

The Band of Holes

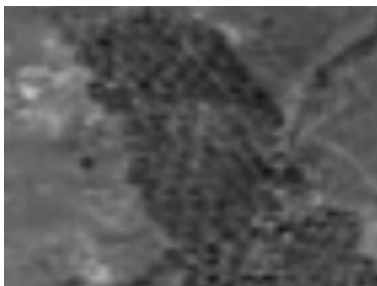
Several thousand holes, roughly a metre wide and deep, stretch for about 1.5 kilometres north of the Pisco valley in Peru. Further details may be found on the Wikipedia page https://en.wikipedia.org/wiki/Band_of_Holes. Available photographs are currently limited in number and by the obvious and various difficulties of image capture. Among the best is still the "original" aerial photo taken, probably in 1931, by Robert Shippee, shown below¹. I believe it is looking north, the (northern) sunlight subdued (note the absent shadow), the image resolution high.



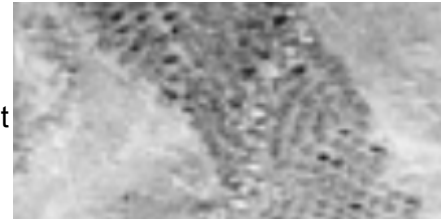
¹ The photo, probably first appearing in National Geographic 63(1) in 1933, is credited as American Museum of Natural History at <https://www.archaeology.org/issues/213-1605/features/4325-an-overlooked-inca-wonder>, article by Eric A Powell May/June 2016 in Archaeology, Archaeological Institute of America

Mystery surrounds their origin and purpose, but the holes are often thought to be the work of the Inca or other indigenous peoples. Functional explanations are unconvincing because

- the holes, to date at least, lack any cogent and consistent evidence as to contents;
- they are configured across the landscape, sometimes at a severe slope, and in ways, including close proximity to one another, that would often severely impede any practical use.



Artistic explanations look more promising. Some - I regret I am not aware who or what else they may have said - have discerned a parallel to the "dot" art of aboriginal Australians. Among other things, that begins to account for the - otherwise often unnecessary or inexplicable - formation of the holes into sections and patterns of varying width, density and orientation (examples left



and right). I again regret that I do not know why some dots or holes appear black, but I suspect some of them may be so by design, the hole construction reportedly varying.

It may appear to some that the holes or dots are used to suggest sometimes realistic or naturalistic images, such as a silhouetted, left-profiled beheaded man or woman in the photo on the left. Such use of incisions in the earth's surface to suggest probably more than one image, depending on the scope or angle of vision and so forth, is not only, I think, interesting and valid in itself, it would also be typical of the suggestive techniques of what I have called Linear and cult art in *The Problem with Linear B* (*The Problem* at <https://hcommons.org/deposits/item/hc:20833/>).

That artistic tradition also provides a rationale, in terms of conceptual art, for a "band of holes". Section 6 of *The Problem* proposed that Linear and cult art was informed by a basic motif, a repeating set of images reflecting homonymic word play with the sounds of a formulaic phrase represented by the Linear signs O KO KO WO. Applying the standard sound or spelling rules for Linear script, those same sounds would correspond in Greek, among other things, to ὄλκος or ὄγκος χων, *holkos*, or, *onkos khown*, a band or mass of excavations (dug holes).

Whilst Linear and cult art thus seems to provide a conceptual rationale for the Band, it might be dismissed as coincidence, a perception strengthened by the obvious difficulty of explaining Greek in Peru, to which I return in the discussion below. But the coincidence is not unique. In Linear and cult art, another set of image and word play revolves around the sounds TE RE O (or U) WA (see Section 6 as above). Among the Greek phrases corresponding to the sounds are formulations



such as *telei eula* or *eulais*, *τελει εύλα* or *εύλαις*, *telei eula*, or *eulais*, a worm makes or ends it (that is, the Band of Holes, *holkon khown*, ὄλκον χων), or it ends with worms, and also *telei oula*, or *oura*, *τελει ούλα* or *ούρα*, a pest or tail ends it (that is a rodent terminates the Band).

