11 Neolithic-Megalithic Rock Art of Northern Maidan, South Deccan: Legacies, Understandings and New Directions

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Introduction

The richest rockart zone in south India known thus far is the granitic-gneissic zone of Karnataka.[1]

It is on the Northern Maidan, South Deccan, that the most abundant and famous Neolithic-Megalithic rock art can be found, mostly as petroglyphs (i.e. carvings) but also with some pictographs (i.e. paintings) on both granite and dolerite 'tors' that emerge from the flat expanse of the peneplains. Sometimes associated with Neolithic ashmounds, the art left on rock surfaces from this time period is found at famous Neolithic 'type' sites such as Piklihal and 'Kappagal'. The first site (Pilkihal) provided the first substantive rock art chronology in southern Deccan, while last site remains the most researched, even if its name has changed through time; from Kapgal, to Kupgallul, to Peacock Hill, to Bellary, to Kupgal, and now, as it is called by the people who live next to it, Hiregudda. The changes in these names reflect, to a degree, the changes in how research has been done: the use of the local name of Hiregudda illustrates, in a small way, that archaeologists are now explicitly integrating local knowledge within their research.

Since the late 19th century, the research of Neolithic rock art has gone hand-in-hand with the history of Indian archaeology, which likewise has been embedded within the history of the subcontinent itself and the rise of India as a

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nation state from its colonial precondition. The academic pursuit of knowledge cannot be disentangled from its historical condition. As Charkrabari[2] states, *To begin, we have to look first at the historical situation of archaeology as an academic discipline in India both past and present*. In this paper, I examine the history of the research of Neolithic rock art in southern Deccan with the dual aim of showing how that research was embedded within larger social histories while laying the foundation for Neolithic rock art research today and into the future. In so doing, I will discuss the changing ideas about rock art rich southern Deccan, and how current research is now moving towards the leading edge of methodological and theoretical approaches to rock art across the globe.

Antiquarian to Independence: Early Rock art Research in the Region

In June, 1891, F. Fawcett visited the site of 'Kapgal' hill in Ballari District, mid- eastern Karnataka. Following from an earlier report of by Bruce Foote[3] of the Geological Survey, Fawcett, in company of two friends 'R. Sewell and Mr. H. T. Knox', was apparently there to investigate the 'Pre-historic' remains which were evident in abundance both on the hill and its surrounding plains.[4] Fawcett's report is often thought to be the earliest report of this site; however, Robert Sewell first published a brief account of their visit in the *The American Journal of Archaeology and of the History of the Fine Arts* the year before Fawcett's publication.[5] Here, we have the earliest known archaeological account of rock art in as told by Sewell in a letter (Ibid.):

Four miles east of Bellary is a village called Kapgal, lying underneath a rocky hill, of which the visible surface in many places consists of nothing but a mass of large boulders piled one on top of another. The eastern end of this had long been known as a fine quarry for celts and other prehistoric remains, while close by in the plains are the remains of a very early settlement with stone-circles and two very curious tufa-mounds. Not long since I visited the place with Mr. Fawcett, and, scrambling amongst the upper rocks, where probably few Europeans have set foot, we found a very large quantity of ancient drawings on the surface of the boulders, consisting of men and animals and other devices. Afterwards questioned, the villagers said they had been made by the gods, or rather a god. They are evidently of extreme antiquity for various reasons. In one or two instances the men's figures have apparently headdresses of long feathers, implying the existence of barbaric customs unknown in the locality at present. The oxen represented are different from the breed now known. Some of

the drawings are very lifelike and skilful. I say drawings, but they are really chippings, the figures being cut on the surface of the dark rock by a succession of blows from some hard substance. Mr. Fawcett intends to prepare a paper, illustrated by drawings and photographs, on this very interesting subject…

The next year, Fawcett indeed published this paper, reiterating Sewell's tale (Fawcett[4]:149): *Crossing the east end of the trap dyke, I noticed the picture of an animal engraved on the perpendicular surface of a rock, so we searched about, and found many pictures on the rocks, the best of which I afterwards photographed. The difficulty of climbing, and the absence of any apparent purpose for doing so, may account for the discovery not being made before.*

Fawcett reported this discovery at the Congress of Orientalists in London later that year. As a former Superintendent of Police in Malabar (now Kerala), Fawcett served in the British colonial government.[6] He also was involved within a wider group of British antiquaries interested in prehistoric remains of the region of Ballari. It is likely that Fawcett was not the first to notice the rock pictures of Ballari. One of the friends he mention accompanying him to Kupgal hill was Hubert T. Knox, who apparently first discovered 'rock bruisings' in Ballari district in the 1880s.[7] Knox held a judgeship in Bellary (Ballari), worked on the Madras survey, and collected a number of stone artefacts from the region, donated to the British Museum in 1893.[8] Knox was from Ireland: his family owned a large estate in County Mayo, originally acquired from the Cromwellian Government; Knox's roots were therefore part of a deeper British colonial legacy long since established in Ireland (see Brück [7]for British antiquarian attitudes in Ireland). He was noted as being the *special assistant to collector and magistrate and agent to governor of Vizagapatam, Madras*.[10] Knox would in later life return to Ireland and become a prolific researcher and publisher on Irish antiquities and the history of western Ireland.

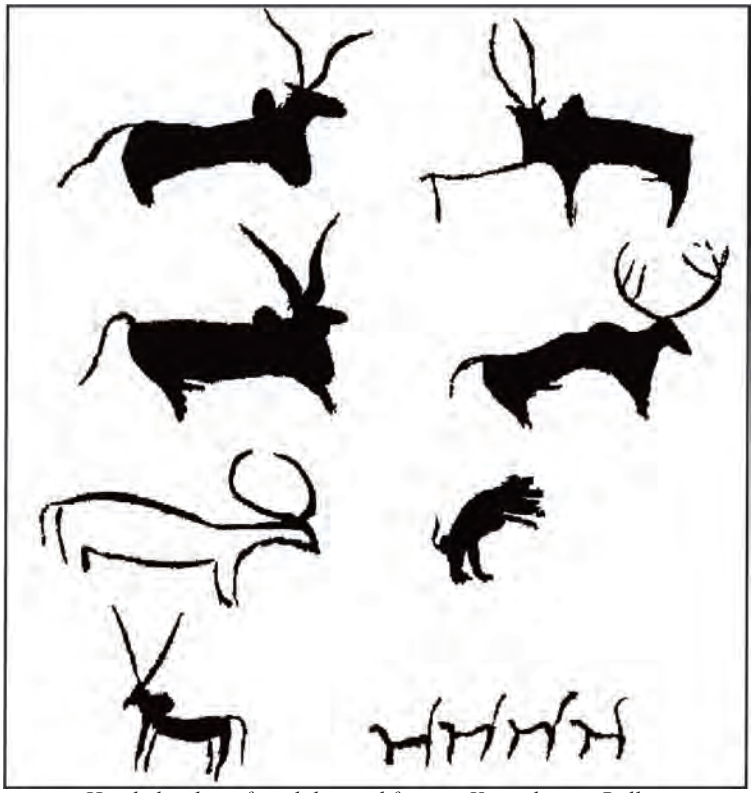
According to Fawcett[4] both Knox and the other man accompanying him, Robert Sewell, were members of the Madras Civil Service. Sewell was already a well known and influential member of the antiquarian establishment in India: he would later author a book on the Vijayanagara Empire as well as numerous other antiquarian publications, had long standing interest in rock cut temples, worked extensively on the Amaravati stupa, and was appointed Superintendent of the Archaeological Survey in 1879.[11-13] In the Ballari region, Sewell is documented as obtaining the post of 'Collector' specifically for Ballari where he

