of them by performing the *Tuḷā-puruṣa-dāna*. His gifts even tempted the gods to descend from heaven.

The king surnamed Bhramaravara, conquered Karṇāṭa, Kalavaraga (Kulbarga), Mālava, and Gauḍa and destroyed the pride of the king of Delhi. Watching the huge dust raised by the hoofs of his war horses from a distance the enemy kings felt powerless. The loud sounds of the war drums further frightened them and made them flee to forests. The arrows of his bow put to death many invincible opponents and the tears of the imprisoned ladies flowed to the coast and raised the level of the sea.

Verses 9-13 speak about the family of Gopinātha Mahāpātra. It is said that king Kapilendradeva had a learned and renowned priest named Lakṣmaṇa Mahāpātra, an ornament of the Mahāpātra-kula. He had a son named Nārāyaṇa, who was the chief among the class of ministers and a saviour to the poor and destitute like God Nārāyaṇa *('jani-jana-trāṇāya nārāyaṇaḥ*, l. 12). His younger brother was Gopinātha Mahāpātra, who had possessed the foremost qualities of a minister and was, therefore, favoured by the king. He received from the king sixteen umbrellas, took sixteen forts, imprisoned sixteen chiefs and after sixteen years became the chief minister. The circle of kings who were conquered and subdued by him were liberated and reinstituted in their respective territories. This was an exemplary deed of the minister and here he has been compared with the sage Bhārgava.

Verses 14-16 eulogise that, being appointed as the commander-in-chief by the emperor, Gopinātha defeated the king of Mālava and guarded the inroad of the king of Gauḍa. Having crossed the terrible mountains on the way he vanquished the Mālava king, and as a consequence of this exploit the Gurjara king gave up his pride, the Delhi king felt dejected and the Gauḍa king turned mean like a Savara. Gopinātha dug many

tanks by the side of roads. They were filled with clean and cool water. The exploits of the commānder-in-chief in Mālava and Gauḍa assured emperor Kapilendradeva to enjoy the riches of Karṇāta, to levy taxes over the Khaṇḍa hill and to siege the city of Kāñci by force.

Gopinātha is then praised (verses 17-22) as the moon of the Hārita line who had erected the fine temple as 'a staff for deliverance from the mires of this unsubstantial world' *(asāra-saṁsāra-gabhīra-paṅka-niḥśaṅka-niṣkrāṁnty-avalamva-daṇḍaṁ,* l. 20). The tall shrine had a solar *maṇḍala* as its finial that served as a staff for churning nectar. In this temple he installed the images of Rāma (Balarāma), Puruṣottama (Jagannātha) and Bhagavatī (Subhadrā), fully ornamented. This is followed by a description of ornaments bedecked by the divine beings. Gardens were donated to the temple for regular supply of flowers or garlands of flowers to be offered to the deities. Arrangements were made for regular offerings like *bhoga* fit for the heaven; and for dedicating charming maidens or dancing girls apparently for daily performance of singing and dancing before the lords. Besides, varieties of ornaments and dresses were gifted away to the deities and countless servants were employed for their services. Out of supreme devotion and unflinching gratitude to the Lord, Gopinatha stood in front of the deity with his hands clasped and uttered that he himself was the Garuḍa, the vehicle of Nārāyaṇa.

Verses 23-24 make us believe that Gopinātha further constructed a Guṇḍicā temple with a lofty boundary in the same village. The temple looked bright and silver white, where Lord Śiva resided feeling the delight of the Mt. Kailāśa. The *śāsana* village is then narrated as the one which resounded with the chanting of the Vedic hymns, decked with numerous sacrificial posts, and where the high class Brāhrnaṇas resided. Next follows a prayer to the deities like Jagannātha, Kāmapala and Devī Subhadrā to bring good to the village and happiness to its residents.

In the three concluding verses (25-27) and the short prose passage, it has been stated that Gopinātha by constructing the temple and consecrating Lord Viṣṇu removed the pangs of separation from the hearts of the devotees. The charming verses have been composed by poet Jāgali, an expert in Mīmāṁsā and Vedānta, and the son of the learned Gopinātha.

In the short prose passage (l. 29), it is mentioned that the record was written by Vakākhya. The last verse is in the form of an invocation to Lord Viṣṇu, the consort of Lakṣmī, meditated by king Kapilendradeva, to fulfill the desires of the devotees and to be gracious to them.

The inscription belonged to the reign of the Sūryavaṁśī Gajapati ruler Kapilendradeva, also known as Kapileśvaradeva. He belonged to the solar race and ruled over the Oḍra country from 1435 to 1467 CE. It is well known that he was the founder of the dynasty and usurped the throne of the Imperial Gaṅgas when the last Gaṅga ruler Bhānudeva IV *(circa* 1414-35 CE) was away from the capital on a distant campaign against the Reḍḍis of Rājamahendry.[9] The event might have taken place in 1434-35 CE. The expressions like 1. *paṅkamagnākhila-dharaṇītaloddhārabhūdārasiṁhaḥ,* 2. *mlecchavṛndaṁ pratijagati kalerādyabhāgepi kalkī,* and 3. *nīlaśailādhināthasyādeśadoḍradeśe samajani kapilendrābhidhāno narendraḥ* in verse 4 (ll. 5-6) are noteworthy in the context. The first expression apparently indicates that the Odishan kingdom under the last Imperial Gaṅga ruler was in utter confusion and Kapiledradeva usurped the throne and saved the kingdom. Secondly, consequent upon this, in his early career as a ruler, he might have faced stiff resistance from several feudatory chiefs and from the scions of the deposed Gaṅga family. He might have engaged in a series of wars against all such recalcitrant forces inside the kingdom and after subduing them might have forced them to acknowledge his sovereignty.[10] Thirdly, as he was a usurper to the throne, he tried to pacify the subjects and to legitimise his position. Therefore, he had revived the ideology of the divine mission of the Gajapatis as deputies of Lord Jagannnātha residing in Nīlaśaila or the Blue Mountain and claimed that he ruled over the kingdom by the order of the Lord. This divine dispensation seems to be a matter of political expediency to perpetuate the rule and claim the sovereign status.

King Kapilendradeva is surnamed as *Bhramaravaranṛpa* (lord of Bhramaravara) and claimed to have conquered the kingdoms like Karṇāṭa, Kalavarga, Mālava and Gauḍa and destroyer of the pride of the king of Ḍillī. This is the only inscription of Kapilendradeva which

applies the epithet *Bhramaravaranṛpa* for the king. R. Subrahmanyam inclined to believe that Bhramaravara could be Bhramarakūṭa which finds mention in the inscriptions of Mahākośala of the 12th century CE, and as such it could be identified with Umarakot in the modern Nabarangpur district of Odisha. The region was probably conquered by him or his general Gopinātha Mahāpātra sometime in the course of his march against the west.[11]

Gopinātha Mahāpātra, the minister and commander-in-chief of Kapilendra Gajapati was the son of Lakṣmaṇa Mahāpātra and the younger brother of Nārāyaṇa Mahāpātra. His family belonged to the Hārita line and Gopinātha is called as the moon of this family *(hārītakulābdhicandraḥ*, l. 20). Both his father and brother served under the king in different capacities. His father was the priest *(purodhā)* of the king while his brother was the chief among the class of ministers *(mantriśreṇiśiromaṇiḥ*, l. 11). Lakṣmaṇa Mahāpātra is mentioned in the Jagannath temple inscription of *aṅka* year 4 of Kapilendradeva as a *purohita* or royal chaplain. He may be identified with the Lakṣmaṇa Mahāpātra, the father of Gopinātha.[12] If this assumption is to be maintained then Gopinātha's father and elder brother had previously served under the same king and Gopinātha might have served in the latter phase of the king's reign. The reference to the exploits of the king in Karṇāṭa, Kalavarga, Mālava and Gauḍa in the present inscription further lends credence to this. The Veligalani plates of Kapilendradeva[13] and the Chiruvroli plates of Haṁvira[14], son of Kapilendradeva, dated respectively in Śaka 1380/1458 CE and Śaka 1383/1461 CE also refer to the success of Kapilendradeva against Hampā (Vijayanagara/Karṇāṭa), Dhārā (capital of Mālava), Kaluvarigā (Gulvarga) and Ḍillī (Delhi). These dated inscriptions are indicative of the fact sometime before 1458 CE, these achievements were made by the king. So by the time the Gopinathpur inscription was engraved, the king might have already gained victory over all these kingdoms and the inscription under review should be assigned to a date after 1458 CE. Gopinātha Mahāpātra was favoured by the king for his possession of the best qualities and was elevated to the rank of the Commander-in-Chief of the royal army (*senādhināth*a, l. 16).

In the inscription he is claimed to have defeated the Mālava king *(kṛtvā saṁyati mālavendrajayinaṁ,* l. 16) and checked the inroad of the Gauḍa king to Utkala *(gauḍendrasya nitāntamutkalapatha-prasthānarodhārgalaṁ*, ll. 16-17). It is also said that he crossed the terrible mountains on the way to conquer the kingdom of Mālava. It was during this time the king was away from the empire and was camping in the south. There is reason to believe that Gopinātha mobilised the army to Mālava on behalf of the king. The Mālava adversary has been identified with Sultan Mahmud Khalji (1436-69 CE). It was during this time Bahlul Lodi (1451-89 CE) was the Sultan of Delhi. But we do not come across any evidence of the conflict between Kapilendradeva and the Sultan of Delhi. However, with regard to the conquests of Mālava and Delhi by Kapilendradeva, K. C. Panigrahi dismissed the claim as a 'rhetorical expression' and, therefore, untenable.[15]

The Jagannath temple inscription dated in *aṅka* 19 corresponding to 1450 CE uses the epithet *Gauḍeśvara* for the first time for Gajapati Kapilendradeva.[16] In this inscription Kapilendradeva made a reference to his encamping at his capital city on return from a victory against Malik Padshah *(malikā parīsā diga-vije-kari bāhuḍā-kaṭake,* l. 3) and in all probability he won a victory over Sultan Nasiruddin of Bengal who reigned from 1442 to 1459 CE.[17] From the Persian manuscript *Risalat-us-Shuhada* we come to know that Mandaran was ruled by the Gajapati king during the reign of Ruknuddin Barbak Shah (1459-74 CE), the Sultan of Bengal.[18] The text narrates that during the reign of Sultan Barbak Shah, the Gajapati Raja of Mandaran rebelled against the Sultan. The Sultan dispatched an army against him that sustained a defeat and then the command was entrusted to Ismail Ghazi who led the campaign and fought against the Raja. In a battle that lasted for a few hours the Raja was defeated and was taken prisoner and beheaded. The Gajapati Raja referred to in the manuscript seems to be a Governor posted by the King Kapilendradeva at Mandaran. There is no other evidence in support of this claim of the Sultan and the text was compiled at a much later date in 1633 CE. The veracity of the claim is not free from suspicion. However, the reference to the title of *Gauḍeśvara* retained by king Kapilendradeva

in his later inscriptions between 1460-67 CE[19] and the claim of Gopinātha that he checked the advance of the Bengal Sultan towards Utkala apparently dispels the doubt about the control of Gauḍa by the Gajapatis. The Sultan might have made an attempt to besiege the fort of Mandaran held by the Gajapati king and made an inroad against Odisha which was foiled by Gopinātha. Since the event took place during the reign of Sultan Ruknuddin Barbak Shah, we may safely presume a date after 1459 CE, the date of accession of Barbak Shah, and before 1467 CE, the last known date of Gajapati king Kapilendradeva.

Moreover, the inscription furnishes another important piece of information that king Kapilendradeva seized the city of Kāñcī by force (verse 14) which provides some clue to adduce the possible date of the inscription. An inscription from Munnur in erstwhile South Arcot district of Tamil Nadu dated in Śaka 1386/1464 CE records that Dakṣiṇa Kapileśvara Kumāra Mahāpātra, son of Hamvīra and grandson of Gajapati Kapilendradeva, was the governor (*parīkṣā*) of the several places of north-eastern Tamil Nadu.[20] But from another inscription it is learnt that the territory was under the control of Sāluva Narasiṁha, the Vijayanagara ruler, in the year 1462 CE.[21] Scholars have, therefore, arrived at the conclusion that the north-eastern districts of modern Tamil Nadu, as far south as Tanjore and Trichinapalli, were occupied by the Odishan army under Hamvīra and his son Dakṣiṇa Kapileśvara sometime after 1462 CE. The occupation of these territories was short-lived because by the year 1465 CE Mallikārjuna, son of Sāluva Narasimha, seems to have regained the territory from the Oriyas and began to rule over there.[22] Since the inscription under study refers to the capture of Kāñcī by the Gajapati king, it is legitimate to infer that the inscription was composed sometime in 1463-64 CE. In this context there is reference to the claim that Kapilendradeva levied taxes over Khaṇḍādri or Khaṇḍa hill. The identification of this hill is still shrouded in mystery, but P. Mukherji takes it to be situated somewhere near Kāñcī.[23]

Gopinātha Mahāpātra constructed the temple of Jagannath in the village and installed the images of Jagannātha, Balabhadra and Subhadrā in it. The village of Gopināthpur was probably donated by the king to

him and his family, and it was named after him as Gopināthapura-śāsana. On receipt of the village he might have gifted away portions of it to the temple and to the Brāhmaṇas. Some lands and garden sites were endowed to the temple for regular worship and maintenance. He is also said to have donated ornaments and jewellery to the temple. Dancing girls and other servitors were employed for the daily rituals of the deities. Many learned Brāhmaṇas were invited to perform sacrifices and to impart teachings on the Vedas and other scriptures. He is also credited with the construction of a Guṇḍicā temple in the same village and very likely had also started the car festival of the deities. It seems he had also erected a temple of Gopinātha whose blessings have been invoked by him in the first invocatory verse of this epigraph.

Both the Jagannatha and the Guṇḍicā temples are now in ruined condition. The inscribed slab originally fixed to the compound wall of the eastern side has been shifted to the back side and fixed to a masonry structure. The courtyard is full of ruins of the fallen temple, overgrown with wild trees and creepers. Carved stones, temple fragments of *navagraha* slabs, *āmalaka-śilās,* rampart lions, fragments depicting scroll work and the images of Narasiṁha, Trivikrama and Varāha are still to be found in the debris. The high compound walls of the temple have been damaged at several places, so also the main entrance to the premises. According to R.P. Mohapatra, "The destruction of the temple was perhaps made during the reign of Aurangzeb when some other important edifices of Mughalbandi under the control of the Mughal *Subahdar* of Cuttack were also sacked by the Muslim army."[24]

It is further learnt from the inscription that Jāgali, the poet and composer of the inscription, was the son of Gopinātha and he was an expert in Mīmāṁsā and Vedānta. It was engraved by Vakākhya.

Text

[Metres : Verses 1, 2, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22 *Śārdūlavikrīḍita;* verses 3, 4, 6, 7, 8, 16, 18, 23, 24 *Sragdharā;* verse 5 *Pṛthvī;* verse 9 *Indravajrā;* verse 17 *Upajāti;* verses 25, 27 *Anuṣṭubh;* verse 26 *Vasantatilakā.*]

1. *Oṁ namaḥ śrī-puruṣottamāya || mauḷau caṁ(ñ)caḷa-cūḷinī tiḷakinī bhāle mukhe hāsinī kaṇṭhe mauktika-māḷinī maḷayajaiḥ praty-aṅgam-ālepinī | hastā-vje navanītīnī caraṇayoḥ kri-*

2. *ḍā-rasān=narttinī jīyāc=chaiśava-śobhinī cid-arnalā gopāṅgan-ālinginī || [1] saṁsār-ārṇava-karṇa-dhāram=api taṁ bhakt-ārtha-saṁsāri-ṇam vande śrī-puruṣottamaṁ tanu-bhṛtāṁ saṁkalpa-kalpadrumaṁ | vedānt-ārtharn=udāhara-*
3. *nti khaḷu yaṁ yen=ākhiḷaṁ bhāsate hṛṣṭe-yatra hṛṇīyate padam=api svayambhuvaṁ dehināṁ || [2] sadyaḥ pīyūṣa-pāto manasi nayanayoḥ kāma-cintā durantā śāntā kaṣṭaṁ vinaṣṭaṁ janir=ajani satī lavdha-*
4. *m=iṣtaṁ yatheṣṭaṁ | pāpā-kupāra-paraṁ gatam=api pitaro dhvasta-vandh-ānuvandhā (yenā)=loki trilokī-niḷaya-maṇir= ayaṁ nīḷa-śaiḷ-āvataṁsaḥ || [3] niḥśaṅkaḥ paṅka-magn-ākhiḷā-dharaṇi-ta-*
5. *ḷ-oddhāra-bhū-dāra-siṁhaḥ svacchandaṁ mleccha-vṛndaṁ pratijagati kaḷer=ādya-bhāge=pi Kaḷkī | bhāsvad-vaṁś-āvataṁ-sas tri jagada-dhipater = nīḷaśaiḷ = ādhināthasy-ādeśad = Oḍradeśe samaja-*
6. *ni-Kapiḷendr-ābhidhāno narendraḥ || [4] sadām tuḷita-yat-tuḷā-puruṣa-dāna-kāḷe=rpitān=trilokya-vijayā-rjitān=kanaka-parvatān [sa*]rvataḥ | vinidram=animeṣaṇaṁ diviṣadaś=ciraṁ rakṣituṁ miḷa-*
7. *nti-kanak-ācaḷe vijayino ′sya dāna-bhramāt || [5] karṇāṭ-ojjāsa-siṁhaḥ Kalavaraga-jayī Māḷava-dhvaṁsa-liḷā-jaṁhāḷo Gauḍa-mardi-Bhramaravara-nṛpo dhvasta-Ḍhill-īndra-garvaḥ | saṁgrāme dra-*
8. *ṣṭum=enaṁ pratibhaṭa-subhaṭāḥ kevaḷan=te vaḷante yeṣāṁ syān=nāka-nārī-kuca-kaḷaśa-taṭī-kuṅkuma saṁga-raṁgaḥ || [6] yasy=occair=vāji-rājī-vikaṭa-khurapuṭ-odghāṭita-kṣauṇi-pṛṣṭha-prādurbhūta-prabhūta-*
9. *kṣiti-kaṇa nikarair=lakṣya(kṣa)māṇe prayā(mā)ṇe | garjjad-gambhīra-bherī-bhara-rava-vibhav-ākarṇṇi-karṇṇā vivarnṇā murcāḷāh kṣauni-pālāḥ sapadi samabhavan=kānan-ānte=py= anante || [7] caṇḍe ko-*
10. *daṇḍa-daṇḍe sakṛd=api samare yasya saṁsakta-kāṇḍe saṁ-vartto(-vṛtte) saṁpravṛtte gatavati vilayaṁ vairi-jāḷe karāḷe | vaṁ(n)-dīnāṁ krandinīnāṁ nayana-ghana-ghanāt-syandamānair= amanair=durvārair=vāri-vā(dhā)raiḥ pratipada-mudito*
11. *bhinna-mudraḥ samudraḥ || [8] tasy=āpta-haṁsaḥ sa hi haṁsa-vaṁśa-ketoḥ purodhā makhakṛd-vataṁsaḥ | vidvān=mahāpātra-kul-āvataṁsaḥ śrī-Lakṣmaṇo=bhūt=prathita-praśaṁsaḥ || [9] mantrī-śreṇī-śiromanuṇī(ṇi)ḥ sumanasāṁ santāna-cintā-*

12. *maṇiḥ pāpa-vrāja-viṣ-augha-garuḍa-maṇiḥ sad-vṛtta-rakṣā-maṇiḥ | padm-ollāsa-viḷāsa-vāsara-maṇiḥ putro'sya nārāyaṇaḥ satr-ārambha-parāyaṇo 'jani jana-trāṇāya nārāyaṇaḥ ||[25]|| [10] yasy=āsīd=anu-*
13. *jo mataḥ kṣiti-bhujāṁ śrī-Gopinātho Mahāpātraḥ pātra-jan-ārccan-aika-rasikaḥ pātraṁ guṇānāṁ mahat | śrī-kāntas=tanayaṁ kṛtānatam=arayaś=cintāmaṇiṁ mārgaṇā rājānaḥ sura-rnantriṇaṁ vidur=amuṁ ka-*
14. *ntāś-ca kāntaṁ rateḥ || [11] rājendrād=adhigamya ṣoḍaśa vara-cchattrāṇi citrāṇy=asau durgeṣu prayateṣu ṣoḍaśa miteṣv=āsī [d=]viraṁ nāyakaḥ | van-dīkṛtya raṇeṣu ṣoḍaśa nṛpāndro(ṁś=c=o ?)pāhārat=svāmine*
15. *varṣe gacchati ṣoḍaśe svayam=abhūn=mantr-īndra ekaḥ punaḥ || [12] manye pūrvam=apūrva-kīrttir=asakṛvid-dvij-āhave[26] pārthivān=kāruṇy-ākaḷitān=utā (pā)ya vibhavo-devo- 'bhuva[27]d=bhārgavaḥ || vandī-kṛtya nare-*
16. *ndra-maṇḍaḷam=ayaṁ yad(yo)=Gopinātha-cchaḷāt=sadyaḥ samprati muṁ(ñ)cat=īha vitaran svāṁ svam pratiṣṭhāṁ punaḥ || [13] kṛtvā saṁyati Māḷav-endra-jayinaṁ sen-ādhināthaṁ tu yaṁ Gauḍ-endrasya-nitāntam=Utkaḷa-patha-prasthāna-rodh-ā-*
17. *rgaḷaṁ | śrī-Khaṇḍ-ādri-payo-dhar-opari-karaṁ nirmāya Kāṁ(ñ)cī-haraḥ sānandaṁ Kapiḷeśvaro viharate Karṇṇāṭa-rāja-śriyā || [14] ceto-vṛttir=iv=ātrnanaḥ suvimaḷā lokā=dhikā kīrttidā sthir-āśaya[28]-rīti-vad=guṇa ma-*
18. *ṇi-śreṇī ca vistāriṇī | saṁ(sa)nmārg-ānugatā ca santatir=īva prāyeṇa santāpināṁ santāp-onmathanā kṛpāvad=amunā khātā ca khāt-āvaḷī || [15] garv-aughaṁ Gurjjarendraḥ pariharati-tarām=āśu Dhilli-Narendraḥ sāndrāṁ ta-*
19. *ndrām=avindat=kuṇapa-gatim=agād=Gauḍa-bhūmī-mahendraḥ| bhū-bhṛn-māḷaṁ karāḷāṁ pathi pathi miḷitāṁ raṁhas=ollaṁghya senā-nāthe śrī-Gopināthe paribhavati ca taṁ Māḷav-endrasya gutāṁ[29] || [16] prāsāda-*
20. *m=etaṁ nayan-ābhirāmaṁ vyadhatta Hārita-kuḷ-āvdhi-candraḥ | asāra-saṁsāra-gabhīra-paṅka-niḥśaṅka-niṣkrāṁnty-avalamva-daṇḍṁ[30] || [17] jīyāt-prāsāda-cūḍā-maṇi-rama-ramaṇeḥ prānta-saṁsakta-bhaṁ(ṅ)gī bhaṁ(ṅ)ga-prāgbhāra-vimva-sphuṭa[31]-*

21. *ghaṭita-vr-(bṛ)hat-manthanī maṇḍaḷīkaḥ | uttānaṁ nyasta-mūrttiḥ prathita-sad-amṛta-prāptik-ārtho bhav-āvdherugrajo(?)-daṁ(ñ)cad-ūrmmi pracaya-bhaya-bhuvo=mantha-manthāna-*daṇḍah || [18] rāmaṁ śrī-Puruṣottamaṁ Bhagavatīm=asmin=Su-
22. *bhadrāṁ tathā ratn-āḷaṁ(ṅ)kṛti-rāji-rājita-tanuṁ bhaktyā=yam=asthāpayat | bhāty=esāṁ tritayaṁ navaṁ tri-jagati-cintāmaṇināṁ trayaṁ prāsādā(de) ca samudgake vinihitaṁ kiṁ madhyame piṣṭape || [19] sauvarṇṇa-śruti-pāṇi-pā-*
23. *da-hṛdayo haima-prabhā-maṇḍaḷe bhāsvan-maṇḍala-saṁnibhe maṇi-lasat-tuḷā-saroj-āsanaḥ | so 'yaṁ hāra-kirīṭa-kuṇḍaḷa-dharaḥ śaṁkhādi-dhārī sadā dhyeyā(yah) svarṇṇa-may-ākṛtiṁ pathi dṛsor=nirmāti Nārāyaṇaḥ || [20] udyānā-*
24. *ni navāni mālya-vidhaye karttuṁ tri-kāḷ-ārccanaṁ bhogān svarga-purocitān=upacitān rāmāś=ca Rambh-opamāḥ | nānā-ratna-vibhuṣaṇāni bahuśo vāsāṁsi bhūyāṁsy=asau prāpta[ṁ] cchat(tat)-parameṣṭhine parijano vada-*
25. *ttena kiṁ svārnine || [21] pakṣatvaṁ tvayi yāty-ayaṁ dvija-patiḥ pakṣ-onnataś=c=ābha-vat Kaṁs-āre 'sya samasta-vāsanam-abhūt=khyāto hi me cedṛṣaḥ | dṛṣṭe 'sminn=adhip-ādhikāra-yugaḷe kāme gatiḥ sam-prati=ty=ākhyāt=taṁ Garuḍaḥ*
26. *kṛt-āṁ(ñ)jaḷir=asau pakaḥ puro varttate || [22] yen=ākāri prasāri-dyuti-rajata-śitaṁ Guṇḍic-āgārarn=īśo yasmin=Kaiḷāsa-vāsa-praṇayam=adhigato=hanta deśe 'py=amuṣmin | yasya prāgbhāra-khaṇḍa-sthaḷa-vikaḷa-nabho-*
27. *maṇḍaḷ-ājasra-hiṇḍan-mārttā(ta)ṇḍā(ṇḍ)ś=ca pracaṇḍa-śrama-śamana-paṭur=mmaṇḍape 'bhud=akhaṇḍah || [23] svadhyāy-ābhyāsa-ghoṣair=mukharita-gagane yajña-yūp-āvaḷī-bhir=bhūyaḥ saṁśobhamāne dvija-vara-gahane śobhane śāsane 'smi-*
28. *n | āvairaṁ ca prapaṁ(ñ)caṁ Naraka-ripur=ayaṁ Kāmapālaḥ subhadrā gram- eśasy=āpareṣām=api bhavatu sadā maṅgaḷa go-jaḷāya || [24] Prahlād-Oddhava-Pārthānāṁ bhaktānāṁ viraha-vyathām | tyājito Gopināthena puṇḍarīka-vīlocanaḥ || [25]*
29. *mīmāṁsakasya nigam-ānta-vicāra-para-saṁcāriṇo 'sya kavi-paṇḍita-Gopināthāt |*[32] *jātasya Jāgaḷi-kave ramaṇ-oktir=eṣā harṣ-onnatiṁ*

sumanasāṁ sarasāṁ tanotu ||0|| [26] śubham=astu || Vakākhyena la(li)khitaṁ |

30. *śrī-Gopināthaḥ prasanno=stu siddhido bhakta-vatsaḷaḥ | guṇa-ratn-ākaraḥ śrimān Kapiḷendra-hṛdi-sthitaḥ ||*

Notes

[1] B. K. Rath, and Kamal Ratnam (eds), *The Forgotten Monuments of Orissa,* Vol. I, New Delhi, 1996, 180-81 and 303.

[2] M. M. Chakravarti, "An Inscription of the time of Kapilendra Deva of Orissa, from Gopinathapur, District Cuttack", *Journal of the Asiatic Society of Bengal, Letters,* vol. LXIX, no. 2, 1900, 173-89.

[3] N. N. Vasu, "Gopināthapur Śilālipi" *Bangiya Sahitya Parisad Patrika,* (Bengali), B.S. 1306-1900, 35-96. We have not gone through the original article of Vasu. It has been referred to in the article of Visvanatha Kar.

[4] Visvanatha Kar, "Gopināthapurara Śilālipi", *Utkala Sahitya,* (Oriya), vol. III, part IX, 1900, 193-201. Except the first page the rest of the pages of this article are not traced in the digital site of *Oḍiā Bibhaba.*

[5] Harekrushna Panda, *Silalipi,* (Oriya), Gopinathapur, 1928.

[6] There is a line of writing in the lower border of the inscribed slab which is quite illegible. Traces of the letters like *śrī-vyākena likhitam* followed by a floral design and then *desaḥ ratha-nara-gaja,* etc., are only visible. They were engraved not long after the main inscription.

[7] The book is published by Odisha Sahitya Akademy, Bhubaneswar, 1965. S.N. Rajaguru, *Invocatory Verses from Inscriptions,* vol. I, Bhubaneswar, 1971, 145, note 2.

[8] Rajaguru, *ibid.,* 51.

[9] P. Mukherji, *The Gajapati Kings of Orissa and Their Successors,* Calcutta, 1953, 19; R. Subrahmanyam, *The Sūryavaṁśī Gajapatis of Orissa,* Waltair, 1957, 32-33.

[10] This has been echoed in some early inscriptions of the ruler. In the Lingaraja temple inscriptions issued in the 4th *aṅka* year of the king it has been stated that the king had warned the vassal kings to eschew evil conduct and if they conduct themselves on the contrary they would be banished from the kingdom and their properties would be confiscated. (vide M.M. Chakravarti, *Journal of Asiatic Society of Bengal,* vol. LXII, 1893, 108; K. B. Tripathy, *Evolution of Oriya Language and Script,* Bhubaneswar, 1962, 251-53).

[11] Subrahmanyam, *op. cit.,* 36.

[12] Chakravarti, *op. cit.,* 92; Tripathy, *op. cit.,* 253-54.

[13] D. C. Sircar and K.H.V. Sarma, "Veligalani Grant of Kapilesvara, Śaka 1380", *Epigraphia Indica,* vol. XXXIII, 1959-60, 285-86, verse 7.

[14] D. C. Sircar and H. K. V. Sarma, "Chiruvroli Grant of Hambira, Śaka 1383", *Epigraphia Indica,* vol. XXXJV, 1960-61, 183, verse 5.

[15] *History of Orissa,* Cuttack, 1980, 202.

[16] Chakravarti, *op. cit.,* 99; Tripathy, *op. cit.,* 257-58. On the basis of the astronomical details furnished by the inscription, Chakravarti fixed the date of the

inscription as 12 April 1450 CE, Sunday. R. Subrahmanyam however draws our attention to another inscription from Lakṣmī-Narasimha temple at Simhanchalam that introduces the king as Gauḍeśvara earlier to this. The inscription is dated in *aṅka* 18 of the king and was issued on the third day of the month of Vṛścika, on the bright fortnight and the week day was Wednesday (*vīra-śrī-gajapati gauḍeśvara pratāpa kapileśvaradeva mahārājāṅkara vije rājre samasta 18 śrāhi vicchi sūkala* 3 *buthavāre*, 11. 1-6) which regularly corresponds to 30 October 1448 CE, Wednesday. *(Inscriptions of the Suryavaṁśī Gajapatis of Orissa*, New Delhi, 1986, 5-6).

[17] P. Mukherji, *op. cit.*, 28.

[18] G. H. Damant, "Notes on Shah Ismail Ghazi, with a sketch of the contents of a Persian MS, entitled 'Risalat ush-Shuhada', found at Kanta Duar, Rangpur", *Journal of the Asiatic Society Bengal*, vol. XLIII, 1874, 215-39. The text was composed by Pir Muhammad Shattari in the year 1633 CE.

[19] Lakṣmī-Narasimha temple inscriptions at Simhanchalam, *South Indian Inscriptions*, vol. VI, No. 793, 1150, 1157, 1158, and 1153; Chakravarti, *op. cit.*, No. 2; Tripathy, *op. cit., 272-77.*

[20] *Annual Report of South Indian Epigraphy* (hereafter AR) No. 51 and 92 of 1919. From an inscription at Srirangam (AR No. 87 of 1937-38) we come to know that Haṁvīra made a gift of cows to the temple of Srirangam on the bank of the river Kāverī in 1464 CE.

[21] AR No. 244 of 1912.

[22] For details see Surahmanyam, *op. cit.*, 46-48; Mukherji, *op. cit.*, 34-36.

[23] *Ibid.*, 47n.

[24] *Archaeology in Orissa*, vol. II, Delhi, 1986, 42. The event might have taken place in the last quarter of the 17th century when the Mughal emperor Aurangzeb was ruling (1657-1707 CE). It was during this time two Mughal Nawabs of Odisha like Abu Nasar Khan, the son of Shaista Khan, and Akram Khan, the son-in-law of Aurganzeb, ruled over Odisha roughly from 1683 to 1698 CE. They not only desecrated a number of temples but also were credited with construction of several mosques in Jajpur and Cuttack. For details see P. Acharya, "Two Forgotten Mughal Subadars of Orissa", *Proceedings of Indian History Congress*, 13th Session, Nagpur, 1950, 219-21.

[25] There is a floral design here between double *daṇḍas* indicating full stop. This indicates the end of the verses in praise of the ruling king and the predecessors of the minister and beginning of the eulogy of the Gopinātha Mahāpātra.

[26] Chakravarti deciphered it as *kīrttir=asakṛvid-dvij-āhave* while Panda read it as *kīrttir-asakṛt kṛhāhave.*

[27] The letter *va* is engraved above the line.

[28] Panda deciphered it as *gambhīrālaya.*

[29] The reading is doubtful. Panda read it as *bhūtiṁ.* An alternative reading could be *sutāṁ.*

[30] Chakravarti read it as *niṣkrāntya-avalamva daṇḍaṁ*, while Panda read it as *niṣṭhāh-avalamva dandam.*

[31] Panda read it as *bhaṅgī-bhāva prāk-bhāvadītya hasa.*

[32] The punctuation mark here is superfluous.

GOPINATHPUR TEMPLE INSCRIPTION

Annexure I

গোপীনাথপুরের শিলালিপি।

উড়িষ্যার প্রধান নগর কটক হইতে ৫ ক্রোশ উত্তরপূর্ব্বে গোপীনাথপুর নামে একখানি ব্রাহ্মণশাসন গ্রাম আছে। গোপীনাথজীর ধ্বংসাবশিষ্ট মন্দিরের জন্য এই স্থান প্রসিদ্ধ। গত ১৮৯৩ খৃষ্টাব্দের ৪টা নবেম্বর, দৈবক্রমে আমরা এই গ্রামে উপস্থিত হইয়াছিলাম, সঙ্গে ছিলেন হিতবাদীর ভূতপূর্ব্ব সম্পাদক ও সাহিত্য-পরিষদের অন্যতম সভ্য সুহৃদ্বর শ্রীযুক্ত প্রমথনাথ মিত্র। প্রত্নতত্ত্ব উদ্ধার ও পুরাকীর্ত্তিসংগ্রহের জন্যই উড়িষ্যায় গিয়াছিলাম, কিন্তু উক্ত গ্রামে যে কখন যাইব, এরূপ স্বপ্নেও ভাবি নাই! যেরূপে আমরা উক্ত গ্রামে উপস্থিত হই, তাহা একটু বিস্ময়জনক ব্যাপার! 'অচেনা লোকের সহিত পথ চলিতে নাই'—এ কথার সারমর্ম্ম হৃদয়ঙ্গম করিয়াছি! মৌদাগ্রামের জমিদার আমাদের লইয়া যাইবার জন্য আমাদের কটকের বাসায় একজন উড়িয়া ব্রাহ্মণকে পাঠাইয়া দেন। ব্রাহ্মণ ঠাকুর যে একজন উৎকৃষ্ট পথপ্রদর্শক, তাহা পূর্ব্বে বুঝিতে পারি নাই! প্রত্যূষেই প্রাতঃকৃত্যাদি শেষ করিয়া আমরা কটকনগর পরিত্যাগ করি। যানের সম্বল এক ভগ্নশকট! এরূপ শকটারোহণ আমার ভাগ্যে কখন ঘটে নাই। কষ্টেই হউক বা হৃষ্টভাবেই হউক, তাহাতেই আমাদের উভয়ের দেহ বিসর্জ্জন করিতে হইল। পথে কি দেখিলাম, কি করিলাম, তাহার পরিচয় দিবার এখানে স্থান নাই। কেবল গোপীনাথপুর লইয়াই কথা।

পথপ্রদর্শক বরাবর আশা দিয়াছিল, সন্ধ্যার পরই আমরা মৌদাগ্রামের সুস্নিগ্ধ বারি সেবন করিতে পারিব। কিন্তু আমাদেরই হউক অথবা তাহারই সৌভাগ্যক্রমে হউক দেখিতে দেখিতে দিনমণি অন্তর্হিত হইলেন, ধীরে ধীরে অন্ধকার আসিয়া আমাদের শকটকে বেষ্টন করিয়া ফেলিল। যেখানে সন্ধ্যাকালে পৌঁছিলাম, সেখানে ঘর নাই, আলো নাই, চারিদিকে বৃক্ষ-লতার বন। ঠাকুরকে জিজ্ঞাসা করিলাম,—'আমরা এখন কোথায়? এ অন্ধকারে—এরূপ বন্য পথে আরত গোরু চলিবে না।' ঠাকুরটী অনায়াসে উত্তর করিল—'আজ আর মৌদা যাওয়া হইতেছে না। আমরা গোপীনাথপুরে আসিয়াছি—এখানে গোপীনাথজীর মন্দিরে আজ রাত্রি-বাস করিতে হইবে!' যখন সে এই কথা বলিতেছিল, তাহার কথা শুনিয়া কোথা হইতে কতকগুলি ওড়চাষা আসিয়া আমাদিগকে ঘেরিয়া দাঁড়াইল। তারপর যখন সেই চাষাদের মুখে শুনিলাম, গোপীনাথজীর মন্দিরে একজনেরও থাকিবার জায়গা নাই, তখন আমি আকাশ পাতাল ভাবিতে লাগিলাম। তখন একবার মনে ভাবিয়াছিলাম, আমার জীবনের ব্রত হয়ত অবিলম্বেই উদ্যাপন হইবে,—প্রত্নতাত্ত্বিক লীলাখেলার এখানেই বুঝি সমাপ্তি হয়! আমা-দের সৌভাগ্যক্রমে সেই গ্রামের চৌকিদার আসিয়া উপস্থিত হইল। আমরা কলিকাতা হইতে আসিয়াছি শুনিয়া তাহার যেন একটু চমক হইল। তাহার ভাবগতিক বুঝিয়া তখনই কিছু দর্শনী দিয়া তাহার সন্তোষ বিধান করিলাম। চৌকিদার মৌদার জমিদারের নাম শুনিয়া সেই গ্রাম হইতেই তাঁহার এক কুটুম্ব ডাকিয়া আনিল। আমরা ভগবানের নাম স্মরণ করিয়া তবে

ভয়ে সেই ভদ্রলোকের কুটীরে সে রাত্রি অতিথি হইলাম। আমরা যে গৃহে ছিলাম, তাহারই ২০।২৫ হাত দূর হইতে গোপীনাথজীর মন্দিরের ধ্বংসাবশেষ আরম্ভ। প্রত্যূষে উঠিয়াই দেব-দর্শনে চলিলাম। গিয়া দেখিলাম, অনেকটা স্থান জুড়িয়া প্রাচীন মন্দিরের ধ্বংসাবশেষ পড়িয়া আছে।

গোপীনাথের মূল বা গর্ভগৃহের কিছুই নাই, ভগ্ন নাটমন্দিরের মধ্যস্থলে অল্প দিন হইল, একটী অতি ক্ষুদ্র গৃহ নির্ম্মিত হইয়াছে, (তন্মধ্যে এক ব্যক্তির থাকিবারও স্থান নাই,) তাহার মধ্য-স্থলে দধিবামনমূর্ত্তি বিরাজিত। নাটমন্দিরের চারিদিকে উৎকৃষ্ট শিল্পনৈপুণ্যযুক্ত স্তূপাকারে প্রস্তররাশি পড়িয়া আছে ও তাহার পশ্চাতে অদূরে এক বৃহৎ পুষ্করিণী রহিয়াছে। নাটমন্দিরে উঠিবার সিঁড়ির বামপার্শ্বে প্রস্তরনির্ম্মিত প্রাচীর গাত্রে সংলগ্ন একখানি শিলাফলক রহিয়াছে। এই শিলাফলকই আমাদের আলোচ্য। আমরা সেখানে আর অধিককাল অপেক্ষা করিতে পারিব না জানিয়া তাড়াতাড়ি ঘষিয়া দুই দফা প্রতিকৃতি উঠাইয়া লইলাম। সেই ঘষা কাগজ (Rubbings) হইতেই অদ্যকার প্রতিলিপি প্রস্তুত হইল।*

শিলাফলকখানি দৈর্ঘ্যে ৪৫ ইঞ্চ ও প্রস্থে ২৯ ইঞ্চ। এই ফলকের উপর প্রাচীন উৎকলা-ক্ষরে লিপি উৎকীর্ণ, তাহাতে ৩০টী পঙ্‌ক্তি আছে। ইহার প্রতি অক্ষর প্রায় ১ ইঞ্চ করিয়া বড়। অক্ষরগুলির অর্দ্ধচন্দ্রাকার মাত্রা বা পাগড়ী বাদ দিলেই ('স' প্রভৃতি দুই একটী অক্ষর ব্যতীত আর) সকল অক্ষরই প্রাচীন বঙ্গাক্ষর বলিয়াই যেন মনে হয়।[১]

গোপীনাথের প্রশস্তির বর্ণনাই এই লিপির প্রধান উদ্দেশ্য। লিপির মর্ম্ম এইরূপ[২]—

'উড়িষ্যায় কপিলেন্দ্র নামে একজন সূর্য্যবংশীয় রাজা ছিলেন। তিনি বাহুবলে ডিল্লী ও গুর্জ্জররাজের গর্ব্বখর্ব্ব, কর্ণাট, কলবরগ ও কাঞ্চীজয়, গালবধ্বংস এবং গৌড়রাজকে মর্দ্দন করিয়া 'ভ্রমরবর'[৩] নামে খ্যাত হইয়াছিলেন। তাঁহার লক্ষণ নামে একজন পুরোহিত ও মন্ত্রী ছিলেন। লক্ষণের নারায়ণ ও গোপীনাথ নামে দুই পুত্র জন্মে। গোপীনাথ রাজা কপিলেন্দ্রের একজন মহামন্ত্রী হইয়াছিলেন। তিনি বাহুবলে পরাক্রমশালী ১৬ জন রাজা ও মণ্ডলিককে পরাজয় করিয়াছিলেন। তিনি বর্ত্তমান মন্দির নির্ম্মাণ করিয়া ইহার মধ্যে জগন্নাথ, বলরাম ও সুভদ্রা-মূর্ত্তি নির্ম্মাণ করেন।'

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* কাগজের দুই একস্থান উঠিয়া যাওয়ায় প্রকৃত পাঠের কোন কোন স্থানে সন্দেহ রহিল।

(১) এই লিপির উৎপত্তি সম্বন্ধে Journal of the Asiatic Society of Bengal, Vol. LXV. pt. I. 231—32 পৃষ্ঠায় আমাদের মন্তব্য দ্রষ্টব্য।

(২) প্রায় ৫ বর্ষ হইল, বিশ্বকোষের ৫ম ভাগে 'গোপীনাথপুর' শব্দে এই লিপির সংক্ষিপ্ত পরিচয় প্রকাশিত হইয়াছে। কিন্তু অনেকেই ইহার আদ্যোপান্ত জানিতে ইচ্ছুক হওয়ায় যথাযথ সম্পূর্ণ পাঠও অনুবাদ এই প্রথম প্রকাশ করা গেল, ইতিপূর্ব্বে আর কোথাও প্রকাশিত হয় নাই।

(৩) জয়ানন্দের চৈতন্যমঙ্গলে লিখিত আছে,—মহাপ্রভু চৈতন্যদেবের পূর্ব্বপুরুষ যাজপুরে বাস করিতেন, উক্ত ভ্রমররাজের ভয়ে তাঁহারা শ্রীহট্টদেশে পলাইয়া যান—

চৈতন্যদেবের পূর্ব্বপুরুষ আছিল যাজপুরে। শ্রীহট্টদেশে পলাইয়া গেলা রাজা ভ্রমরের ডরে॥"

বোধ হয়, মন্ত্রী গোপীনাথের নামানুসারেই মন্দিরের নাম গোপীনাথ ও পরে উক্ত গ্রামও গোপীনাথপুর নামে খ্যাত হইয়াছে। এই গ্রামে ব্রাহ্মণশাসন আছে। এখানকার একঘর ব্রাহ্মণ আপনাদিগকে গোপীনাথ মহাপাত্রের বংশধর বলিয়া পরিচয় দিয়া থাকেন। তাঁহাদের মুখে শুনিলাম যে, গোপীনাথ দুই ঘণ্টামাত্র কপিলেন্দ্রের মন্ত্রিত্ব পাইয়াছিলেন। এই দুই ঘণ্টার মধ্যে উক্ত গোপীনাথের মন্দির নির্ম্মিত হয়। কিন্তু দুই ঘণ্টার মধ্যে এরূপ মন্দির হওয়া অসম্ভব। গোপীনাথ কপিলেন্দ্রের মহামাত্রপদে নিযুক্ত ছিলেন, কপিলেন্দ্রের অপর শিলালিপি হইতেও তাহার প্রমাণ পাওয়া যায়।

উৎকলের মাদলাপঞ্জীর মতে—কপিলেন্দ্র বা কপিলেশ্বর দেব ১৩৭৪ হইতে ১৪০১ শক (১৪৫২-১৪৭৯ খৃষ্টাব্দ) পর্য্যন্ত ২৭ বর্ষ রাজত্ব করেন।[২] আবার কোণ্ডবীড়ুর রাজবংশাবলী অনুসারে তাঁহার রাজ্যকাল ১৪৫৪ হইতে ১৪৬১ খৃষ্টাব্দ। এদিকে গোদাবরী জেলাস্থ কোরুক্কোণ্ডা গ্রামের নিকটবর্ত্তী বীরভদ্র পাহাড়ে ১৩৬৫ শকে উৎকীর্ণ শিলালিপিতে 'কপিলেশ্বর গজপতি'র নাম বিঘোষিত হইয়াছে'।

যাহা হউক সপাদ পঞ্চশত বর্ষ পূর্ব্বে মুসলমান রাজগণের অখণ্ড প্রতাপ-সময়ে আমরা একজন অদ্বিতীয় মহাবীর হিন্দুরাজের পরিচয় পাইতেছি। যে সময়ে হিমালয় হইতে কুমারিকা, সৌরাষ্ট্র হইতে চট্টগ্রাম পর্য্যন্ত মুসলমান প্রভাব বিস্তৃত, সেই সময়ে একজন উৎকলরাজ কএকজন উড়িয়া সৈন্য সঙ্গে লইয়া প্রধান প্রধান যবনরাজগণের সহিত যুদ্ধ করিয়া জয়শ্রী অর্জ্জন করিয়াছিলেন, ইহা নিতান্ত বিস্ময়জনক সন্দেহ নাই! হয় ত অনেকেই এই লিপির কথা বিশ্বাস করিবেন না, হয়ত কবির কল্পনা মাত্র বলিয়া উপেক্ষা করিবেন। কিন্তু যত দূর আমরা প্রমাণ পাইয়াছি, তাহাতে শিলালিপির বর্ণনা অত্যুক্তি বলিয়া মনে হয় না।

মাদলাপঞ্জী, রাজবংশাবলী প্রভৃতি গ্রন্থে কপিলেন্দ্রদেবের অভ্যুদয়, পরাক্রম ও দিগ্বিজয়-প্রসঙ্গ বিস্তৃতভাবে বর্ণিত আছে। দেশীয় বিবরণ ছাড়িয়া দিন,—মুসলমান ঐতিহাসিকগণ স্বভাবতঃ হিন্দুবিরোধী হইলেও উক্ত উৎকলরাজের সমরপ্রসঙ্গ লিপিবদ্ধ করিতে বিস্মৃত হন নাই।

মুসলমান ঐতিহাসিক ফেরিস্তা কুলবর্গার বাহ্মণী-রাজগণের প্রসঙ্গে লিখিয়াছেন,—

'(১৪৫৭ খৃষ্টাব্দে) হুমায়ুনশাহ বাহ্মণীর রাজত্বকালে তৈলঙ্গেরা মুসলমানের বিরুদ্ধে অস্ত্রধারণ করিবার জন্য উৎকলরাজ ও উড়িয়াদিগের সাহায্য প্রার্থনা করিয়াছিল। উৎকলরাজ তৈলঙ্গ ও উড়িয়া সৈন্য-সাহায্যে সম্পূর্ণরূপে ইস্‌লাম-বাহিনী বিধ্বস্ত করিয়াছিলেন এবং বহুদূর পর্য্যন্ত বিজিত মুসলমান সৈন্যগণের পশ্চাদনুসরণ করিয়াছিলেন। হুমায়ুনের পুত্র নিজামশাহের সময়েও উৎকলরাজ তৈলঙ্গের হিন্দু জমিদারবর্গের সহযোগে রাজমহেন্দ্রী হইয়া পুনরায় দাক্ষিণাত্য-

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(১) Dr. Mitra's Antiquities of Orissa, Vol. II. p, 166.