In an extract from a Bing Maps Aerial view² of the southern end of the Band (above) the natural formations of the land surface appear to have been deliberately supplemented with multiple configurations that suggest both worms and rodents. Thus, for example, two left-profiled worm heads (blue, yellow), and variously profiled rodents (red, turquoise, green). Typically of Linear and cult art, the forms are only suggested by a few key surface interventions, though in multiple, sometimes overlapping ways. Whilst modern ground work may have caused or accentuated some of the apparent effects, I emphasise that I have highlighted only some of the potential examples.

In another aerial view (from the same source) of the same valley only a little further east is a further right-profiled rodent (red), and in addition probably more than one representation of another word and image play on the basic motif (O KO KO WO), much favoured by Linear and cult art, namely a smaller and then enlarged limb, in this case the lower leg and foot (turquoise). In both cases, the effects rely partly on natural formations, and although some of the apparent interventions may have been caused by "modern", accidental human activities, it is again unlikely that they all have. In some cases such later activity may follow pre-existing marks, to similar effect.



² https://www.bing.com/maps/?v=2&cp=-13.716639~-75.874572&style=h&lvl=15&sp=Point.-13.716639_-75.874572_Band%20of%20Holes___ Copyright Microsoft 2018 and others as shown on the web page.

Play with another of the artistic tradition's formulaic phrases - PE RA KO KO WO (such as πελαργος χωρων, pelargos khwrwn, a stork moving) - may be reflected by more than one representation of a left-profiled bird head (red, turquoise, green).



The suggested bird on the left (turquoise) is probably more visually compelling - as we may now observe the wider surface area - as a small right-profiled song-bird, maybe wren with worm, but its typically raised tail extends outside this extract and requires too much space to illustrate³.

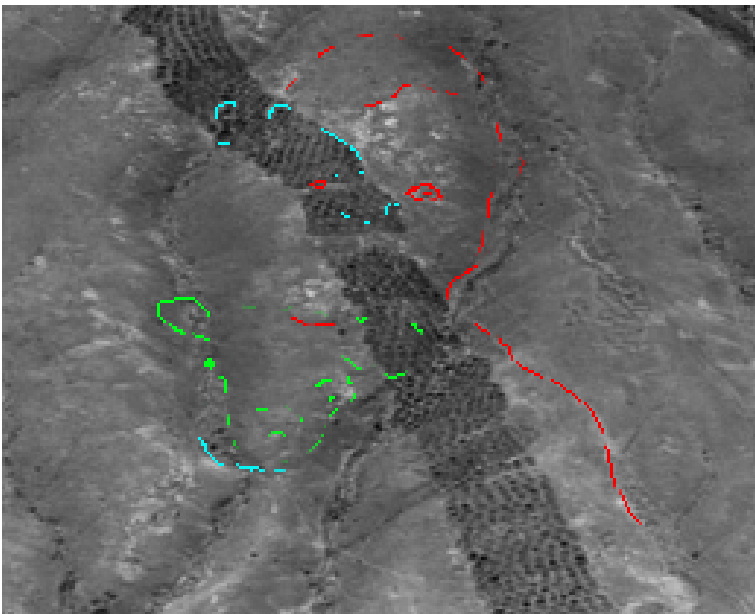
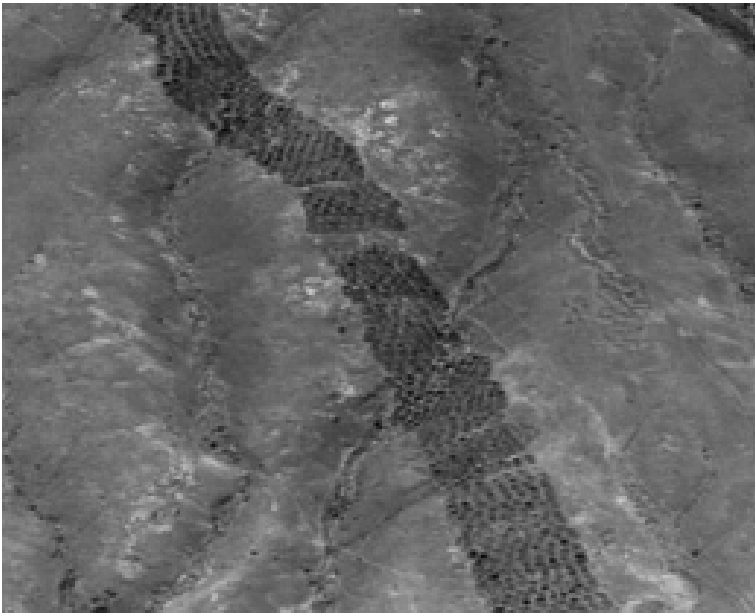
³ One might compare a possible wren on a *tiki* statue from Hiva Oa (see *Hoā Hakananai'a and other potential Linear and cult art in the southern hemisphere* at <https://hcommons.org/deposits/item/hc:21499/>). One Greek word for "wren", τροχιλος, trokhilos, has some significance in the Eleusinian mysteries, where Trokhilos appears as a priest of Demeter *exiled* from Argos. The name probably has some correlation with the Greek word for a wheel (commonly τροχος) - see the turquoise highlighting in the next photo.