engaged in correspondence with local merchants over administrative and other matters.[14] Here, since all three were members of British rule through civil service, we can see that the colonial apparatus provided the basis for the initial documentation of the rock art. However, it is interesting to note that while Knox was the probably the first to bring to Fawcett's attention the presence of the 'Kapgal' petroglyphs, neither Sewell nor Fawcett give him credit. As an "assistant to collector" (probably Sewell himself), it appears Knox had a more junior status compared to the two, and therefore may have not have been credited with prior knowledge of the rock art. In a similar vein, it should not be overlooked that the colonial archaeologists typically obtained their archaeological information through informed local knowledge. The indigenous contribution was rarely written into the record: when it was, as in the first mention of prehistoric remains near Ballari by Meadows Taylor [15] in 1869, it was couched in a hierarchy reflecting the colonial relationship (Taylor[15]:170): *South-west from Sorhpoor lies the large collectorate of Bellary bordering upon Mysore, and in communication with Mr. Pelly, then (1852) collector, in regard to particulars of cromlechs and kistvaens, he was good enough to require the local native authorities of his district to furnish them…*

Just as Pelly's 'requiring' the local native authorities to furnish archaeological information illustrates, the early 'discovery' of Neolithic rock art was part-and-parcel of contemporary politics and value systems within a colonial context in the late 19th century.[16] The *discovery* of the rock art at Kapgal (i.e. Hiregudda) must be therefore attributed first to the local inhabitants - those who lived and dwelled nearby the big hill with the pictures and, as Fawcett reports, even mythologised the art.

Fawcett published his findings at 'Kapgal' hill in the *Asiatic Quarterly Review* in 1892. Sewell's accompanying drawings (Fig. 1) are the earliest antiquarian images of Karnataka rock art I am aware of. He noted a close association between the rock art and other archaeology: terraces, grinding features, flakes and 'other signs of work'.[4] He interpreted part of the rocky hill as a "working", even inhabited area (Ibid.). He also seems to be the first to mention that the petroglyphs were "bruised, and not scratched, on the rocks", thus pointing out how some of the images appear to have been made using a softly applied percussion action that nevertheless required "considerable labour and pains" (Ibid.: 151).

Fawcett laid out an argument as to why he thought the pictures were prehistoric (Ibid.: 150-152). First, he noted the images were found where "Neolithic" people lived and worked while manufacturing stone implements. He noted that the origin of the art was ascribed by local villagers to a god called Vitlappa, indicating they were ancient. He also observed that Hindu and modern rock art was discernibly later and scratched rather than earlier and bruised. Further, he argued that many of the animals depicted were from a previous environment, particularly the elephant. And finally, he observed that some of the rocks with pictures were displaced, indicated a deep time depth: *That there was some displacement of the rocks is probable, for some of the pictures could not have been done, were the rocks as they are now, without the of scaffolding; and that such was used in not likely* (Ibid.: 151-151).



Hand-sketches of rock-bruised figures, Kapgal, near Ballari, southern India, N.H. - the buffalo is drawn, as it is , in outline - R. Sewell

Figure 1. Sewell's sketches of the rock art of Kupgal in Fawcett.[4]

Figure 2. Same life sized anthropomorphic petroglyph said by Fawcett[4] to be Vitlappa (notice snake element near right hand). Photograph by David W. Robinson in 2004.

Fawcett declined to interpret the meaning of the pictures directly, except to point out that a life size figure was said to represent Vitlappa and that the current villagers covered its head with pitch, the removal of which would have offended the god (no signs of this pitch was discernable when I photographed this same petroglyph in 2004) (Fig. 2); he also speculated on "snake worship" based upon an accompanying snake image (Ibid.: 152).

Fawcett's primary interpretation was general, seeing the images as illustrative of 'picture writing' - the evolutionary beginnings of "all writing" (Ibid.: 153). He argued that some images became stylised through time, schematising characteristics such as arms and legs showing how certain symbols "grew out of the figures" through a long period: *It is impossible to describe here the degrees through which the symbol has been evolved; suffice to say, they are very plain* (Ibid.: 154).

This interpretation clearly shows how Fawcett was part of larger Colonial and antiquarian discourses. During the later decades of the 19th century, other antiquarians were interpreting rock art of indigenous peoples from an evolutionary perspective. The voluminous work of Garrick Mallery[17] in North America, first published in 1886 and then more fully in 1893, similarly investigated the "picture writing" of the American Indians. As Mallery stated an earlier publication on *Gesture speech*: *The most interesting light in which the Indians of North America can be regarded is in their present representation of a*

stage of evolution once passed through by our own ancestors. Their signs, as well as their myths and customs, form a part of the palaeontology of humanity to be studied in the history of the latter, as the geologist, with similar object, studies all the strata of the physical world.

By studying and understanding rock art, Mallery believed he could understand a stage along the evolutionary process that led eventually to writing as practiced in 'high' civilisations (i.e. colonial powers). This was reflective of much antiquarian discourse in the later 19th century: as Sewell's publication in the notes of *The American Journal of Archaeology and of the History of the Fine Arts* illustrates, Indian antiquarians were involved in a global discourse, linked through a wide ranging system of publications and learned society meetings. Fawcett's[4] (p.154-156) report on Kapgal concludes with information he obtained from the Egyptologist Flinders Petrie: at a meeting of the Asiatic Society, Petrie showed photographs of Egyptian rock art thought to be very similar to the Bellary pictures. Petrie suggested these similarities were due to *primitive man's manner of portraying living objects; a manner, a style which is the same in all traces of his handiwork, wherever found, throughout the world* (Ibid.: 156). Fawcett echoes this evolutionary theme, stating that the Neolithic folk of South India made the "first four steps in the path which leads up to the act of writing", but, doubted that it developed into the local "vernacular writing" of the district (Ibid.). As seen elsewhere in antiquarian discourse of the period, such evolutionary limitations were needed to legitimize and sustain colonial rule.[9,18,19]

The antiquarians who first documented rock art in Karnataka discussed issues of meaning, production, chronology, and spatial associations—all of which reverberated into subsequent archaeological research, even to this day. The importance of antiquarian research across India has been acknowledge by other scholars as forming the foundation for subsequent rock art research (for instance, Chakravarty and Bednarik ;[20] Chakraverty;[6] Mathpal [7]); the same must be stated about the early group of Sewell, Knox, and Fawcett who first explored Neolithic rock art. However, many of their interpretations arose from, and legitimised, colonial circumstances (see Singh [11]). Sewell, Knox, and Fawcett operated from the colonial centre of Ballari: the *Imperial Gazetteer* listed the town at the time as "one of the chief military stations in Southern India" .[21] As a cantonment, Ballari was more than a military station: it was a colonial administrative centre that was part-and-parcel of the British rule and control of

the surrounding region. Like other archaeological enterprises before Independence, the discovery of Kapgal rock art occurred through a multifarious colonial project including military organisation, the mapping of geology, and the scientific idea of evolution: as Chadha [22] argued concerning Wheeler's later work, *the colonial, the military and the scientific projects collapsed to form a disciplinarian discourse that resulted in a widespread domination of the past as a cultural category*.