(২) বিশ্বকোষ ২য় ভাগ ৩৩০ পৃষ্ঠা।

(৩) R. Sewell's List of Antiquities &c. Vol. II.

(যবন) নরেন্দ্রগণের অধিকৃত ভূভাগ জয় করিয়া চোল[১] পর্য্যন্ত আক্রমণ করেন। উৎকলাধিপতি মহাসমারোহে যুদ্ধযাত্রা করিয়াছিলেন। তাঁহার ইচ্ছা ছিল, সমস্ত তেলিঙ্গনা প্রদেশ মুসলমান-কবল হইতে উদ্ধার ও মুসলমান রাজগণকে কর দানে বাধ্য করিবেন। (তিনি সমস্ত প্রদেশ জয় করিয়া) মুসলমান রাজধানী আহ্মদাবাদ (বিদর) নগরে উপস্থিত হইলে মুসলমান-মন্ত্রী অসীম সাহস প্রদর্শন করিয়াছিলেন এবং উৎকলরাজ প্রত্যাবর্ত্তন করিতে বাধ্য হইয়াছিলেন।'

ফেরিস্তা আবার একস্থানে লিখিয়াছেন,—'(১৪৭১ খৃষ্টাব্দে) উড়িয়ারাজ 'ভম্বর'[২] (=ভ্রমরবর) বাহ্মণীরাজ মহম্মদ শাহের নিকট অভিযোগ করেন যে, এক ব্যক্তি উড়িয়াগণের সাহায্যে তাঁহার সিংহাসন হরণ করিয়াছেন। যদি তিনি তাঁহার রাজ্য উদ্ধার করিয়া দেন, তাহা হইলে তিনি মুসলমানরাজের করদ থাকিবেন এবং কএকটী দুর্গ তাঁহাকে ছাড়িয়া দিবেন। বাহ্মণীরাজের বরাবরই গোদাবরীতটে পদার্পণ করিবার ইচ্ছা ছিল; এখন সুযোগ বুঝিয়া তিনি সসৈন্যে উড়িয়া-ভূমিতে উপস্থিত হইলেন এবং রাজ্যাপহারক মঙ্গলরায়কে পরাস্ত করিয়া ভমবরের রাজ্য উদ্ধার করিয়া দিলেন। ভমবর তাঁহাকে রাজমহেন্দ্রী ও কোণ্ডপল্লী-দুর্গ ছাড়িয়া দিলেন। কিছুদিন পরে 'রায় উড়িয়া' মুসলমান সংস্রবে নিতান্ত অনুতপ্ত হইলেন। এ সময়ে সমস্ত দাক্ষিণাত্যে মহাদুর্ভিক্ষ উপস্থিত হইয়াছিল। উৎকলরাজ এই সুযোগে দশহাজার পদাতি ও আটহাজার অশ্বারোহী লইয়া উৎকল অভিমুখে অগ্রসর হইলেন। মহম্মদশাহও বহুসংখ্যক সৈন্য লইয়া শত্রুর সম্মুখীন হইলেন। উৎকলরাজ মুসলমানের আক্রমণ সহ্য করিতে পারিলেন না। মহম্মদ ২০ হাজার নির্ব্বাচিত সৈন্য লইয়া মহাবেগে উড়িষ্যায় উপস্থিত হইলেন ও নগর গ্রামাদি ধ্বংস করিয়া উড়িষ্যাপ্রদেশ মরুময় করিয়া চলিলেন। উৎকলরাজ সন্ধির প্রস্তাব করিতে বাধ্য হইয়াছিলেন।'

ফেরিস্তার উক্ত বিবরণ পাঠ করিলে কপিলেন্দ্র দেবের কতকটা বীরত্বের পরিচয় পাওয়া যায়। মুসলমান ঐতিহাসিকেরা হিন্দুবীরগণের উপর সরল ব্যবহার করেন নাই, যেখানে মুসলমানের পরাজয়,—এরূপ অনেক স্থানে মুসলমান ঐতিহাসিক স্বধর্ম্মীর জয় ঘোষণা করিতে পরাঙ্মুখ হন নাই। এরূপ স্থলে, ফেরিস্তা হইতে অনায়াসেই আমরা বুঝিতে পারি, কপিলেন্দ্রদেব একজন সামান্য বীর ছিলেন না, তাঁহার প্রভাবে সমস্ত দাক্ষিণাত্য-নরেন্দ্র বিচলিত হইয়াছিলেন।

উৎকলের দেশীয় বিবরণ হইতে জানা যায় – কপিলেন্দ্র গৌড়ভূমি বা গোণ্ডবানার অধীশ্বর হইয়াছিলেন। মিরাৎই-সিকন্দরী নামক মুসলমান ইতিহাস হইতে জানা যায়—গুর্জ্জররাজ

(১) এই চোলের রাজধানীই কাঞ্চী বা কাঞ্চীপুরম্।

(২) ফেরিস্তার ইংরাজী অনুবাদক ব্রিগ ও উৎকলের ইতিহাস-লেখক ষ্টার্লিং 'হিম্বর' নাম করিয়াছেন। (Brigg's Ferishta, and Asiatic Researches, Vol. XV. p. 277)। কিন্তু ফেরিস্তার মূল হস্তলিপিতে 'ভমবর' পাঠ আছে। 'ভমবর' নাম 'ভ্রমরবর' শব্দেরই অপভ্রংশ। 'ভ্রমরবর' কপিলেন্দ্রদেবেরই উপাধি।

মাহ্মুদশাহ (১৪৬২ খৃষ্টাব্দে) একবার এই গোণ্ডবানায় আসিয়াছিলেন এবং গোণ্ডবানার অধিপতি তাঁহাকে বিপদ্‌গ্রস্ত করিয়াছিলেন। মিরাৎ-ই-সিকন্দরী-রচয়িতা যদিও পরে গুর্জ্জরাধিপের বিজয় ঘোষণা করিয়াছেন ; কিন্তু অধিক সম্ভব, তিনি কপিলেন্দ্রের মহাপাত্র গোপীনাথের নিকট পরাজিত হইয়া প্রত্যাবর্ত্তন করিতে বাধ্য হইয়াছিলেন। যৎকালে উৎকলে কপিলেন্দ্রদেবের প্রভূত প্রভাব, সেই সময়ে বাঙ্গালার সিংহাসনে বার্ব্বকশাহ অধিরূঢ় ছিলেন। মুসলমান-ইতিহাস হইতে জানা যায়—'গৌড়াধিপ বার্ব্বকশাহ হাবসি-সৈন্যসাহায্যে কএকবার উড়িষ্যা-জয়ে অগ্রসর হইয়াছিলেন।' বর্ত্তমান শিলালিপি হইতে জানিতেছি যে, তাঁহার উদ্দেশ্য সিদ্ধ হয় নাই। শিলালিপিতে "ধ্বস্তডিল্লীন্দ্রগর্ব্বঃ" এই যে পরিচয় আছে, ইহার সমর্থনে অপর কোন ঐতিহাসিক প্রমাণ এখনও আমাদের হস্তগত হয় নাই।

যাহা হউক, আমরা যতদূর পরিচয় পাইয়াছি, তাহাতে মহাবীর কপিলেন্দ্র-দেবকে উৎকলের শিবাজী বলিয়া গ্রহণ করিতে পারি।

পরে শিলালিপির পাঠ ও বঙ্গানুবাদ প্রকাশিত হইল।

(প্রতিলিপি।)

(১ম পঙ্‌ক্তি)— ওঁ নমো শ্রীপুরুষোত্তমায়।

মৌলৌ চঞ্চল-চূলিনী তিলকিনী ভালে মুখে হাসিনী
কণ্ঠে মৌক্তিকমালিনী মলয়জৈঃ প্রত্যঙ্গমালেপিনী।
হস্তাব্জে নবনীতিনী চরণয়োঃ ক্রী-

(২য়)— ড়ারসানর্ত্তিনী

জীয়াচ্ছেশবশোভিনী চিদমলা গোপাঙ্গনালিঙ্গিনী ॥ [১]
সংসারার্ণবকর্ণধারমপি তং ভক্তার্থসংসারিণং
বন্দে শ্রীপুরুষোত্তমং তনুভৃতাং সঙ্কল্পকল্পদ্রুমং।
বেদান্তার্থমুদাহর-

(৩য়)— ন্তি খলু যং যেনাখিলং ভাষতে

দৃষ্টো যত্র হ্রসীয়তে পদমপি স্বায়ম্ভুবং দেহিনাং ॥ [২]
সদ্যঃ পীযূষপাতো মনসি নয়নয়োঃ পাপচিন্তা দুরন্তা
শান্তা নষ্টং বিনষ্টং জনিরজনি সতী লব্ধ-

(৪র্থ)— মিষ্টং যথেষ্টং।

পাপাকূপারবারং গতমপি পিতরো ধ্বস্তবন্ধানুবন্ধা
যেনালোকি ত্রিলোকীনিলয়মণিরয়ং নীলশৈলাবতংসঃ ॥ [৩]
নিঃশঙ্কঃ পঙ্কমগ্নাখিলধরণীত-

(৫ম)— লোদ্ধারভূদারসিংহঃ
স্বচ্ছন্দং ম্লেচ্ছবৃন্দং প্রতিজগতি কলেরান্তভাগেঽপি কর্ত্তী।
ভাস্বদ্বংশাবতংসস্ত্রিজগদধিপতের্নীলশৈলাধিনাথ-
স্যাদেশাদোড্রদেশে সমজ-
(৬ষ্ঠ)— নি কপিলেন্দ্রাভিধানো নরেন্দ্রঃ ॥ [৪]
সদা তুলিতষত্তুলাপুরুষদানকালেঽর্পিতান্
ত্রিলোকবিজয়ার্জিতান্ কনকপর্ব্বতান্ সর্ব্বতঃ।
বিনিদ্রমনিমেষণং দিবিষদশ্চিরং রক্ষিতুং
মিল-
(৭ম)— স্তি কনকাচলে বিজয়িনোঽস্য দানভ্রমাৎ ॥ [৫]
কর্ণাটোজ্জাসসিংহঃ কলবরগজয়ী মালবধ্বংসলীলঃ
জজ্বালো গৌড়মর্দ্দী ভ্রমরবরনৃপো ধ্বস্তডিল্লীন্দ্রগর্ব্বঃ।
সংগ্রামে দ্র-
(৮ম)— ষ্টুমেনং প্রতিভটসুভটাঃ কেবলন্তে বলন্তে
যেষাং স্যান্নাকনারীকুচকলসতটীকুঙ্কুমাসঙ্গরঙ্গং ॥ [৬]
ধস্যোচ্চৈর্বাজিরাজীবিকটখুরপুটোদ্ঘাটিতক্ষৌণিপৃষ্ঠ-
প্রাদুর্ভূতপ্রভূত-
(৯ম)— ক্ষিতিকণনিকরৈর্লক্ষ্যমাণে প্রয়াণে।
গর্জ্জদ্গম্ভীরভেরীভররববিভবা কর্ণিকর্ণাবিবর্ণা,
মূর্চ্ছালাঃ ক্ষৌণীপালাঃ সপদি সমভবন্ কাননান্তেঽপ্যনন্তে ॥ [৭]
চণ্ডে কো-
(১০ম)— দণ্ডদণ্ডে সকৃদপি সমরে যস্য সংসক্তকাণ্ডে
সংবৃত্তে সংপ্রবৃত্তে গতবতি বিলয়ং বৈরজালে করালে।
বন্দীনাং ক্রন্দনীনাং নয়নঘনঘনাৎ স্যন্দমানৈরমানৈ
র্দুর্বারৈর্বারিধারৈঃ প্রতিপদমুদিতো
(১১শ)— ভিন্নমুদ্রঃ সমুদ্রঃ ॥ [৮]
তস্যাপ্তহংসঃ স হি হংসবংশ-
কেতোঃ পুরোধা মথকৃদ্বতংসঃ।
বিদ্বান্ মহাপাত্রকুলাবতংসঃ

শ্রীলক্ষণোঽয়ং প্রথিতপ্রশংসঃ॥ [৯]
মন্ত্রিশ্রেণিশিরোমণিঃ সুমনসাং সন্তানচিন্তা-
(১২শ)— মণিঃ,
পাপব্রাজবিষৌঘগারুড়মণিঃ সদ্বৃত্তরক্ষামণিঃ।
পদ্মোল্লাসবিলাসবাসরমণিঃ পুত্রোঽস্য নারায়ণঃ
সত্যারম্ভপরায়ণোঽজনি জনত্রাণায় নারায়ণঃ॥ [১০]
অস্যাসীদনু-
(১৩শ)— জো মতঃ ক্ষিতিভুজাং শ্রীগোপিনাথো মহা-
পাত্রঃ পাত্রজনার্চ্চনৈকরসিকঃ পাত্রং গুণানাং মহৎ।
শ্রীকান্তস্তনমুক্তকান্তমরয়ঃ চিন্তামণিং মার্গণা
রাজানঃ সুরমন্ত্রিণং বিদুরমুং কান্তা-
(১৪শ)— শ্চ কান্তং রতে॥ [১১]
রাজেন্দ্রাদধিগম্য ষোড়শবরচ্ছত্রাণি ছত্রাণ্যসৌ,
দুর্গেষু প্রসভেষু ষোড়শমিতেশ্চাস্যাবরং নায়কং।
বন্দীকৃত্য রণেষু ষোড়শনৃপানৌপাহরৎ স্বামিনে
(১৫শ)—বর্গে গর্জ্জতি ষোড়শে স্বয়মভূন্মন্ত্রীন্দ্র একঃ পুনঃ॥ [১২]
মন্যে পূর্ব্বমপূর্ব্বকীর্ত্তিরসকৃৎ কৃত্বাহবে পার্থিবান্
কারুণ্যাকলিতানুপায়বিভবো দেবোঽভবদ্ভার্গবঃ।
(১৬শ)—বন্দীকৃত্য নরেন্দ্রমণ্ডলময়ং যো গোপিনাথচ্ছলাৎ
সদ্যঃ সম্প্রতিমুঞ্চতীহ বিতরন্ স্বাং স্বাং প্রতিষ্ঠাং পুনঃ॥ [১৩]
কৃত্বা সংযতি মালবেন্দ্রজয়িনং সেনাধিনাথং তু যং
গৌড়েন্দ্রস্য নিতান্তমুৎকুলপথপ্রস্থানরোধা-
(১৭শ)— র্গলম্।
শ্রীখণ্ডাদ্রিপয়োধরোপরিকরং নির্ম্মায় কাঞ্চীহরঃ
সানন্দং কপিলেশ্বরো বিহরতে কর্ণাটরাজশ্রিয়া॥ [১৪]
চেতোবৃত্তিরিবাত্মনঃ সুবিমলা লোকাধিকা কীর্ত্তিদা
গম্ভীরালয়রীতিবদ্‌গুণম-
(১৮শ)— ণিশ্রেণী চ বিস্তারিণী।
সন্মার্গানুগতা চ সন্ততিরিয়ং প্রায়েণ সন্তাপিনাং

সন্তাপোন্মথনাদ্‌কৃপাবদমুনা খ্যাতা চ খাতাবলী ॥ [১৫]
গর্ব্বৌঘং গুর্জ্জরেন্দ্রঃ পরিহরতিতরামাশু ডিল্লীনরেন্দ্রঃ
সান্দ্রাঃ ত-

(১৯শ)— স্ত্রামবিন্দৎ কুণপগতিমগাদ্‌গৌড়ভূমীমহেন্দ্রঃ।
উত্থন্মালাকরালাং পথি পথি মিলিতাং রংহসোল্লঙ্ঘ্য সেনাং
নাথে শ্রীগোপিনাথে পরিভবতি গতাং মালবেন্দ্রস্য ভূতীং ॥ [১৬]
প্রাসাদ-

(২০শ)— মেতং নয়নাভিরামং ব্যধত্ত হারীতকুলাব্ধিচন্দ্রঃ।
অসারসংসারগভীরপঙ্কে নিঃশঙ্কনিষ্ঠাত্ববলম্বদণ্ডং ॥ [১৭]
জীয়াৎ প্রাসাদচূড়ামণিরিব রমণে প্রান্তসংসক্তভঙ্গী,
ভাবপ্রাগ্‌ভাবদীত্যহস-

(২১শ)— ঘটিতবৃহন্মস্থনী মণ্ডলীকঃ।
চিন্তানন্ত্যস্ত্রিমূর্ত্তিঃ প্রথিলসদমৃতঃ প্রাপ্তিকর্ণো ভবাব্ধে
রুদ্রাজেদঞ্চ দুর্নিপ্রচরভয়ভুবো মন্থমন্থানদণ্ডঃ ॥ [১৮] ?
রামং শ্রীপুরুষোত্তমং ভগবতীমস্মিন্ সু-

(২২শ)— ভদ্রাং তথা
রত্নালঙ্কৃতিরাজিততনুং ভক্ত্যায়মস্থাপয়েৎ।
এতেষাং ত্রিতয়ং নবত্রিজগতীচিন্তামণীনাং ত্রয়ং
প্রাসাদে চ সুমুগ্ধকে বিনিহিতং কিং মধ্যমে পিষ্টপে ॥ [১৯]
সৌবর্ণং শ্রুতিপাণিপা-

(২৩শ)— দদ্বদয়ো হৈমপ্রভামণ্ডলে
ভাস্বন্মণ্ডলসন্নিভে মণিলসদ্ভৃঙ্গী সরোজাসনং।
সোঽয়ং হারকিরীটকুণ্ডলধরঃ শঙ্খাদিধারী সদা
ধ্যেয়ঃ স্বর্ণময়াকৃতিঃ পথি দৃশো নির্মাতি নারায়ণঃ ॥ [২০]
উদ্যানা-

(২৪শ)— নি নবানি মাল্যবিধয়ে কর্ত্তুং ত্রিকালার্চ্চনং
ভোগান্ স্বর্গপুরোচিতানুপচিতান্ রামাশ্চ রম্ভোপমাঃ
নানারত্নবিভূষণানি বহুশো বাসাংসি ভূয়াংস্তসৌ

? প্রাপ্তং তৎ পরমেষ্ঠিনে পরিজনো দ-

(২৫শ — স্তেন কিং স্বামিনে ॥ [২১]

পক্ষত্বং ত্বয়ি যাত্যয়ং দ্বিজপতিঃ পক্ষোন্নতিশ্চাভবৎ

? কংসারেঽসসনস্তু বাসনমভূৎ খ্যাতো হি মে চেদৃশঃ।

দৃষ্টেঽস্মিন্নধিকাধিকারযুগলে কা মে গতিঃ সম্প্রতি

ত্বাখ্যাতং গরুড়ঃ

(২৬শ)— কৃতাঞ্জলিরসৌ পাকঃ পুরো বর্ণ্যতে ॥ [২২] ?

যেনাকারি প্রসারি দৃতিরজতশিতং গুণ্ডিচাগারমীশঃ,

যস্যাং কৈলাসবাসঃ প্রলয়মধিগতো হন্তৃদেশেঽপ্যমুষ্মিন্।

যস্য প্রাগ্‌ভাবখণ্ডস্থলবিকলনভো-

(২৭শ)-- মণ্ডলাভস্থহিণ্ড-

ম্মার্ত্তণ্ডশ্চ প্রচণ্ডশ্রমশমনপটুর্মণ্ডলোঽভূদখণ্ডঃ ॥ [২৩]

স্বাধ্যায়াভ্যাসঘোষৈর্মুখরিতগগনে যজ্ঞযূপাবলীভিঃ

ভূয়ঃ সংশোভমানে দ্বিজবরগহনে শোভনে শাসনেঽ-

(২৮শ)— সৌ।

? আবৈরং তং প্রপঞ্চং নরকরিপুবরং কামপালঃ সুভদ্রা-

গ্রামে স্বস্যাপরেষামপি ভবতু সদা মঙ্গলাগোকুলায় ॥ [২৪]

? প্রক্রাদোঽদ্য ব্যপার্থনাং ভক্তানাং বিরহব্যথাং।

ত্যাজিতো গোপিনাথেন পুণ্ডরীকবিলোচনঃ ॥ [২৫]

(২৯শ)—মীমাংসকসনিগমান্তবিচারপারং

সঞ্চারিণোঽস্মাকম্বিপণ্ডিতং গোপীনাথাঃ ॥

তং জাতং সজাগলিকবে রমলোক্তিরেষা

হর্ষোন্নতিং সুমনসাং সরণীং তনোতু ॥ [২৬]

শুভমস্তু। বক্রাখ্যেন লিখিতং ॥

(৩০)—গোপীনাথঃ প্রসন্নোঽস্তু সিদ্ধিদো ভক্তবৎসলঃ।

গুণরত্নাকরঃ শ্রীমান্ কপিলেন্দ্রহৃদি স্থিতঃ ॥ [২৭]

অনুবাদ।

যাঁহার মস্তকের চূড়া চঞ্চল, কপালে তিলক, মুখ হাস্যযুক্ত, কণ্ঠদেশ মৌক্তিক-হারে পরিশোভিত এবং অঙ্গপ্রত্যঙ্গ চন্দন দ্বারা পরিলিপ্ত, যিনি করকমলে নবনীত লইয়া ক্রীড়ারসে নৃত্য

এবং প্রেমভরে গোপকুল-মহিলাদিগকে আলিঙ্গন করিতে ভালবাসেন, সেই মনোহর শৈশব-শোভাধারী, নির্ম্মল চিৎশক্তি (সকলের হৃদয়ে) বিরাজিত হউন ॥ ১ ॥

যিনি অপার সংসারসাগরের কর্ণধার হইয়াও ভক্তগণের মঙ্গলের জন্য সংসারীর ন্যায় আচরণ করেন, যিনি কল্পপাদপের ন্যায় প্রাণিগণের সকল অভীষ্ট পূরণ করিতে পারেন, বৈদান্তিকগণ বেদান্তের উদ্দেশ্য অর্থাৎ পরব্রহ্ম বলিয়া যাঁহাকে নিরূপণ করিয়াছেন, যাঁহার আলোকে অখিল-ব্রহ্মাণ্ড প্রকাশিত হইতেছে, অথবা যাহার সত্তায় মিথ্যা মরীচিকাতুল্য জগৎ-সংসারের সত্তা প্রতীয়মান হয় এবং যাঁহাকে দেখিতে পাইলে ব্রহ্মপদও জীবগণের নিকটে অতিশয় তুচ্ছ বলিয়া বোধ হয়, সেই পুরুষোত্তমকে নমস্কার ॥ ২ ॥

যিনি ত্রিলোকনিলয়ের মণিস্বরূপ, নীলাচলের শিরোভূষণ এই পুরুষোত্তমকে অবলোকন করিতে পারেন, তাহার ভীষণ পাপচিন্তা একেবারে বিনষ্ট হইয়া যায়, নয়ন ও মন পীযূষধারায় সিক্ত হইয়া যেন চিরদিনের জন্য শীতল হইয়া উঠে, দোষরাশি ভস্মীভূত হয়, জন্ম সফল হয়, সকল অভীষ্ট পূরণ হয়, আর কিছুই প্রার্থনীয় থাকেনা এবং তাহার পিতৃপুরুষগণের বন্ধনের কারণ বিনষ্ট হয়, তাঁহারা মুক্তিলাভ করিয়া থাকেন ॥ ৩ ॥

ত্রিজগতের অধিপতি নীলশৈলাধিনাথ পুরুষোত্তমের আদেশে ওড্রদেশে সূর্য্যবংশের শিরো-ভূষণ কপিলেন্দ্রনামক নরপতি জন্মগ্রহণ করেন। ইনি আদিবরাহের ন্যায় কর্দ্দমতুল্য পাপ-মগ্ন সমস্ত ধরণীমণ্ডলের উদ্ধার সাধন করিয়াছিলেন এবং ইনিই অমিত ভুজবল প্রকাশ করিয়া কলির প্রথম ভাগেই কল্কীর ন্যায় স্বেচ্ছাচারী ম্লেচ্ছবৃন্দকে পরাজিত করিয়াছিলেন ॥ ৪ ॥

যিনি ত্রিলোকবিজয়ার্জ্জিত সুবর্ণরাশি সমস্তই সৎপাত্রে অর্পণ করিতেন ও সর্ব্বদা তুলাপুরুষ দান করিবার সময়ে যখন সেই পর্ব্বতপ্রমাণ রাশি রাশি সুবর্ণতুলাদণ্ডে উঠাইয়া মাপ হইত, তখন দেবগণেরও মনে হইত যে ইহার পরে বোধ হয়, সুমেরুখানিও কাড়িয়া লইয়া অর্পণ করিবেন। বোধ হয় দেবগণ তাঁহার দানভয়েই নিদ্রা ও চক্ষুর নিমেষ পরিত্যাগ করিয়া সকলে মিলিয়া রক্ষা করিবার জন্য সর্ব্বদাই সুমেরু পর্ব্বতে অবস্থিতি করেন ॥ ৫ ॥

কর্ণাট-ধ্বংসকরণে সিংহস্বরূপ, কলবরগা[১] জয়কারী, মালবের ধ্বংসসাধনই যাহার লীলা, জজ্বাল, গৌড়মর্দ্দনকারী এবং ডিল্লীরাজের গর্ব্ব যাঁহার নিকট বিধ্বস্ত, তিনিই 'ভ্রমরবর' নৃপ (কপিলেন্দ্র)। যাহারা স্বর্গীয় রমণীগণের কুচকলসের কুঙ্কুমের আসঙ্গই রঙ্গ মনে করিতেন, (অর্থাৎ কিছুকাল পরেই যাঁহারা সম্মুখ সমরে প্রাণত্যাগ করিয়া স্বর্গে যাইবেন), কেবল সেই সকল বিপক্ষ সৈনিক পুরুষেরাই সংগ্রামস্থলে তাঁহাকে দেখিবার জন্য ইচ্ছা করিতেন ॥ ৬ ॥

(বিপক্ষ) নরপতিগণ যাঁহার যুদ্ধদুর্মদ তুরঙ্গসমূহের বিশাল খুরপটের আঘাতে বিদীর্ণ ক্ষিতিতল হইতে উত্থিত ধূলিপটলে দূর হইতেই যাঁহার যুদ্ধযাত্রা অনুমান করিতেন, যুদ্ধভেরীর গম্ভীর গর্জ্জন শ্রবণ করিয়া (যাহারা) বিবর্ণ হইতেন এবং তৎক্ষণাৎ গৃহ পরিত্যাগ করিয়া নিবিড় অরণ্যে যাইয়াও দারুণ মূর্চ্ছায় অচেতন হইয়া পড়িতেন ॥ ৭ ॥

(১) মুসলমান ইতিহাসে 'কুলবর্গা' নামে খ্যাত।

সমরস্থলে যাঁহার বিশাল কোদণ্ডে একটী বারের জন্যও বাণ আরোপিত হইলে ভয়ানক বলশালী বিপক্ষদল সমূলে নির্ম্মূল হইত এবং বন্দিগণের রোরুদ্যমানা রমণীগণের নয়নরূপ মেঘ হইতে অপরিমিত-অনিবার্য্য বারিধারা পতিত হইয়া সমুদ্রের জল বৃদ্ধি করিত, সমুদ্রও বেলা অতিক্রম করিয়া উথলিয়া উঠিত ॥ ৮ ॥

যজ্ঞানুষ্ঠানকারিগণের শিরোভূষণ, বিদ্বান্, মহাপাত্রবংশের অলঙ্কার লক্ষণ সূর্য্যবংশ-ধুরন্ধর (সেই কপিলেন্দ্রের) পুরোহিত বা মন্ত্রী ছিলেন। ইনি অতিশয় নির্ম্মলস্বভাব ও বিশ্বস্ত, সকল ভূমণ্ডলেই ইঁহার প্রশংসা বিস্তারিত হইয়াছিল ॥ ৯ ॥

ইনি সমস্ত মন্ত্রিগণের শিরোমণি ছিলেন, ইঁহার পরামর্শ না লইয়া কেহই কোন কার্য্যে হস্তক্ষেপ করিতে পারিত না। উন্নতহৃদয় ব্যক্তিরা ইহাকে চিন্তামণি মনে করিতেন। গারুড়-মণির ন্যায় ইহার স্পর্শে কালকূটের ন্যায় বিষরাশি বিনষ্ট হইয়া যাইত। ইনি সচ্চরিত্র রক্ষা করিতে সর্ব্বদাই যত্ন করিতেন, কখনও তাহার অতিক্রম করিতেন না। দিনমণি আকাশমণ্ডলে উদিত হইলে পদ্ম যেরূপ উল্লাসে বিকসিত হয়, সেইরূপ লক্ষ্মীও ইঁহাকে দেখিয়া বা কেবল ইহাকেই অবলম্বন করিয়া বিকাশ পাইতেন। ইনি সর্ব্বদাই প্রকৃত কার্য্যপরায়ণ ছিলেন এবং নারায়ণের ন্যায় সমস্ত প্রাণীদিগকে উদ্ধার করিবার জন্য যত্ন করিতেন ॥ ১০ ॥

সকল রাজগণের আদরণীয় গোপীনাথ নামক ইঁহার এক অনুজ ছিলেন। মহাপাত্র গোপী-নাথ সর্ব্বদাই সাধু ব্যক্তিদিগের আদর ও যথোপযুক্ত সম্মান করিতে ভালবাসিতেন, তিনি সমস্ত গুণের প্রধান আশ্রয় ছিলেন। যাচক ইহাকে চিন্তামণি, রাজগণ দেবমন্ত্রী বৃহস্পতি এবং কামিনীগণ ইহাকে রতিপতি কামদেবের তুল্য মনে করিত ॥ ১১ ॥

ইনি মহারাজের নিকট কএকটী উৎকৃষ্ট ছত্র প্রাপ্ত হইয়া * * * * যুদ্ধক্ষেত্রে ষোলজন প্রসিদ্ধ রাজাকে বন্দী করিয়া আনিয়া মহারাজকে উপহার দিয়াছিলেন। * * * পরে একমাত্র স্বয়ংই মন্ত্রীশ্রেষ্ঠ হইলেন ॥ ১২ ॥

মহাপাত্র গোপীনাথ বিপক্ষ নরপতিগণকে বন্দী করিয়া পুনর্ব্বার তাঁহাদিগকে পরিত্যাগ করিতেন ও তাঁহাদের স্বীয় স্বীয় প্রতিষ্ঠা বা রাজত্বও অর্পণ করিতেন। ইহাতে বোধ হইত যেন বিখ্যাত কীর্ত্তি ভৃগুনন্দন পরশুরাম সমরক্ষেত্রে বার বার রাজগণকে বিনষ্ট করিয়া পরিশেষে তাঁহাদের কাতরস্বরে কাতর হইয়া গোপীনাথনামে লুক্কায়িত হইয়াছেন ॥ ১৩ ॥

মালবেন্দ্রবিজয়ী গৌড়রাজের পক্ষে উৎকল-পথের অর্গলস্বরূপ সেই গোপীনাথকে সেনার অধিনায়ক করিয়া নিশ্চিন্ত হৃদয়ে কাঞ্চীহর কপিলেশ্বর শ্রীখণ্ড-গিরিসদৃশ পয়োধরে হস্ত নিক্ষেপ করিয়া কর্ণাট-রাজলক্ষ্মীর সহিত বিলাস উপভোগ করিতেন ॥ ১৪ ॥

স্বীয় চিত্তবৃত্তির ন্যায় নির্ম্মল, অতিশয় কীর্ত্তিশালী, গম্ভীর রীতিযুক্ত সমস্ত গুণমণির আশ্রয়— ইঁহার বংশপরম্পরাও সন্মার্গেরই অনুসরণ করিয়া সন্তাপীদিগের সন্তাপ দূর করেন বলিয়া খ্যাত হইয়াছেন ॥ ১৫ ॥

গুর্জ্জররাজ (যাঁহার ভয়ে) সমস্ত গর্ব্ব পরিত্যাগ করিয়াছিলেন, ত্রিলীশ্বর নিবিড় তন্দ্রা-

লাভ করিয়াছিলেন, গৌড়েশ্বর কুণপগতি প্রাপ্ত হইয়াছিলেন। গোপীনাথ সেনার অধিনায়ক হইয়া অসংখ্য সেনাগণকে স্বীয় বলে পরাজিত করিয়া পথে পথে সন্নিবিষ্ট মালবরাজের ভয়ানক চমূ অধিকার করিয়াছিলেন ॥ ১৬ ॥

হারীতকুলের উজ্জ্বলকারী সেই মহাত্মা অসার সংসাররূপ পঙ্কের অবলম্বনদণ্ডস্বরূপ মনোহর এই দেবমন্দিরটী নির্ম্মাণ করিয়াছেন ॥ ১৭ ॥

ইনি রাম, পুরুষোত্তম ও রত্নালঙ্কার-পরিশোভিত সুভদ্রাকে ভক্তিপূর্ব্বক সংস্থাপন করিয়াছেন। ত্রিজগতীর চিন্তামণিত্রয়ের ন্যায় সেই মূর্ত্তিত্রয়, প্রাসাদমনোহর মধ্যমপিষ্টপে (ভূস্বর্গে) বিনিহিত হইয়াছে কি ? ॥ ১৯ ॥

কর্ণ, হস্ত, চরণ ও হৃদয় সুবর্ণময়, সূর্য্যমণ্ডলসদৃশ সুবর্ণপ্রভামণ্ডল পদ্মাসনে উপবিষ্ট, গলায় হার, মাথায় মুকুট, কর্ণে কুণ্ডল এবং হস্তে শঙ্খধারী সুবর্ণময় নারায়ণকে চিন্তা করিলে তিনি তাঁহাদিগকে সৎপথে প্রেরণ করেন ॥ ২০ ॥

যিনি চিন্তিত হইয়া (পিতামহকে) ত্রিকালার্চ্চন করিতে মাল্যের জন্য নূতন উদ্যান, স্বর্গপুরোচিত বহুল ভোগ, রম্ভাসদৃশ রমণীগণ, নানাবিধ রত্নালঙ্কার ও বহুতর বস্ত্র অর্পণ করিয়াছেন ॥ ২১ ॥

তিনি অতিশয় নারায়ণভক্ত ছিলেন। গরুড় কৃতাঞ্জলি হইয়া নারায়ণকে সম্বোধন করিয়া বলিতেন যে, হে কংসধ্বংসকারিন্! এই দ্বিজপতি তোমার সম্বন্ধে পক্ষতালাভ করিতেছেন এবং পক্ষোন্নতও হইয়া উঠিয়াছে। ইহার পরে আমার কি গতি হইবে ? ॥ ২২ ॥

তিনি বিস্তৃত প্রাচীর ও রজততুল্য শুভ্রবর্ণ গুণ্ডিচাগার নির্ম্মাণ করেন, কৈলাসপতি যে মন্দিরে কৈলাসবাসের ন্যায় প্রীতিলাভ করিতেন, মার্ত্তণ্ড যাহার অগ্রভাগে বিদীর্ণ আকাশমণ্ডলের ন্যায় পিণ্ডীকৃত হইয়া অতিশয় ক্লান্তিদূর করিতে পটুতা লাভ করিয়াছেন ॥ ২৩ ॥

রাজদত্ত ভূমিভাগে সর্ব্বদাই বেদধ্বনি হইত, স্থানে স্থানে নিহিত যজ্ঞযূপসকল অপূর্ব্ব শোভাধারণ করিত, যে স্থান ব্রাহ্মণমণ্ডলীর আবাসভূমি সংস্থাপিত, ভক্তবৎসল বৈকুণ্ঠপতি সেই সকল স্থানের সমস্ত শত্রু বিনাশ করুন, দেবী সুভদ্রাও সেই গ্রামবাসী এবং অপরাপরের মঙ্গলবিধান করুন ॥ ২৪ ॥

মহাত্মা গোপীনাথ অল্পবিভব বা যোগসম্পত্তিশালী ভক্তগণের বিরহ-ব্যথা দূর করিয়াছেন, বৈকুণ্ঠপতি এখন আর তাহাদের বিরহযাতনা প্রাপ্ত হইবেন না ॥ ২৫ ॥

নিগম ও মীমাংসা প্রভৃতির পারগামী গোপীনাথ আমাদিগের অবলম্বন হউন এবং সজাগলি কবির এই পবিত্র উক্তি পণ্ডিতদিগের হৃদয়ে হর্ষ বিস্তার করুক ॥ ২৬ ॥

গোপীনাথ (আমাদের প্রতি) প্রসন্ন হউন, যিনি সকল গুণরত্নের আকর, ভক্তবৎসল ও কপিলেন্দ্রের হৃদয়ে সর্ব্বদাই অবস্থিত আছেন, যিনি ইচ্ছা করিলেই অনায়াসে ভক্তগণের অভীষ্ট পূরণ করিতে পারেন ॥ ২৭ ॥

শ্রীনগেন্দ্রনাথ বসু।

Geometry in the Works of Āryabhaṭa I and its Relevance in the Field of the Present Day High School Geometry

Sanatan Koley

Introduction

The history of mathematical, specifically geometrical study in India is not only pristine, but also flamboyant in its exceptional fundamentality and unbelievable creativity. While discussing about the advancement of geometry in India, a glimpse of Indus valley civilisation of undivided India first flashes in our mind. We get direct proof of the mathematical, in particular, geometrical knowledge of the dwellers of this very ancient civilisation from archaeological evidences unearthed from *Harappa, Mohenjodaro* and other places. But they did not leave behind any sign of their geometrical knowledge in the form of books or manuscripts. According to archeologists, this fully developed and highly cultured civilisation originated during c. 3250-2750 BCE, and attained its highest level during c. 2350-1770 BCE.[1,2] Thereafter we remember the Vedas and Brāhmaṇa texts, especially *Śatapatha Brāhmaṇa.* It is to be mentioned here that in the early part of Vedic age (c. 1500-500 BCE) there was no written form of the colloquial language. The Vedas and other literatures were transferred and propagated from one generation to another by means of hearing and remembering. For this reason the Vedas are called *Śruti* (learning by listening). In the later part of Vedic era, nearly after 1000 BCE, Indian scripts and the tradition of writing manuscripts originated.[3] However, we come to know from the *Ṛg-veda* and the *Śatapatha Brāhmaṇa* that the dwellers of Vedic age, mainly for performing their religious rites, built square-shaped, circular and semicircular fire altars on the ground.[4, 5]

After a long period of time from the Brāhmaṇic literature, the most remarkable advancement in the field of geometry in the late Vedic period is found in the texts (in Sanskrit) which are known as the *Śulbas* or the *Śulba-sūtras.* It is to be relevantly mentioned here that many of us are acquainted with six *Vedāṅgas,* namely *Śikṣā, Kalpa, Nirukta, Vyākaraṇa, Chandas* and *Jyotiṣa.* The *Kalpa* or the *Kalpa-sūtras* are usually divided into *Śrauta-sūtras* and *Smārtha-sūtras.* The *Śulbas* or the *Śulba-sūtras* are sections of the *Kalpa* or the *Kalpa-sūtras,* more particularly of the *Śrauta-sūtras*.[6] There are at least eight extant *Śulba-sūtras* among which Baudhāyana, Āpastamba, Kātyāyana, Mānava, etc. are noteworthy. The Baudhāyana *Śulba-sūtara* is the most ancient one among these *Śulba-sūtras* composed during c. 800-500 BCE. According to the historians of Indian mathematics, this text was written around 800 BCE.[7] Needless to say, these *Śulba-sūtras* were the oldest written evidences of Indian geometry. It must be referred here that, solutions of some complicated geometrical problems related to construction of altars for religious rituals have been discussed also in these *Śulba-sūtaras*; for example, construction of altars having equal area of the base but various geometrical shapes for each deity. For this reason, the procedures of transforming one geometrical shape into another keeping the area (of the base) unchanged, have been described in the *Śulba-sūtras.* It need not be further mentioned that, these texts give us a picture of development of early geometry in India before the advent and rise of the Jaina sect during c. 500-300 BCE.[8]

The early Jainas had unparalleled influence in Indian mathematics, particularly geometry, after the end of Śulba period to the pre-Āryabhaṭiyan era, that is, up to c. 500 CE. The Jainas had extended their geometrical practice mainly for their religious needs like the Hindus in the Vedic age. But the scholars could not retrieve most of their original mathematical works of that period. Our present knowledge about the mathematical, especially geometrical contributions of the early Jainas is based mostly on the miscellaneous facts derived from different commentaries composed in the

contemporary period. Some formulae related to geometry and also mensuration are found in the treatise *Tattvārthādhigama-sūtra-bhāṣya* written by eminent author on the Jaina doctrines, Umāsvāti (c. 1st century CE).[9,10] But unfortunately, no books or manuscripts written by Indian mathematicians in the next few centuries have come to the notice of the scholars yet.