The Band of Holes contributes to the imagery, either in a self-contained way (that is, largely, the patterning of the "dots") or by its interaction with other natural or contrived landscape features. In the enlarged extract below (credits to the same source), there is more than one, variously sized but exactly portrayed left-profiled probably woman (yellow) possibly holding a shield or other round object (turquoise, and see the end of note 3 above). She appears to stare onto left-profiled legs ending in shoes, but first incorporating buttocks where the dots probably suggest more than one right-profiled face. I have highlighted a potential one in blue. Unfortunately, the artistic technique of the hole or dot art makes it difficult to illustrate the effect. Those prepared to invest the time will see better examples for themselves. Another left-profiled, probably female visage (green) may be more obvious, and attributable almost entirely to the formation of the Band of Holes itself.

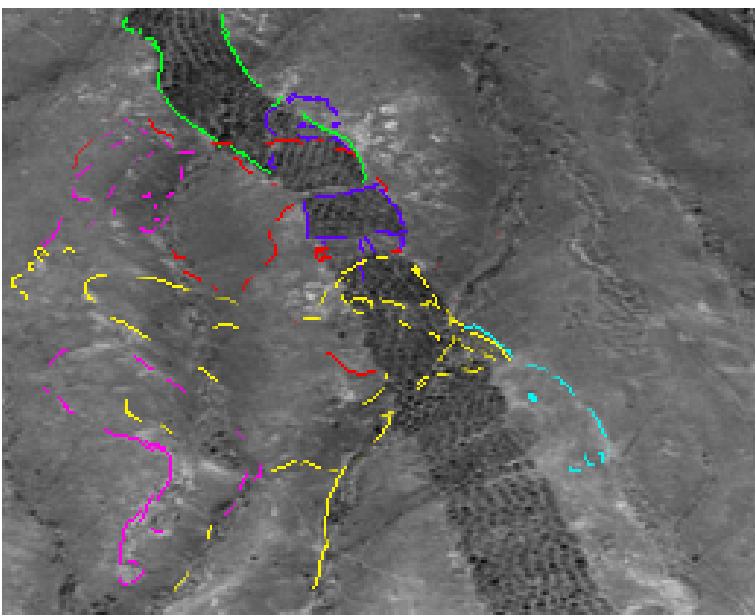


Similar effects of the Band - both in itself and in its interaction with adjacent natural or contrived features - may be seen in the original 1930s photograph. For example, the holes appear to have been configured with great precision to suggest a right-profiled young bear's face (turquoise in b) below), though arguably its whole body is also suggested by the natural landscape formations below it. For the bear in Linear and cult art, see again TE RE O WA in Section 6 of *The Problem*. The image of a frontally faced male (red) might be dismissed as fancy were it not that his key left eye appears to be positioned and formed entirely deliberately, so far as one can tell from enlarging this image or Bing Maps. Some formations such as his chin and hair line, maybe part of the left jaw, seem to be similarly contrived, though others owe more to natural features of the landscape. The landscape also appears to have been configured to suggest the right (especially) and left ears of an animal he implicitly carries (highlighted green, but easier to see with further enlargement).