Post Independence Research

While post 1947 rock art research brought about entirely new understandings of prehistory of the region, there remained strong continuities with earlier research. The work of Colonel Douglas Hamilton Gordon[23] is one such case: as a researcher in rock art, he published the next paper on the Ballari rock art half a century after Fawcett, worked with F. R. Allchin on paintings and engravings in Raichur,[24] and reported a series of sites with engravings near Bangaluru.[25] While most of his work with rock art was done after retirement from military service and after independence, he began investigating rock art with his wife while on duty in Pachmadhi and Jabalpur in Mahdya Pradesh,[26] publishing articles in the 1930s on microlith sites and terra cotta figures. As an experienced soldier, Gordon was firmly part of the colonial establishment. While the change in the archaeological practice after 1947 should been seen as more than "merely symbolic" as has been suggested by Chadha,[25] rock art research was still embroiled within the context of colonialist "ideological structure" as that author points out (Ibid.).

Gordon's article on Ballari was actually based upon re-photographed prints of Fawcett's originals (Fig. 3); Gordon[23] did not visit the site himself and his paper remains only a superficial study. The article expanded slightly from Fawcett's by summarising some of the subjects of the petroglyphs: ithyphallic (i.e. sexual) scenes, three-horned animals, a cart, and "oxen apparently raised on T-shaped standards" (Ibid.: 118). Gordon also pointed out that the petroglyphs of 'Kupgallu' hill were undoubtedly multiperiod (Ibid.: 119).

More significant was Gordon's collaborative report with Allchin[24] on the rock art of northern Karnataka in Raichur District, published internationally in *Man*: again, Gordon used photographs from earlier explorers, this time Leonard Munn's unpublished photographs taken in 1935. The significance of this report

was to introduce pictographs (i.e. rock paintings), rather than petroglyphs, into the study of southern Deccan rock art. The red-ochre paintings depicted anthropomorphic figures with horses and metal weaponry (Gordon and Allchin[24]: plate G: a, c): domesticates and wild game were likewise included. Gordon (Ibid.: 97) noted the highly stylised manner of these pictographs as seen by distinctive patterned infilling:

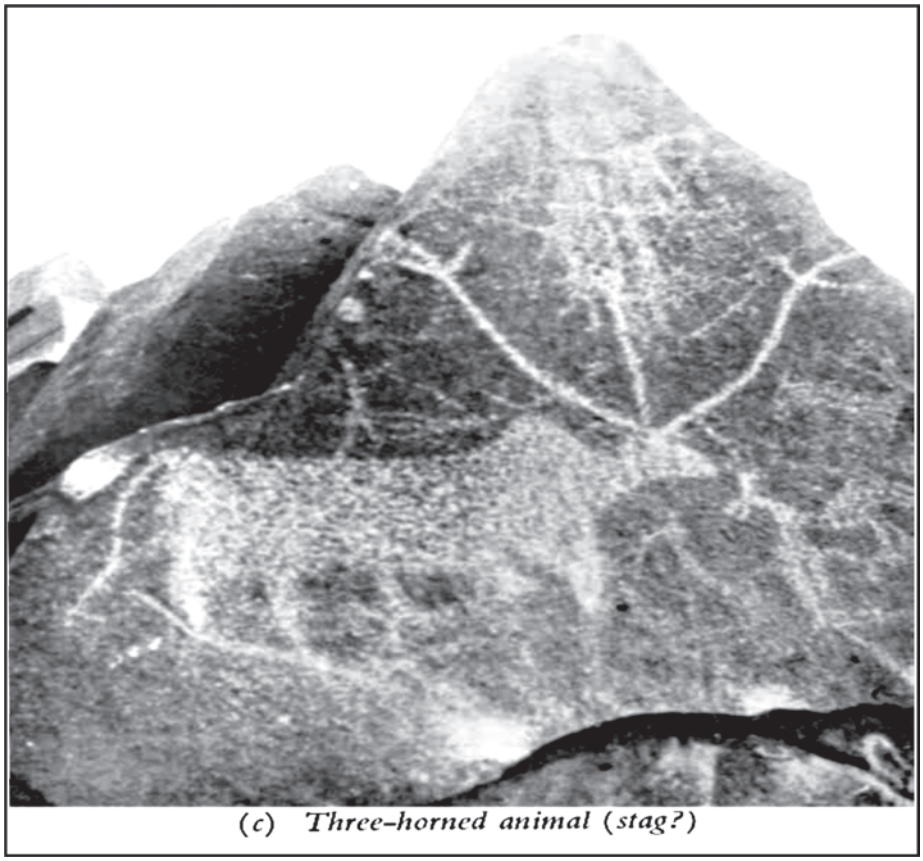


Figure 3. Gordon's[23] reproduction of Foote's 1903 photographs: compare with Figrue 6. By kind permission of the *Royal Anthropological Institute*.

> *The method of stylizing deer and cattle by the use of two lines one within the other, the upper forming the back and two of the legs and the lower the underside of the animal and the other two legs. . . is common in the more northern paintings; it is in fact widespread in rock paintings and engravings throughout the world and is an idea which must have occurred to primitive artists at all times and in all places quite independently*.

Here we can see the same sort of essentialism that Gordon's earlier antiquarian predecessors so often asserted: however, changes can be seen in the interpretation and tone of post-Independence writing. Even though Gordon was a veteran of the British Empire in India, his interpretations written in post-Independence times did not take on the mantel of colonial justification in the sense of his predecessors.

F. R. Allchin's contribution to the report considered the age and association of the paintings to nearby archaeological remains. Importantly, Allchin made mention of his other work at Piklihal done with the "kind assistance of Director of Archaeology for Hyderabad, Dr. P. Sreenivasacar" (Ibid.: 99). This was, perhaps for the first time, explicit recognition of the Indian contribution to the discovery and analysis of rock art in Raichur District. In a sense, this brief acknowledgement again foreshadows more than a "symbolic" change within Indian archaeology while marking the beginning of serious attempts to come to grips with the rock art of Neolithic. In this international publication, Allchin was the first to offer a chronology of rock art based upon his Piklihal work (Ibid.: 99):

1. *Neolithic, including bruisings of wild and domestic animals and male humans; also, perhaps, a few red-ochre paintings of bulls. The humped bull is the most common theme.*
2. *Early Historic, including red-ochre paintings of two large groups of hunters or warriors carrying metal weapons, often riding horses and elephants.*
3. *Medieval-Modern, including engravings of Hindu sectarian symbols, scratchings and bruisings of umbrellas, temples, men and bulls (of a very different style from those of earlier contexts), and white painted groups of dancing figures, plus modern Canarese inscriptions*.