Many of us know of the book *Aryabhaṭīya* of Āryabhaṭa I (c. 476-550 CE), that is, Āryabhaṭa of Kusumapura (vide Fig. 1, imagination),

Fig. - 1
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an eminent Hindu mathematician and astronomer, written in about 499 CE. This book, written in 123 verses (different opinion : 121 verses), is divided into four chapters. These chapters were named as *Gītikāpāda, Gaṇitapāda, Kālakriyāpāda* and *Golapāda* respectively. The first one is based on astronomy, the second one on mathematics, the third one on the reckoning of time, and the last one on the celestial sphere.[11] In the chapter - *Gaṇitapāda* formulae for finding out area of triangle, circle and trapezium and volume of sphere and right pyramid have been mentioned. Besides, the matters discussed in the *chapter- Gaṇitapāda* included value of the ratio of circumference and diameter of any circle, length of the chord, arrows of two intercepted arcs, problems related to shadows, etc.

In the book *Āryabhaṭīya* (c. 499 CE) of Āryabhaṭa I the mathematical results and inferences are written very briefly. So, to understand these, we have to rely on commentaries of different commentators on this book. The first commentary written on this book was by the Hindu mathematician Bhāskara I (c. 600 - c. 680 CE) in 629 CE, more than a century after Āryabhaṭa I had composed. However, on going through his commentary we come to know about four mathematicians, namely, Maskarī, Pūraṇa, Mudgala and Pūtana, preceded Āryabhaṭa I.[12] But, no books or manuscripts written by them were traced by the scholars till now. As a result we could not learn about their mathematical, particularly, geometrical contributions. In this article we will discuss about the geometrical contributions of Āryabhaṭa I in detail. For this reason, facts will be derived mainly from two books: one authored by K.S. Shukla & K. V. Sarma[13] and another by T. A. Sarasvati Amma[14] and also from the research paper entitled 'Hindu Geometry' by B. B. Datta & A. N. Singh.[15] Finally, an attempt will be made also to explore its relevance in the field of the present day high school geometry with mensuration.

Geometry in the *Āryabhaṭīya* of Āryabhaṭa I

Āryabhaṭa I was the first of the major mathematician-astronomers from the early medieval period of Indian mathematics and astronomy. He was born at Kusumapura, near ancient Pāṭaliputra, now known as Patna in Bihar. In c. 499 CE, when he was 23 years old, he wrote the book *Āryabhaṭīya*, a compendium of mathematics and astronomy. It need not be spoken that, his works were extensively referred to in the Indian mathematical literature and have survived to modern times. However, the second chapter - *Gaṇitapāda* of the treatise *Āryabhaṭīya* consists of 33 verses, which contain brief rules or formulae dealing with mathematics that we have already cited. Now detailed discussion will be made on those verses of the said chapter *Gaṇitapāda* which are based on geometry together with mensuration, and will be arranged stepwise similar to the present day high school geometry (including mensuration).

Area of a triangle

The method for finding the area of a triangle that was used in the *Śulba-sūtra* texts[16] is:

$$\text{Area of a triangle} = \frac{1}{2} \text{ base x altitude.}$$

The early Jainas had no application for the triangle. But this rule is found also in the work *Āryabhaṭīya* of Āryabhaṭa I. In the 1st half of the 6th verse of chapter-II *(Gaṇitapāda)* of this book he says:

त्रिभुजस्य फलशरीरं समदलकोटी भुजार्धसंवर्गः।

tribhujasya phalaśarīraṁ samadalakoṭī bhujārdhasaṁvargaḥ ।

English translation : "The area of a triangle is the product of half its base *(bhuja)* and the altitude *(koṭī)*".[17]

If ABC is a triangle and AD is perpendicular to BC, then BC is the base and AD is the altitude of the triangle (vide Fig. 2). So, according to the rule

$$\text{Area of the triangle ABC} = \frac{1}{2} \text{ BC x AD.}$$

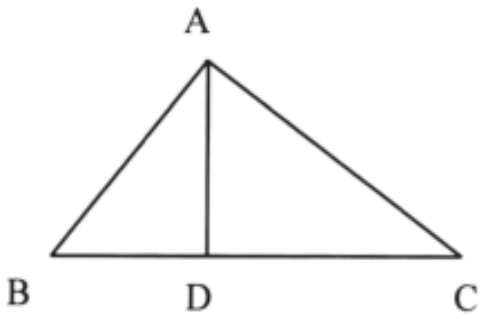

Fig. - 2

Area of an arbitrary plane figure

In the 1st half of the 9th verse of chapter-II of the *Āryabhaṭīya*, Āryabhaṭa I gives a general rule for determination of the area of unspecified (presumably rectilinear) figures. In this verse he enunciates:

सर्वेषां क्षेत्राणां प्रसाध्य पार्श्वे फलं तदभ्यासः ।

sarveṣāṁ kṣetrāṇāṁ prasādhya pārśve phalaṁ tadabhyāsaḥ ।

English translation : "For all figures, when one has acquired the two sides, the area is their product".[18]

Needful to say that, this could presumably be an approximation to be used for roughly rectangular quadrilaterals whose area is more or less the product of two adjacent sides.

The property of similar triangles

The properties of similar triangles and parallel lines were known to the ancient Hindus (Indians).[19] In early medieval India an illustration of the theorem on similarity of triangles, i.e., the corresponding sides of similar triangles are proportional, is found also in the book *Āryabhaṭīya* of Āryabhaṭa I. In the 15th verse of chapter - *Gaṇitapāda* of this book he gives the following rule:

शङ्कुगुणं शङ्कुभुजाविवरं शङ्कुभुजयोर्विशेषहृतम् ।
यल्लब्धं सा छाया ज्ञेया शङ्कोः स्वमूलाद्धि ॥

śaṅkuguṇaṁ śaṅkubhujāvivaraṁ śaṅkubhujayorviśeṣahṛtaṁ ।
yallabdhaṁ sā chāyā jñeyā śaṅkoḥ svamūlāddhi ॥

English translation: "Multiply the distance between the gnomon and the lamp-post *(bhuja)* by the length of the gnomon and divide by the difference between the lengths of the gnomon and the lamp-post. The result will be the length of the shadow of the gnomon measured from its base (foot)".[20]

If AB = the lamp-post, PQ = the gnomon and QE = the shadow of the gnomon, then according to this rule, the length of the shadow is:

$$QE = \frac{BQ \times PQ}{AB - PQ} = \frac{FP \times PQ}{AF}$$

$$\text{That is,} \quad \frac{QE}{FP} = \frac{PQ}{AF} \qquad \text{(vide Fig. 3)}$$

which is the property of similar (equiangular) triangles.

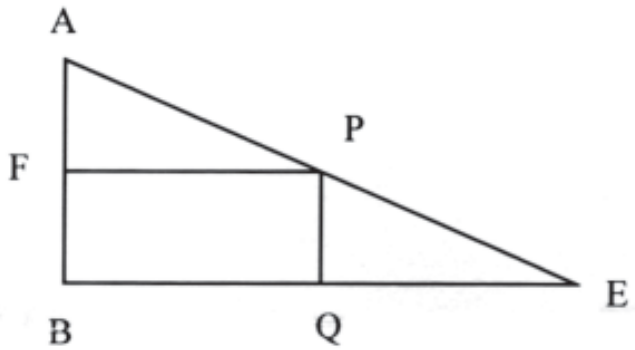

Fig. - 3

It is to be specially noted that in interpreting the verses 15th and 16th (of chapter-II of the *Āryabhaṭīya*), one has to remember that *bhuja* and *koṭi* here are not the base and perpendicular side of a right-angled triangle. Ordinarily the term *bhuja* denotes a side of a triangle (or any rectilinear figure). All the commentators agree in interpreting it as implying here the lamp-post.[21]

The theorem of square on the hypotenuse

The earliest recorded explicit statement of the theorem of square on the diagonal of a rectangle is found in the *Śulba-sūtras,* evolved in the late Vedic period. This theorem has been stated first by the Indian Ṛsi (Rishi) as well as a geometer Baudhāyana (c. 800 BCE) in the words:

"The diagonal of a rectangle produces both areas which its length and breadth produce separately".[22]

That is : the square described on the diagonal of a rectangle has an area equal to the sum of the areas of the squares described on its two sides. This famous theorem is now universally associated with the name of the Greek philosopher and mathematician Pythagoras (c. 540 BCE), though no trustworthy evidence is available which proves that it was actually discovered by him.

The said theorem has been noticed also in the treatise *Āryabhaṭīya* of Āryabhaṭa I. In the 1st half of the 17th verse of chapter II of this book he writes:

यश्चैव भुजावर्गः कोटीवर्गश्च कर्णवर्गः सः ।

yaścaiva bhujāvargaḥ koṭīvargaśca karṇavargaḥ saḥ ।

English translation : "(In a right-angled triangle) the sum of the squares of the base and the upright is stated to be equal to the square of the hypotenuse".[23]

Area of a trapezium

Here it is worth mentioning that, in the 8th verse of chapter II of the book *Āryabhaṭīya,* Āryabhaṭa I describes the rule for finding the area of a trapezium. In this verse he says the rule as follows:

आयामगुणे पार्श्वे तद्योगहृते स्वपातरेखे ते ।
विस्तरयोगार्धगुणे ज्ञेयं क्षेत्रफलमायामे ॥

āyāmaguṇe pārśve tadyogahṛte svapātarekhe te ।
vistarayogārdhaguṇe jñeyaṁ kṣetraphalamāyāme ॥

English translation : "The two parallel sides (severally) multiplied by the altitude and divided by their sum will give their respective perpendiculars from the point of intersection of the diagonals. Half the sum of the two parallel sides multiplied by the altitude should be known as the area (of a trapezium)".[24,25]

Thus, according to this verse we may write:

$h_b = \frac{bh}{b+f}$, $h_f = \frac{fh}{b+f}$ and the area = $\frac{1}{2}$ (b+f) h. (vide Fig. 4)

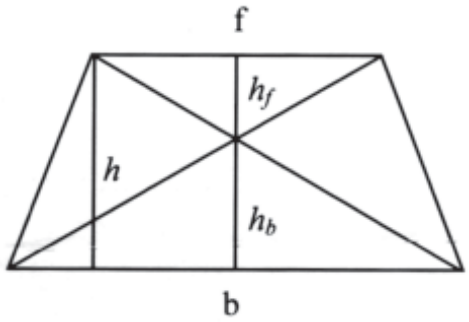

Fig. - 4

It is to be specially noted that the rule for the attitude-segments of a trapezium with altitude h discussed in the 1st half of the said 8th verse is applicable only in an isosceles trapezium. If its base and face be denoted by b and f respectively, and altitude h is divided into two segments h_b and h_f at the point of intersection of the diagonals, then the values of h_b and h_f can be found from a pair of similar right-angled triangles in the figure as follows:

$$\frac{h_b}{b/2} = \frac{h_f}{f/2} = \frac{h_b + h_f}{b/2 + f/2} = \frac{h}{(b+f)/2} \text{ , which implies}$$

$$h_b = \frac{bh}{b+f} \quad \text{and} \quad h_f = \frac{fh}{b+f} .$$

Area of a circle

The formula for determining the area of a circle is found earlier in the treatise *Tattvārthādhigama-sūtra-bhāṣya* of Umāsvāti. The formula is as follows:[26]

$$\text{Area of a circle} = \text{circumference} \times \frac{\text{diameter}}{4} ,$$

which may be written easily in the form

$$\text{Area of a circle} = \frac{\text{circumference}}{2} \times \frac{\text{diameter}}{2} .$$

In this regard, it should also be remembered the formula, for determination of the area of a circle, given by Āryabhaṭa I in his book *Āryabhaṭīya*. In the 1st half of the 7th verse of chapter II of this book, he gives the formula in the following words:

समपरिणाहस्यार्धं विष्कम्भार्धहतमेव वृत्तफलम् ।

samapariṇāhasyārdhaṁ viṣkambhārdhahatameva vṛttaphalam ।

English translation : "Half the circumference, multiplied by half the diameter is the area of a circle".[27]

That is, area of a circle = $\frac{1}{2}$ (circumference) x $\frac{1}{2}$ (diameter).

It need not be mentioned that, if the radius of a circle is r unit then its circumference is $2\pi r$ unit and area = $\frac{1}{2} \times 2\pi r \times r$ sq. units = πr^2 sq. units.

The value of π (pāi)

It is known that in the Baudhāyana *Śulba-sūtra,* Baudhāyana has employed that the value of the ratio of the circumference of a circle to its diameter is equal to 3. A slightly closer value of this ratio (= 3.16049) is found in the Manava *Śulba-sūtra*.[28] Further, the early Jainas have usually used $\sqrt{10}$ as the value of the said ratio (π). In this context it should also be referred here that Āryabhaṭa I's value of π = 3.1416 (correct to 3 places of decimals) is far more precise than that of the Jaina's. In the 10th verse of chapter-II of the treatise *Āryabhaṭīya*, Āryabhaṭa I pronounces the rule (regarding this value) as given below:

चतुरधिकं शतमष्टगुणं द्वापष्टिस्तथा सहस्राणाम् ।
अयुतद्वयविष्कम्भस्यासन्नो वृत्तपरिणाहः ॥

caturadhikaṁ śatamaṣṭaguṇaṁ dvāṣaṣṭistathā sahasrāṇām ।
ayutadvayaviṣkambhasyāsanno vṛttapariṇāhaḥ ॥10॥

English translation : "A hundred increased by four, multiplied by eight, and added to sixty-two thousand (62,000), will be the nearly approximate *(āsanna)* value of the circumference of a circle of diameter two *ayuta* (20,000)".[29,30]

This rule gives

$$\frac{\text{circumference}}{\text{diameter}} = \pi = \frac{(100+4)\text{x}8+62000}{20000}$$

$$= \frac{3927}{1250} = 3.1416$$

It must be mentioned here that, this value of the ratio (π = 3.1416) does not occur in any earlier work in Indian mathematics, and forms an important contribution of Āryabhaṭa I.

The chord of a sixth part of the circumference

From plane geometry and mensuration it is known that the area of a regular hexagon with sides a unit can be expressed as the sum of the areas of six equilateral triangles each having sides a unit.

It is evident from the figure (vide Fig. 5) that the side of an inscribed regular hexagon is equal to the radius of the circle. This theorem must have been known in India quite early. Āryabhaṭa I has narrated

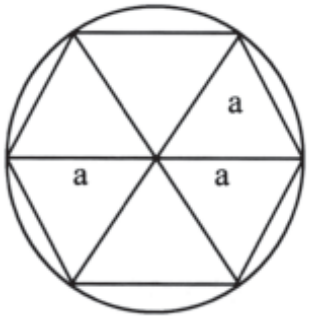

Fig. - 5

it in his book *Āryabhaṭīya*. In the 2nd half of the 9th verse of chapter-II of this book Āryabhaṭa I says:

परिधेः षड्भागज्या विष्कम्भार्धेन सा तुल्या ।

paridheḥ ṣaḍbhāgajyā viṣkambhārdhena sā tulyā ।

English translation: "The chord of one-sixth of the circumference (of a circle) is equal to half the diameter".[31]

The length of the chord of a circle

The formula for determining the length of the chord of a circle is found formerly in the work *Tattvārthādhigama-sūtra-bhāṣya* of Umāsvāti. This formula, in terms of geometric theorem, may be written as follows:

"In any circle, the product of the two intercepted parts of a diameter perpendicular to the chord, i.e, the product of the two arrows *(śaras)*, is equal to the square of half the chord".[32]

That is, if c be the length of the chord of a circle of diameter d, and h be the height or arrow *(śara)* of the minor segment of it, then according to this theorem (d-h) h = $(\frac{c}{2})^2$

In the 2nd half of the 17th verse of chapter-II of the *Āryabhaṭīya*, Āryabhaṭa I has also mentioned the formula for determination of the length of the chord of a circle. He states in this verse:

वृत्ते शरसंवर्गोऽर्धज्यावर्गः य खलु धनुषोः ।

vṛtte śarasaṁvargo'rdhajyāvargaḥ ya khalu dhanuṣoḥ ।

English translation : "In a circle (when a chord divides it into two arcs), the product of the arrows of the two arcs is certainly equal to the square of half the chord".[33]

This formula conveys that, if in a circle, a chord CD and a diameter AB intersect each other at right-angle at E, then

$$AE \cdot EB = (\frac{1}{2} CD)^2 = CE^2 \qquad \text{(vide Fig. 6)}$$

Needful to say, if we take AB = d, EB = h and CD = c, then this relation can be easily written in the form $(d - h)\, h = (\frac{c}{2})^2$.

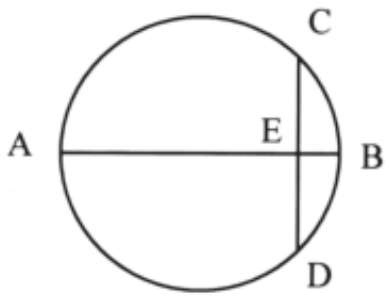

Fig. - 6

Arrows of intercepted arcs of two intersecting circles

When two circles intersect each other, the common portion cut off is called the *grāsa* (erosion). The origin of the term seems to be connected with the eclipse of the moon (or the sun) which is narrated in most of the early Hindu (Indian) mythology and in the astronomical works also.[34] In fact, the geometrical theorem, given by Āryabhaṭa I, had its application in the calculation of the eclipse.

In the 18th verse of chapter II of the *Āryabhaṭīya*, Āryabhaṭa I writes the theorem as given below:

ग्रासोने द्वे वृत्ते ग्रासगुणे भाजयेत् पृथकत्वेन ।
ग्रासोन योगलब्धौ सम्पातशरौ परस्परतः ॥

grāsone dve vṛtte grāsaguṇe bhājayet pṛthakatvena ।
grāsona yogalabdhau sampātaśarau parasparataḥ ॥

English translation : "(The diameters of) the two circles being severally diminished and then multiplied by (the breadth of) the erosion, the products divided severally by the sum of the diameters (each) as diminished by the erosion, will be the two arrows lying within the erosion".[35]

The theorem may be expressed in terms of our figure (vide Fig.7), where two circles have diameters d_1 and d_2 and the breadth of the erosion b is the sum of the corresponding arrows h_1 and h_2, as follows:

$$h_1 = \frac{(d_2 - b)\, b}{(d_1 - b) + (d_2 - b)} \quad \text{and} \quad h_2 = \frac{(d_1 - b)\, b}{(d_1 - b) + (d_2 - b)} \ .$$

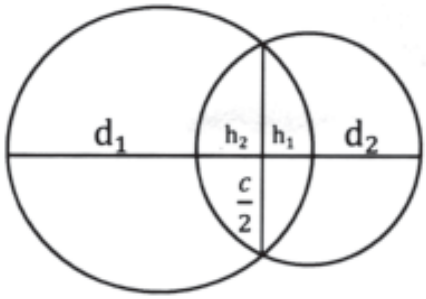

Fig. - 7

Although Āryabhaṭa I himself gives no explanation of this rule, we can justify it by means of the formula for determining the length of the chord of a circle, mentioned previously, as follows. From this formula we come to know that,

$(d_1 - h_1)\, h_1 = (\frac{c}{2})^2 = (d_2 - h_2)\, h_2$, so replacing h_2 by $b - h_1$ we may write :

$$(d_1 - h_1)\, h_1 = (d_2 - b + h_1)\, (b - h_1)$$

$$\text{or,} \quad d_1 h_1 - h_1^2 = d_2 b - b^2 + b h_1 - d_2 h_1 + b h_1 - h_1^2$$

$$\text{or,} \quad h_1 (d_1 - b + d_2 - b) = b\, (d_2 - b)$$

$$\therefore\ h_1 = \frac{(d_2 - b) b}{(d_1 - b) + (d_2 - b)}$$

Similarly, we can derive the corresponding expression for h_2.

Volume of a sphere

The *Śulba-sūtras* do not speak of any conception about the sphere directly; but it was discussed indistinctly in the Jaina works. These works refer to the word *'Ghanaparimaṇḍala'*, but we do not know if it is a cylinder or a sphere. In the *Uttarādhyayana Sūtra* (c. 300 BCE) there is a mention of a solid called *īṣadprāgbhāra* "which resembles in form of an open umbrella".[36] The authentic mention of the sphere is found at first in the *Āryabhaṭīya* of Āryabhaṭa I.

In the 2nd half of the 7th verse of chapter *Gaṇitapāda* of the *Āryabhaṭīya*, Āryabhaṭa I has given the formula for the volume of a sphere. In this verse he writes the following words:

तन्निजमूलेन हतं घनगोलफलं निरवशेषम् ॥

tannijamūlena hataṁ ghanagolaphalaṁ niravaśeṣam ।

English translation: "That (the area of a diametral section) multiplied by its own square-root is the exact volume of a sphere".[37]

That is, if r unit be the radius of a sphere, then according to this formula,

Volume of a sphere = $\pi r^2 . \sqrt{\pi r^2}$ cubic units = $\pi r^3 \sqrt{\pi}$ cubic units.

This formula is incorrect (the correct one is $\frac{4}{3} \pi r^3$ cubic units).

Volume of a right pyramid

The formula for calculating the volume of a right prism or a circular cylinder is found in the texts *Śulba-sūtra*.[38] These formulae were evolved in the late Vedic period for the measurement of volumes of the fire-altars and excavations. In the treatises Veda and Saṁhitā, the prisms whose sections (parallel to the base or face) are regular polygons, were named according to the number of edges. Thus in the *Ṛgveda*, the triangular prism is called *trirasri*, a quadrangular prism *caturasri* and so on.[39]

The Vedic Hindus (Indians) do not always distinguish between a cone and a pyramid. They include both under a generic name *sūcī*, which means literally a needle, a sharp pointed object. Thus the term

sūcī generally denotes a pyramid with a base of any form; as the base also may be a circle, it includes a cone as well. Āryabhaṭa I gives a rule for measurement of the volume of a triangular pyramid. In the 2nd half of the 6th verse of chapter II of the book *Āryabhaṭīya,* he says:

ऊर्ध्वभुजातत्संवर्गार्धं स घनः षडश्रिरिति।

ūrdhvabhujātatsaṁvargārdhaṁ sa ghanaḥ ṣaḍaśririti ।

English translation : "Half the product of that area (of the tringular base) and the height is the volume of a six-edged solid".[40]

Hence, according to this rule,

Volume of a pyramid = $\frac{1}{2}$ (area of the base) x height cubic units.

This formula is inaccurate.

It is to be referred here that, the volume of any right pyramid = $\frac{1}{3}$ (area of the base) x height cubic units.

Measurement of heights and distances

Shadow measurements and calculations based on them formed an important part of mathematics from very early times in India. Even the *Sūryaprajñapti* (c. 400 BCE), a Jaina *Gaṇita* text, refers to shadow lenghts and their variations according to the time of the day and the year (IV. 9).[41] Āryabhaṭa I also discussed the problems connected with the gnomon and its shadow in his book *Āryabhaṭīya*.

In the 16th verse of chapter *Gaṇitapāda* of this book, Āryabhaṭa I states the rule for calculating the height of the lamp-post (source of light) and its horizontal distance from the observer with the help of shadows of two gnomons of equal height, set up in two places at a known distance apart. The verse is as follows :

छायागुणितं छायाग्रविवरमूनेन भाजितं कोटी ।
शङ्कुगुणाकोटी सा छायाभक्ता भुजा भवति ॥

chāyāguṇitaṁ chāyāgravivaramūnena bhājitaṁ koṭī ।
śaṅkuguṇākoṭī sā chāyābhaktā bhujā bhavati ॥

English translation : "The distance between the tips of the two shadows being multiplied by the length of a shadow and divided by the difference between the lengths of the two shadows gives the *koṭī*. That *koṭī* multiplied by the length of the gnomon and divided by the length of the shadow corresponding to it will be the height of the *bhuja* (lamp-post)".[42]

Let AB = the lamp-post (height to be measured), PQ, P′Q′ = two gnomons of equal height, and QE, Q′E′ = the shadows respectively (vide Fig. 8). Then the rule says:

$$(1)\ BE = \frac{EE' \times QE}{Q'E' - QE},\quad (2)\ BE' = \frac{EE' \times Q'E'}{Q'E' - QE},\quad (3)\ AB = \frac{BE \times PQ}{QE} = \frac{BE' \times P'Q'}{Q'E'}.$$

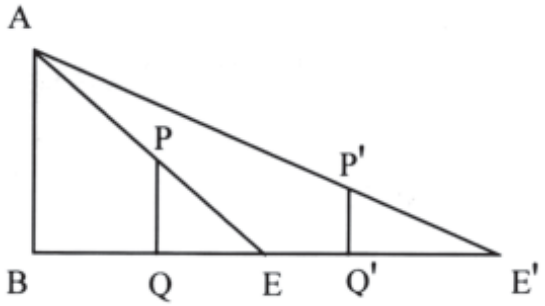

Fig. - 8

These formulae can be justified using the property of similar triangles, cited earlier, as follows:

Considering the similar triangles ABE and PQE and also ABE′ and P′Q′E′, we have respectively

$$\frac{AB}{PQ} = \frac{BE}{QE} \quad \text{.... (i)} \quad \text{and} \quad \frac{AB}{P'Q'} = \frac{BE'}{Q'E'} \quad \text{.... (ii)}$$

Since PQ = P′Q′, therefore from (i) and (ii), we get

$$\frac{BE}{QE} = \frac{BE'}{Q'E'} = \frac{BE' - BE}{Q'E' - QE} = \frac{EE'}{Q'E' - QE} \quad \text{.... (iii)}$$

Hence from (iii), and (i) & (ii) we find respectively

$$(1)\ BE = \frac{EE' \times QE}{Q'E' - QE},\ (2)\ BE' = \frac{EE' \times Q'E'}{Q'E' - QE},\quad (3)\ AB = \frac{BE \times PQ}{QE} = \frac{BE' \times P'Q'}{Q'E'}.$$

Conclusion

We have already mentioned that the names of several Indian mathematicians (like Maskarī, Pūraṇa, Mudgala and Pūtana) who preceded Āryabhaṭa I are known, but no books or manuscripts written by them could be traced by any scholar. In this respect, then, the position of the best-known treatise *Āryabhaṭīya*, written in c. 499 CE by Āryabhaṭa I in India, is somewhat agnate to that of the *Elements* of Euclid in Greece some eight centuries ago. Both are summaries of earlier developments, compiled by a single author.[43] However, it is evident from the previous discussion that the formulae for finding the area of a triangle, trapezium and circle, given by Āryabhaṭa I, are correct. Again, the property of similar triangles, the rules or formulae for determining the length of the chord of a circle and arrows of two intercepted arcs, mentioned in chapter *Gaṇitapāda* of the *Āryabhaṭīya*, are also found correct. Moreover, Āryabhaṭa I was the first Indian mathematician who has pronounced that the value of π is approximate, and this value (π =3.1416) forms an important contribution of him. But, the rules for the area of an arbitrary plane figure, volume of a sphere and pyramid are incorrectly stated (in the afore named chapter). Finally, we may say that most of the rules, formulae and properties, contributed by Āryabhaṭa I, concerning mensuration as well as geometry appear correct. Now, if the scholars of mathematics and mathematical sciences examine the present-day textbooks on high school mathematics all over the world, they must find these important contributions of Āryabhaṭa I there. So, it would not be an exaggeration to say that there is of course some relevance, though meagre, of the

eminent Indian mathematician Āryabhaṭa I in the field of geometry and mensuration taught in the present day high schools.

This work is dedicated to Professor H. P. Mazumdar, former Professor of Physics and Applied Mathematics Unit, Indian Statistical Institute, Kolkata, whose constant encouragement inspired me to write the article.

Notes

1. Volume of a sphere (V) = $\pi r^3 \sqrt{\pi}$ cubic units, as stated by Āryabhaṭa I (see p. 42), may be written (taking $\pi = \frac{22}{7}$) as $\pi r^3 \sqrt{3.14285714} = \pi r^3 \times 1.77 \ldots$, whereas V should be $\pi r^3 \times \frac{4}{3} = \pi r^3 \times 1.\dot{3}$. Therefore, though numerically the values are not exactly equal, the approach and the result obtained by Āryabhaṭa I in c. 499 CE can not be totally ignored.
2. Volume of a pyramid (six-edged solid): Here also the approach cannot be overlooked. Āryabhaṭa I perhaps did not go through different experimental verifications before arriving at his final calculations. He took $\frac{1}{2}$ as a factor in place of $\frac{1}{3}$ (see p. 43). The difference $\frac{1}{2} - \frac{1}{3} = \frac{1}{6} \simeq .17$. In modern times also theoretical values and experimental values always differ to some extent.

   So considering the era in the remote past, when there was no accurate scale for measurement, one had to depend on closer approximations and that might have led to the error.

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Early Pandemics in History

Mukta Raut Dey and Atanu Ray

Of the very few events of human history which have reshaped its course in the transition forward, the outbreaks of plague is one, which swept over this planet intermittently. Archaeological evidence of 2 different epidemics have been unearthed from North eastern China dated around 3000 BCE while literary evidence of the first account of bubonic plague was found in the Old Testament (Huremoviæ 2019). Rooted in a Greek word *plaga* (strike/blow), the word plague though denotes a particular potent infectious disease caused by *Yersinia pestis*, as a general term it is used for any disease causing a high rate of mortality or more widely, as a metaphor for any sudden outbreak of a terrible suffering.

In a long succession throughout history, pandemic outbreaks have not only ravaged existence of humanity or political and societal structure of a region, but also paradoxically, made way for innovations or advances in science, economy, political or religious structures worldwide. New research in epidemic and pandemic has shown that being driven by different socio economic interests the human race is transgressing the ecological niche and invading the animal world, thereby encountering less known numerous microbial agents. These agents are causing new diseases, epidemics and might be the covid 19 too which could lead to somehow comparable serious socio economic consequences. The present study would review some most virulent pandemics of early and medieval periods, which left a mark in the history of mankind in similar manner.

Athenian Plague

The most important epidemic/ pandemic in history can be traced back to 430 to 426 BCE, in the name of Plague of Athens. The only ancient account of the Great Plague comes from the writing of Thucydides (2017), an Athenian general and plague survivor who was exiled from Athens after being accused responsible for a disastrous defeat in *the Peloponnesian War* (431-404 BCE), with Sparta.

According to Thucydides, the plague, originated in North Africa (Ethiopia) and was transmitted via Persia and first struck the Athenian port-city of Piraeus and erupted in Attica a year before the Peloponnesian War. The disease then struck again in 429BCE, killing the Athenian general Pericles1 and again in 427BCE. This epidemic killed a quarter of the Athenian troops and a quarter of the city population.

Initially it was suspected that this disease was caused from water-sources, which was poisoned by the invading armies of Sparta. But later DNA investigation of pulp from the roots of teeth found in three skeletons of a mass grave of Athens, belonging to the plague years suggested a possible cause for the epidemic was typhoid (Papagrigorakis *et al*. 2006). This proposition was rejected on the argument that as because typhoid was endemic in the Greek world, it was not the likely cause of this sudden epidemic (Littman, 2009).

Athens was the most open and accommodating city state in Greece. A large number of foreigners (*metic*), usually merchants or artisans, were allowed to reside there in this city, which had opened itself wide to foreign trade and mixing of people.

The Athenian citizens were largely killed in the Peloponnesian War and also in the epidemic which changed the demographic balance between the citizens and the *metic*s. It took 15 years to replenish this population loss.

The influx of *metic*s was considered as a factor in the spread of the epidemic by the Athenian people. This increase in population burdened the city's infrastructure and resources and made a conducive situation for easy spread of the infectious disease to other parts of

Greece. It seems that the immediate action of the losses in the plague and the war lead to imposition of more stringent rules of citizenship. A law passed in 451 BCE, restricting Athenian citizenship to only those who were born of Athenian citizens (Roy 1999). The law was reenacted in 403 BCE again, a year after the war ended. However there was provision for wealthy *metic*s, those who could deposit huge sum were able to become *de facto* citizens and enjoy all benefits. The increased xenophobia (MacDonald 1981), among native Athenians towards the *metic*s, reminds us the present immigration policy of America or Britain.

Thucydides recorded a number of other such social upheavals which occurred due to the outbreak of this epidemic. In a time of war and turmoil, when people were dying from an unknown disease, sparing none, they became hostile towards all the law, be it human or divine. The suppressed members and groups in the society rebelled in this tumultuous situation. Indiscriminate death among priests and common citizens lead to loss of belief in religion. A collapse of familial bond could also be inferred as self-preservation became the first goal. Dead bodies of plague victim were left unattended and unburied by relatives and friends in fear of infection (Thucydides), resembling the present day scenario with Covid 19 case.

The Athenians were aware of the connection between overcrowding and the spread of the disease as Thucydides noted the overcrowding caused by the movement of the rural population and refugees within the walls accelerated the spread of the disease while the more sparsely inhabited countryside was less affected. This might have given birth to the adoption of technique of isolation to prevent the spread of the disease.

The epidemic also weakened military might of Athens at a time when the city needed it most. It might have resulted in the defeat of Athens in the Peloponnesian War, which permanently ended the city's supremacy in Greece and first democracy of the world in Athens was briefly overthrown in 411 BCE (Couch 1935).

Antonine plague

The Antonine plague, also known as the Plague of Galen, was named after the emperor, Marcus Aurelius Antoninus (161-180 CE), the last of the five great Emperors of Rome. Noted Greek physician Galen recorded the tell tale picture of this epidemic and it was probably the first recorded evidence of epidemic of small pox (Littman, 1973).

The epidemic most likely originated in China shortly before 166 CE and erupted in Rome in 165 CE, at the time when Roman power was at its height throughout the Mediterranean world. The disease spread along the Silk Route and by trading ships moving towards Rome. Sometime between late 165 to early 166 CE, the Roman military came into contact with the disease during the blockade of Seleucia (a major city on the Tigris River). From the East the disease was carried towards west to Europe and it spread towards the north in Gaul and along the Rhine river.

This epidemic showed devastating effect on the Roman population. The Roman historians estimated at least 2000 death per day in Rome during the height of the outbreak. During this period the Romans faced other crises. The co-emperor Lucius Verus, died of illness in 169 CE. Aurelius also died 11 years later in 180 CE from same illness. A second outbreak occurred in 251-266 CE.

This epidemic of Smallpox killed extraordinarily and horribly in waves. It has been suggested that a quarter to a third of the entire population perished. The plague so ravaged the society that the death toll reduced the number of taxpayers, businessman, farmers and recruits for the army or candidates for the public offices. The scarcity of crop caused steep price hike along with decreasing food supplies. The Roman legion was also affected everywhere by this disease resulting in massive casualties in the army. Emperor Aurelius was compelled to recruit untrained slaves and gladiators to the legions and the Romans had to pay for it. For the first time in 200 years in 167 CE, military offensives were called off and the Germanic tribes crossed the Rhine River and invaded the Roman Empire. The success

of the external attacks was obvious in front of untrained Roman military.

The Antonine plague was also associated with the rise of Christianity. During this time, the fear among terrified citizens was so rooted that, archaeologists, exploring all over the old imperial territory of Rome, still come across amulets etc suggesting how helpless citizens were trying to defend the virulent disease. As the disease erupted emperor Aurelius resorted to persecutions of the monotheist Christians. In this gruesome situation, the Romans abandoned the suffering people, but the Christians took an active role in nursing them which provided a solid footing and expansion and growth of Christianity within a polytheistic culture. Christianity emerged as the only official religion of the empire after this time.

The extent of the epidemic has been extensively debated. Many factors were associated with the fall of Roman Empire, but one of the factors was outbreak of the Antonine plague. Compounding the effects of the utter economic crises along with consecutive defeats of Roman army probably lead to the fall of the mighty Empire. Some historians like Gibbon (1776-1789) though have attributed negligible role of Antonine plague in the fall of Roman Empire while historians like Boak (2019), Harper (2017) *etal* suggest that Antonine plague along with series of similar outbreaks threw some useful light in understanding of the onset of downfall of Roman Empire in 5th century CE.

Cyprian plague

The Cyprian plague named after the bishop of Carthage St. Cyprian, whose first-hand account of the disease, largely forms the source of knowledge about this illness. St. Cyprian penned down the incident vividly in his work De Mortalitate ("On Mortality"). The disease erupted in Ethiopia in 250 CE. and spread from there to Rome and following years to Greece and further east to Syria. It lasted for 20 years causing a huge death toll, killing about 5000 people a day in Rome. This plague hit Rome in such a crucial time when

draught, flood and famine devastated the empire. The period witnessed constant warfare when the Germanic tribes invaded Gaul and the Parthians attacked Mesopotamia.

Seeing the horrifying nature of the epidemic, St. Cyprian thought that it was the end of the world. The clinical features, which were noted during this epidemic, did not fit with any known cause of epidemic. In 2014 archaeologists excavated a grave which was supposed to be containing the dead bodies of victims of Cyprian plague (Jarus, 2014). These bodies were found covered with lime. It seems that people were so anxious of the severity of the disease that the corpse were smeared with lime and burnt to prevent the spread of the disease. DNA of the dead could not be extracted as the Egyptian climate caused the complete decay of DNA, without which hardly any conclusive identification of the culprit of the actual disease could be made. Recently Kyle Harper (2015) suggested that most likely, a viral hemorrhagic fever, might be Ebola, was responsible for Cyprian plague.

The disease caused political, economic, military and religious upheaval in Rome. Not only large number of people died but this period saw the death of two emperors *viz*. Hostilian in 251 CE and Claudius II Gothicus in 270 CE. The period between the two emperors witnessed political crises as rivals started fighting to claim the hold of the throne. The Roman legions were affected by the disease and it weakened the Roman administration. The widespread disease also caused the population of countryside to flee to the cities. The abandonment of the field due to mass death of farmers caused the fall of the agricultural production in some area. Only the nascent Christianity got hold during this disaster as the pagans were unable to explain the disease. The Christian missionaries came forward to care and stand by the ailing people because to them it was a service to the god and in this way epidemic helped to establish Christianity in erstwhile Roman Empire.

The recurrent outbreaks of such plague episodes continued over next three centuries. In 444CE it affected Britain and crippled the

defense effort against Scots and Picts and compelled British to seek help from Saxons and to hand over the future control of Britain to Saxons, which is still continuing.

Justinian plague

The Byzantine Emperor Justinian I came to power in 527, the time when the western provinces had slipped from Roman control. In determination to restore the glory to the mighty Roman Empire Justinian set out missions and by 540 the Byzantine military had made significant gains in North Africa and the Italian Peninsula.

During this time in 542 CE, a plague hit Byzantine Empire from Constantinople and which is named after the reigning emperor Justinian. The plague originated in China and north east of India and was carried to the lake region of Africa by oceanic-trade route. Byzantine historian Procopius (1967) faithfully identified and narrated the beginning of the plague in Pelusium on the Nile River bed and from there the disease spread north and eastward. The germ of the plague is spread by Black rat or *Rattus rattus* to people via infected flea. North Africa was the main grain supplier to Constantinople. The vector of this plague *ie* black rat, which cannot move more than 200 metres from their abode, was carried from Africa to Constantinople through the grain cargo. The grain ware houses of Constantinople helped the rats to multiply.

This period suffered from an unusual fall of temperature and snow during the summer season in adjoining Mediterranean Europe. This climatic change resulted in food shortage and people started moving across the empire. This movement of the infected, hungry people and the soldiers further magnified the spread of the disease.

The plague lasted for 4 months and challenged the empire in many ways. Social disorder started during this time due to ongoing war, climatic hazard and the plague itself. Justinian himself was affected, prosperity and commerce of the empire during this period was conducive to the spread of a plague outbreak. Constantinople, the political capital of the eastern Roman Empire, became doubled as the

center of commercial trade for the empire by that time. The capital's position on the cross road of the Black and Aegean seas made it an ideal intersecting location for trade routes coming from China, the Middle East and North Africa. Wherever trade and commerce expanded, there went rats, fleas and obviously the plague and devastated much of the Roman society.

People died in huge numbers. The administrative apparatus also collapsed. One of the immediate effects of the plague was the shortage of farmers which resulted in decline of food production and it resulted in shrinkage of tax base from the former landholder. It was followed by three consecutive famines in 542, 545 and 546 CE. The shortage of grain and manpower resulted in price hike and hike of the wages. Daily life came almost to a halt in the city and Justinian tried to arrest the inflation by freezing the price of the grain and wage of the labourers but was not successful and it led to the downfall of economy. Second onslaught of this plague in 558 CE ruined the capital, affecting tax collection and strength of the army badly.

As the disease spread throughout the Mediterranean world, the empire's defense mechanism was destabilized. This epidemic decimated the empire's professional armies and devastated the resurrection plan of Justinian. The emperor had to recruit Barbarian forces to supplement the plague hit, shrinking Byzantine army. In his lifetime Justinian's dream of united Roman empire could not be achieved. By 568 CE, the Lombards successfully attacked northern Italy and defeated the small Byzantine barracks, leading to the breakage of the Italian peninsula, which remained divided until its re-unification in the 19th century. Some historians have argued that its scourge lead to the decline of the eastern Roman Empire, with subsequent rise of Islam and ultimately, the emergence of modern Europe. On the basis of investigation of data ranging from historical narratives to palynology and mortuary archaeology, this age-old conviction has though been countered recently (Wu, 2019) and it has been suggested that the impact of Justinian plague has been exaggerated and it was not as devastating as a disease.

Black death

The Black Death was the largest demographic trough in European history killing as many as 150 million. According to some sources the Black Death claimed around 60% population of Europe. It altered the fundamental paradigm of European life. The plague came to Europe from the East via trade route and overseas ships. After originating in the East in 1322 it infected the Mongal troops under command of Khan Djanibek who was besieging the Italian held City of Caffa, the modern day Fedosia in Crimea on Black Sea. The people of Caffa were infected and dying which created panic and people left Caffa by ship arriving first in Sicilian ports and then at Marseilles from where plague spread inland. Those infected usually died within 3 days of showing symptoms and death toll rose so quickly that people of Europe had no time to grasp with it.

Before plague, the European society was rigidly held in feudal system. During the period of Black Death Europe was severely over populated and so there was no dearth of labourers (*serf*s) to work in the field. All monarchial lands were allocated to nobles and who in turn used to get all works done by these serfs and pay back a percentage to the king. Consequently the wage was very meager but serfs had no choice but to work in terms of the nobles, which was a kind of slavery. There was no scope of upward social mobility in feudal system and serfs were tied to land where they had to toil for generations.

England endured 30 plagues between 1351 and 1485. The pattern mirrored in the continent too. As plague led to massive de-population, it greatly reduced the workforce. Moreover catastrophic loss of population led to abandonment of less attractive farming job and wholesale desertion of villages as people were moving towards town in pursuit of trade over farming at that time. As a consequence of such mass migration, utter labourer crisis arose in villages and agricultural production declined. Beyond loss of labour services, the deceased or absentee peasants paid no rent or dues and rendered no fees for use of manorial monopolies. The lords of estates could not

pay their due tax (*tithe*) to the king or the Church, or maintain his family without the labour of his bonded peasants. Under this situation left over serfs utilized the scope to bargain with the nobles for higher wages. Most landlords were forced to agree on peasants' terms to get their lands cultivated. Wages in England rose from 12 to 28% from the 1340s to the 1350s and 20 to 40% from the 1340s to the 1360s. This extra wealth improved the living condition and led to upward social mobility of the *serf*s and enabled them to liberate themselves from generations of bondage and gave birth to a new middle class. Under this situation, the wealthy section felt threatened and looked to legal coercion to restore the pre plague position of the *serf*s. Sometimes structural impediments were imposed to block the ambitious parvenu of serfs from joining the rank of *manor* and becoming a challenger to his privileges. Implementation of England's Ordinance of Labourers (1349) and Statute of Labourers (1351) etc, resulted in massive uprisings such as the peasant revolt in France in 1358, the guild revolts of 1378 or the famous Peasants' Revolt of London in 1381. There was no turning back and all efforts of the elite to suppress these rebels were futile. Class struggle continued. Along with this, the English landlord, hopeful for a return to the pre-plague regime, initially granted brief terminal leases of 4 to 6 years at fixed rates and finally when the tenurial transformation was completed the lord sold his right of lordship to the peasant that also resulted in collapse of manorialism from western and central Europe by 1500. The authority of feudal system was thus broken finally and the last vestiges feudal system collapsed.