The same area appears to be configured to suggest other images, such as another, probably slightly right-profiled female (red in c) below) and smaller possibly reclining child (purple), a rabbit or hare (turquoise) and an adjacent or superimposed bird or raptor (yellow), for both of which there are several suggested and juxtaposed images and profiles. The Band itself may be seen as a suggestively sinuous left-profiled torso (green) that evolves into the rear profile of a smaller figure looking back over her shoulder (blue). Again, the precision with which a few key features (such as the eyes) are positioned not only suggests the larger effect, but is typical of the techniques and motifs of Linear and cult art more generally.

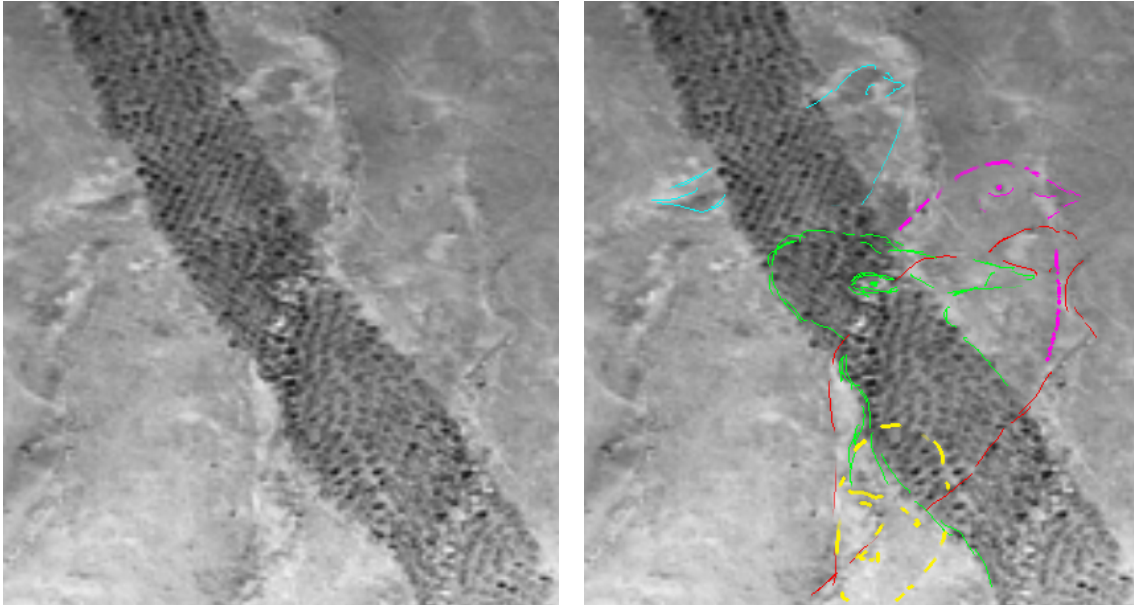


b)



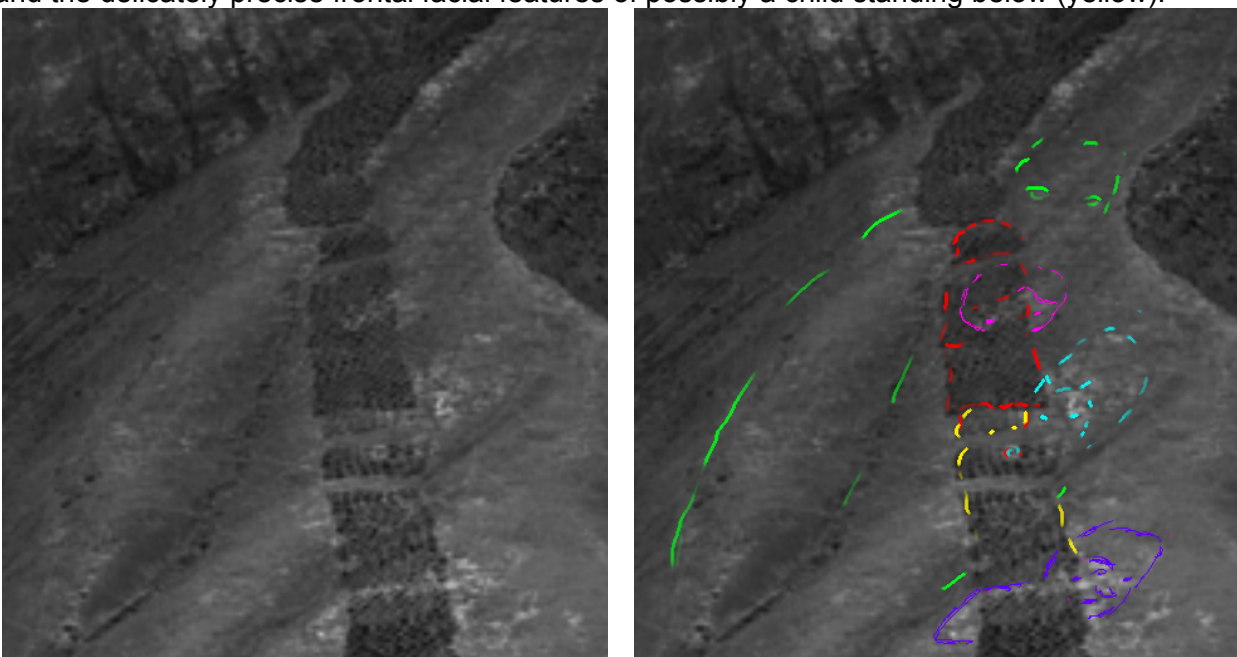
c)