Using this chronology to reconsider the Raichur pictographs, Allchin concluded that the *Benakal paintings do not appear to belong to the first group [i.e. Neolithic], examples of which occur at Piklihal and such other main neolithic sites as Maski, Billamrayan Gudda, Kallur and Bellary, but to the second, early historic, group* (Ibid.: 99).

Allchin was later to publish more thoroughly on the Piklihal excavations and rock art[28]: Significantly, Allchin reiterated the importance of the relationship between the archaeology and the rock art, particularly in approaching problems of chronology. In an important section discussing the various styles of rock art present in the study, Allchin points out (Ibid. 1960 : 11):

> *…we may make one general comment which appears at present to be crucial to consideration of this problem [of chronology]: they represent a type and tradition of activity and as such must be studied in the context of other human activities in the neighbourhood. Their distribution, at this site no less than at others we have visited, clearly overlaps with the distribution of settlements and other remains. Thus we may well look for the origins and continuation of the tradition within the main periods of human activity found at the site.*

Allchin's detailed discussion of pictographs and petroglyphs of Piklihal was considered within wider South Deccan terms, importantly in the observation that the 'bruisings' rather than paintings *form the most numerous, conspicuous and stylistically varied of any of the kinds of rock art, both at Piklihal and at other sites of the Deccan* (Ibid.: 13).

Allchin's excavation was at the forefront of new wave of both archaeological and rock art research in India.[29] This was part of wider Indian trends: distant from Karnataka, V.S. Wakankar, the "founder of modern rock art studies in India", was soon to begin intensive research of the rock art of Bhimbetka in Mahdya Pradesh, including excavation and detailed rock art recording. He was gradually joined by other archaeologists and rock art specialists, such as V.N. Misra and Yashodar Mathpal (Ibid.: 358-359). Importantly, this new wave of research was directed by Indian, not British, archaeologists, who quickly began correlating rock art style with archaeological deposits.

In the eastern part of Northern Maidan, V. Rami Reddy, working under Misra from Deccan College, researched rock paintings and 'bruisings' in Andhra Pradesh:[30] he noted the similarity of cattle image rock bruisings at 'Velpumadugu' (Fig. 4) with those found by Allchin at Piklihal and Gordon at Kupgal (Ibid.: 292), but that the Velpumadugu cattle were far more naturalistic than the rather schematic examples at Kupgal (Ibid.: 290). Velpumadugu lies less than 100 km from Ballari across the state boundary between Karnataka and Andhra Pradesh.

Reddy reasoned that the Velpumadugu art could be traced back to the Neolithic since the cattle bruisings represented the long-horned *Bos indicus,* the bones of which he noted were often found in deposits at Neolithic sites, including Palavoy where he excavated (Ibid.: 293).

Figure 4. Detial of bull petroglyph at Velpumadugu with V. Rami Reddy's[30] drawing of complete panel shown in lower left inset (photograph by David W. Robinson in 2001). Inset by kind permission of V. Rami Reddy.

Work in Karnataka intensified during this period: Sundara[31,32] followed on from Gordon and Allchin investigating sites in Hire Benakal, while others documented rock art at Tekkalakota.[33] With Robert Brooks, Wakankar published a major monograph on the rock paintings of India.[34] While this book stressed the relationship between hunter-gatherers, rock-shelters, and paintings, they recognized that the "field of rock engravings and rock 'bruisings,' which we have barely mentioned, is open for work" (Ibid.: 108): indeed, their lack of attention to the Neolithic rock art of Karnataka was a criticism of one reviewer.[35]

In 1981, Bhat[36] discussed paintings, bruisings, and engravings examined to that point in rock art research. In this important paper on northern Karnatak rock art, he usefully lists 30 rock art locations in Karnataka. Following Sundara,[32] he suggested that while the paintings at Hire Benakal dated to the Megalithic period, other rock paintings in Karnataka could date from the "neolithic, if not earlier, to medieval period" (Ibid.: 52). As for the bruisings, he followed Allchin and Allchin,[37] likewise stating that their time range was "very vast, extending from the Neolithic to modern times" (Ibid.).

Post Independence also witnessed an increase in rock art interest by non-archaeologists. C. Mahadevan of Andhra University, a geologist, made numerous contributions to archaeologists working in southern India: importantly, he noted the distribution of ringing rocks and cupules, drawing the attention of K. Paddayya who reported on some sites in Karnataka,[38] including a granite 'hillock' near the town of Kupgal (apparently a different Kupgal, near Shorapur, not the hill referred to previously near Ballari). Mahadevan noted cattle and "duck" rock bruisings at the same place, which he interpreted as of probable Neolithic date; Paddayya doubted such early dates for this particular site, but suggested that the ringing of rocks and making of cupules in northern Karnataka (Shorapur Doab) may indeed have its roots in prehistoric times (Ibid.: 37-38). This was one of the earliest publications linking rock art with sonic production.

As rock art research continued to blossom across India, publications appeared covering the rock art of regions or even the entire subcontinent;[39-42,17] new researchers began work in southern Deccan. N. Chandramouli[42] worked at Kethavaram in Kurnool and Budagavi in Anantapur Districts (both in present Andrha Pradesh): at Budagavi, only about 20 km south of Velpumadugu, Chandramouli attempted to tease out a chronology based upon stylistic characteristics and archaeological deposits[42] (p. 78): he argued that red deer paintings and 'V' shaped elements were Mesolithic, followed by red paintings of cattle from the Neolithic, and terminating with white elements which could date from any period following (Ibid.: 75-78). However, even in the Neolithic, Chandramouli thought there may be a possible way to discern synchronic change (Ibid.: 78):

> *In view of the fact that the rock art data from Budagavi and Velpumadugu show characteristic stylistic traits which are quite distinct from the humped bull paintings from other sites in Andhra Pradesh, as well as from the Central Indian painted specimens or the bruisings of Karnataka, for the present it must be hypothesized that the Budagavi paintings may be of an early Neolithic date.*

Allchin and Allchin[44] agreed with Chandramouli's hypothesis that the earliest Neolithic style was naturalistic as stated in their seminal overview of the rock art of North Karnataka published in the *Bulletin of the Deccan College*

Post-Graduate and Research Institute. In this paper focussed on the Neolithic in particular, they pointed that this art was "associated with two principal kinds of site, settlements on rocky hills, and mounds of vitrified ash and cow dung on flat ground, sometimes in the vicinity of groups of hills" (Fig. 5) (Ibid.: 314). By working with prominent Indian archaeologists such as S. Settar of Karnatak University (Ibid.: 315), they surveyed a series of sites, thus being able to show that in locations without evidence of settlement, rock art was absent, strengthening the inference that much of the rock art at Neolithic sites was made during that period of occupation (Ibid.: 315). Of course, they were also quick to note that the predominant image in the art was cattle (Ibid.: 316).

Figure 5. View of Neolithic ashmound from Hiregudda rock art concentration (photograph by David W. Robinson in 2004).