For women who were largely regarded as second-class citizens, plague conferred them a better status. As large male folk died in plague, women were allowed to cultivate their own land, to run their husband's businesses, to join in guilds and to enjoy greater liberty. The surviving farmers changed their subsistence from arable farming to husbandry which reduced the demand for masculine strength to push ploughs and expanded the scope of work that women could do. Women's wages increased which made them more independent.

Huge loss of workforce in agricultural sector led to economic recession. At the same time, in an effort to control the spread of the plague further, nations severely imposed import ban which only aggravated their economic crisis. Businessmen had to reshape their business output to fit a declining pool of prospective customers.

The Catholic Church had the supreme control over spiritual matter until the arrival of plague. But when all efforts to arrest the spread or cure of plague epidemic failed, people began to lose belief in the doctrine they had rallied till then. Widespread emergence of distrust of the Church's vision and authority led to the eventual crack of a unified Christian worldview and rise of the Protestant Reformation (1517-1648 CE). Thus hegemony of the medieval Church dwindled. Finding no other reason to explain the disease, the Christian superstition of sin committed by the women and Jews to the lord made them the soft target of public wrath, as responsible factors for the plague epidemic (similar to the recent attack on the Tablighi Jamat in India).

With the decline or denial of the hegemony of the church there developed secular education which gave birth to realisation about human values and experiences over religion. Beliefs in a person's merits or abilities, what mattered and not one's birth, led to a growing individualism in European society. This encouraged people to strive and develop their talents and achieve excellence or virtue. This belief in the human to understand the world and this new spirit of inquiry helped to ignite the Renaissance. The wealthy and elite traders of Italy were patrons of great artists such as Michelangelo or Leonardo da Vinci. The people who were not born as landed gentry but became wealthy, for the reason discussed above, started to compensate their trivial ancestry and to establish their equal status with the old aristocracy by imitating aristocratic way of patronizing art or men of letters.

The mortality from plague of 1347 to 1363 varied widely from place to place. Had the Black Death be an isolated event, European population might have recovered to its former level in a generation or two and economic impact would have been moderate but plague

continued in Europe for three centuries with its impact on demography and economic growth.

An interesting proposition in relating Black Death to industrial revolution has recently been proposed by Robert C. Allen. Commonly apprehended leading causes of industrial revolution are - the serendipitous invention of steam engine and finding of huge coal deposits as source of energy (Hobsbawn, 1999). Allen in his books entitled *Poverty and Progress in Early Modern Europe* (2003) and *The British Industrial Revolution in Global Perspective* (2009) has argued that perhaps Industrial Revolution was the outcome of the capitalist endeavour to develop labour saving technology. In dealing with the cause behind the onset of industrial revolution and why it began in England and not anywhere else, he referred Black Death and subsequent episodes of plagues with the impact in alteration of the demography of entire Europe and specially England. Allen synthesized how the demographic effect of plague led to wage divergence and finally to technological innovations. He discussed that due to severe loss of labour force in England, there was a divergence of wage between England together with northern Europe and southern Europe. He gave example of real wage in London which was three times that of Vienna as in 1805 though both were at par in 1400s, and argued that the reason lies with the Black Death driven social changes with loosing grip of feudal system in Northern Europe. Due to this acute wage divergence, the production system required technological innovation to reduce the cost of production and make it sustainable in the market. On the other hand conversion of agricultural land into pasture and growth of animal husbandry (discussed above) in the post plague time provided more nutritious diets for sheeps and this resulted into better growth of wool for export market. Thus he argues that various factors played their role but primary factor was market pressure for technological changes and this is accompanied by profit

from export of wool generating capital together with the finding of cheap sources of energy as coal led to industrial revolution. So Allen's research showed the influence of a pandemic in bringing about one of the greatest invention of history in a more convincing way.

Idea of quarantine

The panic experience of pandemic can be traced back to pre Christian era. In the Biblical book of Leviticus, written between the 5th and 8th centuries BCE, an early form of semi-isolation was mentioned. Absence of proper knowledge of micro organism or the actual mechanism of transmission of disease, led to several desperate experiments to preserve public health from time to time. Jewish Rabbis certainly had no knowledge of the pathogen, but their knowledge regarding the usefulness of isolation was reflected in response to a skin disease.

During Athenian plague also we have seen how people avoided the touch of the corpse to protect themselves. Again with the outbreak of Justian plague people who belong to other community than that of the Christians of Constantinople were held responsible for the outbreak of disease, because of their so called unhealthy practices. As a result, Justinian tried to stop their movement to prevent the spread of the disease. These techniques may be considered as initial quarantine, among different other measures.

The principle of infection set up in Italy public health control was the municipal quarantine and seclusion of the victims. They regulated funeral rites and ordered to destroy clothes of the departed. Viscount Bernabo of Reggio ordered that every person with plague should be sent out of the city into the fields, either to die or recover. In 1374, Venice and Genoa municipal authority started monitoring the ships those were reaching there and turning back those which were found coming from infected areas. The port city of Rogusa (modern-day Dubrovnik) was the first Venice port city to pass legislation and in 1377 maritime quarantine was established for the compulsory isolation

of all incoming trading caravans in order to screen for contamination. All ships were instructed to wait outside the dock for a period of 30 days, while port authorities checked the crew and goods in order to find out any possible health risk. Ultimately, the Italian city-states changed the seclusion time duration to forty days. Italian term of forty, *quaranta,* thus gave birth to the word quarantine. The forty-day quarantine proved to be an effective standard for arresting the outbreaks of the plague.

So beginning around three thousand years ago, quarantine and isolation were employed as effective safeguard against spread of disease, as Drews (2013) summarizes, as human understanding of disease transmission grew, quarantine sophistication and efficacy improved, then it became standard practice in combating epidemics and gradually during the black death, the western world adopted this formula of quarantine.

An outline of major epidemics throughout recorded history extending from earliest time to medieval century thus reflects the malignancy of contagious diseases. Impact of each epidemic/ pandemic was profound, and it left behind wide-ranging experiences for the posterity. In one side massive death toll brought unprecedented human tragedy, wiped out many landmarks of history like demise of earliest democracy of the world in Athens, decline of Byzantine and Roman empires etc. At the same time it acted as a boon for humanity in stepping forward in the form of paving path towards industrial revolution or decline of repressive feudal system or establishment or transformation of different religious faiths etc.

So, these plagues were not a mere disease but it had pleotropic consequences. At present in fighting with corona, many similar situations are encountered. We are now strongly equipped with historical documentations. Utilizing these, the present study thus should not only be confined to medical research, but an

interdisciplinary holistic, analytical approach can prove more effective in dealing with this deadly disease. A thorough introspection may unleash new horizons in physical and cognitive world of human race, for a better tomorrow.

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Lahore Suba Revenue Statistics c.1690

Naseer Ahmad Mir

The revenue obtained from the agricultural lands by invoking the sole labour of peasants was significant for the prosperity of the Mughal state. The triangular geographical zone of Lahore Suba shaped by the five tributaries of river Indus was rarely equalled in its agricultural fertility.[1] The Punjab revenue statistics are obtained mostly from *Āīn*, particularly for the period of the late 16th century. It enlightens us about the economic richness of the Suba. Unlike the other Suba of the Mughal Empire, the number of Doabs (*sarkārs*) in Suba Lahore was only five and *Bairun Panjnad* included the *parganas* falling outside the five streams. The Doab division seems more natural because of the six rivers flowing through it. These Doabs (*sarkārs*) were further sub-divided into *parganas*, the number of which after calculation comes to 229[2] with a stated measured land (*ārāẓī*) of 16,155,643 *bīghas* 3 *biswa*.[3] Here the primary focus is on the revenue returns of the Ṣūba, which is available in two different sources. One is *Āīn*,[4] and the other is *Kāghzāt-i-Mutaffariqa* of the late 16th and late 17th centuries, respectively. The second source *Kāghzāt-i-Mutaffariqa*[5] gives us details of the revenue statistics of the late 17th century. It furnishes us with the *pargana* list along with *jama* figures of the Suba Lahore. The total estimated *jama* of the whole Suba was calculated as 80,93,77,000 *dāms* (*hasil kamil*). Unlike *Āīn-i-Akbarī*, there in *Kāghazāt-i-Mutaffariqa*, only *pargana* names are mentioned along with their estimated *jama* figures. The *jama* figures represent the standard assessment and not the revenue receipts of the particular year. The *jama* includes *syūrghāl*, but deducting *syūrghāl* figures from the *jama* in each Suba makes only

marginal difference. The *Shariat* was concerned with the actual produce and not the average or arbitrarily fixed yield on the paper.[6] We may proceed by figuring out the revenue returns of each *doab*.

In Sarkār Sind Sagar Doab, there were 42 *parganas* during the reign of Akbar. The calculated *ārāẓī* was 14,09,979 *bīgha*. The revenue returns, in *dāms* were *naqdi* 51,912,201; *syūrghāl* 94,680; *sawār* 8,555; and *pīyādah* 69,700. During the reign of Aurangzeb, *Kāghzāt-i-Mutaffariqa* shows 31 (not stated) *parganas* with estimated *jama* figures of 6,15,55,000 *dāms* in Sind Sagar Doab. Exceptionally, this is the only Doab where more names of *parganas* are missing in the *Kāghzāt-i-Mutaffariqa*. However, if we count the combined names of the *parganas* along with the given ones below, the difference is not much more. Nonetheless, the increased *jama* figures in comparison with *Āīn* indicates the increase in the *ārāẓī* land of the Doab as well. It is further substantiated by the argument put forward by Irfan Habib, in which he propounded that there was not much price rise during the reign of Aurangzeb.[7] So there seem lesser chances of increased *jama* being effected by the price rise. From now onwards, we will be giving the stated and actual total *pargana*-wise at the end of each *sarkār* figures. It will be a total of the whole *sarkār*. The matching *parganas* names in both (*Āīn-i-Akbarī* & *Kāghzāt-i-Mutaffariqa*) the lists are inserted at the beginning of the table.

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Akbarabad Tarkhery	5291738	Akbarabad Tarkhery	5740000
Attock	3202216	Atak Banāras (9 *mahals*)	5070000
Rohtas (stone fort)	6049140	Rohtas	5390000
Khushab	2702509	Khushab	2445000
Dhangari	147647	Dankali	8550000
Dhankot	480000	Dhankot	3000000
Shamasabad	7034503	Shamsabad	8420000

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Hazara Qarlugh	1805342	Hazarah	2300000
Kalbahlak	2883253	Kalbahlak	3000000
Fatehpur Kulo	4261831	Majoor	7040000
Khaib	934161	Bharmana	5690000
Kahar Darwaza	24541	HassukayBhon (6 *mahals*)	18200000
Girjhak	961755	Kadramak (5 *mahals*)	10000000
Kajakot	340000	Sadanpur	4910000
Kanbat	96000		
LangaHatyar	96000		
Makhiala (stone fort)	384000		
Marali	2400000		
Malot (stone fort)	133233		
Nilab	481305		
Narmi	38091		
Naukar seral Khatar	38092		
Hathyarlung	300000		
Hazara Gujaran	270896		
Himat Khan Karmon	48000		
Awan	415970		
Parial (stone fort)	5158109		
Bel [Path] Ghazi Khan	720000		
BaroKahtar	48000		
Taloqidhan	1316801		
Taharchek Dami	250575		
Dharband	100000		
Dharab	96000		
Duduat	96000		
Reeshan	92496		
Patala	624000		
Balakahtar	1000040		
Stated total = 51912201 *dāms*	Actual total= 51648708 *dāms*	Stated total = 61555000 *dāms*	Actual total= 89755000 *dāms*

The *Āīn* figures out that the Sarkār Chanhat Doab comprised 21 *parganas*. The total calculated *Kāghzāt-i-Mutaffariqa* was 2,633,210 *bīgha*. The revenue returns, in *dāms* were *naqdi* 64502394; *syūrghāl* 511070; *sawār* 3730 and *pīyādah* 44200. A single addition appears from the *Kāghzāt-i-Mutaffariqa* in the *pargana* list of *Āīn*, i.e. 22 for which the aggregate total of *jama* figures amounts to 92471000 *dāms*.

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Akhandur Atyaran	392000	Akhandur	400000
Bherah	19910000	Bherah	22100000
Bahlolpur	3830575	Bahlulpur	12050000
Bahdu	192000	Bahduyak	9000000
Pooni	57222	Pohni	300000
Shorpur	3121546	Shorpur	3000000
Shakarpur	1050819	Shakarpur	1600000
Karyali [Karnala]	2643270	Karyali	3400000
Khokhar (Burnt brick fort)	2320594	Khokhar	3000000
Khari	1505241	Kheri	3500000
Lolor	3746166	Lolor	4760000
Mangli	432000	Magli	440000
Mulot	370549	Mulot Raikandra	911000
Haria	9150828	Haria	14000000
Hazara Midh Ranjah	4689136	Har Mehdi	220000
Indarhal	485418	Lowab	10000000
Boliat	400080	Shahjahanabad	1000000
Bhimbhar	1200000	Amaar (2 *mahals*)	5500000
Sailau Dodyal (2 *mahals*)	735741	Samba	2400000
Gujrat	8266150	Kalpan	500000
		Bhadermal	3200000
Stated total = 64502394 *dāms*	Actual total= 64499335 *dāms*	Stated total = 92471000 *dāms*	Actual total= 101281000 *dāms*

The *Āīn* recorded that in Sarkār Rechna Doab, there were 57 *parganas*. The total calculated *ārāẓī* was 4,253,148 *bīgha*. The revenue returns, in dāms were *naqdi* 172,047,391*; syūrghāl* 2,684,134*; sawār* 6,795 and *pīyādah* 99,652.[8] But when the *naqdi* figures of Rechna *Sarkār* are calculated *pargana*-wise, the actual total comes 17,96,67,816 *dāms*, which is more than the stated total.[9] The *Kāghzāt-i-Mutaffariqa* recorded 60 *parganas* in Rechna Doab with total *jama* figures of 23,60,85,000 *dāms*.

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Eminabad (brick fort)	24853006	Eminabad	25000000
Pasrur	27978583	Pasrur	10000000
Patti Zafarwal	3697338	Patti Zafarwal	5400000
Bhalot	818182	Bhalot	2800000
Bhilaura	240000	Bilwara	4345000
Chima Chata	5878691	Chima Chata	7400000
Jammu	3956000	Jammu	4200000
Jasrota	2100000	Jasrota	800000
Jerejana	240000	Jere Jana	240000
Hafizabad	4548000	Hafizabad	600000
Dawalatpur	115050	Darharpur	4000000
Dawlatabad	241740	Daulatabad	900000
Rinha	275550	Rinha	2300000
Sialkot (brick fort)	22090702	Sialkot	32440000
Shajrau (brick minaret)	362626	Shajrau	200000
Sodhra	7096702	Sodhar	8160000
Gobindwal	1253957	Goindwal	2970000
Kala Pind	203964	Kalapind	290000
Kharlinarli	768000	Kahray Baray	770000
Mohmmad Bari Dokraw	1127903	Mahmoodukrau	1250000
Masrur	3005602	Masrur	5650000
Wan	3715553	Wan	17035000
Karbari samba	1500000	Sur Samba	300000
Hiantal	240000	Pasrur	10000000

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Amaraqi Bhatti	1942606	Saalim Ali	80000
Arazi Bagh Raibhuja	52837	Kahuba	800000
Panchnagar	1181622	Sahirdah	3200000
Badubahal	1611882	Jahangirabad	400000
Patti Tramli	525953	Ghakhar	9875000
Bhadrah	240000	Sarhond	2670000
Bhotiyal	96000	Irayi Sehra	2850000
Bun	48000	Malladar	2400000
Taral	2144945	Hasdoob	5000000
Talwandi	1518207	Darbarabad	3200000
Chandanwarak	4128331	Naran Lahore	3000000
Chhotadhar	1391692	Kaabri	2435000
Chiniot (brick fort)	2806369	Madbakhad	1920000
Arazi Khanpur	27028	Madmali	1200000
Dawad Baheedal Barhi	1725079	Sakkar	2200000
Jabudhadi	815587	Jahdarjah	1020000
Rupnagar	410513	Meharabad	1200000
Rechna	8680742	Dadusandal	1165000
Sahumali	5574764	Jahan Lamhoor	1055000
Saidhpur	3127212	Bandusahal	800000
Shanzdah Hinjrao	1536480	Seharhaal	711000
Shor	2278940	Alsa	600000
Barhi Fatubahdal	613917	Hassuhar	700000
Fazlabad	136528	Shahdardah	1120000
Kathua	5888254	Kojraan	850000
Gujranbarhi	670934	Hagenpur	710000
Hemnagar	8391087	Arazi Sehrakoha	800000
Lakhanpur	481818	Sahaal	240000
Mangtanwala	3819690	Basumaal	200000
Manigari	1475225	Bilonadhi	1055000
Mankot (4 towns each with stone fort)	85119	Madabubak	650000

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
		Soobandral	240000
		Gahloob Aruf Mamkoot	100000
		ArajiSahoor	20000
		Jasdar	500000
		Maloon	50000
		MauzaMasoorabad	200000
Stated total = 172047391 *dāms*	Actual total= 179667816 *dāms*	Stated total = 236085000 *dāms*	Actual total= 200246000 *dāms*

Among the *parganas* of above Doab, Amaraqi Bhatti seems to have been known by the name of Amarah during the reign of Aurangzeb and was located in the Bari Doab, perhaps due to the shifting of the river bed (Ravi).

In Sakār Bari Doab, there were 52 *parganas* inserted in *Āīn*. The total calculated *ārāẓī* was 4,580,002 *bīgha*. The revenue returns in dāms were *naqdi* 142,808,183; *syūrghāl* 3,923,922; *sawār* 31,055 and *pīāyādah* 129,300. Whereas, *Kāghzāt-i-Mutaffariqa* showed that the mentioned Doab encompassed 53 *parganas* with its total *jama* calculated as 222816000 *dāms*.

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Ancharah	500000	Anchara	820000
Andaura	1193739	Andaura	2200000
Baldah Lahore	2912600	Lahore	300000000
Bhalwari	452694	Bhalwari	600000
Patti Haibatpur	28395380	Patti Haibatpur	45650000
Batala	16820998	Batala (2 *mahals*)	25000000
Biyah	3822255	Biyah	4080000
Bahadurpur	447750	Bahadurpur	450000
Talwarah	514666	Talwar	1050000

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Chamari	8813149	Jamarsa	9255000
Jalalabad	5163119	Jalalabad	7102000
Jahat and Resala (2 *mahals*)	2300000	Jahat Dama (2 *mahals*)	2600000
Sankha Arawal	544145	Sankha Arwal	810000
Sindhuan	5854649	Sidhaun	550000
Swadshar	674053	Swadshar	825000
Shahpur	2382235	Shahpur	2600000
Gareeb Rawan	411985	Gareeb Rawan	500000
Qasur	3915506	Qasur	10460000
Kalanaur	8329111	Kalanaur	11005000
Kunhewan	3511499	Kaun	1000000
Khokhuwal	3475510	Khokhuwal	4290000
Gawaliar	2643000	Gwalior	8250000
Kangra (stone fort)	2400000	Kangra	680000
Karkrawan	16000	Karkrawan	2500000
Malakshaw	1475562	Malakshaw	2380000
Hathiyar Karnala	489672	Sunarah Karmala (2 *mahals*)	1650000
Bahipur	168000	Mimhan	13000000
Awdu	9400	Sarhu	12500000
Bawalra	24132668	Mehlayi	4840000
Punjgrami	1461630	Behad	3200000
Bahrly	4060607	Arazi Mala	710000
Bhiruwal	3181499	Kaku Daman	7040000
Pathankot (brick fort)	7297015	Loorkuz Kajrab (2 *mahals*)	2850000
Paniyal	4266000	Sabal	6455000
Tahandwat	610064	Mauhar Sahoor	4401000
Chandrau	263568	Fatehabad	2520000
Chahar Bagh Barhi	58502	Barmawar Nala (2 *mahals*)	1650000

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Changar	45600	Saamur	730000
Khanpur	280038	Malbar (3 *mahals*)	500000
Debhewala	6282139	Gobindwal	100000
Dhamri	1600000	Baskona	600000
Darwah	240000	Hasadraloon	460000
Darwah Degar	24000	Akbarpur	80000
Sherpur	480000	Amarah	500000
Modusa (2 *mahals*)	2400000	Sarsaan	90000
Mahroor	24000	Kalas Himaloon	65000
Kotla	182518		
Palam	9600		
Patyar	n.a.		
Bhatti	n.a.		
Jarja	n.a.		
Stated total = 142808183 *dāms*	Actual total= 142817025 *dāms*	Stated total = 222816000 *dāms*	Actual total= 508598000 *dāms*

In Sarkār Bet Jallundhar Doab, there were 60 *pargan as* highlighted in the *Āīn*. The total *ārāẓī* as calculated was 3279302 *bīgha* 17 *biswa*. The revenue returns, in *dāms* were *naqdi* 124365212; *syūrghāl* 2651788; *sawār* 4155 and *pīyādah* 79536. Whereas, *Kāghzāt-i-Mutaffariqa* added seven more *parganas* to the list provided by *Āīn*, i.e. (60+7) 67 *parganas* in Bet Jallundhar Doab with its total *jama* calculated as 222816000 *dāms*. The addition would be only six when the given *parganas* of *Āīn* are counted to 61.

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Aslimabad	124365212	Islamabad	800000
Patti Dhainat	458122	Patti Dhainat	5370000
Bhunga	2760530	Bahdona	1000000
Bajwara	2425813	Bajwara	800000

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Barwah	668000	Bardah	1160000
Jalandhar (brick fort)	14751626	Jallundhar	13550000
Chaurasi	5463913	Churasi	7200000
Chunur	313000	Chunur	4550000
Hajipur Saryana	9707993	Hajipur	4000000
Dadial (stone fort)	1650000	Dawal	2050000
Dada (stone fort)	1200000	Dadah	1160000
Darparah	900000	Darirah	1100000
Dawan Nagor	455870	Dwan Nagoor	850000
Dhunkali	72000	Dankal	70000
Rahimabad	2433682	Rahimabad	3010000
Sultanpur (brunt brick fort)	4020232	Sultanpur	5400000
Sankar Bunwat	2533225	Sankarmoon	3120000
Sukhet Mandi	1680000	Suket Mandi (2 *mahals*)	1650000
Sopur	1000000	Sapur	820000
Shergodha	194294	Sharkardah	670000
Isapur	346667	Isapur	600000
Kotkehr (stone fort)	1310847	Kokhar	1500000
Khewankhera (stone fort)	240000	Khewan Kherah	250000
Kankut (stone fort)	240000	Kahloon	240000
Kahirah	240000	Kuhrah	1680000
Lawidhari	537414	Luvi Isray	440000
Lalsangi	236850	Lal Sangi	360000
Mihil Mori	2106156	Hemalohari	100000
Maily	1823559	Maily	465000
Mohmmadpur	1802558	Mahmoodpur	1300000
Manswal	286667	Manaswal	300000
Malwat	460320	Malot	800000
Mundhota	426667	Mandhota	400000
Nankal	267280	Dhunkai	3150000
Naunangal	2315368	Naunkadya	240000
Nandaun	5300000	Nandaun	5330000

Pargana	*naqdi* figures in 1595	*Pargana*	*Jama* figures in 1690s
Harhana with Akbarabad (2 *mahals*)	6032032	Akbarabad	4600000
Hadiabad	519467	Maloon	9620000
Balot	n.a.	Diloosa	10480000
Bahalwan (stone fort)	1305006	Bajaur	8430000
Palkawah	200000	LoiIrf Mumapur	6635000
Bachritu	160000	Madasi	2500000
Biyali (together two *mahals*)	566666	Rajaur (3 *mahals*)	2880000
Talwan	6780337	Mabasapoorsa	2260000
Tatarpur (stone fort)	170388	Aiyazabad	2520000
Jewra	2474354	Mausahoor	1700000
Jaswan Ballakoti (stone fort)	600000	Kadahwasaha	3500000
Dasiyu (burnt brick fort)	4474950	Biana	3140000
Dhardhi	600000	Bwasal	2620000
Rajpur (stone fort)	1800000	Nurpur Koh Daman	2400000
Siba	800000	Shohar	1500000
Sooran	n.a.	Makrad	410000
Shaikhupur	4722604	Jomalkolay	1100000
Kothi	5546661	Kahuras	600000
Gurhdihal	2670087	Hasanpur	320000
Kotla	1680000	Yawarabad	600000
Kharakdhar	480000	Mabkali	570000
Nakidor	3710796	Sauran Nagri	308000
Nakrok (now Nagrota)	1300061	Khewai	600000
		Malkoorah	300000
		Mamarpur	220000
		Harya Malwarakh	7000000
Stated total = 124365212 *dāms*	Actual total= 124104520 *dāms*	Stated total = 135935000 *dāms*	Actual total= 152278000 *dāms*

Likewise, Sarkār Bairun Panjnad was divided into 3 *parganas.* There is no mention of *ārāẓī* and *syūrghāl* figures. Only *naqdi* statistics are given, the total of which is 3,822,740 dāms.

Pargana	*naqdi* figures in 1595
Bilot	322740
Sahlor	1700000
Kahlur	1800000
Stated total = 3822740 *dāms*	Actual total= 3822740 *dāms*

The actual total of whole Suba after calculating *pargana*-wise figures as 566560144 *dāms* against the stated total, which was recorded 559458121 *dāms*. Merely the difference between the two totals is 7102023 *dāms*.

The other *parganas* recorded are under the sub-headings of Nagarkot and Kulu. Nagarkot included 34+6=40 *parganas*, the total amount of *jama*, which is inserted as 19540000 *dāms*, whereas Kulu territory incorporated 24+6=30 *parganas* with its given estimated total *jama* of 40975000 *dāms*. The sum total of *jama* figures of both these two areas calculated as 69515000.

Nagarkot

Pargana	*Jama* figures in 1690s	*Pargana*	*Jama* figures in 1690s
Nagarkot (2 *mahals*)	3000000	Balhar	1100000
Sadbahlowahi Kangra	1100000	Abjahana	6000000
Balam	900000	Marli	800000
Moori	3000000	Karoob	1150000
Mahroor (4 *mahals*)	960000	Awra	860000
Daramku	800000	Braloon	600000
Koila Dharmpur	450000	Jarey	350000
Baldah Kangra	300000	Rama Nandar-warah	300000
Ramkadah	165000	Sabookar	150000
Saasna	85000	Mihana	23000

Pargana	*Jama* figures in 1690s	*Pargana*	*Jama* figures in 1690s
n.a (5 *mahals*)	41675000	Kahara (2 *mahals*)	500000
Kark Rawan	405000	Saharah	320000
Jaska	300000	Makoodah	260000
Salla	150000	Kosralawan	100000
Kohar Kub	30000	Kukand	n.a.
Stated total = 19540000 *dāms*		Actual total= 65683000 *dāms*	

Kulu

Pargana	*Jama* figures in 1690s	*Pargana*	*Jama* figures in 1690s
Nagarkot (2 *mahals*)	3000000	Balhar	1100000
Kuluwal (5 *mahals*)	3000000	Sirmur	60000
Sajjan	2000000	Komaha	800000
Hamaswal	500000	Rama Lagan	420000
Hama Anraviaab	20000000	Keak	28000
Makbaha	1800000	Bashera	720000
Kanwarah	475000	Najar	400000
Maabhal	400000	Soodar	300000
Loonha	250000	Maludhulo	170000
Kahwar	100000	Siray	40000
Sabroon	6850000	Bikayal	400000
Darhi	300000	Kadyak	7500000
Bahdool	100000	Bashaar	75000
Nansoorah	700000	Kanboor	160000
Stated total = 40975000 *dāms*Actual		total= 47548000 *dāms*	

In the Suba of Lahore, *parganas* kept on increasing in number during the Mughal rule. The below-mentioned list of *parganas* has been derived from the work of Surjit Singh Gandhi. However, he does not highlight the source of his information. He records year and the number of *parganas* as: 1594-232; 1665-314; 1665-316; 1700-458 (318); 1720-329[10]; 1759-327.[11] Although the number of *parganas* varied but the number inserted against 1700 seems doubtful. Instead of 458, it should

be 318 to support the sequential increase in *pargana* list. After reading *Kāghzāt-i-Mutaffariqa*, the number of *parganas* calculated in the Ṣūbah of Lahore comes 303. We find a slight difference between the stated number of *parganas* and the actual calculated one. One can notice it from the table of figures given below.

Sarkār name	Stated number of *parganas*	Actual number of *parganas*.
Rechna Doab	60	60
Bari Doab	53	53
Bet Jallundhar Doab	67	66
Chanhat Doab	n.a.	22
Sind Sagar Doab	n.a.	31
Nagarkot	34+6=40	39
Kulu	24+6=30	32
Total	250+?	303

While comparing the above-mentioned number of *parganas* (303) with that of the number given by *Āīn*, which is 229, one may analyse that within a century, there was an increase of 74 *parganas* in the Suba of Lahore. We also notice the change in the names of some *parganas* with time. The reason (s) behind the name change may be due to the division in some *parganas* as well as by the addition of some new ones, like Sirmur, which was earlier an independent principality. It was later, during the time of Aurangzeb, included in the *pargana* list of Suba Lahore.[12] Besides, the Kulu area which was located outside the map boundary carved out for the Mughal Suba of Lahore. By 1707, Mughal sovereignty was claimed over this area, which in turn had effectively changed the Suba boundary. Further diversion was caused by the inclusion of Pinjour into Delhi Suba in 1707.[13] The segmentation of a single *pargana* into more than one subdivision necessitated being called by two different names. Consequently, some new names came on the scene. The lesser-known *parganas* most probably lost their previous names. However, the much-known ones retained their earlier names thoughout the seventeenth century.

By figuring out the geographical alterations, it leads us to humbly contest the argument put forward by Irfan Habib who says that, "The measured area of Lahore province does not show any noticeable alteration between the *Āīn* and the statistics of Aurangzeb's reign when nine-tenths of the villages are shown to have been measured."[14] He based the comparison on the *ārāẓī* figures of *Āīn* and *Chahar Gulshan*, and in between, the *jama* figures of *Kāghzāt-i-Mutaffariqa* appears to have not been taken into consideration. The addition of 74 *parganas* after the reign of Akbar up to Aurangzeb may possibly have increased the *ārāẓī* figures of the Lahore province. Because, within the five Doab boundaries, all the 74 *parganas* may not be altogether the outcome of sub-divisions of earlier larger *parganas*.

Āīn-i-Akbari (1595) *naqdi* in *dāms*			*Kaghzat-i-Mutafarriqa* (1690s) *jama* in *dāms*	
Sarkār name	Stated total for *sarkārs*	Total of figures for *parganas*	Stated total for *sarkārs*	Total of figures for *parganas*
Rechna	172047391	179667816	236085000	200246000
Bari	142808183	142817025	222816000	508598000
Bet Jallundhar	124365212	124104520	135935000	152278000
Chanhat	64502394	64499335	92471000	101281000
Sind Sagar	51912201	51648708	61555000	89755000
Bairun Panjnad	3822740	3822740		
Nagarkot			19540000	65683000
Kulu			40975000	47548000
Grand Total	55,94,58,121	56,65,60,144	80,93,77,000	1,16,53,89,000

While looking at the figures for both the periods (1595 & the 1690s), the increase in *jama* seems almost double in the late 17th century. The variation between the stated and actual total of revenue figures *pargana*-wise of Suba Lahore is also noticed more in Aurangzeb's reign as compared to Akbar's. The discrepancy between these two totals is caused most probably by Bari Doab in general and Lahore *pargana* in particular. Because we see, from Lahore alone, the estimated

jama was recorded as thirty crore *dāms*. It shows that the Lahore had retained its position as a thriving commercial hub up till the late 17th century. If we deduct 20 crores from these 30 crores, the stated and actual totals will shrink down near to each other.

Meanwhile, a fact needs to be taken into consideration that *jamadāmi* was highly inflated[15] and exceeded *hasil* 30% or more.[16] If it is made a precedent, then, from 30 crores, the deduction of 9 crores will be made. However, at the same time, it will be applied to all the *jama* figures. Which again will keep the gap between the two totals intact. Thus a substantial *jama* figure (30 crores) exacted from Lahore still demands a concrete reason. However, in one illustration, it is highlighted, after comparing the cash rates of later years of Aurangzeb with that of corresponding rates in the *Āīn* for Lahore. No real increase can be discerned once an allowance has been made for the rise in prices during the intervening period.[17]

Contrary to the *Āīn*, the *jama* figures inserted against the *parganas* in *Kāghzāt-i-Mutaffariqa* are almost all in round figures. When we count the stated *sarkār* figures given by the late 17th century source, it was precisely the same with no difference at all. The variation was only noticed when we count the figures of *parganas*. Apart from the five Doabs, the author of *Chahar Gulshan* added Kangra as the sixth *sarkār* with a separate total in 1720.[18] Here in *Kāghzāt-i-Mutaffariqa*, we also notice the same under the two subheadings of Nagarkot and Kulu. The sum of these two territories is also stated jointly in a single union. However, if the combined total is added to the rest five figures, it creates a difference in the indicated total also. The stated figure of all *sarkārs* matches only when the separately stated data of these two areas are taken into calculation.

While taking into consideration the *ārāẓī* figures of 1595, which were measured as 16,155,643 *bighas* 3 *biswa*, the total revenue return *pargana*-wise was calculated as 56,65,60,144 *dāms*. After dividing *jama* figures by *ārāẓī* figures, we get the net result of 35.06. This indicates that on an average from every single *bigha* of land, a revenue of 35.06

dāms was exacted. While applying the same premise to the later period, particularly to the *ārāzī* figures of 1720, recorded in *Chahar Gulshan* as 2,43,19,960 *bīgha*, the result would be that by multiplying this figure by 35.06 we get an average revenue return of 85,26,57,798 *dāms*. Besides, the number of *parganas* given by *Chahar Gulshan* highlights the increase of (actually calculated; otherwise, the stated number of *parganas* gets counted to 329) twenty-three new *parganas* to the list provided (303) by *Kāghzāt-i-Mutaffariqa*. If we now look at the stated *jama* figures given by *Kāghzāt-i-Mutaffariqa*, it is 80,93,77,000 *dāms*. The stated total given for the period of the late 17th century by *Kāghzāt-i-Mutaffariqa* appears quite convincing. Particularly, when Sujan Rai also comes up with the *jama* figures of 89,30,70,000 *dāms* of Lahore Suba in 1695 along with the number of 316 *parganas*.[19] Before that, during the reign of Shah Jahan, particularly in 1647, the *jama* of Suba Lahore was ninety (90) crores.[20] This shows that the prices had not increased much during the period of Aurangzeb because of the high production of Suba Lahore which controlled it. Alternatively, the supply and demand graph was more or less on the equilibrium position.

Meanwhile, Muzaffar Khan's (Akbar's financial expert) abolition of '*Jama-i-Raqami*' with the introduction of *jamahal-i-hasil* was well recognised by Abul Fazl who remarked that "although this assessment was not a *hal-i-hasil* assessment yet in comparison with the earlier assessment it was undoubtedly more rational and closer to *hasil*."[21] Moreover, in Agra, the Mughal capital from 1526 to 1658, bazar food prices, for instance, remained at least 20% higher than Lahore between 1595 and 1708.[22] It leads us to doubt how much the mentioned *jama* figures were inflated, 30% or more, as mentioned above or less than 30%. The doab-wise *jama* figures furnished by Rai Chaturman in 1720 were calculated as 589409130 *dāms*. However, the figures are too low in comparison to the *jama* figures given by *Khulasat-ut-Tawarikh* and *Kāghzāt-i-Mutaffariqa*. It appears that the rebellion of Banda Bahadur did affect the revenue returns of Mughal Suba adversely. With his turmoil, the other tributary chiefs of the region also started behaving

stubbornly. The vassals began withholding tribute, channelised their contingents towards encroaching the nearby territories. The *zamindars* and *jagirdars* hold got strengthened over their respective territories. During the last year of Aurangzeb's reign Munim Khan the deputy governor of Punjab mobilised a strong army to deal with the refractory *zamindars* of Jalandhar *sarkār* and Jammu, who were troubling the travellers and merchants. By 1714-15, the Mughals were weakening the control over Khushab *pargana* of Sind Sagar doab.[23] From 1709-1715, Banda Bahadur emerged as a powerful figure with the idea of *raj karega Khalsa* (*Khalsa* will rule).[24] Thus new coins, seals, calendars, and appointment of Sikh governors, supplemented by other officials was shaped under the directions of Banda Bahadur.[25] The areas from where the Sikhs got significant support in their rebellion were mostly commercialised areas.[26]

Notes

[1] Shaha Parpia, "Hunting ground, Agricultural Land and the Forest: Sustainable Interdependency in Mughal India 1526-1707", *Landscape History*, vol. 39, Issue 2, 2018, pp. 28, 30.

[2] Shireen Moosvi, *The Economy of the Mughal Empire c. 1595: A Statistical Study*, New Delhi,1987, p. 18.

[3] The variations found in the stated figures have been highlighted by Shireen Moosvi in *The Economy of the Mughal Empire c. 1595: A Statistical Study*, New Delhi, 1987, from page number 25 to 35.

[4] Abul Fazl's, *Āīn-i-Akbari*, ed. Nawal Kishore, Lucknow, 1892, vol. II, pp. 153-159.

[5] *Kaghzat-i-Mutafarriqa*, CAD Department of History AMU, Aligarh, Rotograph No. 203, ff. 79b-84b. It is a report in Persian on the pre-British administrative system in Bengal, prepared by the *Rai Rayan* and the *Qanungos* under the instructions from the Governor General in Council, Jan. 4, 1777, Add. British Museum, 6586.

[6] Irfan Habib, *Agrarian System of Mughal India 1556-1707*, New Delhi, 3rd edition, 2014, pp. 236, 450, 453.

[7] Ibid., p. 236.

[8] *Āīn-i Akbari*, I, 539-49, British museum, Ms, Add. 7652. (Was able to procure the hand written notes copied by Professor Irfan Habib from the British museum).

[9] Shireen Moosvi, *The Economy of the Mughal Empire c. 1595: A Statistical Study*,New Delhi,1987, p. 31.

[10] Rai Chaturman Saksena Kayasth, *Chahar Gulshan*, Abdus Salam collection, Maulana Azad Library AMU Aligarh, MSS 292/62, f. 58a. The author was a revenue officer in the late Mughal period. He completed it in 1759-60, but statistics relating chiefly to *c*. 1720. After calculating the number of *parganas* the total comes 326, instead of stated 329.

[11] Surjit Singh Gandhi, *Punjab under the Great Mughals*, New Delhi, 2011, p. 172. He has copied it from J. N Sarkar's translated excerpt from *Chahar Gulshan*.

[12] See how a political process was initiated for its inclusion in the full-fledged Mughal domain. *Medieval Punjab: Perspectives on Historiography and Polity*, ed. Amrita Grover, Anju Grover Chaudhary, J.C. Dua, New Delhi, 2006, pp. 139, 141. In 1634-34, during the military expedition sent against the *zamindar* of Srinagar, his fort of Shergarh fell into the hand of Najabat Khan who handed over it to the *zamindar* of Sirmur. Lahori's *Padshahnamah*, tr. Hamid Afaq Siddiqi, Delhi, 2010, vol. I, p. 213.

[13] Irfan Habib, *An Atlas of the Mughal Empire*, Delhi, 1982, Sheet 4A.

[14] Irfan Habib, *Agrarian System*, p. 16.

[15] Ibid., p. 242.

[16] K.K. Trivedi, "Book Review: Shireen Moosvi, *The Economy of the Mughal Empire c. 1595: A Statistical Study*, New Delhi, 1987", *International Studies*, vol. 26, No. 2, 1989, p. 194; Neither the *jama-i-dehsala* nor the *jamadami* figures could for all time and in all places exactly represent the actual receipts. Irfan Habib, *Agrarian System*, p. 306.

[17] Irfan Habib, *Agrarian System*, p. 236.

[18] *India of Aurangzeb* with its extracts from the *Khulasat-ut-Tawarikh and Chahar Gulshan*, tr. Jadunath Sarkar, Calcutta, 1901, p. lxxiii.

[19] Sujan Rai Bhandari, *Khulasat-ut-Tawarikh*, ed. Zafar Hasan, Delhi, 1918, p. 80.

[20] Abdul Hamid Lahori, *Badshahnama*, ed. Kabir Al Din Ahmad &Abd Al Rahim, Bib. Ind. vol. II, Calcutta, 1868, p. 710; Lahori's *Padshahnamah*, tr. Hamid Afaq Siddiqi, Delhi, 2010, vol. II, p. 289.

[21] Gauri Sharma, "Mughal Wazirs and their contribution to Financial and Infrastructural Development", *Punjab University Research Journal*, vol. XXXVIII, No.1 and 2, April-Oct. 2011, p. 172.

[22] Amita Satyal, *The Mughal Empire*, *Overland Trade, and Merchants of Northern India, 1526-1707* Unpublished Thesis, University of California, Berkeley, 2008. p. 176.

[23] Muzaffar Alam, "Sikh uprising Under Banda Bahadur 1708-1715", *History and Ideology : The Khalsa over 300 years*, eds. J. S. Grewal & Indu Banga, New Delhi, 2004, p. 41.

[24] "Besides, a large number of the *zamindars* of the *parganas* along either side of the Beas and the Ravi and the *Shah Nahr* (the canal) sympathised and

acted in collusion with the Sikhs of Banda." During the entire period of their struggle against the Mughals, the Sikhs of Banda could move almost unchecked in the northern districts of the Bari Doab. The *zamindars* of these districts supplied arms and horses to Banda when he retreated and took shelter in the Hills, following the arrival of Bahadur Shah in Punjab and the development against the Sikhs of the entire Mughal army of the Northern provinces. The villages of this region remained under Banda's control till as late as the middle of 1714. The *faujdar* of Kangra had to set up special *chaukis* to deal with the *zamindars* who collected food grain and other provisions for the Sikhs. Muzaffar Alam, "Sikh Uprisings under Banda Bahadur 1708-1715", *PIHC*, vol. 39, pt. I, 1978, p. 510.

[25] Indu Banga, "Formation of Regional State in Medieval India: A Study of the Punjab under Sikh Rule", *PIHC*, vol. 43, 1982, p. 824.

[26] Chetan Singh, *Region and Empire: Punjab in the seventeenth century*, New Delhi, 1991, p. 279.

A Comparative Study of the History of Different Junior Doctors' Movements during 1983-2019

Nataraj Malakar

National Medical Commission (NMC) Bill 2019 has been passed. However, this bill is a controversial one. Medical students and doctors staged a movement against the NMC Bill across the country. Various organisations of the country have burnt thousands of copies of this bill. The agitators claimed this bill is unscientific, anti-poor, anti-professional, anti-democratic and anti-federal.[1] The doctors of West Bengal have also participated in this movement and it has been spearheaded by the junior doctors.

'Junior Doctors', an indispensable part of the medical community of the state is a force that always plays an active role in the betterment of medical service in the state. Their movements have been highlighted in the newspapers for a number of times. Recently a news was published with the title '*Nairajyer Nam* NRS' (name of anarchy is NRS)[2] on the front page of 'Ei Samay', a Bengali daily on June 12, 2019. What happened in the NRS (Nilratan Sircar) hospital? On June 10, when a patient died at the hospital, his relatives had beaten junior doctors. In a protest, the junior doctors started their movement. The movement did paralyse the medical system of NRS. The movement spread to other hospitals in Kolkata. Meanwhile, the West Bengal Chief Minister Mamata Banerjee threatened the agitators by saying, "Those who are not working should not stay in the hostel. Within four hours, I will take strict action against those who do not join the work".[3] The Chief Minister's words intensified the agitation. The wave of movement spread across the country, including the entire state of West Bengal. In fact, the incidence of doctors' persecution has become

a routine in the state, so senior doctors across the state started mass resigning in support of the movement of junior doctors.[4] A symbolic strike was undertaken on June 14 (2019) at AIIMS in Delhi.[5] Doctors protested all over the country.[6] People from other professions also expressed their camaraderie and joined the procession in solidarity.[7] The Chief Minister finally held a meeting with 31 agitating junior doctors on June 17 at Nabanna, the West Bengal administrative headquarter. The Chief Minister requested the junior doctors to join the work by addressing them *'Lakshmi Chhele'* (good boy) and promised to fulfil their demands.[8] Video clips circulated on social media, showing junior doctors opening the closed gate of a hospital with a slogan like *'Jitlo Kara?... Lakshmi Chhele! Amra Kara?... Lakshmi Chhele!* ('Who won?...Good boy! Who are we? ... Good boy!')