Further down, the holes seem used with particular intensity to suggest various images of birds, such as the eye, head and beak of a right-profiled stork or water bird (green), a perching swallow



from the rear (red), and possibly a smaller version of the same from a different angle (turquoise). The profile of the swallow (red) appears to be largely shared by the suggestion of maybe one or more frontal parrots or parakeets (purple). In general various migrant and water birds both make and are made by the Band of Holes, perhaps a further play on the formulaic phrases of Linear art (TE RE O WA, PE RA KO KO WO, for example *telei oan pelagos khwrwn, τελει όαν πελαγος χωρων*, one who goes the sea - a migrant - makes the edge). The frontal face at the base (yellow) is unlikely to be accidental as its formation appears to rely on interventions made within as well as a short distance from the main Band of Holes. The eyes and brow line are precise.

Higher up the band on the 1930s photo, the angle of view is increasingly oblique so images are less certain. However, they appear to include a woman glancing to her right (green), the natural contours suggesting her right shoulder and arm. She may be carrying more than one item, with more than one suggestion of a pig (e.g. turquoise) and child (e.g. purple, blue) on the hillside below her, as conveyed by a combination of holes and other features. The band itself also appears configured to suggest more than one rear view of a standing figure walking away from us (red), and the delicately precise frontal facial features of possibly a child standing below (yellow).