Allchin and Allchin usefully concentrated much of their analysis on three panels from two sites: Piklihal and Maski. From this analysis, they proposed a chronological trend based upon stylistic change, summarised here (Ibid.: 320-322):

A: Naturalistic style, associated with slender, light-bodied bulls with articulated knees.

B: Mannered or exaggerated style, with similarly light-bodied animals.

C: Diagrammatic or elliptic style, with light-bodied bulls but smaller.

D: Heavy-bodied style.

E: Crude style

In comparing this chronology with excavated materials, they argued that evidence from ashmounds and settlements indicated that Neolithic populations were "cattle keeping pastoralists" and that they had discovered terracotta figurines of "slender, long horned, humped cattle" in Neolithic deposits of settlements; in combination with the locational association, this evidence argued strongly that the earliest styles of bull imagery region began in the Neolithic, but that the tradition of making rock-bruisings and paintings continued "at least up to early historic times" (Ibid.: 321-322). While this general scheme reiterated earlier chronologies, they significantly proposed that later period rock art marked a horizon within the cattle sequence (Ibid.: 323):

> *A ... possible external dating point is afforded by the presence of occasional standing spearmen and horse-riders brandishing spears or axes, probably of metal, in close association with bulls at numerous places. Both these groups are, stylistically speaking, associated either with the end of the mannered style or more probably with the beginning of the diagrammatic. The presence of horses and metal weapons suggests a chronological horizon which is unlikely to begin much before the end of the second millennium BC and to continue into the first millennium BC. The appearance of occasional elephants with riders in paintings of the same style suggests more specifically a date in the early historic period (c. 300 BC – 250 AD), or even later*.

The paper concludes by pointing out that some rock art continued to be made even to the present, with the appearance of some art actually occurring in between their visits to Piklihal (Ibid.: 324).

Rock art research in post Independence period must be seen as the maturing of the discipline as it moved away from colonialist antiquarianism towards correlating archaeological evidence with rock art to derive associations — ultimately, not only did this research tease out probable stylistic changes from the stone age on through to modern periods, but also began detailing changes within periods, setting the foundation for the interpretative research to follow. Certainly, the influence of colonialism was strongly felt in the institutions it created, the ongoing practices of researchers, and the legacy of power relations, systems of thought, and theoretical paradigms.[22,27,43] However, As Bednarik[17] points out, there were attempts to move beyond the "colonialist preoccupation" of the previous rock art researchers in seeking to "establish

reasonably objective models of the distant past, irrespective of ethnic or national bias or academic conditioning" (p. 365).

Recent Research

By the new millennia, the rock art of South India had well over 100 years of research and publication. Following regional syntheses such as Mathpal[45] and Tiwari [46] Chandramouli's[1] book on the *Rock Art of South India* is primarily a gazetteer of sites in Andhra Pradesh. Chandramouli[1] (p. 179) points out that "no comprehensive recording and analysis of either the petroglyphs or pictographs in Karnataka have been completed; most of the studies being site-specific in character." With the start of the Bellary District Archaeological Project in 2003, the Neolithic rock art of Kupgal Hill once again has come under scrutiny.[47-51] While this new research remains site specific in the sense of focussing on the rock art of Hiregudda (i.e. Kupgal Hill), it does expand to include adjacent hills, Trap dykes, minor landforms and other sites on the neighbouring plain. The Bellary Project and its research into the rock art of Karnataka reflects larger trends in India of international collaborations (see Bednarik[17] 361-365), with established Indian archaeologists working with colleagues both within India and from around the globe.

According to Chandramouli (2002: 19), rock art research in Karnataka benefits from the publication of up to ten "papers and books in vernacular language - Kannada". The 're-discovery' of Kupgal/Hiregudda rock art (e.g. Boivin[48] : 52) is in large part again attributable to local knowledge rather than as a continuation from earlier work: as Boivin points out (Ibid.: 51) local non-university based rock art enthusiasts Linganna and especially Ramadas have led and assisted recent rock art research, with Ramadas having become an integral member of the Project, whose knowledge and efforts not only are acknowledged by academics, but resulting in publication.(see Fig. 9)[49,52] As stated at the beginning of this paper, it is in part within the context of the growing recognition of the importance of local knowledge that the local name of the hill - Hiregudda - is gradually replacing the rather inaccurate name of Kupgal (see Boivin[48]: 42, for discussion of confusion over the name of the hill).

Likewise, since the area actually has several hills and lesser Trap dykes, most if not all of which have rock art, the localised name of Sanganakallu-Kupgal (the two closest villages) has been adopted by the project to specify the

area (see Boivin et al. and Boivin, p. 41).[47,48] With such local, Indian, and international collaborations in place, the rock art of Sanganakallu-Kupgal was investigated at the very beginnings of the Bellary Project which focussed upon the Neolithic and Megalithic archaeology on both the plains and hills or the area (Boivin et al.[47]: 937);

> *Some preliminary efforts were also made to analyse the rock art found at Sanganakallu-Kupgal and other sites in the Bellary district. Rock art motifs.... found in remarkable quantities at Sanganakallu-Kupgal.... are dominated by depictions of the long-horned, humped cattle that were domesticated during the southern Neolithic, but also include ithyphallic and dancing figures, and hunting, bull-capturing and sexual scenes, as well as apparently abstract motifs. The presence of remarkable 'ringing rocks' at Sanganakallu and other sites with large concentrations of rock art motifs was also noted for the first time.*

Boivin's subsequent analysis of the rock art resulted in a useful chronology (similar to Allchin and Allchin's[44] chronologies discussed above) within which to contextualise the predominant Neolithic and Megalithic elements (Boivin[48]: 44):

Neolithic	:	naturalistic cattle, ithyphallic figures, sexual scenes, 'dancing' anthropomorphs.
Megalithic	:	crude cattle, horses, anthropomorphic figures
Early Historic/Medieval	:	crude cattle, elephants, horses, anthropomorphs, writing (Kanada alphabet)
Modern	:	religious symbols (Muslim, Hindu), hearts with arrow, writing (Kannada, Roman alphabets), worship-related symbols, anthropomorphs, snakes, peacocks.

Boivin[48] stated to incorporate a "theoretically-informed and interpretative approach to rock art" by "moving beyond a purely descriptive and image-focused approach to rock art in South Asia" (Ibid.: 38). Focussing on the marks indicative of the production of 'rock music' and using ethnographic analogy, Boivin argued that the *creation and/or consumption of rock art images at Kupgal may have been associated with the production of particular meaningful, powerful and possibly musical sounds in the context of certain ritual performances* (Ibid.: 48). Robinson and Ramadas[49] also noted that if

sound was important in the creation of art, the lightly bruised petroglyphs so characteristic of the Sanganakallu area "may have been softly applied to reduce noise production; sound manipulation may have played a roles in public versus private rituals during rock art 'performances'" (Ibid. 322). In furthering interpretative approaches, Boivin et al.[53] then looked in detail at sonic production at Bellary (Ibid.: 290):

> *Neolithic soundscapes would have been rich with sound, and would likely have featured alongside visual landscapes in orientating people in the world, fashioning identities, and negotiating social transactions and transformations. Evidence for the widespread use of grinding, pecking, and hammering activities, which resulted in the production of a remarkable profusion of grinding hollows in and around Neolithic sites in the central Deccan, suggests that the hammering of ringing rocks to makemusic was only one aspect of a wider Southern Neolithic cultural propensity to address technological and ritual requirements by applying stone against stone*.