However, the movement of junior doctors in West Bengal is not new. It did not originate in 2019, rather has a long history. It is necessary to look back at the history of that movement, for a clear understanding of the contemporary context. It is important to clarify the term 'junior doctors' at the very outset. After graduating from medical college, students have to work one year as an intern in their hospital from where they have passed. After the completion of the internship, one may get registered with MCI. After that they may join as house-staff in a specialised department of a teaching hospital. Some of them enter the diploma or degree courses for postgraduate education through the entrance examination. The interns, house-staff and postgraduate trainees all are termed as junior doctors in society.[9]

During the pre-independence period, some doctors of Bengal were associated with the revolutionary movement. In the post-independence era, some doctors and medical students joined the mass movement for society. Although some incidents are seen in a scattered way, there is no organised movement of medical students at this time with people's health demands.

The first organisation of doctors in West Bengal was established in the seventies. The Health Service Association (HSA) of West Bengal, an organisation of doctors was formed in 1972. Initially, the

organisation started a movement focusing on the field of service discrimination to address issues like salary, rank etc. But they also demanded that the health system should be made for the people. They said public health care is not for the rich, it is meant for the people. They organised cease-work for 46 days in 1974 and 34 days in 1976, but at the same time they arranged alternative outdoor facilities for the common people. The Health Service Association launched a long-standing movement aimed at establishing the right to health of the people. They sought to make the point that health is not a selling product like other consumer products. In that movement, HSA got the support of medical students. As a result, the *Student and Doctors Social Services and Survey Association, and People's Health Service Association* were established.[10]

At that time Siddhartha Shankar Roy was the chief minister of West Bengal and the health minister was Ajit Panja. According to Asim Sarkar, a senior doctor, a cease-work had started to draw attention regarding the lack of infrastructure of the hospitals. The theme song of that movement in 1974 was *'ai re ebar karba ebar eksathe larai/ e larai banchar larai/ banchate chai banchteo chai"* ("Come on, we will fight together in this time/ this fight is a fight to survive/ we want to save, we want to be saved."). That song was composed by Asim Sarkar.[11] In that agitation against the then Congress government, they received widespread support from the Leftists.[12] It was quite natural for the Leftists to join the movement against the established power.

The medical students participated in the annual general meeting of the MFC (Medico Friends Circle), an all India organisation of doctors that was influenced by the movement of 'Janata Wave' led by Jayaprakash Narayan. In 1974, doctors and engineers had launched a 41-day strike to establish the importance of technicians, instead of bureaucrats in health policymaking. That movement affected the medical students. In 1975, the medical students participated in drought relief in Bankura.[13]

During that time the entire West Bengal was shaken by the influence of the Naxalite movement, which also affected the medical

students. Poor people were regularly deprived of medical services in public hospitals. That problem was addressed by the Naxalite medical students. Therefore, by 1972-73, the medical students, house-staff and senior doctors formed the *Central Action Committee* (CAC). The CAC demanded that the proper hospital services be available for 24 hours, the blood bank, the X-ray system should be kept open for 24 hours and medicines would be provided free of cost. In addition, they said that their demands should be addressed within a time limit. They threatened that if their demands were not resolved, they would launch an outdoor strike. But, they always made alternative outdoor options for the common people. Then, from 1974 to 1977, the medical students tried to reach common people through cultural and social activities.[14] In the early seventies, the agitators could not consolidate their movement due to state emergency.

In 1977, a new government led by the Left Front came to power in West Bengal. The leftists promised to eliminate all types of discrimination. Even common people started dreaming, thinking that a good day would have come. They also wished to go to the hospital for treatment and return home after healing. But, even while the left front came to power the condition of the government hospitals did not improve significantly. In the first left front ministry, the health portfolio was in the hand of the Revolutionary Socialist Party *(RSP)*. When the Left Front government came to power for the second time in 1982, the CPI (M) withdrew the Health ministry from the RSP "to improve health services". At the same time, the Department of Health was bifurcated and placed under two state ministers. Although the transfer of ministry was done the number of ministers was increased, there was a lack of proper infrastructure for medical treatment in the government hospitals. As before, the patients complained of waiting a long time for treatment in the outdoor and emergency departments. The intermediaries or middlemen always played a major role in public hospitals. On the other hand, the doctors complained that they were handicapped because of the lack of essential medical equipment.[15] The patients were notified that the hospitals did not have the supply

of life-saving drugs and essential equipments. The authorities were not in a position to provide required services in the government hospitals. The superintendent of the Nilratan Sircar Hospital had given notice that "Due to nonavailability of essential life-saving drugs and equipments the emergency rooms are temporarily closed and admissions are stopped until further order".[16] In this way, the patients continued to be deprived of the medical services of the government hospitals. Repetitive deprivation began to cause resentment. Ultimately they wanted to express their anger against the doctors.

In 1979, the junior doctors and students of Calcutta Medical College started a movement to change the situation. The wave of the movement also hit the R.G Kar Medical College. That movement of junior doctors is known as the 'Hospital Movement'. But that movement did not succeed. The junior doctors, however, did not go for any greater movement. They thought that it was not possible for the government to fulfil their promises given earlier in the early stage and hoped that might be taken up later. But the attitude of the government had not changed later on. In the meantime, the junior doctors of different medical colleges started to form organisations such as the *House Staff-Intern Association* and the *Junior Doctors Association*. In January 1982, various organisations of junior doctors of seven medical colleges in West Bengal came together and organised the *All Bengal Junior Doctor Federation* (ABJDF).[17] In the eighties, the movement of the ABJDF was influenced by a new ideology, which had appeared in the Naxalbari peasant movement in 1967. From this ideology, the young junior doctors began to dream of ending the anarchy in the hospitals.[18] In that movement, their demands were divided into two categories: Action Demands and Basic Demands.[19]

Action Demands

- ❒ The supply of life-saving and essential drugs, other equipments from rural health centres and city hospitals should be regularised and be made available. Antibiotics must be supplied.
- ❒ X-ray, E.C.G, blood and other necessary tests should be made available for 24 hours.

- ❒ All the willing junior doctors will have to be employed in a government job after the completion of the house staff period.
- ❒ The Stipend of junior doctors should be increased.
- ❒ Work hours should be specified as 48 hours a week.
- ❒ The draconian Hospital Bill should be cancelled.
- ❒ The hospital management system should be developed democratically. This management system should have representatives from all levels of staff including doctors.
- ❒ The actual safety of all levels of health workers, including hospital doctors, must be ensured. Illegal houses and people should be removed from the hospital.

Basic Demands

- ❒ The government must take initiative to formulate a public-oriented scientific national health policy, recognising the right to every human health service as a 'fundamental right' and to implement it effectively.
- ❒ There should be one primary and three subsidiary health centres per block so that there is at least one doctor for 1000 people.
- ❒ Scientific drug policy should be formulated. To ensure life-saving and essential drug availability and distribution, medicines should be prepared at a low cost under the state control.
- ❒ Health sector allocation should be increased in the central and state budgets.
- ❒ For the prevention of disease, the public health system (i.e. improved drainage, safe drinking water, vaccination, adequate nutritious food supply) should be developed.
- ❒ The scientific and public-oriented education system should be developed instead of unscientific medical education.[20]

In January 1982, the first convention of ABJDF was held at Nilratan Sircar Medical College Hospital and their demands were specified. Thereafter, through discussions, rallies, they repeatedly presented their charter of demands to the government. But except the verbal promise of the government nothing was achieved. On March 23, 1983, the

ABJDF held its second convention at Calcutta Medical College Hospital. Then ABJDF started a campaign at outdoor departments by distributing leaflets of their demands. They held 67 rallies in and around Kolkata to put their demands before the public. On April 8, ABJDF handed over a memorandum to the hospital Superintendent and the Principal. And they informed that they would boycott all the hospitals outdoor on a gradual basis from April 25 to 30 if the demands were not fulfilled.[21] But the position of the Hospital authorities and the government remained the same. Then the junior doctors met the health minister on May 3, 1983. However, not seeing any hope, the junior doctors started outdoor boycott at various hospitals from May 9, according to their plan.[22]

The junior doctors protested when two of the house-staff, Tapas Bhoumik and Naren Mukherjee of Burdwan Medical College were dismissed before the completion of their terms. They demanded the government to cancel the dismissal order. As a protest, they started to boycott the outdoor and indoor departments of hospitals since June 15, 1983. However, an emergency squad was created to facilitate the patients.[23] The Chief Minister Jyoti Basu held a meeting with junior doctors on June 17 to resolve the problem.[24] Shyamal Chakraborty wrote about the meeting with Chief Minister in *Rabibasariya* of *Anandabazar Patrika*.[25] What was the conversation between the Chief Minister and the junior doctors at that meeting? Let us know a little from Shyamal Babu's writing—

"Chief Minister : Three previously on occasion the salaries of junior doctors have been increased.

Junior doctors: The demand for increasing the stipend will be discussed later. First, you talk about the main public-oriented demands as the supply of life-saving and essential medicines from the hospital, availability of X-rays, ECG, blood bank of twenty-four hours, an increase of health budget.

Chief Minister: You withdraw the strike ... These demands can be considered later. You are playing with the lives of common people.

Junior doctors: Poor people are being endangered for many days

due to lack of bed, medicines and medical equipments. We have informed that health is the right of the common people. Just accept the demands you make for people. We would withdraw the demand for a salary increase of intern, house-staff.

Chief Minister: Shall I learn the people's demands from you?

Junior doctors: No! We treat the patients in hospitals from day to night. We have come to inform the head of the state administration what we understand the problems of the patients. You can make a better treatment environment in hospitals.

Chief Minister: Withdraw strike first, think about it later.…You are crossing the limit; (you) will be in danger.…I have finished my talk, and there's a meeting. Now you can talk to the Health Minister if you want".[26]

The junior doctors talked with the Health Minister Amberish Mukherjee, but the government refused to accept the demands of the junior doctors.[27]

As the movement of the junior doctors continued, the situation became even more hectic with the incident at the NRS Hospital. One woman had died soon after reaching the Nilratan Sircar Hospital incidentally. The doctors were assaulted by the relatives of the deceased patient. As a result, the junior doctors led by the ABJDF called cease-work in the outdoor departments of hospital for seven days from September 21, 1983. However, they continued the alternative clinic to help the patients coming to the hospitals. The alternative clinic became overcrowded.[28] The government made various comments about that movement. The Health Minister Ambarish Mukherjee Said: "Some multinational companies are helping the doctors. Otherwise, where would they get such unlimited supplies of costly drugs that they distributed free at their parallel clinics which they ran during their seven-day cease-work?"[29]

At that time, the Chief Minister Jyoti Basu was in Kashmir. Benoy Choudhury was the acting government chief. He called on the senior doctors to mediate the problem. But the junior doctors rejected the offer. As a result, Benoy Choudhury said, "The government will not

bow to any pressure." Although the leftists were silent, Mrinal Sen was not silent. He asked 'what has the government done to improve the condition of the hospitals?'[30]

In 1983, when the Left Front government consistently refused to hold talks with the agitating junior doctors, the HSA (Health Service Association) intervened with a package which was accepted by both the parties. But the Health Minister suddenly made a volte-face.[31] The government demanded a written statement from the agitating junior doctors regarding the circumstances in which they had abstained from the service during the cease-work in several government hospitals. The government also decided to defer the payment of stipends to the junior doctors for September and the issuing of internship completion certificates to those who had completed their training on 30 September or earlier. The junior doctors refused to present a written explanation and presented an ultimatum to several hospital authorities for the unconditional payment of the stipends and the issuance of completion certificates.[32]

The situation became more complicated when the junior doctors gheraoed the principals or superintendents in different medical colleges and hospitals. On October 4, the junior doctors gheraoed the Superintendent Dr. Sujit Mitra and Principal Dr. Haren Ghosh of the National Medical College, Kolkata, protesting against non-receipt of stipends and internship completion certificates. A similar situation was created in NRS, SSKM, R.G Kar Medical College Hospitals. In that situation police lathi-charged on the junior doctors. Many doctors were injured. The junior doctors of SSKM alleged that one of the junior doctors' shoulder bone was badly injured and blood clotted on the backside of another junior doctor's head. On that night of the attack by the police, doctors had to leave the entire compound of the Nilratan Sirckar hospital for their own protection. The police also brought a van to arrest and pick-up the doctors. The main roadside gate was closed by the police.[33] The next day, on October 5, 1983 the first page of *Anandbazar Patrika*, published a news with the caption, '5 *Haspatale Gherao, Lathi Daktar Ahato*' (gheraoed in 5 hospitals, doctors

were injured by lathi-charge).[34] The agitating junior doctors came on the streets that night and shouted 'blood of doctors, will not be failed'.[35]

Benoy Choudhury spoke on behalf of the government and said that the police had to lathi-charge to rescue the gheraoed officials.[36] In protest against the brutal attacks by the police on the junior doctors, the HSA called cease-work in the emergency and outdoor departments of all major hospitals in West Bengal for an indefinite period from October 7. The West Bengal branch of the Indian Medical Association (IMA) supported the strike call. After the return of Jyoti Basu from Kashmir, negotiations with the government took place on October 11, but the first round was not successful.[37] The negotiations were resumed on October 13. The government accepted several more demands and requested the junior doctors to withdraw their strike. On October 14, HSA, IMA decided to withdraw the strike and at night ABJDF decided to re-join the work.[38]

To prevent the movement of the junior doctors, the CPI (M) party had formed *All Bengal Junior Doctor Council* (ABJDC), a separate junior doctors' organisation. *Health Service Doctors*, a parallel organisation with the party patronage was formed in the presence of several ministers and three members of the party secretariat. Thus the people of West Bengal noticed an organisation of government employees being directly sponsored by the ruling party. The organisation naturally had owed open allegiance to the ruling party. To increase the membership of the new organisation, about 300 new doctors were recruited on ad-hoc basis, by-passing the West Bengal Public Service Commission (WBPSC). The Health Minister told the press that they had been appointed to serve as a 'strike-breaking force' in the future.[39] For the loyalty of the party, arrangements were also made to award hospital officials or doctors in several ways such as accelerating promotion, gainful appointments, financial incentives etc.[40]

In addition to the HSA and IMA, the junior doctors got support from *Medical Services Centre*, *General Practitioners' Associations*, *DSO* (Democratic Student Organisation), *DYO* (Democratic Youth

Organisation), *Krishak O Khetmajur Federation* (Federation of the Farmers and Farm Workers), *UTUC* (United Trade Union Congress), *Mahila Sanskritik Sangha* (Women's Cultural Association), *Sampradayik Sampriti O Ganatantrik Adhikar O byakti Swadhinata Raksha Committee* (The Committee for the Protection of Communal Harmony and Democratic Rights and Individual Freedom), *University Students Cultural Forum, Sramik Sangram Committee* (Labour Struggle Committee), *Federation of Association of Unit Jadavpur University, Junior Advocate Association*, *All Engineering and Technological Officers*, *Juvenile Diabetic Foundation* and other organisations.[41]

The intellectuals also supported the movement. The noted writer Premendra Mitra said, "In a civilised country, this condition of the hospital cannot be continued – there is a great need for better treatment of common people. This movement has made people aware of the condition of the hospital — it is not a small gain." Shailesh Dey, another writer said, "I have full support for the junior doctors who have come into the movement with justified demands to improve the condition of the hospital. From the experience of the language movement, I have seen that the Left Front Government or the Central Government do not accept any demand except any movement had to compel them to accept. I hope that this movement of junior doctors must achieve complete victory by getting their demand on people's health". Writer and social activist Mahashweta Devi said, "Their movement has no comparison. They are doing well. That should be. I have been supporting them from the beginning. If this is a medical condition in Kolkata, then the state of the village can be easily estimated. This movement is not a war against the patient but an oath to approach them". [42] In support of the junior doctors' movement in 1983, poet Birendra Cattopadhyay wrote:

"Nobody comes home from the hospital, they told me
My elders, when I was a child.
It was the land of the British. Older myself,
The country free, I understood why it had been so.
A hospital is not for everybody. The honorable who rule this country

Come back home fattened, fat as they are
The country is for them, the hospital is theirs.
Others come back, or don't, as luck would have it.
And others still who have nothing
Don't even enter…
The game of medicine and food,
That game of hide and seek…
Nobody comes home from the hospital, they told me
Only a half-truth, I realize now.
Some come back, lucky as they are
To have entered, to have come back.
So it has been since the time of the British.
It hasn't changed one bit. A little perhaps, on second thought
The black market of medicine and food
Was a little smaller
When it was the land of the British.
And it wasn't as dirty and putrid
Within and without
A hospital, as it is now.
A garden of hell, as it is now."[43]

(Translated from Bengali by Kuver Sinha)

Not only the support of intellectuals, but the movement of the junior doctors also gained wide support from the people. In fact, besides the professional demands of the junior doctors, that movement spoke of people's health. They were able to say in front of the Chief Minister and the Health Minister that 'Health is not our begging, health is our right'.[44] Dr. Debashish Dutta of R.G Kar Medical College Hospital, the first president of the ABJDF, said: "... the spontaneous support of the public has helped us to direct the movement in the right way. ... We feel that people's health movement can be fulfilled only by ensuring the direct participation of the people. Doctors or health workers may have played some role in initiating the movement, but after a stage, the people should organise and take the initiative".[45]

Dr. Ashok Samanta, the secretary of the Medical Service Centre, wrote: "The CPI (M)-led state government has tried to dilute the mass movement to gain the support of the capitalist class in West Bengal. The government has been somewhat successful, but historical junior doctors' movement developed on a solid base which has been created by the language movement, bus-tram-train fare increase resistance movement".[46]

In the late eighties, a documentary on the movement of junior doctors of the PIX group was made. The documentary, financially supported by ABJDF, was named "Swasthya Amar Adhikar" (Health is my right). It screened several times at the Muslim Institute's auditorium and in the programmes of the *All Bengal Student Association* (ABSA) all across West Bengal. That documentary received enough response.[47]

With the movement of the junior doctors in 1983, the government immediately gave some attention to the hospitals. But the government kept little of the promise that was given to the junior doctors. As a result, the movement started again. The Left Front government claimed that the outlay of health care had increased substantially. According to a booklet issued by the State Information and Cultural Affairs Department, the Government of West Bengal, the per capita expenditure on health care was Rs 15.90 in 1976, which was increased to Rs 37.07 by 1985 during the left front regime. The ABJDF said that the funds were not adequate, per capita allotment for hospital patients was Rs 4 for food and only Re 1 for medicines.[48]

The Health Minister also tried to highlight the hospitals' compassionate image. The Health Minister Ambarish Mukherjee wrote a letter on 11.11.1986 to the Superintendent of R. G. Kar Medical College Hospital: "Smt. Parul Chapa Banik is reported to be an O.P.D patient of your hospital, who was advised for an X-Ray sometime in the month of July 1986. During these months she was requested occasionally to turn up in your hospital for her X-Ray, but the same has not yet been done. I would request you to look into the case so that the X-Ray is done at an early date".[49] It is not known whether the X-ray of Parul Chapa was done at all. However, the real picture of the

hospital can be inferred from that letter. Moreover, it may not be possible for all common people to get a letter from the Health Minister.

Debashish Dutta said "We expected the government would keep its promise. But that our hopes did not come true. We hoped that as at R.G Kar, other hospitals too would have round the clock X-ray and biochemistry test facilities. That had not happened. Hospital facilities were inadequate. So poor were the living arrangements for the junior doctors. Arrangements for regular recruitment of doctors through the WBPSC were also not made. We had no choice but to agitate again".[50]

In August 1986, the ABJDF submitted a 13-point charter to the government, with four basic demands. But the government ignored the demands.[51] Their demands were—

- ❒ The intern should receive stipends equal to their counterparts in central institutions. House staff should be treated as 'in-service' doctors and postgraduate students as resident doctors.
- ❒ Unemployed doctors should be employed immediately. Recruitments should be made every year through the West Bengal Public Service Commission. Ad hoc recruitments must be stopped. Every panchayat at least one doctor should be appointed.
- ❒ Hospitals should have facilities for treatment and proper care. All critical cases should be addressed. Each hospital should have a self-sufficient blood bank, regular supplies of life-saving and essential drugs and round the clock arrangements for X-ray and ECG.
- ❒ Transparency in admission tests for medical courses should be ensured. An inquiry should be made into the last postgraduate admission test as there had been an allegation of irregularity. Admission under the Chief Minister's quota should be stopped in medical courses.[52]

In January 1987, the junior doctors opted for a novel way of movement. They started, put their left thumb impression (LTI) instead of signing, at the time of receiving their monthly stipends. They argued that their stipend was lower than the illiterate employees, so

they chose that approach. The news spread to different hospitals. The government ordered the hospital superintendent that the junior doctors should not be paid based on their LTI. On January 31, SSKM Hospital authority did not allow the junior doctors to take allowance with LTI. Then the young doctors squatted in front of the cashier's counter and chanted slogans. At that time, a large police party led by two deputy commissioners entered swinging sticks and made random lathi-charge without warning.[53] Twenty doctors were injured, some of them seriously injured; five of them, including a woman, were admitted to hospital; eight or ten doctors were arrested. The news rapidly spread to all government hospitals. From the afternoon of January 31, 1987, the ABJDF called for a cease-work, maintaining only emergency services. On February 2, HSA called for a day's strike, except the emergency department in protest against the police action. The All India Association of Junior Doctors had called a nationwide token cease-work on March 12 and called for an investigation into the police lathi-charge. All India Medical Association (AIMA) also protested against the lathi-charge.[54]

Jyoti Basu was in Bangladesh at that time. The Left Front government had said that the junior doctors harassed the female super, so the police were compelled to lathi-charge.[55] After returning from Bangladesh, the Chief Minister threatened the agitators with severe punishment. As a result, the movement started to intensify. After 1983, police lathi-charged again. But during the Congress regime in 1974, there was no such larceny incident. Moreover, it is surprising to note that CPI (M) and the CITU extended support to junior doctors' strike in Bihar, Uttar Pradesh, Delhi, but the left front government of West Bengal justified police action and condemned cease-work by the junior doctors in West Bengal. The junior doctors, meanwhile, had run alternative clinics. Many senior doctors had joined the clinics. The government declared that such illegal alternatives must be stopped immediately.[56]

The junior doctors said they were not allegiant to any party; their movement was not politically motivated. They invited mass

organisations including government employees, coordination committees, and the front organisation to the rally that was held at Esplanade East. The CPI (M) State Secretary Member Sailen Dasgupta opposing the junior doctors' statement, said, — "of course since the beginning of this movement, the Congress, SUCI, the Naxalites were involved. That was not just a movement against the health department — at the same time it was a war against the patient".[57] When allegations were made that the sons and daughters of party leaders, ministers, and high-ranking employees were being given access to medical courses in government colleges, he said that "out of 800 seats in the state, 10 seats are filled under the chief minister's quota. Admission under that quota is carefully regulated. The Chief Minister is ready to answer any question in this context. However, the quota in this state is very low compared to other states".[58] As a result, it is understood that the claims made by the junior doctors were not inaccurate.

The junior doctors stepped up their propaganda campaign through the street rallies, hunger strikes and citizens' committees. They wanted to reach the people, so organised a blood donation programme. They had put their posters everywhere in the form of protest. One of the posters of ABJDF opined, 'I do not want police in hospital, I want drugs'.[59]

The situation improved for a while after the movement. But over time, the condition of the hospitals returned to its previous state. As a result, the movement began again. So in 1991, junior doctors had chosen the path of movement in the same way as was in 1987. On September 1, 1991, a patient (name: Tarak Das, aged 26 years) with copper sulphur poisoning was brought to the Calcutta Medical College Hospital. The doctors arranged emergency treatment for the patient. But the hospital had no stock of the drug required for metallic poisoning treatment. Nevertheless, the patient was treated alternatively. Despite the patient's treatment, his relatives assaulted the doctors including the Deputy Superintendent of the hospital, Dr. S Sinha.[60] The junior doctors of the hospital then resorted to a wild strike under the banner of *All Bengal Junior Doctors Federation* (ABJDF).[61] They said that the junior doctors would not work in hospitals if the

Health Minister's statement was not withdrawn. They alleged that statement (junior doctors do not work in hospitals) of the Health Minister was provoking the people to assault the doctors.[62]

On September 3, the Left Front government was attacked through a sharp language a large text entitled 'Medical College Hell' write up with on the pages of the *Bartaman*, a Bengali newspaper. The article stated that the Calcutta Medical College Hospital has become the house of anti-socials. The security is very poor in the Hospital, despite being located near Writers', Building (the administrative headquarter of West Bengal), Lalbazar (headquarter of Kolkata police). It was said that when Jatin Chakraborty was the Minister of Health, there was a massive campaign against anti-social activities in the Hospital. The Health Minister Prashant Shur had also taken initiatives but failed because 'in CPM time nobody listens to anyone. The union is bigger than the minister ... the 'dada' is bigger than the police'.[63]

On September 2, 1991, the junior doctors submitted the memorandum to the hospital superintendent of Calcutta Medical College and Hospital.[64] They claimed that in the absence of life-saving medicines, proper treatment was not possible in the Hospital. According to them, the Hospital used to have 80 life-saving medicines earlier, but now that had been reduced to just 25. Their movement was for the common people. So they demanded improvement of other services, including the supply of required medicines at the hospital. When the services of the Medical College was inaccessible, the Super of the Hospital informed the Writers Building to send doctors from the health department. The Health Secretary Lina Chakraborty promised to check the junior doctors' claims.[65] She said that *Health Services Doctors* would be sent to the hospital to restore normality there.[66]

The Health Secretary failed to resolve the disputed issues. On September 7, the junior doctors of RG Kar and National Medical College boycotted the outpatient of the hospitals. They demanded adequate security arrangements for doctors and health staff working at the hospitals. They said that the 'junior doctors of the R. G. Kar

and National Medical College would continue their movement until these demands were met'.[67] ABJDF began to organise the junior doctors of different medical colleges.[68] The Junior Doctors Council organised a hospital rally to solve the problem of the Medical College Hospital. They condemned the work of ABJDF and called for the withdrawal of the movement. The statement of the JDC and the government was the same. They said that cease-work by junior doctors was contrary to the interests of the common people.[69] On the other hand, the junior doctors of the Medical Service Center hold a meeting outside the gate of the R. G. Kar Medical College and Hospital on September 8, in support of the 'just demands' of the agitating doctors of Calcutta Medical College.[70]

In a bid to resolve the deadlock at the Calcutta Medical College and Hospital, the Health Minister Prasanta Sur convened a meeting with the authorities of the Hospital and the representatives of the ABJDF at Writers' Building on September 9, 1991. The demands of the agitating doctors were discussed at the meeting. After the meeting, the junior doctors decided to re-join the outdoor and emergency departments, excluding the department indoors. On behalf of the ABJDF, it was said that if the Government did not accept their demand within 7 days, they would resume the cease-work. The Health Minister promised to improve the facilities of medicines, pathology, and other services in the Hospital and to provide security to the doctors. He said because of the low budget allocation of the Health Department it would not be possible to keep more than 32 medicines in the hospital.[71] On September 11, 1991, at the press release, ABJDF stated that the Chief Minister promised to provide X-ray, ECG, biochemistry examination facilities for 24 hours in 1987, but still no service had been provided for a portable x-ray after 2 pm, no emergency blood test after three o'clock of the day in the Medical College. The reason was given that no new appointment was made since 1989. The government was aware but did not try to resolve that problem.[72]

From the above discussion, it is clear that the movements of the junior doctors of 1983 and 1987 were widespread. The movement of

1991 was also significant. The government hospitals were turned into hell. So they struggled to bring a better treatment environment in the hospitals. The movement of the junior doctors in the eighties was as part of the overall people's health movement. That movement spoke for the people. At first, it has been mentioned that they were inspired by a new ideology. After that movement, the people of West Bengal have crossed a long way. They have set foot in the new century. The government has changed. The government led by Mamata Banerjee has come up and built super-specialty hospitals. But the proper health care facilities are yet to be developed. The Left Front government had sown the seeds of privatisation of the medical system, which has become a tree today. Now medical care becomes a consumable thing. The government has emphasised on insurance-based health care. PPP (Public-Private-Partnership) model has been introduced in the medical field. Now people have to pay for treatment in the afternoon in the same hospital and pay more for X-ray in the public hospital.[73] As a result, ordinary people have been deprived of public services. Therefore, as the primary soldier of the medical system, the doctors became victims of the anger of the peasants and laborers, who are constantly deprived of medical services.

According to Hiralal Koner, the leader of the student movement of the 1980s and later the Secretary of the HSA, "There has been increased brightness in health. But the root cause, the problem of bed and referral, remains in the same position for four decades. As a result, the junior doctors who had nothing in their hands would be beaten! Surprisingly, the government's attitude towards the doctors has not changed in so many years".[74] And therefore the junior doctors have chosen the path of movement repeatedly.

In terms of discussion, we may have noticed that there has been no public-oriented change in the health system of the state in the last five decades. But now the question is how relevant is it to compare the movements of the twentieth century with the that of twenty-first century? The role of the government has been similar in both the century's movements. The expression of power is seen in the reaction

of the government in both occasions. However, many people do not want to give the same status to the movement of 2019 and that of the 1980s. In 2019, the patients told the junior doctors of the NRS: "... too many people are sitting here hoping to get treatment. You can afford treatment at a large hospital, but where would we go without a government hospital?"[75] The father, who broke down in tears, said "My son died for a cease-work. I went to so many hospitals, nothing happened. What is his fault, can you say?"[76] The junior doctors did not listen to anyone. The veteran writer Prafulla Roy said, "It is not desirable to discontinue patients' health services. I do not know if such a thing had ever happened in West Bengal before".[77] The people along with the intellectuals had a little memory of the past.

However, as in the previous movements, no initiative was taken to open 'parallel clinics' during the movement of 2019.[78] Moreover, the demands for improving medical care were repeatedly highlighted in the movement of the 1980s. But in the present movement, no demand was made to the government for the patients. When the junior doctors discussed with the Chief Minister at Nabanna, they emphasised only on the safety of the doctors. Instead of the supply of medical equipments, they demanded security-related devices![79] Arnab Sengupta, a member of the HSA, said: "The movement of the junior doctors in the eighties is commendable, as the movement had repeatedly raised the slogan 'Health is my right'. This slogan is not heard in the present movement. I have got trouble. However, I have participated in the procession."[80]

The Drug Action Forum (1984) greatly influenced the junior doctors in the eighties and nineties. The Forum used to hold seminars at the Calcutta Medical College or R. G. Kar College Hospitals. In that seminar, participants were medical students, some junior doctors, and teachers. The forum's campaign served as the ideological base role for the junior doctors' struggle for people's health. However, when the Forum became weak at the end of the nineties, the speed of the people's health movement also slowed down. At the same time, there was a lack of motivation for medical students.[81] As a

result the present movement never has taken the form of a mass movement beyond the limitation of the professional movement.

The movement of the eighties, however, was not above criticism. On 31.10.1983, *India Today* magazine wrote: "It was a grim catalogue - by the end of last fortnight, six children died, 50,000 out-patients were being turned away every day from Calcutta's free government hospitals, and thousands of in-patients were sent home in various stages of incured illness".[82] Deep Ghosh has spoken of his experience of the movement in 1987. Deep, a 13 years old student of class three, admitted to PG Hospital (SSKM) with the right leg injury in 1987. From the next day, after his admission, the junior doctors began cease-work. Lying on the bed of the hospital he was in agony. But no doctor treated him. He felt that his leg was starting to rot. He was eventually forced to leave the hospital and go to a private nursing home.[83] Whatever is the criticism, it must be said that the movements of the eighties were a mass movement.

However, in order to provide health services to poor people, a mass movement must be organised again. Because in our country—

Raja ase jay *Raja bodlay*
Nil jama gay *Lal jama gay*
Ei raja ase *Oi raja jay*
Jama kaparer *Rang badlay…*
Din badlay na![84]

(The kings come. The kings change.
Wear Blue Clothes. Wear Red Clothes.
The kings come. The kings go.
Clothes change color...
The day does not change!)

Notes

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[3] *Anandabazar Patrika*, North and South 24 Pargana, 14.06.2019, p. 1.
[4] *Pratidin*, Kolkata, 15.06.2019, p. 1.
[5] *Ei Samay*, Kolkata, 15.06.2019.
[6] *Ei Samay*, Kolkata, 15.06.2019, p. 1.
[7] *Ibid*, p. 2.
[8] *Anandabazar Patrika*, 18.06.2019, p. 1.
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[20] Ibid. pp. 6-7.
[21] Ibid. pp. 10-11.
[22] Ibid. p. 11.
[23] Ibid. p. 12.
[24] *Dirgha Larai— Rakta Jharano Itihas* (The long struggle— bloodshed history), *Janaswasthya Raksha Andolaner Ekti Raktakta Adhyay* (A bloody chapter of the people's health protection movement), Medical Service Center, Kolkata, not dated, p. 13.
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[28] Biren Roy, *op cit.*, p. 1867.
[29] Massive breakdown of medical services in Calcutta due to protest by junior doctors, Magazine, India Today, https://www.indiatoday.in/magazine/indiascope/story/19831031-massive-breakdown-of-medical-services-in-calcutta-due-to-protest-by-junior-doctors-771166-2013-07-15#ssologin=1#source=magazine

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Political Detainees in Their Jails

Laurent Metzger

Political figures have been detained in many countries in the past and some of them are unfortunately still held in camps or in jails. One common feature of such internment facilities is that most of the time they were far from any town and villages and even away from anything so that it was practically impossible to escape. When we think of the Gulag camps in Northern Siberia, or Alcatraz in San Francisco bay, or Tazmamart in Morocco, or Buru in Indonesia, we do realise that prisoners were given no chance to escape.[1] Modern jails are also built to prevent any escape. We can give several examples such as Guantanamo Bay Detention Camp or Supermax, the ADX prison in Florence, Colorado, in which Ramzi Yousef, one notorious jihadist is still being held. So political activists are still arrested and sent to jails and camps. This is the case, for instance, of many Uighurs in Xinjiang (China) and in Algeria where numerous *Hirak* demonstrators have been arrested in 2020.[2] This is also the case in Turkey at present as many political opponents have been sent behind bars. Such is the fate, among others, of Osman Kavala who is stuck in the Silivri jail near Istanbul.[3]

So, we can notice a long tradition of sending opponents to jail in the past. Some jails, or camps, were particularly inhospitable. Numerous examples can be given but we are going to choose only one of them: Andersonville prison which was set up during the Civil War in the USA. Conditions were very harsh according to reports.[4]

Another point which comes to mind is the fact that most of the detainees were men. True we can also mention a few women who have been detained in the past for their ideas. One of the first names

which comes to our minds is Joan of Arc who helped the French king to boot out the British forces which had occupied France. She was later detained and killed in Rouen. Another name is Marie Durand. In the 18th century she was detained for 38 years in the Tower of Constance in Aigues-Mortes, in Southern France as she refused to reject her new religion, Protestantism. In Britain we can mention Emily Davison (1872-1913) who was a suffragette. She was arrested several times and sent to jail.

Regarding the length of the detention of the prisoners, it could be quite different. As some were only jailed for a few months – yet it was already an ordeal for them – others had to suffer long periods in jail.[5] Moreover, at times when they had served their time, some prisoners were not allowed to go home but had their sentence extended. This is mentioned in one of the most famous books on the Gulag, *One day in the life of Ivan Denisovich*[6]. Earlier it seems that political detainees did not come from the same origin. For instance, when Dostoevsky (1821-1881) was held in Tsarist jails, he informed us that apart from Russian inmates, there were also Cherkessk, Jews, Bohemians etc. What is surprising is the fact that all of them seem to accept that mixed crowd.[7]

Political figures have been sent to different kinds of jails worldwide. Sometimes they were sent to the local town jail while later they were transferred to most isolated jails, from where they could not escape.[8] In fact, once arrested many prisoners have been often moved from jail to jail.[9] This is the case of the Indonesian Pramoedya Ananta Toer (1925-2006), the South African Nelson Mandela (1918-2013) and so on.[10] Moreover, many political figures have been sent several times to jail. This can be said of Varlam Chalamov (1907-1982), Pramoedya Ananta Toer, Gandhi (1869-1948).

It must also be recorded that political figures have been sent to jail in almost all countries or at least in all continents. Governments wherever they were and are, have found it useful to withdraw their opponents and prevented them for expressing views which differed with those held by the local authorities. We can name writers who have been sent to jail for their ideas from all continents. For example,

Wole Soyinka, the famous Nigerian novelist born in 1954, Winner of Nobel Prize for literature in 1986, was held in jail as he supported Biafra's Independence in the 1960s. Sometimes intellectuals from abroad came and endorsed a political struggle in a foreign country. They would often be caught and also sent to jail. This happened to the French philosopher Regis Debray, born in 1940, who approved Che Guevara's struggle in Latin America.[11] Therefore, he joined his partisans but was subsequently caught. He spent a few years in harsh conditions before being freed and able to return to France.

An important point is the number of inmates who were held in those jails world-wide. For instance, in penal camps in Buru, in Indonesia it has been reported that there were approximately 10, 000 political prisoners in 1971.[12] If we look carefully, we cannot but realise the huge number of prisoners held in camps, jails and penal institutions. For instance, it has been indicated that there were between 500 to 700 thousand inmates in the Laogai in China.[13] As for the Gulag 876 043 individuals have been detained, from 1932 to 1956.[14] It is obvious that the two systems, the Gulag and the Laogai have been the worst systems on earth, as they killed even more persons than the Nazi camps in WWII as both the Russian and the Chinese systems lead to approximately 20 M victims.[15]

Actually, in camps and jails, figures were important as prisoners were not called or referred to by their names but by the numbers, they were assigned to.[16]

We can also notice that political inmates developed their own language register and were referred to in special terms. In the Gulag, they were called *zek*[17]. In Indonesia they were mentioned *tapol*, an acronym of *tahananpolitik* (or political inmates). When finally, they were released they still carried the stigmata of their time behind bars. So, they were often called *eks-tapol* or *eks-Digulis*.[18] Between inmates, derogatory names were at times used such as "anjingkempetai" (dogs or rather collaborators of the Kempetai) to make a distinction between the local people who supported the Japanese invaders and those who opposed them.[19] Regarding Laogai

the Chinese authorities considered it as Reform through labour, that is to say a kind of re-education centre.

We are not going to develop each of the points above-mentioned as we have selected one main issue that is how political prisoners fill their time, cast away from their families, their friends and society in general. We have indeed noticed that all of them refused to be idle and chose one or several activities while in detention. May be, unconsciously they followed one of the numerous pieces of advice given by the 16th century French philosopher Montaigne in his writings: "Nous sommes nés pour agir" ("We are born to do something")[20]. Therefore, all the political prisoners we are going to mention have been involved in one way or other in an activity while in detention. Of course, those who were sent on forced labour, had no choice, but to follow orders either when they were asked to work in a mine, or open a road as they were often required in the Gulag and in Buru. Yet we have noticed that most of these detainees chose an activity and stuck to it while in jail or in a camp. We must bear in mind that they lived in very plain conditions and had to suffer harsh conditions as we are going to see later. Thus, we can find lots of activities practised by political detainees in their respective internment places. First some of them did handiwork and such job was quite useful to their fellow prisoners and to themselves. Some could mend the clothes they were wearing as they were not supplied with a wide range of outfits, but they had to make use of what they had brought along. Others could repair shoes and such craft was very useful in the Gulag under extreme winter conditions.

But before we proceed and consider all the other activities carried out by detainees, we should first have a look at their judicial journey from the day they were withdrawn from society until the time they were finally freed from internment.

Arrests

Usually for Russian political figures, arrests took place early in the morning when the would-be prisoner is still half asleep and unable to oppose such violent arrest. Most of the time he believes that this

is a mistake and that he will be back home in a matter of hours. At least it's what he says to his bewildered family. Yet most of the time it is more a matter of years before he is allowed to leave the detention camp or the jail.

We must also wonder why governments are so scared of what any opponent may say or write. We may wonder why so many political figures, journalists or other intellectuals have been put behind bars in so many countries all over the world. Prisons in general are supposed to provide enforcement of the sentence for the person who has been condemned, and finally to prevent further crimes.[21]

Once arrested the new prisoner is most of the time left alone, he is "isolated from other inmates, so that there is no one to keep his spirits up".[22]

One of the first idea which comes to the mind of the arrested individual is the fact that he is never informed why he has suddenly been arrested and what are the reasons behind such decision by the authorities. This point has been indicated by Solzhenitsyn as well as by other prisoners in many parts of the world. For instance, Hersri Setiawan, born in 1936, believed the authorities suspected that he was involved in a plot against the government.[23]

Often events lead to arrests of many politicians or supporters of such politicians. For instance, an uprising in 1926 was staged in Indonesia when that country was still under Dutch rule. So, several political figures were sent to Boven Digul, a new penal colony, established in one of the most remote locations in the Dutch East Indies, that is in Papua. One of the opponents of the Dutch regime who was sent to Boven Digul was Sutan Sjahrir (1909-1966). He was not alone as 2,100 Indonesians were sent there after the failed coup of 1926. Later he became the first Prime Minister of Indonesia.[24] Some years later, in 1965, another attempt to topple the Indonesian government after that country had achieved Independence led to sending thousands of detainees to another penal colony, which was located on the island of Buru in the Moluccas.[25] More recently an attempt to kill Hassan II, the king of Morocco had the same consequence. A new jail was built up, in the middle of nowhere to

intern the military personnel who had been involved, in one way or another, in that plot against the king. Actually, on two occasions Moroccan military cadres attempted to kill the king: first in 1971, when some officers and foot soldiers invaded the royal palace of Skhirat and in 1972 when pilots tried to shoot down the king's plane.[26] Another major event sent lots of intellectuals in jails. It is the Great Cultural Revolution (1966-1976) which was launched by the Chinese government. Among the numerous Chinese intellectuals who suffered during that period and were sent to jails or camps we can mention Nien Cheng (1915-2009) who had to endure over 6 years in a jail of Shanghai as she was accused of being a British spy as her husband had been a diplomat. She wrote a vivid account of her time behind bars, *Life and Death in Shanghai*[27].

More recently another event resulted in sending many intellectuals in jail. We can name the so-called coup d'état which took place in Turkey in 2016.[28]

Places of detention

Once arrested the individual is usually sent to a town jail before being transferred to a penal colony, a camp or a jail lost in the wilderness. For instance, when we consider the military personnel who were arrested after the attempt to kill the king of Morocco in his palace in 1971, they were first flown to the jail in Kenitra before being transferred by bus to the notorious jail of Tazmamart[29]. The Indonesian political prisoners suffered the same fate; that is, after their arrests, they were first locked up in town jails in Java before being shipped to outer islands in East Indonesia. Hersri Setiawan gave us a very detailed account of such voyage from the island of Java to another island, that is Buru in the Moluccas.[30] For instance, the political prisoners were often held at Salemba in Jakarta before being sent to further away penal colonies. Earlier on, when detainees were sent to Boven Digul, they made a stopover in Ambon, in the Moluccas. For the Gulag prisoners, they often stayed first at the Lubyanka prison in Moscow, then they took the Trans-Siberian Railway to Vladivostok before being ferried by ship to the harbour of Magadan in North-East

Siberia. We have indicated earlier that often prison islands were chosen as it was easier to keep an eye on the prisoners and to prevent them for even thinking to escape. For instance, Abdullah Öcalan, born in 1948, is at present detained at Imrali island prison in the sea of Marmara.[31]

In literature we can find island prisons. We remember the famous novel *The Count of Monte Cristo* by Alexandre Dumas (1802-1870) who left a long time his main character Edmond Dantès alone in a cell on the island of Chateau d'If off the coast near Marseilles in southern France.[32]

As for the locations of the penal colonies, at times they had to be built next to mines where the prisoners would be doing hard labour. One of the first site which comes to our mind is the Kolyma. It had been chosen as it was next to a gold mine where prisoners had to work in. Probably the most famous author who was sent to the Kolyma and reported about it is Varlam Chalamov.[33] Indeed, the Kolyma region was not the only penal colony set up by the Soviets. Solzhenitsyn gave us a very long list of those infamous camps in *The First Circle*[34].