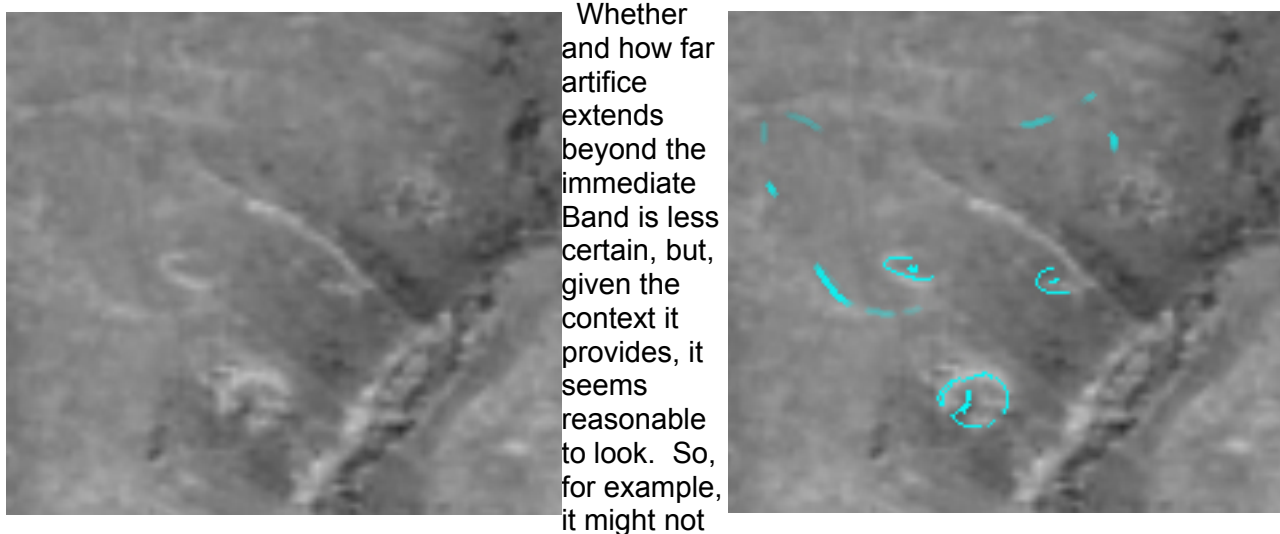


Discussion and conclusions

Identification of ground surface images is sometimes dismissed on the basis, for example, that it is due to distortions caused by the angle of photographic view. In this case, Bing Maps are directly overhead, the 1930s photograph oblique. But the argument is on weak ground if we do not know what angle of vision any putative creator may have had or been capable of conceiving, and in this case, though hard to tell, it is not obvious that the two views are not mutually reinforcing.

Proposed imagery may also be challenged on the basis that it is caused by naturally occurring changes in vegetative cover or soil type. But the argument is itself tendentious as changes in either can also be caused by human intervention. If there is a change, why?

Even so, it is certainly possible to mistake what can look like very convincing imagery in ground surface features that, so far as we know, is entirely accidental. If a case for real imagery is to be made, then it is generally essential to have other evidence of human intervention. In this case, that is provided by the Band of Holes in and of itself, which it is almost impossible to regard as a naturally occurring phenomenon.



Whether and how far artifice extends beyond the immediate Band is less certain, but, given the context it provides, it seems reasonable to look. So, for example, it might not

be impossible, but it would be truly remarkable for the ursine frontal facial features, highlighted turquoise, to be either naturally occurring or accidental, a by-product of other human activity such as quarrying or mining. Each "eye" of the bear is at most only 4-5 metres wide.

The techniques and motifs of what I have elsewhere called Linear and cult art appear to provide an explanation for the formation - both in general and in detail - of the Band of Holes and adjoining artefacts, including the bear that I have just shown. In turn, that would seem to provide some further corroboration for the existence of Linear and cult art. The images seem to be multiple and complex, probably also multi-layered and multi-aged, in a manner typical also of rock and cave art and of Linear and cult art too.