The social context of rock art, both in production and visual/auditory consumption, thus is now a major theme within Neolithic research. Likewise, the topography of Hiregudda, with its tumble of granitic and doletiritic stones creating a difficult terrain to navigate, prompts landscape interpretations: echoing Fawcett's earlier statement that the rocks were difficult to navigate, Boivin et al.[47] considered that the art was restricted within prehistoric contexts:

> *Combined with the fact that many motifs are visible only to the physically able (viewing them involves climbing rocks) and to small groups or individuals, these ringing rocks suggest that rock art production and/or viewing was part of an overall ritualized sensory experience available only to a particular sector of society or even individual*.

Boivin [48] further theorised from her view that the difficult terrain would have restricted access:

> *… a place where 'shaman'-like individuals or some other particular group within Neolithic society, such as male cattle herders or young male initiates, went to carry out particular rituals and/ or tap into the power of the site. The rock art itself is suggestive of a ritual*

interpretation, since the individual floating images and simple scenes in difficult-to-access places seem to be aimed less at recording particular historical events for wide consumption than conveying esoteric information to individuals or small parties.

Brumm et al.[54] have continued this interpretative approach drawing heavily on ethnographic analogy in looking at engraved dolerite artefacts found in excavations at Hiregudda. Reflecting wider interpretations of the rock-surface at rock art sites being far more than a simple inanimate backdrop to the art, [55,56] they suggest that the portable engraved stones may have drawn on natural features within the surface of the dolerite. Brumm et al.[54] also put forward that the engravings may have been a response to a perceived "animate power" or "sentience" within the dolerite, the knapping of which may have been made to accentuate a power perceived as either somehow beneficial or in need of careful control. They conclude that their findings at Hiregudda *suggest that such interpretations may apply as much to stone tools and portable stones as to immobile rock surfaces, such as cave and rock-shelter walls and large boulders* (Ibid.: 186).

Figure 6. Rock art photographed in 2004 by D.W. Robinson at Hiregudda with percussion marks evident as white patches on edges of rock. 101 years earlier, Foote photographed this same panel (see Fig. 3). A comparison between the two has shown no major discernible change over the century.

Certainly recent research must be viewed within the larger global context of rock art studies, which is enjoying a kind of renaissance in the continuation of established methodologies combined with the application of new techniques and interpretations. While the excavations by Robinson and Koshy[50] of the Birappa rock art shelter reflects earlier techniques such as Mathpal's[39] Bhimbetka work, they can be considered within the re-emergence and recent acknowledgement of the importance of excavating rock art sites (Blaze O'Connor, pers. com.), particularly as a means of contextualising associations between rock art and other archaeological components found at rock art locales. In tandem with these excavations is recent work employing new spatial and temporal approaches to the rock art of Sanganakallu.[49,51] Utilising sample survey techniques, digital photography, and total station mapping, the rock art of the Hiregudda and adjacent landforms are being reconsidered within both social and temporal settings.

Robinson and Ramadas[49,51] sampled a variety of landforms of Hiregudda and adjacent hills, documenting and geo-referencing 200 panels with hundreds of individual elements. This provided an extensive database from which to link design form with spatial information and visible archaeological components. Through this technique, it was found that while rock art in the landscape is extensive, it is neither ubiquitous nor homogenous. Different areas of the dolerite and granite formations has varying intensities of rock art designs; indeed, some areas were relatively devoid of rock art, while others were intensely covered with multiple layers of superimposed art, emphasising the importance of location in the decision making process of prehistoric peoples. Further, it was found that some areas contained a predominance of certain styles, perhaps suggesting that different patches of the landscape were preferred areas for rock art production in different time periods, even through Neolithic and Megalithic periods.

Through detailed, systematic sampling (Fig. 7), it was found that the art was not isolated to the dolerite dyke, nor separated from habitation deposits, but was closely associated with a variety of different archaeological components across the landscape, including modified terraces, work shops, and habitation areas within ridge-saddles.[57-59] This evidence clearly indicates that the rock art was not the exclusive purview of elites, shamans, or subgroups within Neolithic culture, but was there to be seen (and even heard) by most, if not all, members of Hiregudda society.[49,51]

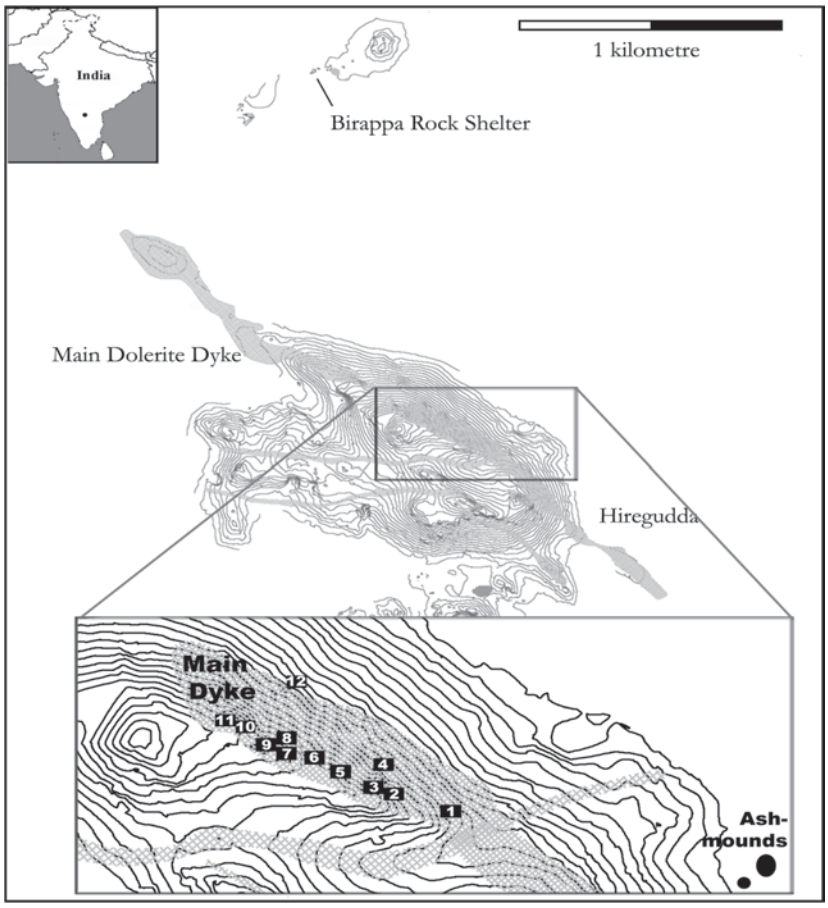


Figure 7. Sample survey areas from Hiregudda, main dyke, survey by Robinson and Ramadas in 2004. Survey also expanded into numerous areas on subsidiary dykes (shaded areas) as well as granite formations and saddle areas (data by permission of Ravi Korisettar).