Harsh conditions

Almost immediately the prisoner discovers the jail or the camp he has been sent to, he realises that he will have to live in very difficult conditions. First the cell he has been assigned is rather small and usually dirty.[35] In other cases, he has to share a cell with many fellow prisoners. At times he is stuck in the dark as no light either natural or electrical reaches his cell. As a matter of fact, it has been reported that the prisoners at Tazmamart in central Morocco were always kept in the dark during the whole time of their internment, like Ahmed Marzouki was for 18 years. Yet other accounts inform us that at times they could read local newspapers. So, they did have some light in their cells at least at times. Small, dark, the cell lacked a lot of amenities. True prisoners, either political or criminal did not expect a five-star room. Yet they could hope for better conditions especially when they knew they had to serve a long time behind bars. However,

the prisoners often felt as if they had been buried. That was the impression some inmates at Tazmamart had, according to the Franco-Moroccan writer Tahar Ben Jelloun, born in 1944, who interviewed some prisoners once they had been released.[36]

Another common feature of the cells they were put into, was the fact that those were very cold in winter and the opposite in summer. Of course, this aspect did not appear when jails were built on the Equator or on the Tropics[37]. In that respect it seems that the harshest conditions had been suffered by the Gulag and Laogai inmates. At times prisoners in the Gulag suffered frost bites.[38] Epidemics could spread easily in the camps. Chalamov mentions typhus.[39] Camps were at times provided with hospitals but with limited facilities. Yet Chalamov agrees that he was saved as he had to spend some time in it and therefore, he was not compelled, for a while,to work very hard in the mines of the Kolyma region[40]. In many cases those penal colonies could be called hell, either in Northern Siberia or Green Hell on the tropics and on the equator.

Another completely new activity prisoners had to take up was farming. At least in the Buru penal camps, inmates had to plant paddy and vegetables to feed themselves as after a short time, prisoners were not given any food and had to provide what was necessary for them. Obviously, that was no easy task for intellectuals as they had never done this before. In other countries prisoners suffered the same fate. We can mention intellectuals arrested during the Cultural Revolution in China (1966-1976) or under the Khmers Rouges in Cambodia (1975-1979).

Often prisoners would be handcuffed or in shackles. This was a regular feature for Laogai detainees.[41]

Another point which often appears in the account of their term in prison is the silence. Silence can be fine for us, but for detainees, it could almost be at times unbearable, as if the prisoners were left alone for ever. Some prisoners would become mad after experiencing very long periods without any noise. This is for instance stated by Pramoedya Ananta Toer in one of his books on Indonesian jails and penal colonies.[42]

Interrogations

Immediately after entering his or her cell, the political prisoner is subjected to regular and repetitive interrogations. Nien Cheng, arrested by the Red Guards, during the Great Cultural Revolution (1966-1976), tells us how many times she was asked to go to the interrogation room where she was asked the same questions almost every day by different guards. She was also informed that should she agree to supply the information the authorities were looking for her sentence would be more lenient. But Nien Cheng had neither information to give, nor secrets to reveal. She was repeatedly required to confess. But Nien Cheng had nothing to say.[43] For instance, she was asked on several occasions: "Why haven't you confessed?"[44] In her book Nien Cheng devotes a whole chapter on the topic of interrogation.[45]

Nien Cheng also adds that charges against prisoners were never explicitly explained so that it was the more difficult for the prisoner to defend himself. According to Solzhenitsyn a very precise method was used when interrogations of prisoners were conducted. Several points can therefore be mentioned. For instance, often such interrogations were conducted at night when the inmate was not in in best shape. The interrogators would often use foul language, they would easily humiliate the prisoner, they would confuse and intimidate him. As we have seen earlier, the prisoners would be asked to confess their crimes, even though according to them, they did not commit any crime and had thus nothing at all to confess. To make the matter worse, the interrogators often asked most of the time the same questions which had been answered previously. They would also indicate that their fellow prisoners had already confessed so that it was now their turn to do so. This very precise technique of interrogations is explained in detail by Solzhenitsyn.[46]

Achievements of the prisoners

In spite of the often-awful conditions political detainees were stuck in, what is amazing and even fascinating is the fact that they did not lament over their fate, they did not remain idle but almost all of them

tried to do something. This constitutes the most important aspect of our article. In other words, political detainees deprived of their freedom, left in cells without what intellectuals need most such as pencils, pens, paper, computers and books, manage to produce documents which are of the utmost importance to us.[47] One extreme case is the Indonesian writer Pramoedya Ananta Toer. He was a novelist, so that free or fettered, he could not help but write. But how could he write without the basic tools of a writer? Our prisoner overcame the problem in learning by heart the several chapters of the book he was inventing and every evening he would tell a chapter to his fellow inmates.[48] This would have been in place for a number of years if an inspector who visited the penal colony of Buru would not have sympathized with the writer and managed to send him a type-writer. Other prisoners suffered the same fate, that is they were deprived of their usual tools, which were paper and something to write on it. For instance, Chalamov tells us that pens and pencils were confiscated, so they had to hide such precious equipment.[49] On his part Roland de Pury (1907-1979) who had received a small pencil, had to hide it everyday in his straw mattress so that the guards would not find it.

Earlier on we have indicated that some prisoners were handymen and could mend clothes and repair shoes. Such skills were very useful especially in the Gulag and Laogai. On the other hand, most political prisoners had developed different writing skills. Both Solzhenitsyn and Pramoedya Ananta Toer reveal that being held for a long time in jails had been somewhat useful to their creative writing. In other words, such harsh punishment helped them achieve master pieces either while in detention or once they were finally freed.[50] Would they have written such famous novels without their time behind bars and the experience they got from it? We may wonder about it. However, Solzhenitsyn is quite clear about it: "I am not ashamed of the years I spent in prison. They were fruitful years."[51]

Obviously, many political detainees were not given a choice, they had to undergo hard labour, often in working in mines in Northern Siberia. Conditions were indeed very hard. The prisoners had to wake

up early to be sent by bus to the mine site, or to the place they were requested to open a road. Indonesian political prisoners also had been asked to open a road on Buru island. On other occasions they were stuck in the dark of their cells, so it was indeed hard for them to do anything except to let times flow. Fortunately, such situation seemed to happen only at Tazmamart. In other detention centres, political prisoners were given some free time and therefore they could choose whatever suited them. And they did. Probably the most useful activity they selected, at least from our point of view is compiling the painstaking record of all their fellow prisoners who passed away in the camps and the prisons. They believed somebody had to do it so that such prisoners who did not come back from the camps were not forgotten but on the other hand always remembered. In our research we discovered that three political prisoners of three different nationalities played the role of secretary, memorialist and archivist as they drafted long and precise lists of those who did not return from the house of the dead if we borrow Dostoevsky's expression. Chronologically these three memorialists have been the Russian Alexander Solzhenitsyn, the Indonesian Pramoedya Ananta Toer and the Moroccan Ahmed Marzouki, born in 1947. The documents they left us are different but the three of them made a point to record all, or at least most of their fellow prisoners who died in the camps and gave a few details concerning them.

As a matter of fact, many intellectuals thrown into jails immediately realised that they had to write, they had to bear witness of the sentence they had been wrongly given. In other words, they felt the need to write the story of the prisoners deprived of their freedom, sent far away in desolate sites.

Solzhenitsyn was the first to give an account of the prisoners' daily life when he published *One day in the life of Ivan Denisovich*. We can first notice that the memorialists do not only record prisoners who have passed away but are also concerned with their comrades in the camps. Regarding those who unfortunately did not survive the ordeal they had been thrown into Solzhenitsyn's brief biographies.

We can find that list running 20 pages in which the writer indicates whether the prisoner was finally freed or if he died in the detention colonies, the cause of such event.[52]

Among the three memorialists of the penal colonies we have selected Pramoedya Ananta Toer is obviously the most prolific as he gives us a lot of information regarding fellow prisoner such as his name, his age, his religion, where he was born, what was his profession before being arrested, as well as the cause of his death. Regarding the long list of the prisoners who never came back from the Gulag, we feel as if we were shown a huge Excel table drafted by the memorialist! Actually, the Indonesian author devotes a whole book on that topic, it is *Nyanyian Sunyi Seorang Bisu* which has been translated into English as *The Mute's Soliloquy*.[53] Not only did Pramoedya Ananta Toer reveal the harsh conditions political detainees lived on the island of Buru but he also wrote about the same appalling conditions prisoners had to endure in a previous penal colony, that is Boven Digul in Papua. Thus, Pramoedya Ananta Toer becomes the memorialist of several political penal colonies.[54] In other words, Pramoedya Ananta Toer felt sorry not only for his fellow prisoners but also for prisoners who had been put in penal colonies before him. Therefore, he decided to record their story as well.

Our third memorialist is Ahmed Marzouki. Unwillingly involved in a plot to attack the king's palace, he was thrown into a very unpleasant jail, that is Tazmamart. Like his two predecessors, he made a point to recall what happened in that notorious jail lost in the middle of nowhere, in central Morocco.

If we pay attention to many political prisoners who had experienced detention in jails or in penal colonies, we realise that most of the time someone or a few of them appointed themselves as the camp memorialist. This can be said about Mas Marco Kartodikromo (1890-1932). He was an Indonesian journalist. As he supported the communist coup against the Dutch rule over his country launched in Java in 1926, he was deported in 1927 to Boven Digul, a penal colony set up in Papua. In his account he informs us about the fate of his fellow prisoners and tells us that 165 of them died on the spot, mostly

from sickness such as TB, malaria, and even dementia.[55] Actually, the author of the book also suffered the same fate. Mas Marco Kartodikromo died of tuberculosis in Boven Digul in 1932.

It was already a feast to provide us a kind of history of the prisoners at the different camps and jails they were sent to, but writers decided that it was not enough and they ventured into creative writing either when they were detained or later when they had at last been freed. Thus, our two main heroes Solzhenitsyn and Pramoedya Ananta Toer chose to continue to write novels, since both were confirmed writers, and especially historical ones. Apart from all his books dealing with the Gulag, Solzhenitsyn managed to write among other titles a huge historical fresco in several volumes entitled *The Red Wheel*, the first volume of which that is *August 1914* was published in 1970. The same can be said about Pramoedya Ananta Toer who is not only the author of several books on penal colonies in his country, but also a very fine author of historical novels. Among the numerous historical novels, he gave us, we have to mention the Buru Tetralogy, that is the series of four novels dealing with the beginning of the nationalist movement in his country and beyond.[56] Pramoedya Ananta Toer not only specialized in the recent past as he also ventured into Hindu realm in Java, earlier on. Thus, he wrote *Arus Balik* (*Turning the Tide*), a long and fascinating novel on royal Java island.

Obviously, writers did not only produce novels during and after their time in jail, some tried other genres such as poetry. As an example,we can mention the bilingual collection of poems by a journalist named Said Zahari (1928-2016), entitled *Poems from prison/ puisidaripenjara*[57].

Another example of political prisoners' activity can be seen in composing songs or simply in singing the songs they knew before being sent to jail. Among the numerous they created, we have to mention *Die Moorsoldaten* or, in English *The Swamp Soldiers.* Such song was composed by prisoners kept at one of the first Nazi Concentration camp of Börgemoor in Lower Saxony in Germany, in 1933.

Finally, another field in which political prisoners excelled was letter writing. Here again examples are abundant. We have selected the

Moroccan writer Abdellatif Laäbi, born in 1942, who was sent to jail in the 1970s. As a matter of fact, such author wrote beautiful letters not only to his wife but also to his daughter and his son.[58]

As a lot of intellectuals have been put to jail some of them are not writers but experts in other fields. For instance, the pastor Roland de Pury did not waste his time behind bars when he was kept alone in a cell at fort Montluc in Lyon during World War II as he had helped some of the French *Résistants* who fought the German invaders. He made a point to write a complete commentary of Peter's First Epistle: *Pierres vivantes* (Living-stones)[59].That was a feat as he has of course no access to references and books. He was left with only a bible. On top of that he had only pieces of paper he saved from the few parcels he was allowed to receive while in jail. When finally, he was freed, he published that commentary without adding anything as he wanted to prove that man could achieve something even under duress.

Other intellectuals sent to jail decided to further their studies. For instance, the Malay poet and political activist, Kassim Ahmad (1933-2017) asked the prison authorities whether he could write his PhD while in jail.[60] As he was allowed to do so, he undertook such a task and did not waste his time. He explained his position in a book he wrote entitled *Universiti Kedua. Kisah Tahanan di Bawah ISA (*Second University. A Story on detention under the Internal Security Act)[61].

Feelings in detention

In general prisoners had often mixed feelings. It was either real hope or deep despair, or time was flying while at times it was too slow. Therefore, the same prisoner could experience positive or negative emotions in the same day, in the same cell. A lot of examples can be provided to show how hope and despair could be felt at the camps. For instance, Hersri Setiawan who had low consideration for the prisons of Java expected, or at least hope for better conditions on the island of Buru where they were finally sent to.[62] Hope was also felt when rather rarely prisoners were allowed to receive parcels from their families and friends. When they did receive them, it was a kind of relief. They were certain that beyond the high walls of the prison

someone thought of them so that they had not been forgotten. In some cases, political prisoners were allowed to be visited by family members or friends. Of course, when you were sent to the Gulag or Laogai, no one could pay you a visit.

Another major double impression felt by the prisoners concerned time. Either time was flying too fast or too slow. At times detainees were wondering how long they would be in jail or in the penal colony.[63] "Slowness was the worst enemy" so wrote Tahar Ben Jelloun in his account of Tazmamart in Morocco.[64] Usually the daily life of the prisoner is governed by routine and felt that way: "The prisoner's days are a never-ending beginning".[65]

Depending on the conditions the prisoners were put in, sometimes they could mix easily and did not suffer from solitary confinement. When they would meet, they could talk, listen to those who were better speakers. Actually, some of them were story-tellers. Muslims could choose one of them to lead the daily and weekly prayers. So, it was all the time full despair and mental suffering.

Yet at times it could be nerve-wracking. For instance, silence which could last for a very long time was very hard to bear for some prisoners. "The hardest silence to bear was the one coming from light", so wrote Tahar Ben Jelloun in his account of the Tazmamart prison he was able to produce after interviewing some of the detainees who had spent time there.[66]

A question, prisoners asked themselves at times was whether they should give way to their desire of revenge. Yet they soon realised that having such feelings would lead them nowhere. "We had to overcome for ever that idea of vengeance".[67] That was also the opinion of Nelson Mandela in his public lecture at the Shangri-La Hotel in Singapore in 1997.[68]

Liberation

Finally, the big day had come. The prisoner was allowed to go home, if he still had one after such a long time cut away from his family and friends.

At first, he or she was surprised to be told that she could leave the jail he or she had been for so long. It was so sudden, so unexpected. Nien Cheng recalled that one morning, when she was still in her jail in Shanghai, she was told to go out: "Pack all your things", the female guard shouted at her on the 27th of March, 1973.[69] So, she left and started a long process to be rehabilitated as she had been wrongfully sent for so many years in jail. Fortunately, because of her courage, she finally received notice that it was a mistake and she should never have been put behind bars by the Red Guards.

Obviously, this only applied to living prisoners. We have seen that many prisoners in different jails died from several causes, such as sickness, execution, hunger and so on. The proportion has been very high in Tazmamart, as out of 58 individuals sent to that jail, only 26 survived.[70]

Actually, he or she had been hoping, praying for but when the announcement is made, the prisoner hesitates. Is he or she really free? As a matter of fact, the prisoner is well aware that all the shackles have not been removed at once. It would have been too good! Soon, the writer will be told that his books have to read by the authorities before being sent to the publisher. So, in the case of Pramoedya Ananta Toer for quite some time his books were not allowed to be published and even to be read in his country. So, a Malaysian publisher, Wira Karya in Kuala Lumpur decided to publish those censured documents. The same writer was also requested to report weekly to the local police station. Pramoedya Ananta Toer confessed he did so for a while before stopping those regular visits.

However, many prisoners intended to tell their stories and inform the general public the conditions of their detention. On the other hand, at times prisoners were reluctant to speak up and preferred to remain quiet. For them a page had been turned and a new lease of life had been offered to them. There was therefore no need to bring up the past. Their time in jail should remain forgotten as it was very painful to recall.

So, some of them did contact journalists to tell their stories but many observers would not believe such hard conditions. Moreover,

some NGOs were reluctant to take up the case of the prisoners. On top of that at times the authorities demanded from the released prisoners not to discuss their time behind bars. They even pretended that such a detention centre – for instance Tazmamart in Central Morocco - never existed, so that prisoners could not tell their side of the story.[71] However, journalists and writers took up the challenge and dared to report on those notorious penal colonies. Apart from those mentioned in this article, we can mention plenty of Russians who wrote about the Gulag. A few Chinese spoke up and told the horrors of the Laogai, quite a few Indonesians recorded the harsh conditions of several camps such as in Papua and the island of Buru and a few Moroccans fought so that Tazmamart inmates could finally be released.[72]

Conclusion

We just mentioned prisoners who have finally been released and who therefore experienced freedom again, but let's not forget those political detainees who are still inside and those who are still at present sent to jail. In the first case we can name the Uighurs many of whom are sent to so-called re-education centres such as Dabancheng. As for the second case, we can mention a few political activists who have been recently arrested and sent to jail in Algeria, China, Iran etc.[73]

An interesting point is the fact that often, released political detainees are reluctant to speak about their ordeal behind bars.They just want to forget the whole thing. This reminds us of prisoners who came back from Nazi camps who were not willing to talk about their experience there. "Akumaumelupakansegala-galanya" (I want to forget everything") so says an Indonesian released prisoner according to Pramoedya Ananta Toer in his book *Mereka yang dilumpuhkan* (*Those who have been tortured*).[74]

Yet, if the prisoners really want to share their experience and tell how they suffered, cut from the outside world, they do write, either while in jail, or at least they start recording what happened to them while in detention and they complete their story when they are safely at home. We have mentioned the case of Pramoedya Ananta Toer

who started, while in the penal colony of Buru, to record orally the chapters of a book he was creating, before he was offered a type-writer to give a better support to his creation. Another Indonesian writer, Hersri Setiawan had to wait till he was abroad to compile his own story. He went to the Netherlands and decided to write there his account of the camps he had been confined to in his country. His story can be considered in the book *Memoar Pulau Buru* (*Memoirs from Buru Island*).[75]

Of course, political prisoners would have preferred to stand trial in order to know precisely what they were accused of. But usually they were denied such opportunity to defend themselves. Therefore, the only court which ruled on the Indonesian penal colonies was the People's International Tribunal which took place in the Netherlands in 2015.[76]

Another step missing as regards to released detainees. Will they be given opportunities to take part in reinsertion programmes? We have to remember that they have been cut from society for quite a number of years and that they needed time to readjust to the world (often quite new) they have to live in from now on. Yet some observers do pay attention to that question.[77]

Finally, a last question needs to be raised: has preventing intellectuals to speak up or to write down been profitable to governments? Have they to stifle, to silence voices of dissent? We are sincerely doubtful about that.

Notes

[1] How could a prisoner walk away from Siberian camps? As for Alcatraz because of the under-currents and cold water around the island, it was impossible to swim and reach the mainland. Only in films did some prisoners manage to escape from the rock. Regarding Tazmamart, escape was not a possibility, as it was right in the middle of a desert. Moreover, Tazmamart appears on no map and many people even believe it did not exist at all. Buru belongs to the Moluccas archipelago in Eastern Indonesia. The jungle surrounding the several detention camps is rather hostile and survival in mosquito infested swamps was not easy.

[2] "Nous demandons la libération des dītenus du HIrak en Algérie" (We ask for Hirak detainees to be freed) in *Le Monde,* 18/09/2020 p. 30.

[3] See *Le Monde,* 03/06/2020 p. 5.

[4] "Dans l'enfer de la prison d'AndersonvIlle" (In the Hell of Andersonville prison), *Geo-Histoire,* October-November 2020, pp. 18-19.

[5] We can give a few examples: for instance, Roland de Pury remained three months in jail in Fort Montluc in Lyon during WWII while Nien Cheng was detained for 6 and a half years in a jail in Shanghai during the Great Cultural Revolution while Pramoedya Ananta Toer was held in jail for 14 years, mostly in Buru, in Eastern Indonesia. As for Ahmad Marzouki, he was held for 18 years in Tazmamart, the notorious jail in Morocco.

[6] P 193 of the French translation of that book, *Une journée dans la vie d'Ivan Denissovitch,* Paris, Pavillons Poche, 2015, p. 193.

[7] In the French translation, *Souvenirs de la maison des morts,* Paris, Gallimard Folio, 2019, p. 82.

[8] We can name a few notorious town jails such as Evin in Tehran, Rickers in New York, La Santé, in Paris, In Sein in Yangon (Rangoon), S 21 in Phnom Penh, during the Khmers Rouges period, Lubyanka in Moscow, Serkadji (formerly Barberousse) in Algiers, Pulli Chakri in Kabul etc… Another category is made of island-prisons or camps. We can name Pulau Condor off the coast of Southern Vietnam where was interned Pham Van Dong (for seven years) who became later Prime Minister of his country. More recently another famous politician has been held in several jails before being sent to another island-prison. Imrali, his name is Abdullah Öcalan, the former leader of PKK, the Kurdish party in Turkey.

[9] The memoirs of a famous political figure in Indonesia, Tan Malaka have precisely been translated into English as *From jail to jail* by Helen Jarvis and published by Ohio University Press in 3 volumes in 1991.

[10] Regarding Nelson Mandela, he was sent to jail twice in the 1950s before being sentenced to life imprisonment in 1964 until he was finally freed by De Klerk in 1990. During his long stat behind bars he was first held at Robben island between 1964 and 1982 (and his cell became a destination for the tourists), then at Pollsmoor until 1988 and finally at Victor Verster prison.

[11] Che Guevara (1928-1967).

[12] According to *Memoir Pulau Buru* by Hersri Setiawan, Jakarta, Tera Indonesia, 204, pp. 48-49.

[13] Hongda Harry Wu, *Laogai. The Chinese Gulag,* Boulder, 1992, p. 9. Laogai is the short form for Laodong Gaizao which means "reform through labour".

[14] *Les récits de la Kolyma,* Varlam Chalamov, Paris, Verdier, 2003, p. 8.

[15] The figures are given on the following Web Sites:www.nps.gov and criminocorpus.hypotheses.org consulted on 29/09/2020.

[16] For instance, the Indonesian intellectual held in Buru was known by the figure 438, in *Memoar Pulau Buru by Hersri Setiawan, op.cit* p. 61.

[17] Gulag is the short form for Glvnoe Upravlenie LA Gerei (Main directorate of camps), while Zek is Zaklyuchënnyi or inmate of a forced-labour camp.

[18] Ex-political detainees and ex-political detainees in Boven Digul, in Papua.

[19] This can be seen in the novel *Sandera (Hostage* by the Malay novelist Arena Wati), Kuala Lumpur, DBP, 1971, p. 4.

[20] According to him man is made to do something, to achieve something. In other words, man is 'homo faber'. This reference appears at the beginning of his work, *Essays* (I, 20, 89 A) and in *Dictionnaireamoureux de Montaigne,* d'André Comte-Sponville, Paris, Plon, 2020, p. 17.

[21] Jean-Marie Delarue, "Quelques questions obsédantes sue la prison" *Esprit,* N° 429, Novembre 2016, p. 37.

[22] Alexander Solzhenitsyn, *The First Circle,* London, Collins Fontana Books, 1974, p. 657.

[23] *Memoar Pulau Buru, op. cit.*, p. XIV.

[24] See "Sjahrir at Boven Digoel: Reflections on Exile in the Dutch East Indies" by Rudolf Mrazek in *Making Indonesia. Essays on Modern Indonesia in Honor of George McT. Kahin,* by Daniel, S. Lev and Ruth McVey, editors, Cornell, SEAP 1996, p. 41-65.

[25] This has been well documented especially by the writer Pramoedya Ananta Toer whom we are going to mention several times in this article.

[26] These events have been described in *Tazmamart. Cellule 10,* by Ahmed Marzouki, Paris, Editions Paris-Méditerranée, 2000.

[27] Published in London by Grafton Books in 1986.

[28] "Turquie : près de 200 nouvelles arrestations liées au Coup d'Etat raté de 2016" *Le Monde*, 17-12-2019.

[29] *Tazmamart Cellule 10, op.cit.,* p. 63.

[30] In *Memoar Pulau Buru* (Memoirs from Buru island), Jakarta, Tera Indonesia, 2004.

[31] On that island prison, a former Turkish Prime Minister was hanged by the junta in 1961.

[32] Alexandre Dumas (1802-1870) published *The Count of Monte Cristo* in 1844.

[33] He wrote about the camps around the Kolyma region. Such Russian account was later translated into several languages such as French: *Les récits de la Kolyma,* published in Paris, by Verdier in 2003.

[34] Starting with Pechora, Inta, Vurkuta etc. The list consists of 27 names. London Collins Fontana Books, 1974, p. 251.

[35] Hersri Setiawan indicates that his cell measured 2 versus 1.5m, p. 110. Roland de Pury informs us that his was 2.80 long and 1.80 wide; Nien Cheng when entering her cell in Shanghai Detention House N 1 was denied a broom, p. 167.

[36] *Cette aveuglante absence de lumière,* Paris, Editions du Seuil, 2001.

[37] Which was the case for instance of the penal colony of Buru in Indonesia, Pulau Condor in Vietnam, S 21 in Cambodia, or in Saint Laurent du Maroni in French Guyana. Yet if they did not suffer from the cold in these jails, the prisoners had to endure extreme heat. This point appears clearly in Hersri Setiawan's book, *Memoar Pulau Buru*, *op.cit.,* p. 123.

[38] This is indicated by Varlam Chalamov, *op.cit.*, p. 53.

[39] Ibid, p. 44.
[40] Ibid, p. 121.
[41] See *Lqogqi. The Chinese Gulag* by Hongda Harry Wu, Boulder, Westview Press, 1992, p. 69.
[42] *Mereka yang dilumpuhkan* (Those who have been tortured), Jakarta, Hasta Mitra, 2002, p. 433.
[43] "Confess!" *Life and Death in Shanghai,* Hammersmith, 1987, p. 354.
[44] Ibid, p 229.
[45] That is chapter 6 p. 183-213.
[46] *The Gulag Archipelago,* London, Collins-Fontana, 1974 p. 103 and sq.
[47] We are for instance told that the only book available to *Zek* was a copy of the Bible. The same applied to the pastor interned at Fort Montluc, during WWII.
[48] That is why on the cover of some of his novels it is stated: oral in 1975 and written in 1980. This is the case for Bumi Manusia.
[49] Varlam Chalamov, *op. cit.,* p. 107.
[50] Some time ago we already chose to write an article on those to writers: "Aleksandr Isayevich Solzhenitsyn and Pramoedya Ananta Toer, Two Rebels in the Realm of Literature" *Jurnal Melayu/Maly Journal,* 2006, Bil 2, pp. 177-190.
[51] So says Alex, a character in the play, *Candle in the wind,* by Solzhenitsyn, London, Bantam Books, 1974, p. 47.
[52] *The Gulag Archipelago,* London, Collins/Fontana, 1974, pp. 621-641. At times, the writer does not know the cause of the demise of such and such prisoner. Yet in most cases the cause of death is stated whether the prisoner had been shot, or whether he died in the camps or elsewhere.
[53] The Indonesian version of the book has been published in Jakarta by Lentera in 1995, while the English translation has been published by Penguin Books in London in 2000. But the real first published version of that book was in Dutch under the title *Lied van een Stomme,* by Manus Amici/Het Wereldvenster, in Houten in 1988.
[54] And as usual he wrote several books about them. Regarding Boven Digul penal colony, he wrote for instance *Ceritadari Digul* (Tales from Digul) published by KPG, in Jakarta, in 2001.
[55] *Pergaulan Orang Buangan di Boven Digul* (Relations between the deported at Boven Digul), by Mas Marco Kartodikromo, and revised by Koesalah Soebagyo Toer, Jakarta, KPG, 2002. It must be noted that the latter is a younger brother of the Indonesian novelist we have often mentioned several times in this article, Pramoedya Ananta Toer.
[56] The four novels in English translation are as follows: *This Earth of Mankind, Child of all Nations, Footsteps* and *House of Glass*. They have been published by Penguin Books in London between 1980 and 1988.
[57] Published by Setia Murni in Kuala Lumpur in 1973.
[58] Abdellatif Laäbi, *Chroniques de la citadelle d'exil* (Chronicles from the Exile Citadel) published in Paris by Minos/La Différence in 2005.

[59] First publishedin Neuchatel, Switzerland in 1944 and again in Lyon, by Olivetan in 2020.

[60] As a coincidence we happened to take part in such vote while we were attending a faculty meeting at the National University of Malaysia in the 1980s in which we were asked whether we would approve such Ph D candidate. Most of us did and Kassim Ahmad could proceed and write his thesis. Actually, he did not finish to write his dissertation but was awarded an honorary doctorate from the same University in 1985.

[61] Published in Petaling Jaya (Malaysia) by Media Intelek in 1983.

[62] *Memoar Pulau Buru, op.cit*., p. 54.

[63] "Untukberapa lama?" asked a political prisoner in *Mereka yang dilumpuhkan* (Those who had been tortured) by Pramoedya Ananta Toer, Jakarta, Hasta Mistra, 2002, p. 5.

[64] *Cette aveuglante absence de lumière, op.cit.,* p. 9.

[65] Thus, writes a Frenchman who was jailed in Russia as he was suspected to be a spy in *Dans les geôles de Sibérie (*In Siberia's jails) Paris, Stock 2020, p. 146.

[66] *Cette aveuglante absence de lumière, op.cit*, p. 69.

[67] Ibid, p. 181.

[68] He said that South Africa had to move forward and had no time to look back.

[69] *Life and Death in Shanghai,* London, Grafton Books, 1987, p. 432.

[70] *Tazmamart Cellule 10,* by Ahmed Marzouki, published in Paris by Paris-Méditerranée, in 2000, p. 10.

[71] Actually,Tazmamart appears on no map and if one dares to go to the spot the penal colony was built, he would not find much as the two buildings have been destroyed as if the jail had never been there.

[72] Among the numerous names we could supply we can mention : Eufrosinia Kersnvokaya (1907-1994) for the Gulag, Frank Dikötter (born in 1961) for the Laogai, Oen Bo Tik for Boven Digul and Christine Daure-Serfaty (1926-2014) for Tazmamart.

[73] We can name among others, two Chinese individuals: Gao Zhisheng who was arrested and detained in 2010 (*Le Monde* 30/03/2010 p. 7) and Ren Zhiqiang who has been given a sentence of 18 years in jail (*Le Monde* 24/09/2020) p. 5. A researcher in social sciences has been condemned by a court in Tehran to a five-year sentence in July 2020 (*Le Monde* 10/07/2020), p 25. We can also mention the Indian human rights activist, Binayak Sen serving at present his country a life sentence.

[74] Published by Hasta Mitra in Jakarta in 2002, p. 7.

[75] Published by Indonesia Tera in Jakarta in 2004.

[76] "Sept ans plus tard, quel bilan pour le film *The Act of Klling* (7 years later what conclusion to draw from the movie *The Act of Killing)* by Stéphane Roland, *Archipel,* Vol 98, 2019, p. 60.

[77] "Après avoir purgé de longues peines de prison, les détenus appréhendent le jour où ils se retrouveront de l'autre côté, confrontés au monde extérieur, libres" (After serving long sentences in jail, detainees may worry about the day when they will find themselves free on the other side). *Le Monde* 20/12/2002, p. 14.

Bodding's Santal Medicine and Connected Folklore vis-à-vis Vidyasagar's understanding of Anthropological Study

Archana Banerjee

Introduction

Christian missionaries, colonial administrators, anthropologists and social scientists worked on Santhals, of which the work of L. O. Skrefsrud and P. O. Bodding stand unrivalled.

Bodding's data on medicinal uses of 930 plants, their Santhali names were of immense help to the present author while searching for medicinal plants used by Santhals (Sinha : 1977) and in screening of 120 medicinal plant (Banerjee : 2003-2018). Synergetic activity of the formulations is still unknown.

Santhals of more than 100 villages of Chotanagpur plateau- forest areas were consulted since 1977 including Purulia, Bankura, Paschim Medinipur, Bardhaman, Birbhum, and parts of Jharkhand including Karmatar, where the author came to know about their *Karmaguru* Vidyasagar.

One of the major aims of the missionaries was 'to collect myths of creation because they wished to find a native god who could be identified with the Christian God in their translations of Christian texts into Santali' (Andersen and Foss, 2003). They imposed the idea of 'the creator and sustainer of the universe' (Troisi : 1978).

Ecological ethnicism, build bridges between nature and culture, to address bio-diversity conservation (Ramkrishnan : 2014, Xaxa : 2019). During field collection with Santhal women, nature festivals and a rich heritage of ethnic practices was noticed by the author. The Nature-

culture intimacy and interdependence is not mere animism (Banerjee : 2021). It is the forest religion of human beings/*Hor*, *Sari Sarjom Hor Dharam* as designated by Santhals, one of the largest ethnic groups in India and Bangladesh. In India they live in the states of Jharkhand as the largest population and also in Assam, Bihar, Odisha and West Bengal.

Santhals were forced to agree to extensive deforestation by British rulers for ship building, mining, agriculture, tea gardens, railway slipper and compartments, furniture but they feel rootless without their mother *Jahera*, the forest trees. The simple diligent Santhals who had not learnt to lie, had to borrow money from *Mohajan* (money lenders) whom they call *Diku* (non-santhal/ outsider/invaders) to buy agro-equipments, were cheated. Most of them exploited as bonded labour by *Mohajans*. The sacred *Jaher than* with age old trees was destroyed for timber by *Dikus* (the invaders). These were the cause of the *Hul* rebellion.

Vidyasagar's compassion to aboriginal people was expressed through pathetic stories of Akhyanmanjari on incidents of cruelty on the slaves; particularly on distressed women. Such benevolent actions he began in mass scale, since the famine relief in 1866. He inspired his students at wards' institution and Metropolitan College to undertake regional studies on aborigines, in their mother tongue in different languages.

His student Kherode Chandra Roychowdhury in Orissa (Odisha) was an ethnologist, learnt Pali, wrote a Bengali book "মানব প্রকৃতি" first on the subject; Bijoy Chandra Majumder (1861-1942) became an anthropologist involved in research and field work in various aspects, and community understanding inspired by Vidyasagar (information obtained from *Odisha* by Prantosh Bandyopadhyay, *Autobiography* : Bipin chandra Pal and *চরিতাভিধান* : 1998). BCM who wrote "Elements of Anthropology" "Aborigenes of central India" and other books, joined the Calcutta University as Professor in Anthropology appointed by Sir Ashutosh Mukherjee, a great admirer of Vidyasagar.

Vidyasagar went to Karmatar to help the post *Hul* distressed Santhal in 1873. Not only their saviour, Vidyasagar was a learner too, he realised their civilisation and culture ("আমি আদিবাসী সমাজে গিয়া তাহার সুমহান সভ্যতা ও সংস্কৃতির পরিচয় পাইয়াছি...".).

Methods

The author learnt Santhali language (as instructed by anthropologist S. C. Sinha). The present review is based on the author's direct observation over four decades. Information on festivals and medicine was obtained from

a) Participation as their relative in festivals and rituals,
b) Village medicine men and Santhal women.
c) Traditional festival songs, folklores recorded from Santhal women.
d) Drawings and Jadupat.

They face hurdles for primary needs. Still they continue to observe the traditional nature based seasonal festivals throughout the year. Everyone tries to join the festivals to participate in the songs and dances, often from distant places, even leaving their jobs. Starting from *Maghsin* (new-year sun fest) in January-February to *Sohrae* in December, their festivals are not only a part of living and a source of happiness, but they protect Nature too, except *Shikar,* and forest burn, done by the males. Sun (*Sin chando*), moon, mountain, air, sky, water/ streams and above all, the forest deity *Jahera* are worshipped in Santhal *Sari dharma* (true religion). Music and dance forms are dedicated to Nature, sun, moon and *Marangburu* (the Mountain God).

Early in the morning they bow to the Sun and mother earth. The women clean the floors and compounds; prepare meals, and go for work. Women remain in groups and after daylong toil, return home singing, happy with the little money they earn to meet their daily food needs and a little excess for the village festivals, which they enjoy together. Traditionally they refrain from savings.

The *Magh Sin* (sun) festival is the welcome of the new-year's forest renewal. The lyrics in praise of the Sun, Nature and forest trees resemble parts of Tagore's *ponchovuter arati*, poem *Bodhon* and songs (*akashe dui hate prem bilay*), as well as "The Message of the forest". Santhals welcome the onset of buds and flowers as gifts of the new-year Sun *Sincando/ bonga* with *Sasan* (*haldi)* and *Murup baha* (*Butea* flower) and bid farewell to the past with fall in the deciduous forests.

The new-year Sun worship continues until the flowering festival *Baha*, when the tallest *Sal* trees bloom (as in *Baha* and Tagore's lyrics). The Santhals, with their devotional dances and *sal* blossoms, express the praise of the forest deity *Jahera* to *Sin cando* Sun.

The next festival is that of emergence of new leaves, enjoyed as the *Neue Sakam*. This is considered as the appropriate time for marriage.

Ruhin

Not only Santhals but all other ethnic groups celebrate the seed dispersal *Ruhin*/*Rohon* festival throughout India. *Ruhin* is often celebrated in the hilly tracts of Purulia by wearing animal masks imitating animal agents for fruit /seed dispersal. In this festival, the *Asaria* fruit (*Capparis horrida* L.) eaten in small quantity as antidote to snake bite, is given to the participants before they leave. The themes of the songs are based on the collection of native ripe fruits and seeds. The songs say: Don't pluck the unripe fruits. They are sour. They will harm you. Let the sweet ripe fruits fall with soothing breeze given by mother *Jahera*, then collect and eat. Songs on native fruits — tamarind, custard apple, wood apple, *tal, amra, kend, kendu, kadam, kul, khirkul, bokul, amla, chaili* (*Morinda* sp.), *gab, mahua, tarop-piyal*, mango and *jam* were recorded. Most of the trees are eco-cultural keystone species and provide habitat for associated flora and fauna.

Ropon

Bodding found the Santhals as agriculturists habituated to paddy cultivation. Planting *Ropon* limited to *Horrorrohowa*, or paddy. But at the time of Vidyasagar, paddy cultivation was not possible in the lateritic plateau. The festival existed with the ancient Santhali songs of planting of *sal, mahua, karam* trees, recited in *Don* and *Karam*, particularly *catiar* (birth) and *mora* (death) karam.

Karam

Karam festival is celebrated on the eleventh day of the full moon of the month of *Vadra* i.e. August–September. On the eighth day, *dhubi ghas* (grass *Cynodon dactylon* Pers.) is worshipped, native seeds, millets and/ grains are kept in earthen pots or baskets for germination.

On the eleventh day a branch of the *Karam* tree (*Haldina cordifolia* Roxb.Ridsdale) is carried and kept with singing and dancing to praise *Karma/Karam* and *Jahera*. The girls decorate baskets with germinating grains (*Jawa*), offer to mother earth *Jahera*, women tie friendship bands on the *Karam dar* /twig and on each other as *karma* friends.

The priest recites *Karam binti*, a legend of two brothers; the legend varies from village to village and tribe to tribe, the theme being the same. *Karma* and *Dharma,* two brothers after long quarrels, fights and separation and sorrow realise that they are inseparable; good work *Karma* is actually the true *Sari Dharma*. *Ruhin, Ropon* the true *Karma* maintains *Jivan*, flow of life.

In various legends, the evil effect of ignoring Nature deity and mistreating streams, grass, creepers, climbers, lianas, trees, birds, animals and human beings; effect of lazy habits /evil work, and the benefit of good work is described. All the tales conclude that nobody can escape, everyone has to suffer for his sins and will be rewarded for good *karma*.

The festival is enjoyed with friendship bonding among girls. They work and wander in the forest together. They never dance alone, always dance together. In adverse situations a girl seeks help uttering *Karam dar*, a sound like a bird and gets help from *Karma* friends.

Forest deity *Jahera* with *Sal, Karam, Piyal, Mahua* and other indigenous trees is praised with dances and music. *Rinza* and other dances show the various types of work they perform round the year, from sowing, planting to harvest, making baskets, cots, fish nets and handicrafts. The festival ends with the village feast.

In view of the importance of *Karam* tree, 60,000 *Karam* saplings were planted in the Jharkhand State in 2018.

The author's simple observation on *Karam* is the root as it has resemblance with the *Karmajog* of *Gita* and *Karma* of Buddha, but differs from "merely one of fertility" view of anthropologists. Possibly the proponents of this view consulted only men and noted down the superstitions of *Ojha* and priest in detail as did Reverend Bodding, in spite of his learned Doctor wife's presence, the women's perspective is missing.

Vidyasagar was the exception, who earned trust of the Santhal women, worked freely among them for their good and became their teacher *Karmaguru*.

Dumka, Mahulpahari and Karmatar *karam binti* says,

We the proud santhal girls from *Chae Champa Garh*, don't marry before age of 25 and boys not before 30. Perhaps they learnt it from Vidyasagar.

In 1894, Tudu in his book, also mentioned about the song in Binti no.178.

Planting tree twig is a must in *Karam,* Vidyasagar taught them grafting and other techniques so that the twigs survive.

An ancient grafted mango tree is still alive at Vidyasagar's *Nundunkanun*.

Mora karam - when a person dies, nothing is kept or built or constructed, nor any monument made in his name, no statue or idol is built, not even any photograph is retained by Santhals. His valuables are given to the needy, used old clothes burnt or buried, and in the ritual, a tree twig is planted in his memory. Vidyasagar, their *Karmaguru* taught them how the twig survives. This eco friendly ritual was observed in many places in remote areas, and *mora karam* lyrics recorded.

The common traditional song collected by the present author

"...nutumte matkom khunti bir akana,…nutumte matkom poha bidme, ..jasin ato kuri kora jor jole tahena, jor bhangaben, adomdole ipili adol dole koira buhelen."

"Village boys and girls singing and dancing, plant a *mohua* twig in his memory. Dance around it in pairs, one day the dancing pairs will break, the departed souls, one will live in banana bushes, the other in the stars as is their *karma*".

Shikar - Hunting is performed every year particularly on *Baishakhi purnima*, the full moon day in summer at Ajodhya hill, Purulia. Santhal women keep themselves away from the barbaric hunting festival. Santhal men wander in the forests with drums and dance, kill wild porcupine, pangolin, deer, monkey, wild boar and bear. The theme of

Shikar is to kill and control enemies. However, as a result of this practice, wild animals became almost extinct. They also burn forest for easy catch, which cause disaster.

In contrast, after harvest in winter, women catch field rats in traps. They prepare delicious cakes with singed, cleaned rat flesh packed in rice powder and baked in *sal* leaves. They enjoy this protein rich food *gudu pitha* in *pus Sekran* festival and the rats are also controlled without use of pesticides.

They nurture pigs, which keep the villages without toilets clean. In present years, they are ashamed to admit to such eco friendly practices and often hide it from their neighbours.

Bodding recognised their knowledge of medicine (p. 10) saying "many santals seem to take an interest in "medicine" and their belief is "the creator has furnished remedies against all ills if they can only find them" (p 44). The present author learnt from Santhal women *Ojhas* that, *Jahera* (forest Mother) provided all, pray her to find them, food or medicine.

In 1977, the author learnt *Sunum bonga* from senior most *ojha Babe Murmu* of Sobonpara near Kankalitala of Bolpur. Rubbing oil on a leaf recalls *Jahera* in veinlets and vein islets; helps to think and concentrate to identify the disease (Banerjee : 2003).

In Part I "the Santals and disease" Bodding emphasised the superstitious acts of *ojhas*, witch, *bongas, montors*, *jharnis,* with a detailed description of *Kamru guru* as the reputed first teacher (appendix II), ignoring forest deity *Jahera* serving medicine to all, and *Karmaguru*, the reputed first teacher of all work and medicine.

Vidyasagar was honoured as *Karmaguru* at Karmatar by Santhals.

In Part II Bodding gave a precise detailed description of "Santal medicine" with scientific list of plants and other ingredients. This part is very helpful.

In Part III Bodding described "How the Santals live" in detail with excellent description on the uses of forest produces, agriculture, mushrooms, fishing, clothing etc. However, he ignored the major part

of their life activities, that is, the unique nature based religious festivals.

During field survey, the present author's observations deviated from Bodding's view in the following matters:

1. Bodding interpreted "A Santal considers it his birthright to fell trees; it has become an instinct with him to cut down (p. 434, para 6)." This is not true, because in their traditional *karam* songs, they say, a) we cut the branches, it is our *dharam kami* (duty). If we do not cut, the tall trees will fall in storms. b) Cut the laterals, the tree will be taller; cut apex, trees will be bushy. c) Never hit the root, it will hit *Jahera* the mother, and destroy all. d) "Felling flowering branches destroy life. Pick up flowers from ground'. Is these songs influenced by *Karma guru* Vidyasagar, who learnt these from Alipur garden together with grafting?

   They do not fell trees as done by forest officials and wood merchants, though forest burn is still initiated by them during dry season and *Shikar*, by males for clearing.