While spatial patterning across the landscape hints towards temporal patterning in a wide sense, Robinson and Ramadas employed a relative patination analysis to tease out chronologies upon individual panels (see Robinson et al.[51]). The patina of a rock surface is a "visually obvious skin on rock surfaces which differs in colour or chemical composition from the unaltered rock and whose development is a function of time" (according to the IFAO Rock Art Glossary). The making of petroglyphs is a reductive process involving the pecking or 'bruising' away of this patina to expose, in the Hiregudda case, the brighter parent dolerite underneath. When originally made, the contrast created by this technique results in a highly visible design: this exposed rock then begins to 'repatinate' becoming increasingly darker

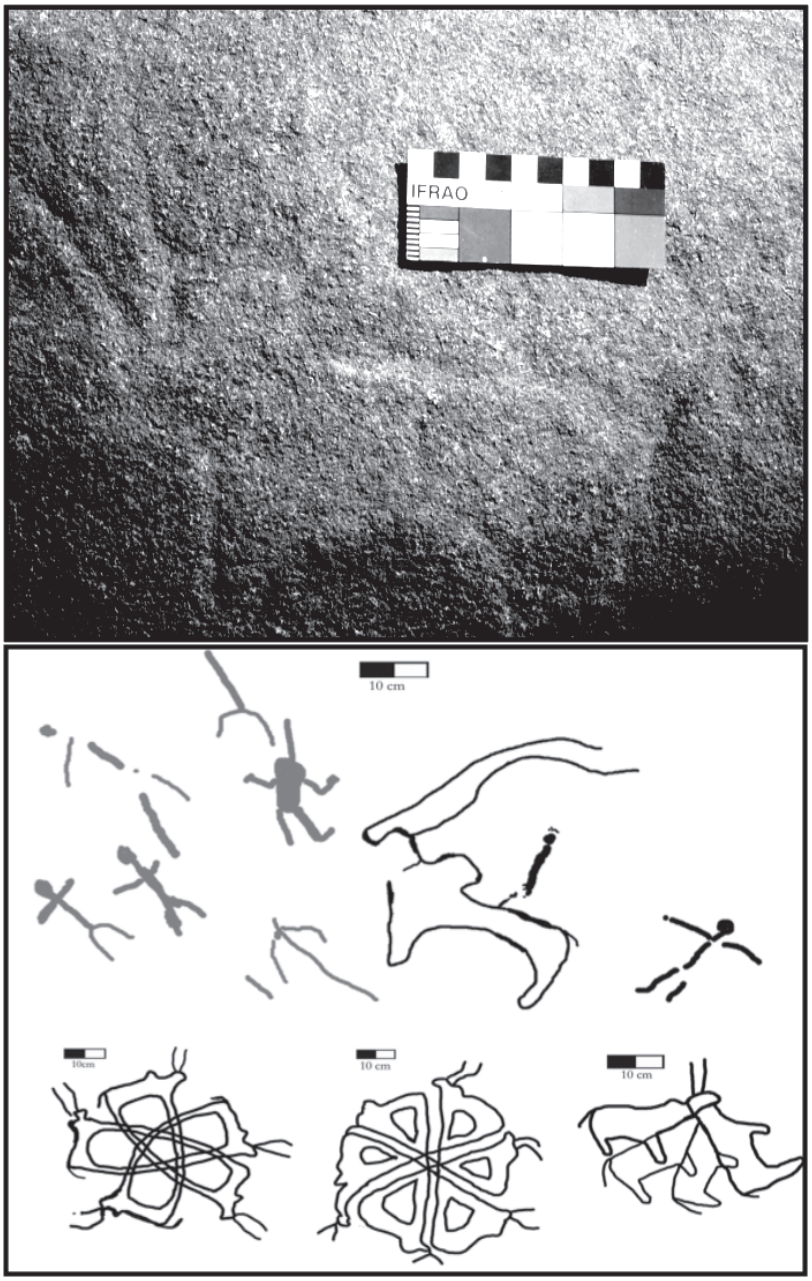


Figure 8. Left: heavilty patinated bull petroglyph from Hiregudda, main dyke (photograph by David W. Robinson in 2004). Middle; bull petroglyph on dolerite with later additions of anthropomorphs, first figure on left (grey), then figures on right (black), Locus 1. Right: selection of multiple bull petroglyph compositions on dolerite, various loci on main dyke (photographs and drawings by D. W. Robinson).

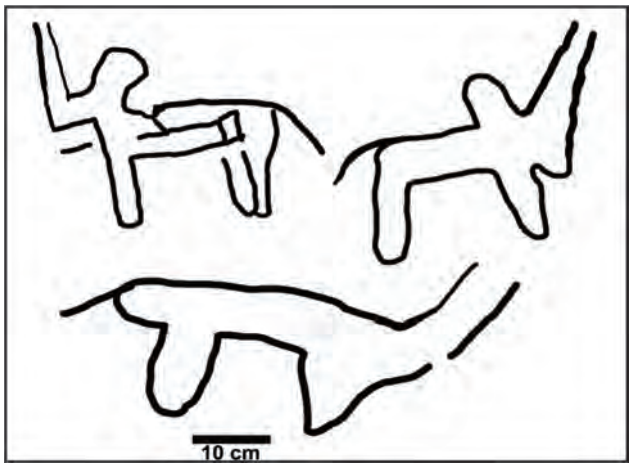


Figure 9. Examples of stylised individual bulls from Hiregudda and adjacent areas (drawings by David W. Robinson).

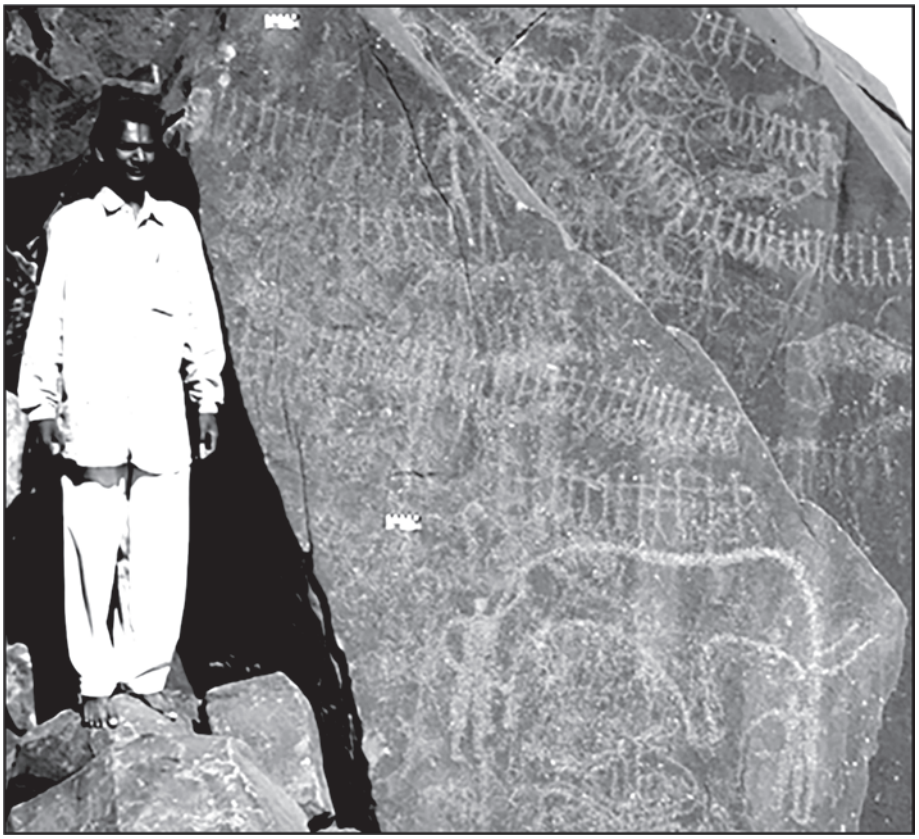


Figure 10. Local rock art researcher Ramadas stands next to elaborate panel at Hiregudda, main dyke (photograph by David W. Robinson in 2004).

through time.[60] Darker elements on a panel are therefore likely to be older and earlier than lighter elements on that same panel: in other words, the analysis of the relative patination of elements allows proposing a relative chronology on individual panels: by examining a number of panels, it is possible to advance a chronological scheme across the site. In combining this approach with Alchin and Alchin's[44] plus Boivin's[48] chronology, a more nuanced understanding of the history of Hiergudda rock art can be advanced.

Robinson and Ramadas[49] (see also Robinson et al.[51]) proposed a more detailed chronology (Fig. 8): first as seen in heavily patinated bull depictions, is an almost obsessive concern with bull imagery, a tradition which continued with stylistic changes throughout all subsequent sequences (Fig. 9). A small number of geometric shapes also appear to be early.

However, anthropomorphic depictions became a dominant element in subsequent phases, often added on, either on top or next to, an earlier patinated bull element. Contemporaneous with or slightly later than the appearance of these early anthropomorphic images, elements showing sexual activity began to be produced. These earlier traditions certainly relate to Neolithic and/or Megalithic times: much later, the introduction of elephant imagery coincides with a florescence of concentrated petroglyphs at particular loci on the dolerite crest of Hiregudda. Large anthropomorphic "chains" and fully infilled zoomorphic and anthropomorphic figures are associated with these elephants along with anthropomorphic figures holding metal-tipped weaponry.

Since elephants were introduced into this region late (from around the 8th century AD (see Robinson et al.[51]), and iron artefacts have not been so far found even in Megalithic contexts[61] it is likely that much of this art dates to Protohistorical or Historical times. The long human chains, as a particular design element, were likewise probably made around the time of the introduction of the elephant (Fig. 10).

Of course, as earlier researchers noted, this new research confirms that petroglyphs continued to be made throughout historic periods and even to the present day.

The importance of developing this new, and nuanced, chronology is fourfold:

* First, it leads to the conclusion that the *wide distribution and high numbers of bull imagery certainly indicates that, beginning in the Neolithic, a*

dominant and pervasive cultural meta-narrative focused upon bulls[49] (p. 322): the depiction of bulls were seen to be part of a metaphorical system that was at the heart of Neolithic ideology focused upon the human-animal relationship even with the human rarely, if ever, depicted. For the early petroglyph makers at Hiregudda, the rock art itself was an active part of inventing the Neolithic (see Robinson et al.[51]), stamping a metanarrative into the landscape through depicting bulls.

* Second, the chronology indicated a change within that metanarrative through time, with the emphasis shifting via the incorporation of anthropomorphic imagery, which is likely to reflect shifting prehistoric ideological permutations: in other words, the human becomes explicitly important as time progressed.

* Third, this chronology shows how, once made, rock art became an interactive medium for subsequent generations to react to: the past was visibly present in the form of previously made rock art, and therefore became a focus for a kind of temporal discourse that people actively manipulated.

* And finally, the historical rock art at the crest of Hiregudda shows that this active manipulation continued as historical people mythologized the Neolithic rock art.

In short, this new, nuanced chronology *in total* indicated how the Neolithic rock art became a temporally inventive media, fixed in place but constantly embroiled within changing narratives and ideologies.[62,63]

Conclusion: Contemporary Trends and Future Directions

Challenges remain in deciphering differing aspects of the rock art of Neolithic Northern Maidan: despite the relative patination analyses discussed previously, any absolute chronology remains frustratingly absent. However, just as nuanced chronologies are being found within the corpus of northern Karnataka rock art, more detailed absolute chronologies of the South Indian Neolithic are being advanced by recent work.[61] This trend towards nuance and detail in chronological terms bodes well for future research into correlating rock art style with different temporalities, including dating of the making of art but also in the affective quality that the art exerted through its enduring presence after being made. As seen by Brumm et al.[54] and Robinson et al.[51], this reflects the current trend to push the

boundaries of Neolithic art into new arenas, in both the interpretation of the past and in publication aimed towards the contemporary academic audience. The richness of the rock art of Karnataka specifically, and South India generally, and its continuing research now places it as a major contributor to rock art research globally. This can be seen in the recent global debate regarding rock art and shamanism: Hampson et al.[64] recent work on neighbouring Kurnool explores the possibility of shamanic influences in the making of Mesolithic rock art, while Boivin[65] has recently actively engaged within these debates (Ibid.: 3):

> *The shamanistic interpretation does, however, offer a potentially fruitful line of enquiry, particularly for more recent art, much of which was probably created in the context of a society where ritual practice frequently involved altered states of awareness*.

The interpretation of rock art as an active media in the creation of the Neolithic, the concept of 'rock music' and performance[47,48] along with the idea that 'life force' was attributed by those living in the Neolithic to stone[54] illustrates the potential for Neolithic research to advance ideas of rock art as an active agent through substantive case studies. Likewise, new methods and new discoveries will open up understudied regions in northern Karnataka. Most recently, Arjun[66,67] has developed a 'pigment stratigraphy' and new approaches to measuring cupule volumes at the site of Brahmagiri.[66,67] Arjun and Shekher[68] also have interpreted some modern cupule arrangements as possible depressions for games such as the *Mancala* (see Arjun this volume, pp. 377-400). New discoveries of pictographs in North Karnataka have been reported by Mohana.[69]

Future directions will likely include increasing use of sophisticated digital spatial analyses, including the application of Geographic Information Systems, to garner finer understandings of rock art and its relationship to land use, inhabitation, and notions of landscape. Singleton's (pers. com.) ongoing research at Maski employs both GIS and experimental uses of the imaging programme known as dStretch. Certainly cohesive, comparative, and comprehensive landscape analyses await such applications. Specific location of rock art should increasingly become a focal point of analyses as researcher move forward to understand the nuances between production and audience, placement and viewing. Such

integrated approaches will likely show the importance of rock art as an ideological tool that projected the Neolithic both onto the landscape and into society. As it has since the first bruisings exposed the parent rock beneath, those projections remain visible to us today in multiple thousands, effectively 'presencing' the Neolithic of the region within our own research and to those who study rock art across the globe.

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