   Bodding said "It is a pity that they have not learnt also to plant trees." But the present author observed that their three major festivals, *Ruhin, Ropon* and *Karam* are based on sowing and planting of seeds saplings and twigs. At present these festivals are limited to sowing and planting of paddy or other food crops, but the traditional songs speak differently. Throwing and Sowing of native forest seeds is performed in *Ruhin,* planting of native trees is done during rainy season *Ropon* continues till *Karam*. In India, since the pre-historic time and the Vedic period, Harappa, and the rise of Buddhist (Emperor Ashoka) and Jain cultural identities, all are associated with planting and protection of habitats. Amongst all, Santhals are unique in protecting forests as *mother Jahera* without any artificial construction or pollution.
2. Bodding mentioned *Ruhin* (p. 437) not realising it as a seed dispersal or sowing festival. On *Ruhin* on 13th *Jet* of summer, at the onset of the first rain, Santhals and other forest dwellers used to disperse ripe seeds.
3. After *Ruhin,* Bodding and most anthropologists shifted to Autumn

Dasae. He ignored the middle *Ropon* (planting) and the *Karam* fest of *Vadra* at the end of rainy season, the time of rest when they engage themselves in crafts. Bodding and many others interpreted the birth *catiar Karam binti* discriminating among clans. But it honours the *kamie/karma* work trends of a clan, training inherited with better quality of work. It also prevents endogamy.

4. Bodding noticed the worship of nature deities and the river *Ganga,* which was not found by the present author among Santhals. They praise all streams originating in their divine *Sal* forests where they submerge the burnt bone residue of their dead. He unfortunately did not notice the *Karma* religion based on fascination for *karma*/ work, with simple diligent living, and in *mora* death ritual, no statue or idol or photograph, but a tree is planted in his memory.

Santhals imitated *Dasae* parab from neighbouring Bihari *dikus*. They utter songs full of grief remembering their past land *hihiri pipiri/ chhampa garh* and sometimes they link them with the black skinned Demon *Asur, Hudur Durga* and their fight, but the stories are not original. They were imposed later (Tudu : 1951). Hindus have forgotten *Durga* as a deity who is a protector of forest, a protector of the ten directions from pollution with her ten hands. Santhals do not worship idols of *Durga*, but their *Jaher era* (earth mother) resembles Hindu *aronyo-durga, bondurga, aronyo-sasthi, Nabapatrika* (nine plants in 4-5 tiers representing *Durga-ramva* (banana) *kochhu* (arum), *horidra* (turmeric), *aparajita, choi* (*Piper chaba* Hunter), *jayonti*, *bilva* (wood apple), *darimba* (pome granate), *ashoke, dhanyoshachyo* (paddy and other cereals) *nabapotrika,* the mother earth, forest deity, the ancient green form of *Durga.* This early concept was later neglected or misinterpreted as mere *kola bou*. No longer in appreciation of native trees, the festivals are now limited to idol worship with increased use of sound, light, fire, *pandal* constructions and polluting agents.

On the contrary, Santhals do not worship idols, photographs nor any construction found in the sacred *Jahera* whereas Munda, Oraon and other tribes or other villagers worship other objects. The native *Jaher than* forest area remain undisturbed by Santhal inhabitants. They enter the place leaving their shoes outside to avoid contamination by

foreign materials and organisms. Even cleaning or sweeping is not allowed, perhaps to keep the biodiversity protected. They honour banana, turmeric, wood apple and other plants of *Nabapotrika*, and mango, *mohua*, bamboos and *sal*.

Bodding ignored these traditional beliefs, the nature based plant protecting religious festivals of worship through dance in open air under natural forest trees, without any artificial arrangement, construction, fire or disturbances to forest deity *Jahera*, a symbol of Mother Nature, which was much appreciated by Vidyasagar.

Bodding said that the annual hunt is the highest social function amongst the Santals (p. 482, para 2). But the tribal women do not like, avoid and stay away from the barbaric hunting festival. So, how could hunting be the highest social function?

Hul, the Santhal rebellion is also remembered and celebrated every year whereas the nature based festivals that give a message of peace and harmony, are neglected. The brave role of women, for example the two sisters Phulu and Jhunu Murmu, who took major part in the *hul* rebellion, is ignored.

Jahera ((sacred mother)/*Jaher than* is found near every village representing mother earth, stones representing *Marangburu* mountain are kept under the old native trees. The old *Manjhi Haram* says, *Jahera* is over all the five bongas (soil, streams, fire, sky and wind) and protects *Marangburu*. The mixed *sal* forest deity *Jahera* praises *Sincando* sun in *Baha* the flowering fest. The *Karam* tree, from which they make their axe, protects *Jahera*.

Bodding observed paddy cultivation by Santhals in his time, whereas cultivation of paddy not practiced at the time of Vidyasagar. The dry eroded soil of the Chotanagpur plateau was not suitable for paddy. They were largely dependent on the forest and used to cultivate corn, various millets and grasses, which has been also noticed by Bodding. Vidyasagar in his lifetime played a great role in tree protection. He filed court cases against his neighbours for the protection of a *pipal* tree with all his strengh, ignoring the opinion of his relatives. He wrote that the primitive practice of hunting and collection from wild is barbarous (*Nitibodh* : 1841).

Vidyasagar and Academic Anthropology

In Karmatar, Santhals had to learn cultivation for their survival. Vidyasagar provided them food, clothing, paid them proper labour charge and taught them agriculture. He supplied seeds, they prepared soil removing gravels with special plough and dug well to prevent carrying water pitcher on head by women, known from S.K.Banerjee, railway engineer at Mihijam and Adra 1954-57 that Santhal demand succeeded in raising platform for comfort of their *Karmaguru*.

Vidyasagar started vegetable cultivation and taught the girls the techniques of grafting fruit trees. An ancient grafted mango tree is still alive at Vidyasagar's *Nundunkanun* in Karmatar where he established a girls school, and night school for adults with joyful learning on their own mother Nature. He was close to them in concept of Nature God (*Bodhodoy*), *Sin cando* sun, earth, water, air, sky, Mountain God *Marangburu*, how they are protected by Forest mother *Jahera* (*Baha* song), how to escape from flood, draught and famine; and joyful learning plants, animals with riddles. One woman could understand Bengali and she conveyed his message to other girls in their mother tongue Santhali.

Vidysagar wrote books on modern Geography, *Vugol Khogol Barnanam* praising *Maheswar* (*Shiv*) – a concept similar to the Santhal's *Marang Buru* the Mountain God, whom Bodding referred as "Devil"(criticised by Archer 1974:11).

Vidysagar studied medical science for treatment of the poor, he took necessary actions in health care to protect them from epidemic diseases such as enteric fever, cholera, malarial fever, treated various ailments and provided appropriate health food, burnt or boiled. He used to give medicine like *lexin* for snake bite, *Blatta orientalis* (cockroach) a tribal medicine for asthma, for liver and other ailment. He encouraged the use of neem, planted fruit trees *ul-mango, kud-jamun, kanthar, mandargom-custard apple, sinjo-wood apple, jojo tentul, lemon, bombara-kudrum etc*. The mother tincture formulations are preserved by his grand nephew Paresh Banerjee at Mihijam.

He appreciated their culture, enjoyed their festivals and the sober group dances of women in praise of nature (শম্ভুচন্দ্র : ২০১৪).

He liked their simple living, togetherness, freedom, recognition of women as human being, honour of women in society, marriage and remarriage (the boy has to pay dowry).

He regularly used to visit the village *Karmadi*, named after the *karam* tree and *Jaher than* where he planted native trees. In return, they honoured him as their own reputed teacher *Karma guru.*

Vidyasagar was a pioneer in converting them from hunter gatherers to successful cultivators, provided them food, clothing, medicine; appreciated their song, dance, culture, and helped them watering the forest deity *Jaher than*.

Bodding's *Isor Mohadeb* concept is perhaps learnt from Bengalis. *Isor* may be Iswar Chandra, as illustrated in *Jadupat* (Tudu, p. 240), *baba Iswar* sitting on chair table, writing on diary reminds Vidyasagar, whom they remember as *Karma guru* of Karmatar.

Vidyasagar expressed his gratitude to the ancient community saying "আমি আদিবাসী সমাজে গিয়া তাহার সুমহান সভ্যতা ও সংস্কৃতির পরিচয় পাইয়াছি। এই সমাজে বাল্য বিবাহ, সতীদাহ প্রথা নাই। বিধবা বিবাহের ভাবনা আমি এই সমাজ হইতে আহরণ করিয়াছি।" Vidyasagar, the pioneer anthropologist in South Asia, was followed by his students K. C. Roychowdhury and B. Mazumdar (first anthropology Professor in C.U.).

Inheritence

After Vidyasagar's demise, some diaries and his medicine-box were under the custody of his brother Ishanchandra, who learnt homoeopathy from Vidyasagar. He left Karmatar and settled near his daughter Kashiswari's house at Mihijam. Ishanchandra's son Paresh Banerjee (science graduate) and Kashiswari's son Bijaykanta Raychoudhury (english graduate) were school teachers, both left their jobs. P. Banerjee started homoeopathic dispensary and a medical college, practiced there, and soon became very famous with miraculous treatments.

Bijaykanta, son of Ramchandra, grandson of Ramakanto Raychoudhury, who was very close to Rabindranath, started agri-horticulture and piscicuture farm successfully at Mihijam near

Karmatar. He wrote two books, চাষের কথা and চিকিৎসা সোপান, with an introduction by Prafullo Chandra Ray.

Rabindranath expressed his gratitude and honoured Vidyasagar in many writings, visited Karmatar at least twice after the death of Vidyasagar in 1893-94. From Karmatar he wrote letters to his niece Indira about his desire for work. He started school in 1901, saying "কলকাতা থেকে নির্বাসন নিয়েছি শান্তিনিকেতনে। ... সেখানকার মানুষ যারা—সাঁওতাল—সত্যপরতায় তারা ঋজু এবং সরলতায় তারা মধুর" (পল্লীপ্রকৃতি)। His son Rathindranath who went abroad to learn agriculture, was close to Bijaykanta Raychoudhury.

Like Vidyasagar, Rabindranath started Agri-horticulture with the help of his learned son, practiced biochemic medicine, planted forest trees favourite to the Santhals. Tagore's son, friends and disciples—William Pearson, Santosh Chandra Majumder, Kalimohon Ghosh worked in Santhal villages. Majumder collected more than 400 lyrics, and commented that all are nature loving and sober like their dances, except the male barbaric vulgar *Shikar* songs with obscene dances. Nandalal Bose, Surendranath Kar, Ramkinkar Baij did art works on the Santhals, Ramkinkar built seven sculptures where joy in *karma* (work) is expressed. Rathindranath Tagore writes "In our work among the Santals we have tried to avoid the common mistake that is made by missionary societies.....It would be absurd if we try to reform them and introduce amongst them standards of our own.....breaking a social code that is much more ancient than that of the Hindus...Our aim, is to help them to attain economic independence.....encourage traditional games and festivals and above all desist from doing anything that injure their own social organisation" (VB News, 1942). He disliked forest burn (one of his reason to leave Santiniketan, expressed in poems).

The old *Karam* tree and the upland area *Karma danga/Karma dih/ Karma tanr* still exists near Balipara at Santiniketan, the ground now incorrectly named as *Kumir danga*. Similar misinterpretation was made also by Bodding, who changed *Karma* to *Kamru*.

What about 18 years anthropological observation of Vidyasagar?

The methodology of field work in anthropology is field survey at day time and staying at distance, or two years continuous stay with people. Vidyasagar stayed with "his Santhals" for 18 years, and to teach them verbally through a bengali knowing woman interpreter, and maintained diaries. One of Vidyasagar's diaries (donated by KPC's family to Rabindra–Bharati Museum) on medical treatment is very precisely written.

Vidyasagar was much dissatisfied with Narayanchandra, his son of renunciation, who stopped all activities at *Nundunkanun* after the demise of Vidyasagar, kept the documents in his custody till his death at Vidyasagar's Badurbagan's house. After Narayanchandra's death the asset was under the custody of his son-in-law Jaminimohan Chattopadhyay. Jaminimohan's son, Khitishprosad Chattopadhyay (Professor KPC) a meritorious classmate of Netaji Subhas Bose, who ranked first class first in Physics Honours at Presidency college as a student of C. V. Raman, P. C. Ray, J. C. Bose, soon changed his stream to anthropology and went to Cambridge in 1919. Perhaps he realised the importance of the unexplored diaries/documents of Vidyasagar.

KPC returned to India and with the help of his friend Netaji, as the first education officer, like Vidyasagar started free corporation schools everywhere including slum areas, from three schools in 1924 to 232 primary schools in 1934, and also started teachers' training school for women. The medium was through mother tongue, not only bengali but also hindi and oriya in Bihar and Odisha, and the subjects taught were similar to Vidyasagar's cultural rational practical view, including science, maths, history, geography, biography, music.

KPC wrote many papers and books on the Santhals. He insisted to incorporate agri-horticulture, gardening practices in school, preparation of soil, manure, sowing, planting, irrigation — all by the students themselves without any outside labour, wrote "The syllabus will not at all be a difficult job for tribal areas...education will not in any way reduce the joy of life of this folk..." However, KPC's anthropological view differed from Vidyasagar (follower of Buddha),

Karmaguru Isor Cando writing in diaries.

as KPC appreciated hunting, even insisted to include it in tribal education for the sharing practice of the kill!

In his discussion in the conference with UNESCO and Calcutta University, on study of changes in traditional culture, and tribal culture, he says, "In Bengal the Santals are bilingual no doubt and they like Bengali literature but they also want education through the medium of their own language." Subhas expressed his desire to follow roman scripts for scriptless tribals, as did Bodding and other foreign researchers.

KPC followed Vidyasagar, in his writings on education, in primers, in his anthropological study including tribal education. Prof KPC concluded his introductory lecture saying "Planning for tribals at the local and National levels should be similar lines as for the ordinary peasantry. But some protection and also adequate recognition of their culture forms will be essential".

Cultural changes, influence of outsider *dikus*

No prejudice in sticking ancient culture, in 1957, KPC mentioned that surrounding culture uplift *Adivasi* which differed Tagore's view.

At present the Santhals have lost their unique culture and socio-economic unity, but male malpractices exist. Santhals are settled agriculturists, in irrigated cultivation from shifting burn type. In every year the author observed them burning forests, at Ajodhya and other hills, to clear lands. The ancient village trees were sold to get admission, or to buy bikes to attend distant college. *Jaher than* represented only by a single tree, or even construction is made like their neighbour. Bleaching cosmetics replaced traditional oils, and like the *Dikus* dowry is paid by the girl. Hygienic cotton, traditional wooden /earthen toys, smart art are replaced by plastics and clumsy drawings. The pain killers replaced herbal remedies.

Hunting or *Shikar* was criticised by Vidyasagar and Tagore's school of research. Tagore mentioned with grief in his song "*Se kon boner Horin...*". KPC says the *Shikar* songs are not vulgar but out of grief, and included them under *Bir* or forest songs. KPC appreciated *Shikar* even in his education system whereas Vidyasagar wrote it barbarous together with gathering from the wild. KPC (1956) did not highlight the nature protecting *Ruhin, Baha, Karam Sohrae Baha* forest festive

songs, including them only as religious songs. He included the marriage songs as secular, whereas the present author finds their idea as participation in Nature festival and protection is the duty of *Hor*, the human beings as done by other animals in pollination, dispersal, food chain and other tasks, and totally secular.

Like Vidyasagar, KPC opined that in Santal/*Hor* religion Mother Nature *Jahera* is their superior deity.

The male *Shikar* (hunting), their joy in burn for jungle clearing, and destruction of Mother *Jahera* is going on in the name of religion, ignoring traditional women lyrics of protection, of leaf gathering, storage of fuel. Even in *Shikar* which is banned for girls, these years the males insist girls to dance before tourists with water filled pitcher on head (destiny in burnt, bared dry hills) which Vidyasagar tried to abolish and well, by digging to rescue wantedwomen and trees.

The new male and female writers ignore traditional joyful nature songs of freedom of women. The songs express their inability to get luxury. *Hul* songs of grief are popular. KPC, the said first Indian academic anthropologist as mentioned by Andre Beteille, like Bodding and other *Diku*s, could not connect Santhal women, as did *Karma guru* Vidyasagar, the pioneer anthropologist, followed by his disciples ethnologist K. C. Roychowdhury, the anthropologist linguist B. Mazumdar and Tagore associates.

The Santhali scholar Boro Baski rightly mentioned "the role of women has become strengthened as they go to the jungle more than men for collecting herbs along with firewood" (Ray, 2019). He described importance of their Museum.

In 2020, the present author's experience at *Maghsin* fest at an ancient Santal village Usardi (the name uttered in many traditional Santhali songs) Bankura, in a medicinal *arak* competition in which 125 participants took part. 110 old knowledgeable women came from far distant villages, each with 20 to 60 kinds of leaves. The author as judge was unable to deprive any. Soon the *Diku* male leaders took decision and the winner was a male *Ojha* headman who spent the prize money in drinking liquor. Women's knowledge neglected.

Present lock down helped nature recovery; many villages isolated themselves with crossed bamboos blocking village entry. Man and animal close with nature, managed to overcome the situation with natural resources, with natural recovery, without spread of diseases far better than migrated labourers.

Summary

Bodding's comprehensive work is of immense importance for Santhali research. But missionaries, administrators and anthropologists did not highlight the ancient nature protecting festivals of the Santhals, but treated hunting *shikar* of the males as the highest social function. This (not participated or liked by women) together with forest burn destroy forest flora and fauna, discouraged by Vidyasagar and his disciple anthropologists — Kherode chandra Roychowdhury, Professor B. C. Mazumder in Orissa and Tagore at Sriniketan. The social scientists recognised the nature-culture bond in the context of present day environmental crisis. Bodding ignored the role of women in *Ropon*, *Karam,* even fest of honourable elder sister *Sohrae*, and misinterpreted *Karma guru* as *Kamru guru*. The anthropologists (*Diku*-outsider) could not connect the diligent, silent and conservative women *Hor* groups, while Vidyasagar could easily approach them as their own teacher *Karma guru*.

Vidyasagar started agri-horticultural practices in Karmatar (1873) at his *Nundunkanun,* providing food for the post *Hul* distressed Santhals, to prevent collection from the wild and forest burn shift cultivation. *Karam* is a comprehensive ancient form of Tagore's nature protecting festival *Vriksharopon* (tree planting), *Halkarshan* (*jawna*, sowing), *Silpotsav* (celebrating handicrafts, artisans and mechanics) and *Rakhsha-Bandhan* (*karam dar*- tie friendship band). Vidyasagar's knowledge was inherited by his progenitors without recognition, P. Banerjee in medicine, B.Raychoudhury (agri horticulture, fishery, medicine), K.P. Chattopadhyay in anthropology, and successfully in education.

Conclusion

Bodding's work is important for ethnobotany, ethnozoology, pharmacomedicine, and anthropology. His highlighted *Shikar*, may be celebrated as archery sports and in *Sekran* trapping rats.

Since brutal atrocities on Santhals, Vidyasagar went to Karmatar, deeply studied their custom and was impressed because of their nature appreciation and community feelings. His disciples — ethnologist K. C. Roychowdhury, anthropologist Professor B. C. Mazumder and Vidyasagar progenitors P. Banerjee, B. Raychoudhury and K.P. Chattopadhyay inherited his findings. In the Chotanagpur plateau area, *Sal* and associated native trees linked with festivals and rituals of the villagers, studied since 1977 from the discussions and traditional lyrics of women in Santhali, by the present author as their relative (supported by *Jadupat* and Tudu's ancient record). Seeds and seed balls may be grown in *Ruhin*, planting of saplings in *Ropon* which continue through monsoon, *Karam* (including *catiar*, *bapla* and *mora Karam*) with twig planting, with protection, creation and expansion of *Jahera,* as done by Vidyasagar. Recognition of Santhali culture forms, nature-culture protective education eliminating alienation, was initiated by their saviour *Karma guru Isor cando* Vidyasagar, the pioneer anthropologist in South Asia.

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References from P. O. Bodding:

Bodding's writing and interpretation	Critical observation by the present author
p. 2. Santals believe in good power who gives life p.3. Medicines against all ills provided by the creator. Recognized knowledge of medicine of raranic (page 10) saying "many santals seem to take an interest in "medicine" and their belief "the creator has furnished remedies against all ills if they can only find them"(p 44).	One's own work *karma* gives life *jibon* Provided by forest mother *Jaher era*, taught by first reputed teacher *Karmaguru*.
p.3. *Cando, Jaher era*, but ignored traditional nature based religion. Concept of creator.	Nature based religious belief. Concept of creator was introduced later.
Kamru/Kambru/kamrup kamakhya / montor It is a pity that they have not learnt also to plant trees (p.434)	*Sincando, Nindocando, Karmu guru/ karam tree/Krishna* (Tudu-72,79)/flute. Seed sowing or broadcasting, helping dispersal (as done by animals?), *Ruhin, Ropon* (mainly by women), *Karam* (men and women)..
p.10. there are, of course, no "schools" for them; Anyone willing to learn will arrange to follow and learn from some known *raranic*. It might be mentioned, that many Santals seem to take some interest in "medicine." p. 16.*raranko*, i.e. the medicine-men, are honest ...	Flow of knowledge on medicine (possibly learnt from observation on animals and trial and error) carried through *Guru Cela* tradition among men, and through lyrics and songs among women. All have interests in herbal medicine. *Raranics* are honest. Those who do not learn, are idle and cannot collect medicine do malpractice as *ojha*
p.10. *Ojha* — The name is hindi, undoubtedtly adopted from Hindi-speaking peoples..	*Ojha* — The name is hindi or bengali, and undoubtedtly adopted from others.
p.11. *Kambru, kamru guru, Kamrup* P 47. In para 4 line 4 mentioned *kamru guru* as the reputed first teacher of *ojha* santals. Practices like *sunum sakam*, (leaves and oil), *montors, bonga*, witches, *jharnis*. *Dasae. Montors* corrupt Behari and	*Kamru, Kamrup* learnt by santhal labourers in Goalpara tea gardens in Assam. *Karma guru, karmu* known everywhere as the reputed first teacher of all tribals of the area. *montors, bonga*, witches, *jharnis*

Bengali. *Jan gurus* witch finders	adopted from Kamrup, Assam. Montors in easy Bengali. medicine practitioners are also called *Janguru*
p.12. "Among the *ojhas* many are rank humbugs" Bodding still emphasised them.	*Kamruguru* not found during 1974-1987, or such *ojha* treated as fake humbugs. For scarcity of medicinal plants some follow malpractices for easy money.
p.13. Diagnosis through: tongue, finger, pulse	same
p.14. *Ojha montor* in corrupt Bihari or Bengali	montors in Bengali/Hindi/Assamese indicate non santhali origin of *ojhas*
p. 16. *raranko*, i.e. the medicine-men, are honest...	Found in almost all santhal village, also women
17.19. sun, *dharti mae*, *kali*, *ram*, *sita*, *lakshan*	Known everywhere
p.46-47. *ruhni*, 13th day of the month jet, *guru cela* wandering at night, under *dasae; Dasae Guru Chela* "After the work" "planting rice or any time up to the ripening of the Indian corn" P.437- *ruhni* paddy sowing,	It is seed sowing or broadcasting ceremony celebrated everywhere, based on night watching star *Rohini* with onset of first rain seed dispersal starts. The method is easier, perhaps best time for sowing, uttering songs "rain, forest breeze, sun, bless the baby saplings"
47-67. superstitions, *Baghut bonga*	Heard about, honoured as top on food chain, control unwanted enemies
p.67. *Kamru* or *Kambru* guru and other different gurus	only *Karmaguru*, *Karmu* and *Dharmu* brothers
p.78. He mentioned *karam*, tree, *enec*, *binti* but, linked *Karam* with *Dasae* para-3. *guru* proposes *Karam* festival, after some years of *Guru cela* succession, a day is fixed in consultation and with villagers, dance *rinza karam*, bhinsar and drink beer. *Karam* performed by *Dasae Kora* (boys). No role of women	*Dasae* learnt from Behari neighbours, performed on *Vijoya Dasami* after *Durga puja*, not linked with *Karam*. *Karam* is performed in every year in *Vadra akadoshi*, worship of *karma guru*, God of all good work. Resemble *Viswakarma/ Krishna* as expressed in *music* art or plant species *karam Haldina cordifolia* (*sij monosa* plant worshipped by some neighbours). *Karam* celebrated everywhere in Santhal, Munda, Orang, Birhor, Malpaharia Mahato and other adivasi villagers. Women play the major role.

Bodding mentioned *binti*, and at the life-cycle rituals such as - *Caco chatiar*, the ritual purification and initiation of children as persons of the Santal society, at marriage, and at the time of the performance of the final Santal mortuary ritual; *bhandan* (Bodding 1942, Archer 1974) but did not mentioned work cultural theme of the main story.	Santhals and all other villagers recite *binti* or tale of two brothers, *karma* and *dharma*, not separable and good work *karma* is *dharma*.(not mere fertility related as mentioned by anthropologists) Dance *rinza, bhinsar*, *don/bapla karam* dances expressing all works
Girls put *karam* leaf in each other's hair as *Karam dar*	Girls tie friendship band on *Karam* twig and in each other's hand as *Karam dar*
Dasae daran at night with *Kamruguru*. *Dasae* songs and begging described in much detail, *dasae daran* p.68-99. *Karam* ignored.	*Dasae Daran* at day time whereas first *Ruhin* at night for star watching. *Dasae* begging represented by dance dress and drums, found only during *Durgapuja*.
Dasae songs are practically all in Santali, p. 72-73. mixed *Nayaka* (possibly nabapatrika) *Hari, Durga, Jagao.*	Many songs also are in Behari and Bengali p.83, 89 (first and last 2 para) and borrowed from neighbours
(p. 84-In foot note in the last line) Bodding wrote "introduction of *Jaher era* is entirely unknown in the traditions."	This is known by all Santhals that *Jaher era* is the mother earth, mother of all, created departing from sun *Sin cando. Jaher era* unites with sun in *Baha* flowering fest, through her *sal* flowers.
p.90. in santhali *dasae daran* songs, nature land described mentioning "defiled country and mogul country is not good"	Similar concept
p. 95-96. forest fire described.	Women songs tell that gathering leaves and twigs protects from forest fire, whereas males initiate it, throw burning "Chuti"
p.99. *Mantar* and *Jharni*. Bodding writes "According to santhal ideas there is a natural enmity between the *ojha* and the witches. The *Ojha* tries to undo the evil work of the witches"	The *Montors* and *Jharni* of Bodding's collection have similarity with Assamese (e.g. p. 100 last line) and Bengali, and frequently mentions *Kamruguru* from east. Possibly from Goalpara
p.102. Bodding says-"The corrupt form of Behari /Bengali (p. 112) .. Santhali translation" by the *ojha, Kamruguru* (p. 103) mentioned.	Hence these are not santhali tradition but borrowed from neighbours.

p.106. p.108-109 Name of *Isor Mahadeb Mahadeb Shiva*, *Karmaguru Isor* God. In case of snake bite, *isor Mahadeb* and *Ma Manasa* remembered.	Santhals did not know *Isor* or *Mohadeb*, they say *Bonga* or *Marang Buru*. The *Jadupat* drawings show *Isor* sitting on a chair and writing on a table (Tudu, p. 264) reminds one of Karmatar where Santhals named Iswar chandra *Karmaguru*.
p.118-122 *Kamrup Kamakhya, Mohadeb* in *Behari, Monosa montors* in corrupt Bengali	Borrowed from Assam, Bihar, *Monosa Montors* in Bengali, hence borrowed from neighbours.
123-127 *Kamru Guru* above all other *gurus*, invoked in *montors*, regularly worshipped by the *ojha*. He is, as stated, reputed first teacher. Bodding said in previous chapter, many *Ojhas* "rank humbug" in p.12.	*Karma guru* is misinterpreted as *Kamru guru,* Bodding highlighted *"humbag" ojhas Kamru guru,* witchcraft, superstitions malpractices. *Karma* religion of work, role of women neglected.
p.433. *Magh Sim-Magh* fowls.	*Magh Sin*—worship of new year's *Sin* i.e. *sun, Sincando of Magh*, as expressed in Tagore's *"Bodhon". Sim* or fowl offered by *Ojha*.
Bandhna -adoring cows as done as by the neighbours in *Bandhna*.	*Sohrae/bandhna* — Honouring dry winter earth, unmarried elder sister *Sohrae* (also as Phulu Murmu in lyrics), is not mentioned. Adoring animals, cow and cattle done in *Bandhna*.

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From the Journal, Asiatic Society of Bengal, Vol. LXXIII, Part III, No. 2, 1904.

Shoulder-headed and other forms of stone implements in the Santal Parganas.

By Rev. P. O. Bodding, *Mohulpahari, Santal Parganas.*

[Read 2nd March, 1904.]

Since I wrote the short article on Ancient Stone Implements in the Santal Parganas (printed J.A.S.B., Vol. LXX., Part III. No. 1, 1901), I have seen a great many other stone implements, all found in the Dumka sub-division of the Santal Parganas, and in form mostly resembling those pictured in the plates accompanying that article. I have, however, also come across some forms which I did not at the time know were to be found in these parts of the country, and as specially one of these forms is of more than common interest, it might not be superfluous to say a few words about them.

There are specially five new forms which I would point out.

Some of the wedge-shaped axes are curved in a peculiar manner, the (apparently) upper side being convex, and the other more or less concave. Fig. 29, Pl. IV of the article mentioned above, gives some idea of the form, only the curving is more pronounced. I have observed

it in so many specimens, that there cannot be any doubt of the shape being intentional.

Implements with square, sometimes quite parallel, side-edges (*vide* Fig. 41, Pl. VI of Mr. Cockburn's article in J.A.S.B, for 1894) are rather frequent. These have formerly been thought very rare in India.

Another form is represented by a small oblong, flat stone, the edge of which has been cut with small notches, and which has probably done service as a kind of saw. It easily cuts wood. Very likely more of this kind might be found; but as they do not much resemble the common kind of celts, and at first sight are not very different from a broken piece of stone, they are not thought to be "thunderbolts" and hence not picked up by the Santals from whom I have got almost all the specimens of celts I have had. I ought to mention that chips and flakes of flint, chert, etc., are found in many places.

Of perforated stones I have seen two complete specimens and parts of two broken ones; they are all of sandstone; one is triangular in form—almost a facsimile of this implement I have seen pictured in Evans, Ancient Stone Implements of Great Britain, but not having the book, I cannot give the number of the figure;—one is irregularly rhomboidal, and the two broken ones have apparently been circular in form. The hole in the centre has been drilled from both sides, narrowing towards the middle where there is a circular opening of about $1\frac{1}{4}$ inch diameter. Taking the form and material into consideration, it seems likely that these perforated stones have been mace-heads. I have heard about another perforated stone, which, according to the description given of it by Santals, resembles the perforated hammers found in Europe, the hole being close to the one end.

By far the most interesting, however, are the so-called "shoulder-headed" celts of which I have seen four specimens found in the Santal Parganas, the biggest about 4″ long and $2\frac{1}{2}$″ broad, the smallest one about $2\frac{1}{2}$″ by $1\frac{1}{2}$″, in shape more or less resembling the two pictured in plate II of the Proceedings, A.S.B. for 1875. The biggest stone shows one note-worthy difference, *viz.*, that the edge has not been cut with a straight facet, like that of a chisel, from back to front, but has been gradually rounded off. The material of the celts is, I think, chert and sandstone.

Some of them have two small notches, continuing a line drawn along each side of the neck down into the body of the stone. In one of the specimens this notch is partially shown along the whole "neck." These notches are clearly marks left by the manufacturer, and show that the neck has been at least partially cut. It may be, that the manufacturer before proceeding to work has cut two grooves to have

something to follow in making the neck, after which the neck has been formed, by using some kind of chisel and by grinding. The appearance of the neck seems to allow of such a deduction. In any case, the shape of these as of some of the other stone implements presupposes no small ability.

In an article in this Journal, Vol. LXV, Part III, No. 1, 1896, the late Mr. Peal calls attention to the resemblance between these shoulder-headed celts and a kind of small iron hoes which he found used in some Naga villages in weeding the hill paddy. In an accompanying plate he gives a sketch, showing how these iron hoes are furnished with a handle, and he has "no hesitation in assuring that these *Rangkoi* [as they are called there] are simply the Kol Mon shoulder-headed celt made in iron, and that hence we see not only the meaning of the peculiar shoulder, but the office of the complete implement as a miniature hoe."

It is very likely that these stone implements may have been used after the fashion supposed by Mr. Peal, *viz.*, as hoes; some of them being of a rather soft material would, indeed, point to this being the case.

There are, however, some circumstances which require to be taken into consideration.

If these peculiar celts should originally have belonged to the ancestors of the Mon-Khmēr etc., and the Muṇḍa peoples, one would expect, if Mr. Peal's deductions are correct, to find an iron hoe of the same shape used by these peoples also. So far as I know,—I can speak with certainty so far as the Santals are concerned,—no such or similar implement is found. The oldest and formerly the only kind of agricultural implement with the Santals is a club or thick stick, some three to four feet long, with a flat piece of iron fixed at the end, used for the purpose of digging roots, etc., and for making small holes in the ground.

On the other hand we find among these people (as all over India) a kind of adze, used where we use the plane, not for cutting, but for smoothening purposes. Most of these have a hole for the handle; but there is one adze which has "shoulders," but with this difference, that whilst in the shoulder-headed celts the shoulders are parallel with the edge, in the adze mentioned they are (nearly) vertical on the plane of the edge. It is fixed to the handle by an iron clamp going round the "neck." With another kind of handle it is used as an axe, the "neck" being placed in an aperture made for the purpose in the handle. The present-day Santals consider this kind of adze to be superior to all others, and say they have got it from the Hindus. Whatever its origin, in several points it much resembles the shoulder-headed celts.

If we further look at the sharp edge and the oblique shape of this, like that of a chisel, it seems to deserve being taken into consideration, whether these celts may not after all also have been used as adzes, and not only as hoes. More I cannot say.

In any case, in the shoulder-headed celts which I have seen, the handle must have been fixed, as shown by Mr. Peal, and the instrument most likely used for hoeing or cutting by moving it towards oneself.

So far as I have seen, these shoulder-headed celts have formerly been found exclusively in the Malayan Peninsula and in Chota Nagpur; to these places must now be added the Dumka sub-division of the Santal Parganas.

Several writers have taken the fact that these celts have only been found in the countries mentioned, as a proof that the present-day peoples of these places, *viz.*, the Mons and Muṇḍas, belong to the same stock, thereby implying that the shoulder-headed celts were originally manufactured and used by these races.

Now there is no doubt at all that the Muṇḍa-family of languages in India—as the Kolarian languages are to be called in future according to the Linguistic Survey of India—and the Mon-Khmēr and other languages in the Malayan Peninsula resemble each other so much, that we cannot avoid drawing the conclusion that the peoples originally belonged to the same stock. But to take these celts as a proof of this fact is altogether unnecessary and unadvisable, because there is absolutely nothing to connect the present-day peoples with them. Both in India and in Pegu they are believed to be thunderbolts; their nature as implements is not understood. However long the Mons, etc., may have been living in the South, I do not think it possible to prove that they have been in those countries since their stone-age, and the Muṇḍa peoples have certainly not been so long in Chota Nagpur. Here in the Santal Parganas they, *i.e.*, the Santals and other races related to them, all belonging to the Muṇḍa family, have not been for more than upward of one hundred years.

So far as our present knowledge goes, we cannot say more than this: the fact of these peculiarly formed celts being found in Chota Nagpur and the Santal Parganas in India, and in the delta and valley of the lower Erawati (so says Sir A. Phayre, in a letter printed in the Proceedings, A.S.B., No. 1, 1876), and nowhere else, makes it so likely as to be almost a certainty that in a former age the same peoples have either been living in the countries mentioned (and those between), or there has been some kind of communication or intercourse between the countries, by migration or otherwise. If these shoulder-headed celts should be found, *e.g.*, in the Assam Valley and Burma, they would point

out where these peoples were living, or the line of communication.

The original owners may, of course, for all we know, have been the Mon-Khmēr and Muṇḍa peoples; but they may also just as well have been others.

Further Study on The Stone Tools Collected by Rev. P. O. Bodding from Dumka Area, in the Present Day State of Jharkhand

Soumyajit Das, Debasis K. Mondal and Ranjana Ray

Reverend Paul Olaf Bodding, a Norwegian Christian Missionary, came to India in 1889 and was posted at Mahulpahari in Dumka, Santhal Parganas district of Bihar province of the colonial India. He had a very close association with the Asiatic Society of Bengal. The communication that he made at the Asiatic Society in 1904 came out as an article in the year 1905 in the *Journal of the Asiatic Society of Bengal*. He was the Anthropological Secretary of the Society at the time. The third author of this note is the present Anthropological Secretary of the Asiatic Society. Bodding is still famous as a linguist, ethnographer and folklorist. He had researched extensively on the Santal communities among whom he had lived for 44 years of his life in India. His academic interest led him to study stone tools from the area. The tools were collected, mostly by paying, which were mainly in possession of the Santals of his time. He wrote two papers successively in 1901 and 1905. These were communications made by him on the stone tools procured by him from an area of 50 miles surrounding the Dumka town. The article of 1901 was more exhaustive with illustrations of the tools in four plates.

Following the article written in 1901 on the finds of prehistoric tools from Dumka, Bodding wrote another article in 1905 in the *Journal of the Asiatic Society of Bengal* regarding further finds from the same area. The gleaning from the first article was made by the third author (Ray, 2019). The note included the study that she made after visiting

the Culture History Museum in Oslo, Norway in 2018 and going through the major part of the Bodding collection in the said museum. In the article communicated in 1904 and published in the *Journal of the Asiatic Society* in 1905, the Reverend mentioned that most of the finds reported in the article resembled the previous finds except for five new forms that he pointed out in the same article.

Arne Bang Anderson made an extensive study on the stone tool collection in late 1930s for his Ph. D. theses; but it has never been published. F. R. Allchin (1962) can be considered to be the first scholar who not only studied the tools but also published it. The present authors also studied the tools collected by P. O. Bodding during 2018-19. These tools are currently housed at Culture History Museum, Oslo. After the visit of Ray, the first author took up the study of Bodding collection with a grant provided by the Head of the Department of Ethnography, University of Oslo in 2019. Das stayed at Oslo for 27 days and made an exhaustive study of the collection. Das is grateful to the authorities of the museum to provide him with all kinds of modern technological facilities to study the raw materials, mineral contents and other related matters with the stone tools. He has carried out extensive field work in Dumka area to find out the geo-chronological context of Bodding collection.

The following is a comparison between the descriptions and explanations given by Bodding in the article (1904) with the same given by Allchin as well as the present authors.

1. The first new form mentioned by Bodding (1904 : 27) is wedge-shaped axe which "are curved in a peculiar manner". "The upper side (working edge) is convex and the other side (butt end) more or less concave". Bodding stated that he found this kind of shape in many specimens and that he is sure of the shape being intentional. F. R. Allchin, in his article, classified this kind of asymmetric form as second variety of type I Indian axes. He stated that the shape of these tools is the result of the shape of the block chosen. The present authors found several such

specimens in the collection. It is doubtful whether the curved shape is given intentionally for specific purposes or it is because of the shape of the block chosen to make the tool out of it. On one hand, the curved shape might have been given for an angular function to the axe as the working edge would not be parallel to the shaft. On the other hand, there is no proven fact that this angle of the working edge is more beneficial than the symmetrical axes whose edge remains parallel to the shaft after hafting (Plate 1).

2. The second form is "implements with square, sometimes quite parallel, side-edges". Bodding mentioned that this form was quite frequent in his collection. Allchin (1962) found 19 similar specimens and classified them as rectangular celt-hammers. The present authors found 58 hammer stones which follows the description of this form. Among them 23 have maximum length of 2cm to 7cm and can be considered as small ones and the largest have the maximum length of 22.6cm. The function of these tools is mainly hammering or crushing (Plate 2).
3. The third form is "small, oblong flat stone with notched edge" which Bodding assumed, might have been used as saw. Bodding perhaps collected these tools himself as he stated that Santals did not collect these. These tools looked like broken pieces of stone. In this context, he mentioned that chips and flakes of flint, chert etc. were found in many places. Allchin (1962) classified this type as debitage. The present authors found plenty of such specimens in the Collection and considered them as scrapers (Plate 3).
4. The fourth form is "perforated stones". Bodding referred to 4 such specimens; two complete and two broken. Among the complete specimens, he mentioned one to be triangular, and another irregularly rhomboidal, while the broken ones are apparently circular in form. He considered these stones as mace-heads. Bodding also mentioned that he heard about a fifth perforated stone, which according to Santals, had a hole close to one end. Allchin did not refer to these last mentioned tools in his

article. The present authors found 6 such perforated stones in the Bodding Collection at the museum at Oslo. They are called as ringstones by archaeologists. Among them, three are broken. The triangular ringstone numbered by the museum as 11583 has a hole with diameter of 3.1cm. The rhomboidal ringstone numbered as 11584 has a hole of diameter of 2.7cm. The third ringstone is circular and has a hole of diameter of 2.6cm. While the two broken ringstones are seemingly circular as mentioned by Bodding, one broken ringstone may have been rhomboidal in shape. Their weights range from 464.73g to 1.56 kg. All the ring stones are fully ground except for one which has around 80% polished surface on both its dorsal and ventral sides (plate 4).

5. The fifth form is "shoulder-headed celts". Bodding found 4 such specimens. Allchin (1962) found 12 shouldered celts, though he was doubtful of two specimens among them. The present authors found 11 shouldered celts in the Collection. Their weights range from 34.51g to 273.78g and their size ranges from 4.8cm to 16.8cm in length, 2.8cm to 6.4cm in breadth and 1.1cm to 2.7cm in thickness. Out of 11 shouldered celts, 7 have prominent shoulders and are T-shaped. The rest 4 are either rectangular or triangular or trapezoidal. Four celts are fully polished, six are fully ground, and one piece is polished with around 30% chipping near its sides and working edge (Plate 5).

Bodding concluded the article with a thought that the original owners of the shouldered celts might be Mon-Khmer and Munda people because the shouldered celts are only found in Chota Nagpur and the Santal Parganas in India as well as in the delta and valley region of the lower Irrawaddy River in Myanmar. Bodding proved his excellent scholarship in this conclusion. Allchin regarded these shouldered celts as imports from outside India. The present authors assume that the shouldered celts may have been manufactured in India due to their raw material being abundant in Chota Nagpur plateau. They were produced less in number. It required more effort

to produce a shouldered celt in comparison to making a regular celt, while the work performed is the same. The only advantage of a shouldered celt is its rigidity after hafting.

Methods employed

During the visit of the first author to Culture History Museum, University of Oslo, Norway, some representative artefact types were measured along its length, breadth and thickness using digital calipers. All the artefacts were weighed using digital weighing machine. The striking features, if any, of the stone tool were noted. The photographs of all the stone artifacts were taken with high resolution camera from all its sides, namely, dorsal, ventral, laterals, proximal and distal; keeping them on 1mm graph paper one at a time. Measuring scale and Kodak Gray Scale were used while taking the photographs. Most of the artefacts were measured using the photos and the noteworthy features were carefully recorded. Some representative stone artefacts were selected for analyzing the raw materials. The specimens were analyzed in a Hitachi S-3600N Scanning Electron Microscope with Bruker XFlash® 5030 energy dispersive X-ray detector (EDX), running on Quantax 400 (Esprit 1.9), for semi-quantitative elemental analysis available at the Geo Lab of the Natural History Museum, University of Oslo. Non-coated samples were analyzed in variable pressure mode, at a pressure of 20 Pa, 15.0 kV accelerating voltage, and 70% beam current. Stereo zoom microscope was used for noting the use mark or any other notable features. There were some data available in the database of University of Oslo, which were also taken into account. The data was analyzed in Microsoft Excel software.

During the second phase of the study, the present authors surveyed the area of 40 sq kms from the house where Bodding stayed and collected the tools by means of exploration techniques. A preliminary idea of the study area i.e., Dumka district has been taken from the toposheet numbers 72P/2, 72P/3, 72P/4, 72P/6, 72P/7, 72P/8, 72P/10, 72P/11, 72P/12, 72I/14, 72I/15, 72I/16, 72O/15, and 73M/5. The

geomorphological features like terrain, vegetation, sources of water, etc. were noted from the toposheets and wherever the features suggested the probability of early human habitation, a thorough site survey was undertaken. This included:

a. Exploration on foot over the whole area
b. Study of surface features/ geomorphology including observation of soil and rock compositions, river and road sections
c. Study of surface finds

Implements like trowel, compass, scale, were used for data collection. Tools were collected from the surface. They were cleaned and kept in the laboratory of Department of Anthropology, University of Calcutta. The tools were analysed in terms of technology, typology, metric values, function, frequency, sequence, and culture.

Data collected from the field was analysed and classified according to typology of artefacts and numerical classification. The tools were systematically catalogued. Morpho-metric analyses of the tools were undertaken. Attributes like shape, size, color, weight, cutting edge, bulb of percussion etc. were noted. Petroglyphic analysis was done. The collected tools were measured using calipers and their weight was also noted. They were also photographed. Some representative tools from the collection were scanned under Zeiss EVO 40 Scanning Electron Microscope with OXFORD INCA Penta FETx3 energy dispersive X-ray detector (EDX), running on INCA software for elemental analysis at the Geology Lab of the Geological Survey of India, Kolkata. The carbon coated samples were analysed at high vacuum mode with 100.0µA beam current.

To understand the environment of the prehistoric times, geological methods were applied. Three geological methods, namely stratigraphy, surface geology and geomorphology were taken into consideration. Correlation between stratigraphy and allied geomorphology was done. The geography of the region was studied extensively through different sources as published papers and maps together with field research. The physiography of the area with all its aspects like river system,

flora, fauna, rainfall, temperature, humidity etc. was worked out. Photography was used for recording of sites.

Findings

Two explorations were done in Dumka by the first author in search for the context of the stone tools of Bodding collection. During the first field work, a site named Dighi near Dumka town was located. Both finished and unfinished tools were found from the top of a hillock and also from a dry runnel. The tools were surface finds and are mainly blades and bladelets (Das and Mondal 2019). They were found from the yellowish silt layer lying above the upper loose gravel bed. The upper loose gravel bed was dated to Upper Pleistocene by Ghosh (1970). Hence, the finds might be dated to post-Pleistocene times. The finds belong to the flake-blade industry and has a close resemblance with the flake-blade artefacts of the Bodding collection. Tools that were found were few in number; a direct correlation could not be established. The second exploration by the first author was in a different area from the former. This site named after the nearby village Sarpahari, yielded tools having likeness with the stone tools of Bodding collection, especially the Neolithic assemblages. The site Sarpahari was found at 12 kms from Massanjore Dam. However, though the collection made by Bodding is considered as Neolithic but some of these could be of a later date and may belong to Chalco-Neolithic stage (Ray and Modal 2013).

A pictorial comparison is given below. The dorsal view of the tools both from the Bodding Collection and from the site Sarpahari are shown side by side for better representation and understanding. The first picture of each tool is from the recent finds (marked as SP) and the second is of the similar representative specimen from the Bodding Collection (marked as BC). The ratio (L/B) of maximum length to maximum breadth and Flatness Ratio (B/T), i.e., maximum breadth divided by maximum thickness are also taken into account.

1. "Peculiarly curved wedge-shaped axe"

Shape: Both are rectangular
Size: SP – 11.3cm x 6.3cm x 3.3cm,
BC – 14.3cm x 7.2cm x 4.7cm
L/B: SP – 1.79, BC – 1.98
B/T: SP – 1.9, BC – 1.53
Working Edge: Both are flattened
Posterior End: Both are U shaped
Line of Profile: Both are flat

Plate 1: An axe from Sarpahari (left) and a similar tool from Bodding Collection (right)

2."implements with square, sometimes quite parallel, side-edges"

Shape: Both are rectangular
Size: SP – 11.3cm x 6.3cm x 3.3cm,
BC – 14.3cm x 7.2cm x 4.7cm
L/B: SP – 1.79, BC – 1.98
B/T: SP – 1.9, BC – 1.53
Working Edge: Both are flattened
Posterior End: Both are U shaped
Line of Profile: Both are flat

Plate 2: A hammerstone from Sarpahari (left) and a similar tool from Bodding Collection (right)

The kind of tools shown below were not found from Sarpahari but similar kinds were found from the site Dighi.

3. "small, oblong flat stone with notched edge"

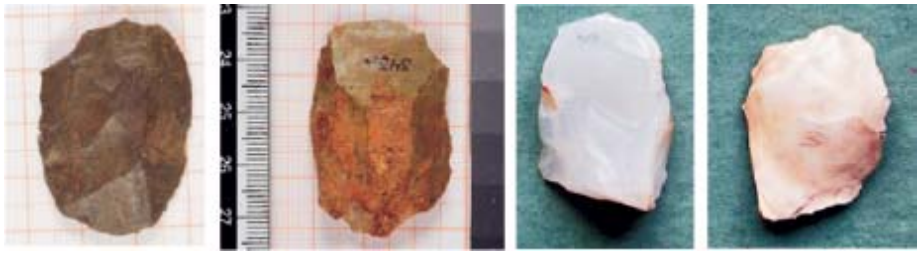

Plate 3 : Scrapers from Bodding Collection (first two from right) and similar scrapers from the site Dighi (last two from right).

Two other forms mentioned in the 1905 article of Bodding are shown below. These forms were not found from Sarpahari.

4. "Perforated stones"

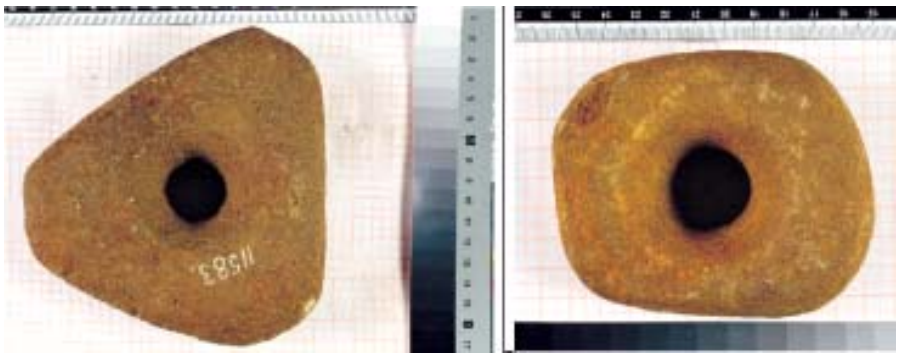

Plate 4: Triangular ringstone (left) and rhomboidal ringstone (right) from Bodding Collection

5. "shouldered celts"

Plate 5: Shouldered celts from Bodding Collection

After going through all the stone tools of the Bodding collection, the present authors found many of them as reused, such as a broken celt has been flaked off for blades. Fluting marks are clearly visible on them. Now the question arises, whether they were manufactured, used, and reused after they were broken, during the prehistoric times or whether the Santals, who collected them from the field, have reused

them. There are fair chances of Santals using them as the metals were costly and it also needs the skill of a smith, whereas stones were readily available to them. There are several tools that are perfect for woodworking. Santals are capable of woodworking and they might have used these stone tools for the same purpose (Ray 2019).

The first author has analysed the tools from both Bodding's collection and from Sarpahari under SEM and the raw material was found to be same, i.e. amphibolite. The stone tools were collected from Dumka area. Geologically, Dumka lies on the Chotanagpur Gneissic Complex (CGC). CGC has been reported to have amphibolitic dykes (Kumar and Ahmad 2007). Dykes were one of the main sources of raw materials for making stone tools by the prehistoric men. Amphibolite is a metamorphic rock containing minerals of amphibole group (generally hornblende) and plagioclase (feldspar). Amphibolite consists of Sodium, Potassium, Calcium, Magnesium, Iron, Aluminium, Chlorine along with Silicon and Oxygen. The studied stone tools analysed under Scanning Electron Microscope showed the presence of these elements and hence the raw material can be considered as amphibolite. Amphibolites are medium to coarse grained rocks. Neolithic stone tools were found to be made on amphibolite during the early Neolithic cultures of Europe (Sørensen 2020).

Bodding collected these tools from the Santals, who in turn used to collect them from various places, such as in the fields, while digging or tilling, from the riverbed, from the soil surface, from the forest or from clefts in the rocks, etc. Allchin (1962) stated that he read letters which Bodding had written while gifting the tools to the Museum. In one letter he found Bodding referring to people, that he sent out, inquiring for stone tools about 50kms around Mohulpahari. Allchin considered this region as the extent of most of the finds. The present research confirms the fact that they were manufactured and used in the areas close to Mohulpahari. The site Sarpahari is not far from

Mahulpahari, where Bodding stayed for most of his time in India. The area is still inhabited by Santals. There is a possibility that the Santals of Sarpahari and nearby villages had been in contact with Bodding and have contributed to his collection, as well.

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Romila Thapar, *Voices of Dissent: An Essay*, Seagull Books, 2020; London, New York, Calcutta; Rs 499.

Romila Thapar is one of India's most distinguished historians, whose work beginning in the 1960s has sought to nuance our understanding of India's past quite considerably. A recipient of the prestigious Kluge Prize, Thapar has covered a whole range of subjects over her long career and is best known for her scholarly work on the social history of ancient India. In her new book, *Voices of Dissent*: *An Essay* from Seagull Books, Romila Thapar deals with dissent in India from the time of Vedic Brahmanism to that of Shaheen Bagh. She looks at moments in India's past when the dominant narrative was challenged or was sought to be challenged, whether by the *dasas* of the Vedic times, the *Shramanas* whose views contrasted with the hegemonic ideology of Brahmanism in the early-historic period, or by the *Bhakti sants* and *Sufi pirs* in the medieval era.

This monograph (*Voices of Dissent: An Essay*), under review was originally published in India in October 2020 and is announced to be published internationally in March 2021 as well. It is an outcome of two memorial lectures delivered by Professor Romila Thapar. The first was the Nemi Chand Memorial Lecture on 'The Presence of the Other: Religion and Society in Early India', delivered on August 16, 2019 and the second was the V.M. Trakunde Memorial Lecture on 'Renunciation, Dissent and Satyagraha', delivered on December 6, 2019. However, on being requested by a friend, Professor Thapar amalgamated these two lectures with some modification and editing, and prepared the manuscript of this book, locating the concept of dissent in a broader historical context. In the first part of the essay, the author has written on various aspects of dissent in early India; and the latter part of the essay is an attempt not only to relate the past to the present but also to suggest that some forms of dissent in the present draw strong continuities from the past.

Thapar's essay begins with the very necessity of 'dissent'. We know that the 'Dissent' is, in essence, the disagreement that a person or persons may have with others, or, more publicly, with some of the

institutions that govern their patterns of life. Thapar writes, "People have disagreed since time immemorial; they have argued, or agreed to disagree, or eventually arrived at an agreement. That is all part of life, or living." There is no doubt that 'dissent' is part of a larger body of differences, varieties whereof arise out of questioning and critical enquiry. Dissent can also emerge from giving vent to an experience of the Other. Thapar argues that 'dissent' is not a modern concept, but recognising it in its various forms is new, as is the fact that, in a truly liberal, democratic society, such questioning is not frowned upon but, rather, encouraged and explored through discussion and debate.

The right to question is now public, open and can be exercised by any citizen in modern times. Earlier, only the powerful had this right, but today it extends—in theory at least—to all citizens. There should always be, invariably, in every modern society, the right of the citizen to dissent as part of the right to free speech and expression. Thapar posits that this right has been contentious yet crucial to the continuity of society itself. But we live in times when any form of dissent in India is marked as anti-Indian, suggesting that the very concept of dissent has been imported into India from the West. It is an argument made by those who visualise the Indian past as free of blemishes and therefore not requiring dissenting opinions. However, as Romila Thapar explores in this timely essay, dissent has a long history in the subcontinent, even if its forms have evolved or changed through the centuries.

Thapar looks at the articulation of dissent, focusing on nonviolent forms, which is so essential to all societies, and relates it to various moments of time and in varying contexts as part of the Indian historical experience. Beginning with Vedic times, she takes us from the second to the first millennium BC, to explore the emergence of unorthodox groups that were jointly called the *Shramanas*—the Jainas, Buddhists, *Charvakas* and *Ajivikas*. Going forward in time, she explores the views of some syncretic yet heterodox figures—*sants* and *pirs*—of the fifteenth and sixteenth centuries AD, and brings us to a major

moment of dissent that helped to establish the foundations of a free and tolerant India.

In her argument, she emphasises the usage of the idiom of religion as reflecting social change, concluding with the eventual politicisation of religion in the present. She also highlights the public response to particular forms of dissent over time. She further places the recent peaceful protests that were organized against the Citizenship Amendment Act and the proposed National Register of Citizens in places like Shaheen Bagh in a proper historical context. Thapar concludes that dissent in our times must be audible, distinct, opposed to injustice and supportive of democratic rights. It is the articulation of dissent through dialogue that can herald a movement aimed at changing society for the better.

The book points out that history has always served the function of justifying the present. This is usually done by the people in power who push certain values and ideologies onto our pasts and place the past on a pedestal, all to make history fit their policies. This book shines in its discussion of how dissent often arises from within cultures, and not from outside, restructuring social relations and enabling mutation of knowledge through the questioning of institutions. This book also raises some significant questions, not only for the political establishment but also for the dissenters. Does dissent seek resolution of conflict, sharing of power, annihilation of tradition, or merely recognition of plurality in thought?

However much we may wish otherwise, Indian society—as indeed every other society—has not been a seamless harmonious entity, with little or no contradictions. We too have had our share of intolerance and violence and the clash of ideas in our history. Dissenting voices have been many, and have had a much wider articulation in the past than we are willing to concede. Religions are never static. Societies change, and so do the religions linked to these societies because religious identities never arise in isolation. Some are viewed as heritage and some as a reaction to the Other, be it from within the society or from outside. If the *Shaiva Dashnamis* and the *Vaishnava Bairagis* were

in disagreement relating to the Puranic religion, so were the *Barelvis* and the *Deobandis* in relation to the Quranic religion. What continues, what changes, and why—that is what we are searching for, and that search is perennial.

This book reveals a deep history of dissent to look at how colonial interpretations of India's past still colour our understanding of religion and society in the subcontinent, and ends with an examination of Mahatma Gandhi's *satyagraha* as a 'modern' form of dissent. *Voices of Dissent* has immense relevance. It is an essential reading for anyone who contemplates not only the Indian past but also the direction in which our society and the nation is headed at present. A wood-cut painting of Chittaprosad as an image of collective dissent, printed in this book, is worth a special mention. The multi-coloured jacket-cover has been skilfully designed by Sunandini Banerjee of Seagull.

Susnata Das

Ranabir Chakravarti, *The Pull towards the Coast and Other Essays : The Indian Ocean History and the Subcontinent before 1500 CE*, Primus Books, Delhi, 2020, 326 pages.

Ranabir Chakravarti is an internationally eminent scholar of the maritime history of the Indian Ocean before 1500 CE. His significant researches have immensely enlightened us with valuable insights into the Indian Ocean maritime history up to 1500 CE. From these sustained researches of his Professor Chakravarti has selected nine essays. These are such as 'Knowing the Sea Thalassographies to Thalassology of the Indian Ocean (up to c.1500 CE)' (2018) (second), 'The Coast vis-à-vis the Subcontinent Interlocking with Distinctiveness' (2016) (third), 'Coasts and Interiors of India Early Modern Indo-Dutch Cross-Cultural Exchanges' (2014) (fourth), 'On Board Hermapollon Transporting Gangetic Nard from Muziris' (2006) (fifth), 'Examining the Hinterland and Foreland of the Port of Muziris in the Wider Perspective of the Subcontinent's Long-Distance Networks' (2015) (sixth), 'Vibrant Thalassographies of the Indian Ocean Beyond Nation-States' (2015) (seventh), 'The Pull Towards the Coast Politics and Polity in India (c. 600-1300 CE)' (2012) (eighth), 'Looking for a Maritime City Somanatha in the Thirteenth Century CE' (2018) (ninth), and 'The Indian Ocean Scenario in the Fourteenth Century Latin Crusade Tract Possibilities of a World Historical Approach' (2015) (tenth). To these nine valuable essays the author has added as appendices two such book reviews as 'Early Interactions between South and Southeast Asia, Reflections on Cross-Cultural Exchange' ed. Pierre-Yves Manguin, A. Mani and Geoff Wade (2014) and 'Buddhism, Diplomacy and Trade: The Realignment of Sino-Indian Relations, 600-1400' by Tansen sen (2009). These nine essays and two book reviews published during the period from 2006 to 2019 along with an introduction constitute the present book. The book is published by Delhi-based Primus Books in excellent print and page with a pleasant coloured jacket bearing a Goa Museum's sculpted wooden planked stitched vessel with oars and a rudder in 2020. Professor Chakravarti has got the idea of constituting a book with some of his published papers on

the Indian Ocean maritime history first from Professor Romila Thapar. The performance of duties by Professor Thapar, her conscience and sanity also inspired Professor Chakravarti. So, the author has planned and turned some of his essays on the Indian Ocean maritime history into the present book. The author has dedicated the book to Professor Romila Thapar by acknowledging his indebtedness to her.

The most important part of the book is its significant and insightful introduction. In the introduction the author has discussed the linkages among the essays, instead of giving their summaries. The fifth and the sixth essays are concerned with the interactions of the subcontinent with the Indian Ocean. Four essays (7-10) concentrate on understanding various aspects of these interactions among different communities, linguistic, religious and ethnic in the Indian Ocean region 'both within and beyond the subcontinent'. Thematically these essays commonly represent ports as 'maritime cities'. The appendices point out the connections between the subcontinent and maritime Southeast Asia. The second, third and the fourth articles are dealt with the growth of knowledge about the Indian Ocean among the seafarers and scholars and also the juxtaposition of the coasts and interiors of the subcontinent. It has been argued that the development of thalassographies of the Indian Ocean depended on what the author has called 'artisanal epistemology' of the pre-modern period. The third article understands the relationships between the two coasts of the subcontinent with the interior during the pre-modern phase. The fourth article, though connected with the third one thematically, is to some extent different in so far as the Dutch visual documents are concerned. The book is focused on the subcontinent in the maritime history of the Indian Ocean as the author is more familiar with the pasts of South Asia than with Asia and Africa. Though interested in understanding merchants and their commercial activities, the author does not deny the material aspects of cultural studies. Neither material milieu nor cultural aspect alone should be given too much importance; the present book therefore aims to 'redress this historiographical imbalance'.

In the introduction the author, through his cogent discussion, makes us aware that the changing perspectives, new questions, methods, and paradigm shifts of maritime historiography are very much important for understanding the maritime history of the Indian Ocean. In this connection the author has excellently discussed the sources, methods and perspectives bearing on the essays of the book. Regarding sources the author's comment is immensely significant - 'all sources are fragmentary - primary sources are often allusive, elusive and illusive'. Regarding methods the author is aware of the authorship, audience and context of a primary visual source. In view of the limitations of literary textual sources the author has provided us with important and insightful analyses on the use of the field archaeological objects and the marine, especially shipwreck artefacts and also epigraphic data for understanding the Indian Ocean maritime history. Recently, Edward A. Alpers and Philippe Beaujard, have attached importance to the local histories of the common people with their cultural and material 'pluralities' in connection with understanding the Indian Ocean as world history in a vast chronological BCE-CE span of more than fifteen hundred years. *The Indian Ocean in World History* by Alpers and *The Worlds of the Indian Ocean: A Global History* by Beaujard have generated and furthered the knowledge about the pre-modern pasts of the Indian Ocean. As a response to this the author has selected and turned these essays into the present book. The images of the human engagements with the Bay of Bengal are excellently brought out from epigraphic records in the book. Along with the commercial transactions cultural activities across the sea are also discussed in the introduction of the present collection. At this point, Elizabeth Lambourn's excellent method of analysing a geniza record to understand the social aspects of material objects during the overseas journey points out the fact that little things or events are also significant for understanding the maritime history of the Indian Ocean. The author of the book has demonstrated that the Indian Ocean before 1500 CE was well known as a zone of commercial and cultural activities and also witnessed violent activities

as evident from hero stones showing sea-battle scenarios. With the coming of the Portuguese and other European countries new knowledge about the Indian Ocean grew. The Indian Ocean was represented in maps in order to produce a thalassology for the fulfilment of thalassocratic interests in the early part of the modern era. The footnotes and bibliography of the present book show the author's theoretical knowledge and arguments for understanding the maritime history of the Indian Ocean. In connection with the writing of the book the author has also taken into account academic discussions with a few young promising scholars like Dr. Pratyay Nath of Ashoka University, Mr. Shounak Ghosh of Vandarbilt University, Ms. Anwesha Das of Emory University, USA for their fresh thoughts related to path-breaking researches. The book is a significant contribution to the Indian Ocean maritime history of the pre-1500 days.

Krishnendu Roy

Amrita Mondal, *Owning Land, Being Women: Inheritance and Subjecthood in India*, De Gruyter Studies in Global Asia, Vol. 2, Berlin, Boston: Walter de Gruyter GmbH, 2021, Paperback 250 pages.

Amrita Mondal's book is an exceptionally scholarly and intense exploration of inheritance of land by women and creation of gendered subjecthood. Her research comprises 'a two-fold investigation first into the formation of rights through the state apparatus and practices of inheritance through intergenerational family relations'. In the first slice she examines the Hindu succession law (1956 and 2005) 'interconnected with other legislation involving taxation and maintenance of senior citizens' and with 'the broader political and economic context' of such legislation; in the second, ethnography to know 'peoples' ideas, reflections and affective notions surrounding inheritance'. She 'uses the socio-legal conceptualisation of Hindu inheritance as a heuristic tool to bring anthropological insights into the debate on women's property rights and empowerment.'

Her interest in inheritance is due to its critical importance as 'the major legal source of property acquisition', and as almost the only way rural women can acquire property in land. This brings out ' the distinctiveness of inheritance as a diachronic transfer of property (as relations) that operates outside of the market, hence it follows a different set of dynamics, incentives and expectations than market transactions'. She cautions: 'If we are solely focusing on the utilitarian aspects of inherited property, as with any other form of economic resource, we risk overlooking a fuller understanding of what governs the pattern and politics of its distribution'. 'There is a moral axis that 'pays attention

to the nature of particular inherited property (as a thing).'That moral axis is constituted by 'values, sentiments, and ethical convictions regarding family relations [which] affect reflections and practices of intergenerational family relations'.

We are then in a position to comprehend 'the significance of agricultural land, not only as a material asset and as symbol of power within a village, but also grasps how land translates into particular aspirations of mobility that define empowerment.' Because family is 'the key site' where gendered subjecthood is formed, the research examines 'family relations in their full breadth so as to highlight the differentiated nature of gendered land transfer. Most land claims and transfers occur within the context of marriage and kinship relations, which are more complex and contradictory than say, the land transfers made through government distribution.'

She employs the analytic term *embeddedness* to conceptualise the fact 'that the actions which women as gendered subjects undertake in relation to land ownership are crucially refracted by the social relations and multiple subject positions through which they function'. The fact that women are seldom litigants in local courts is partly explained by the hazards of engaging with the system, and in a major way by the social imperative of being a good woman. 'The 'good' woman who does not inherit land, the obedient daughter who does not claim inheritance, the cooperative sister who sacrifices her share in parental property for the sake of her brother's prosperity, the fortunate wife who merges her individual interest with her husband's for the sake of conjugal bliss are all significant motifs of how women aspire to be

recognized by the family and community.' The threat of stigma deters claim-making women. Thus law are not external measures only. These are also 'internally constitutive' being part of the cultural formation that women negotiate in deciding how they want to live and express themselves. This comes out through multiple voices in which women spoke to reveal their 'ambivalent modes of engagements, contestation, aspiration and prioritization' vis-a-vis their social compulsions. A 'desire of emancipation' is ingrained in such articulations about their subjugation as well as in their efforts to free themselves from their fetters. The researcher has produced a 'consultable record' of these.

The multiple voices came from two sets of adult rural women: those with land, owned or inherited and those without; and were heard by the researcher in three phases of her stay — between 2015 and 2016 — in Debshala, east Burdwan. It was then a multi-jati agricultural community with very few wealthy families, and a majority of women belonged to landless or near landless families. Rare was independent landownership by women; very few who individually owned land inherited that from their families belonged to higher or middle caste landholding families. Two features with regard to land and land holding stood out. 'Firstly, the size of farmland along caste lines where the highest caste, namely Brahmans, are not the biggest landholder but have the largest numbers of individuals in salaried professions and the highest number of women with educational qualifications, and secondly the changing nature of agricultural land that signifies an ambiguous relation to this important form of rural property. Both aspects illuminate how people in Debshala manage and reflect on matters of inheritance.'

Noticeable also was formation of a 'non-farm urban imagination'. Such reflection evidently took into account the fact 'as far as identifying eligible legal heirs and patterns of inheritance is concerned, the devolution of all types of land ownership in Debshala is governed by the Hindu Succession Amendment Act 2005.'

Throughout her research she has engaged with all the relevant theoretical positions on all the interrelated issues; and credibly desisted from 'us[ing] her normative political and ethical commitment and the power it yields in interpreting other's lifeworld'. This is a complete research and an engaging analysis.

Prasanta Ray

Nirban Basu, *Trade Union, Working Class Politics and Protest, Bengal: 1937-1947,* Progressive Publishers, Kolkata, 2019, pp. 1-400, ISBN 978-81-8064-228-9.

The monograph under review deals with working class politics in twentieth century Bengal, which had witnessed large scale industrialisation, primarily to meet the economic demands of the colonial power. The author is candid in pointing out that terms like "working class", "workers" or "labourers" are used interchangeably to categorise a social group, who are broadly referred to as industrial wage earners. This is no way is closer to the Marxian notion of what constitutes a working class. It has been stressed that working class movement essentially denotes "organized collective actions" aimed towards achieving goals, which are different from occasional bursts of violence and protest.

The narrative is woven around six important industrial and transport sectors of colonial Bengal, which includes coal mines, tea plantations, cotton textiles, iron and steel, Calcutta Tramways and Calcutta Port and Docks. The working class protests in all these sectors had elements of commonality and differences. The author has deliberately avoided a discussion of the working class movements in the jute mills, since they had been part of his earlier research and also because it had caught the attention of majority of historians interested in working class politics.

Basu's intervention is interesting, because he does not wholly conform to the old historical scholarship including the popular Marxian discourse that had privileged the idea of a leadership from the top. He is aware of the gaps that are inherent in this intellectual exercise, but nonetheless looks for answers in recent studies on labour, privileging micro studies of region/ locality based labour movements. These movements sought to uncover the complexities inherent within the structure of the labour force, the economic and social deprivations suffered by the working classes and the connectivity between the 'localised' working class protests and the politics of the neighbourhood. Interestingly, there is an attempt towards an amalgamation of certain trends of diverse streams, facilitating a syncretic approach bringing 'history from the top' closer to 'history from below'. This finds a clear assertion in the pronouncements made

by the author in the introductory chapter that working class politics in the years preceding the Indian independence was shaped more by the political developments of the period. There is an attempt to establish the point that labour responded to these unfavourable moments through actions, which brought out their own sense of autonomy. In other words, the responses of the labouring classes were shaped by their own perceptions of particular moments, whereby a convergence between labour politics and nationalist politics turned out to be a reality. This stands in sharp contrast to the doctrinaire Marxist position that emphasises less on nationalist politics, but more on working class consciousness. Basu's hesitation in getting committed to the Marxian position, stems from his long term acquaintance with 'empiricists' like Murphy, Newman and Kooiman, who had all talked through about the primacy of the subordinate factory bureaucracy in mobilising the labour, both in times of economic and social distress.

The credibility of this genre of research in labour history can hardly be doubted. The leaders of the organised trade union movements, often shred aside their protestant mentality and entered into series of negotiations, both formal and informal, to retain their toehold as trade union activists in the industrial localities. However, Basu intends to move away from this brand of scholarship to a new field of study, guided by a different methodological approach, premising heavily on developments, which would bring the 'Mohalla' into prominence in the sphere of labour politics. There is a candid submission on his part that the two widely presumed discourses of 'spontaneity' and that of 'organised' struggle has failed to convince younger generation of scholars who believe that long periods of inactivity on the part of the workers, vindicates for certain their attachment to 'formal politics'.

Basu seems to have entered an ocean of possibilities and that of endless ruptures in terms of intellectual engagement, since there are serious theoretical and methodological issues that have to be transgressed to achieve the much desired synthesis. In the midst of all this, however he is reluctant to commit himself to one particular stand point, rather he seems to be bent on a reconciliation through his advocacy of a middle path. This point is very clearly brought out in the industry wise

participation of the workers in movements, which had close connections with the fervour created by the nationalist, leftist and communitarian ideologues. But, even if it is by inadvertence, there seems to be an underlying admission that because of the difficulty in locating the workers' voice, compounded by the paucity of sources, the history of the working classes can only be supportive of the logic of 'history from above.'

The narrative clearly brings out in detail the disenchantment of the working classes with the Congress leadership in colonial Bengal, which was partially rooted in the *Bhadralok* domination of its organisational structure. But, the other part is that this middle class leadership also had no interest in labour politics. On the contrary, the Muslim League leadership, which had been a dominant partner in the Ministry in the early 1940s utilised every opportunity to organise the Muslim labourers, who constituted a significant section of the labour force.This explicates the occasional fissures within the working class solidarity, when rifts along communal lines looked imminent. Basu has correctly pointed out that the Gandhi-Bose differences had cast a gloom within the Congress' rank and file, stalling all the possibilities of the growth of the Congress in the industrial hamlets. The Quit India call given by Gandhi failed to elicit much response from the working classes, except the occasional spurts of labour militancy in the cotton mills. The Communists perhaps had been better placed, when it came to attracting the working classes under its banner. But, though the successes of the communists earned laurels from a section of nationalist leaders, the failures of the former was too palpable to ignore. Basu has pointed out that the factionalism within the Communist Party of India and its acerbic attack of the nationalist leadership was responsible for its inability to win the hearts of the working classes. Furthermore, there is little to controvert the point that the shift of line on the part of the Indian communists in the wake of Nazi Germany's attack on Soviet Russia in 1941, did have a major impact on their political fortunes in the long run. The narrative on the working class protest, carefully crafted by Basu has another dimension, very rarely been discussed by historians interested in labour history. It has been argued that the story would remain incomplete without a

reference to the involvement of other leftist groups like the Congress Socialists, the Royists, the Forward Bloc, the Revolutionary Socialist Party, the Labour Party, the Communist League and the Workers' League, who also mobilised labour according to their own ideological preferences. Yet, it was quite evident that despite striking an emotive chord with the working classes, these organisations failed to draw substantial support from them. Basu explains their weaknesses in terms of the class composition of the trade union activists, ideological preferences centering on personalities and stubbornness on their part to remain tied to their independent political positions. This definitely gave the Congress in the years immediately following the independence to regain some of their old grounds in the working class belts in Calcutta and the adjoining districts. Though the Congress had displayed a protracted inertia in mobilizing the labour force during the turbulence of the 1940s, the Muslim League under Suhrawardy who himself was the Minister for Labour, showed much zeal in mobilizing the Muslim workers under the slogan "Islam is in danger". However, the partition of the sub continent in 1947 dented much of the League's aspirations to be the sole champion of the Muslim workers. The loss of support was much too in evidence with a large number of their followers crossing over the borders and the rest with no real plan to emigrate to Pakistan, preferring to align themselves with the Indian National Trade Union Congress.

The story of the working class movements in the textile industries was hardly much different from the others. Basu in his discussion has referred to two distinct phases, one between 1937 and 1940 and the other between 1941 and 1945. He has pointed out that despite the disparities in the income levels, there were a number of issues which led the workers to build up their own platforms against the mill managements. The economic demands on the part of the workers, encouraged them to resort to strikes, while the trade unions dominated by the outside elements seemed to have been more interested in political issues, like the recognition of the unions. The communists were in the forefront in mobilising the workers, but they faced a hard challenge from the Anushilan Samity cadres affiliated to the Revolutionary Socialist Party, Congress Socialist Party, Forward Bloc, Royists and Bengal Labour Organization. The

managements often patronised the non communist groups, since they had links with the Congress organisation in Bengal. Though the Communists enjoyed an advantage during the Peoples' War phase, their hold declined after the end of the Second World War, which saw the nationalists staging a comeback. But, the successes of the trade unions, limited they might have been, owed the most to the role of the 'natural leaders'- the jobbers and sardars who exercised considerable hold over the workers. Moreover, if the European managements had relied on repressive and divisive tactics, the swadeshi mills very often owned by nationalist minded business groups, preferred to come to an understanding with the local Congress leadership. This explains the reasons behind the weak, disorganised and politically fragmented character of the working class movements in the cotton mills.

On the other hand in the case of the Calcutta Tramways, the story was a lot different from the other sectors. The one particular reason, why the anti imperialist stir on the tramwaymen proved to be significant in the history of the working class struggle, could be the fact that they lived in a metropolitan surrounding. The other fact is that the connections between the tramway workers and the 'outside' political leaders had been very much noticed, since the days of the non cooperation movement. Though the nationalists had enjoyed dominance in the initial days of trade union activity, their hold slipped in the 1930s, with the communists gaining control over the Calcutta Tramway Workers Union. The successful strike of 1945 definitely proved beyond all doubt that the communists had an advantage over the others. Nonetheless, the communists lost much of the space in the late 1940s, when fissures within the union, prompted non communist groups to form smaller sized unions. Despite these changes taking place within the contours of working class politics, the tramway workers movement directed towards the European management was part of a wider anti imperialist struggle. This possibly explicates the point as to why both the nationalists and the communists sought to exploit the ire of the workers, which was largely economic in nature, for their own brands of politics. But, what needs to be remembered is that this apparent sense of working class unity showed signs of breaking down in the face of invocations of caste, regional and communal identities.

In the Calcutta Port, the major part of the labour force comprised of migrants from Bihar, United Provinces and Orissa. There was very little recruitment of Bengali speaking locals, except in situations when labour supply became far too scarce. Interestingly, this character of the labour force explains to a great extent as to why the labour recruited by the Calcutta Port Commissioners and the Dock Labour Board, remained more or less seasonal, swayed by the cycles of the agricultural season in Northern India. The task of labour recruitment was vested on the Hindi speaking sardars by the stevedore firms like Bird and Hilgers, McKinnon and Mackenzie and Balmer Lawrie who maintained close links with the Calcutta Dock Labour Board. The sardars' role which was akin to that of a kangani in the plantation industries, making use of their local standing, caste and kinship networks to recruit labour gangs. The initial phase of trade union activity in the Calcutta Port area was noticed in the early 1920s, due to the efforts made in this direction by a welfare minded Christian missionary Dr. Moreno and a Bengali barrister I.B.Sen. However, organised trade union activity became prominent in the late 1930s with the formation of the Calcutta Port and Dock Workers' Union, Dock Mazdoor Union, Dockmen's Union and Shipping Employees' Union. However, the rifts between the pro Suhrawardy and anti Suhrawardy groups, sometimes eliciting cooperation from the Communist Party of India and Soumendra Nath Tagore's Communist League, generated a lot of confusion. The strike in 1947 was a remarkable episode, because of the coordination between the port, dock and marine workers. This was a combined effort on the part of all the port trade unions, which had come under the banner of the Joint Council of Action. Nonetheless, the political compulsions, weighed heavily in the minds of the Congress and the Muslim League in coming out openly in favour of the strike. The growing divisions between the Hindus and the Muslims in the face of a highly communalised atmosphere affected much of the radical potentialities of this strike. Yet, it turned out to be a victory of all those who had empathised with the struggle of the workers against a very exploitative regime.

Basu is reluctant to be openly side with Dipesh Chakrabarty's narratives on the labour movements in colonial India. His own intellectual

proclivities compels him to think that historians despite premising on caste and communitarian identities, should not neglect the issues of class, which had been an important social category behind to the emergence of working class politics and protest in this period. Displaying a sense of dogmatism, Basu underlines the importance of analysing the researches of Sabyasachi Bhattacharya, Dilip Simeon, and Subho Basu who had emphasised on the workers' initiative in shaping the destiny of institutional politics. In fact, the author seems to be a bit undecided in coming up with an assertion that would discard the top bottom approach. This impels him to refer to the Marxist 'Wisconsin School' represented by Selig Perlman, who had emphasised that the presence of radical intellectuals among manual workers had shaped the trajectories of protest, prior to the declaration of the New Deal in the United States.

However, the working class movements in Bengal, during the period of study had their own weakness. It is difficult to define the labourers in terms of a distinct social category, as represented by their sense of belonging to the working class. Their close affinity with the rural world from which they had migrated in search of employments, whether in the plantations or the industrial sectors prevented their overt identification with the very notion of a working class. Rather it is the peasant-worker duality which was seen in a big way in the industries or the sectors that have been taken up by the author in his study. While in the initial phase, mostly during 1920s the workers send invitations to the middle class *Bhadralok* leadership of diverse political/ideological affiliations to stand by them and help them in establishing organisations which would aid them in their tussle against the employers, the picture changed in the 1930s. The middle class leadership in the changed circumstances sought the support of the working classes for vindication of their own brand of politics. But there can hardly be any doubt that despite the supremacy of the communists in the 1930s and 1940s, the *Bhadralok* dominance stalled the possibilities of workers' agency, whereby they could adopt their own strategies and methods of protest. It remains extremely doubtful whether the overt support for the left oriented politics was one of a conscious choice on their part, since their allegiance wavered far too quickly, when the trade unions established by the nationalists attracted

them in the years immediately after the independence. One cannot overrule the fact that ethnicity and religious differences often struck at the very roots of working class identity. The differences between material and social remained irreconcilable, leading to divisions within the trade unions. Moreover, there was the difficulty of erasing the differences that existed between the 'outside' political leaders who came from urban middle class educated backgrounds and the traditional leaders - the sardars who by and large came from rural backgrounds and could boast little about their educational qualifications. The proximity of the sardars to the ordinary labourers because of a commonality based on caste and community affiliations too often stood in the way of building up a trade union movement in the real sense of the term. It is undeniable that the government and the managements, despite facing frequent bouts of protests, remained undeterred and frequently invoked authoritarian legislations to curb the mobilization of the workers by the trade unions. The inability of the trade unions to build up their own networks of resistance are too glaring to be glossed over, belying the contentions of the left inclined activist intelligentsia that India in the late 1940s was poised for a revolution. But, these should not make us far too carping, since the period between 1937 and 1947 witnessed significant changes in the working class movements. Though there was politicization of the working class grievances, spontaneous movements organized and led exclusively by the workers did not lose ground. Last, but not the least the relation between the workers and the trade unions was something which was not unilinear, erasing all expectations of simple interpretation. While the workers may have realized the importance of organizations to vent their grievances and for preventing the injustices heaped on them by the capitalist class, it is doubtful whether it could be defined in terms of a permanent attachment. The propensity on the part of the workers to discard their trade union memberships in the face of state sponsored violence reveals beyond their doubt their reticence towards the acceptance of a protestant bend of mind. The workers mostly remained interested in issues which were economic in nature, rather than political issues which were linked to the bigger problematics of nation and class.

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Books :
Rhys Davids, *Buddhist India,* London, 1933, 7.

Articles in Books :
H.V. Trivedi, "The Geography of Kautilya", *Indian Culture,* Vol. 1, 202ff.

Edited Volumes :
C.W. Troll, ed. *Muslim Shrines in India : Their Character, History and Significance,* Delhi, 1989.

Articles in Journals :
G. Hambly, "A Note on the Trade in Eunuchs in Mughal Bengal", *Journal of the American Oriental Society* (hereafter *JAOS*), Vol. 94(1), 1974, 125-29.

Articles in Edited Volumes
P. Gaeffke, "Alexander and the Bengal Sufis", in Alan W. Entwistle and Francoise Mallison, eds, *Studies in South Asian Devotional Literature, Research Papers, 1988-1991,* New Delhi/Paris, 1994, 278-84.

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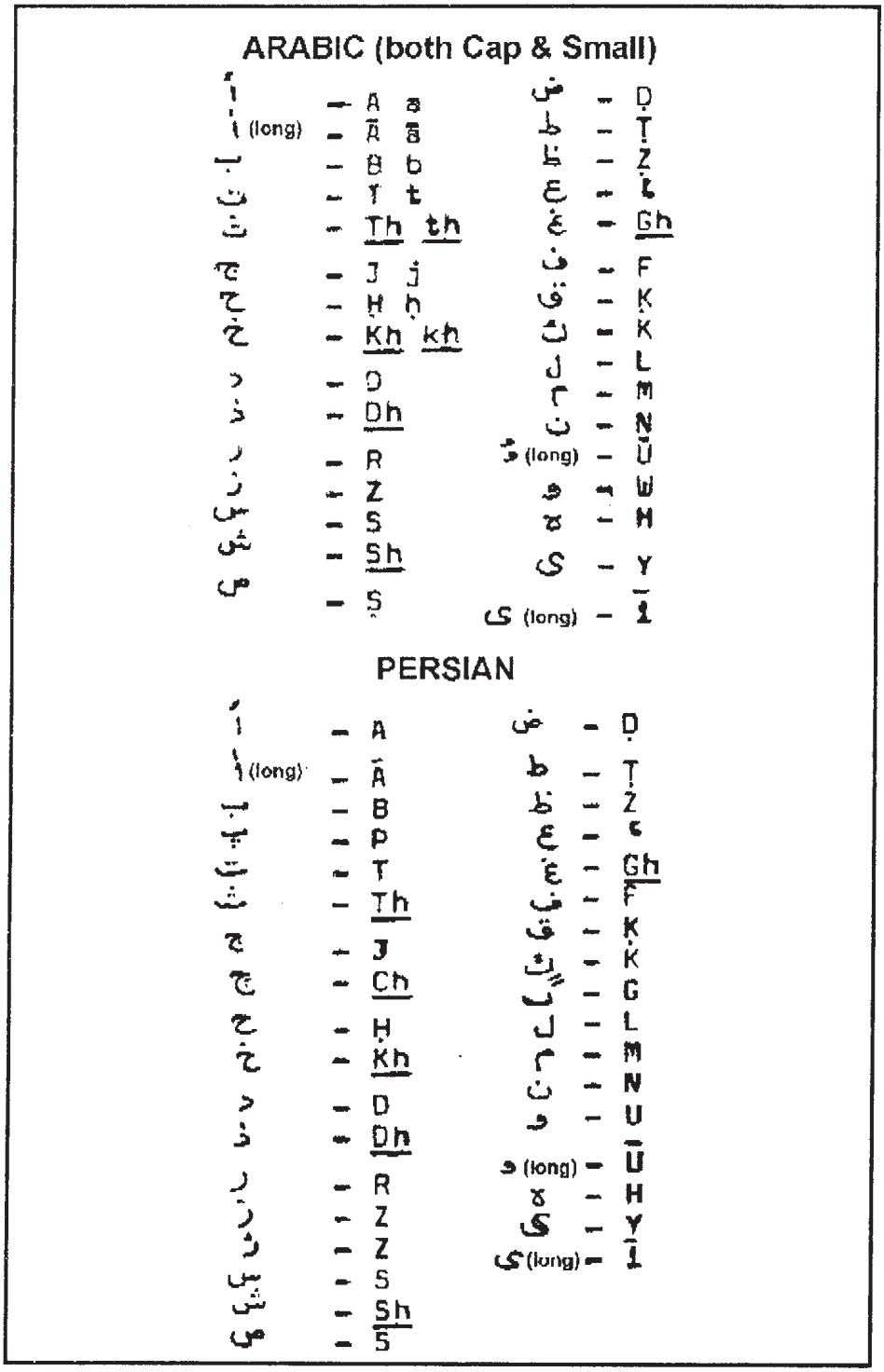
SYSTEM OF TRANSLITERATION

SANSKRIT

आ = ā		ई = ī	
ऊ = ū		ऋ = ṛ	
ङ = ṅa		च = ca	
छ = cha		ञ = ña	
ट = ṭa		ठ = ṭha	
ड = ḍa		ढ = ḍha	
ण = ṇa		श = śa	
ष = ṣa		ं = ṁ	

TIBETAN

ཀ = ka	ཁ = kha	ག = ga	ང = ṅa/nga
ཅ = ca	ཆ = cha	ཇ = ja	ཉ = ña/nya
ཏ = ta	ཐ = tha	ད = da	ན = na
པ = pa	ཕ = pha	བ = ba	མ = ma
ཙ = tsa	ཚ = tsha	ཛ = dza	ཝ = wa
ཞ = zha	ཟ = za	འ = 'a	ཡ = ya
ར = ra	ལ = la	ཤ = śa/sha	ས = sa
ཧ = ha	ཨ = a		


ARABIC (both Cap & Small)
ا (long) – A a
– Ā ā
– B b
– T t
– Th th
– J j
– H h
– Kh kh
– D
– Dh
– R
– Z
– S
– Sh
– S
ض – D
– T
– Z
ع – Gh
– F
– K
– K
– L
– M
– N
و (long) – Ū
– H
ى – Y
ى (long) – Ī
PERSIAN
– A
آ (long) – Ā
– B
– P
– T
– Th
– J
– Ch
– H
– Kh
– D
– Dh
– R
– Z
– Z
– S
– Sh
– S
ض – D
– T
– Z
ع – Gh
– F
– K
– K
– G
– L
– M
– N
– U
و (long) – Ū
– H
ى – Y
ى (long) – Ī