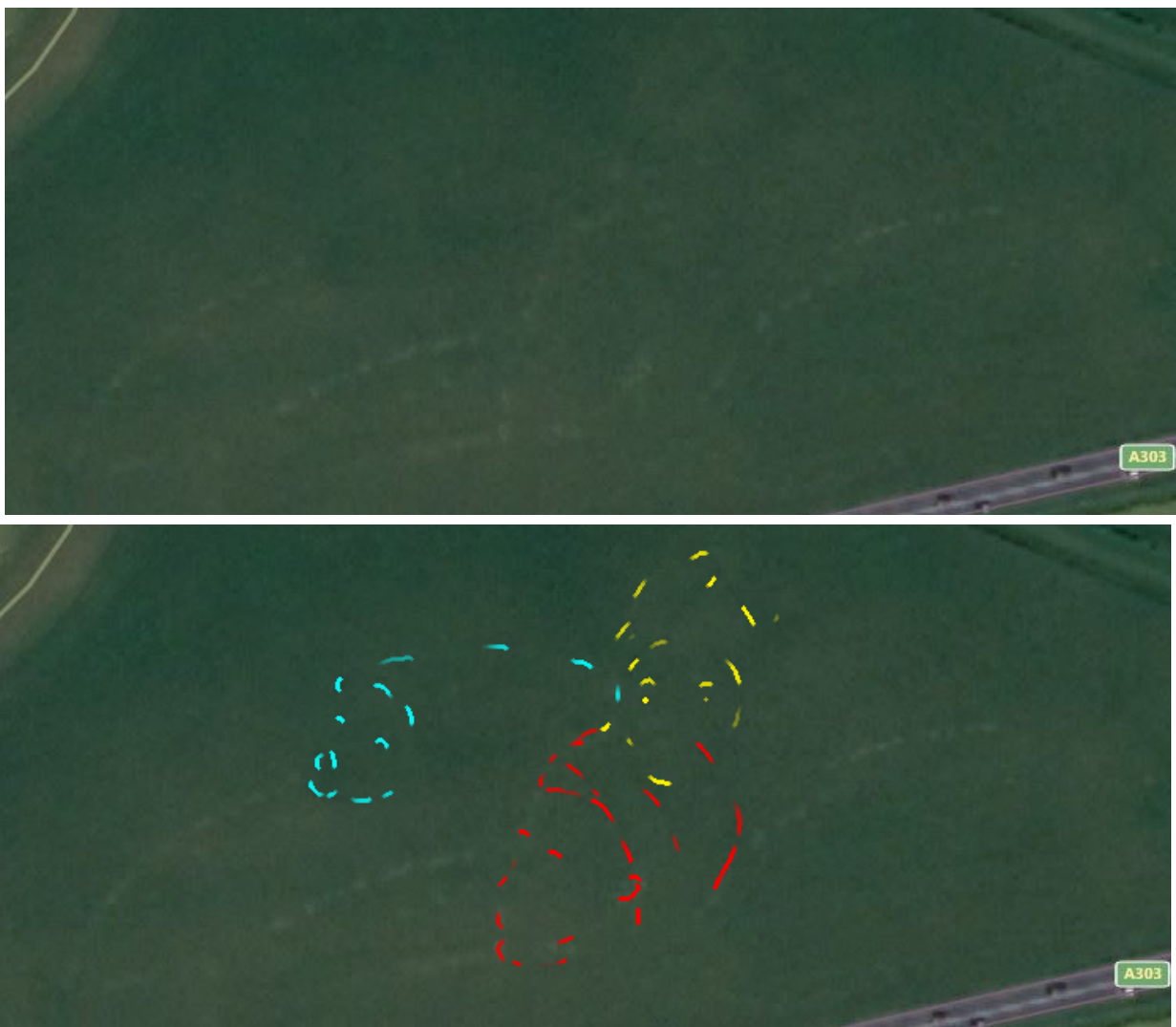
Of course, it remains difficult to understand how peoples, widely dispersed in both time and space, might have been aware of the *apparently* Greek-based formulaic phrases on which Linear and cult art plays (O KO KO WO etc). The issue is actually more complex than that on several counts, including validation of the age of many of the artefacts concerned (see on). Even so, there are various potential solutions, some of which I briefly addressed in the conclusions to Section 9 and in Section 10 of *The Problem*. I shall not repeat the possibilities here.

In any event, the presence of images in and around the Band is plausible not only on account of any intrinsic coherence and cogency as human artefacts or rationale in terms of Linear and cult art, but also because of the not-too-distant, already widely accepted Nasca imagery. To my eyes, the Pisco valley art is at least as remarkable and as well-preserved. Its apparent reliance, in part, on natural features as well as the sheer accumulation of images, superimposed or adjacent, may be instructive for understanding the Nasca equivalents. Unfortunately, the Nasca images are, perhaps surprisingly, not particularly well evidenced photographically. They can be hard to see in modern aerial views, and modern perspective, highlighting and, especially, prejudgement about what we are looking at sometimes mask or obliterate evidence for additional imagery.

I see no evidence for similarly extensive art forms outside discrete geographical areas. In other words, when I look at the wider landscape around the Band of Holes or Nasca lines - where Bing Maps, Google Earth and other viewing technologies are again useful - then in general I see no surface art.

But the Band of Holes is unlikely to be the only example of an almost literally linear artefact constructed to reflect the concepts and motifs of Linear art. Aside from other linear earth works, particularly in the UK, avenues of stones, as at Carnac, may share the same inspiration. They may not all reflect exactly the same word and image play with the basic motif (O KO KO WO), but one thing they probably do all demonstrate is not - as more commonly in Linear and cult art - a circular or cyclical representation of time (a "clock" face or similar, or a stone circle), but a linear one, a time line. Plainly, the fact that a line (or band) can be built incrementally, say year-on-year, may also be part of the explanation and attraction. The construction itself literally makes or takes time, TE RE O WA, τελει or θελει ωραν, teiei, or, thelei hwran, makes or needs time (again see Section 6 of *The Problem*).

In the UK, it is possible that other ground surface art also just about survives in the giants and horses carved, typically, into a chalk landscape. The difficulty in the UK and often elsewhere is that climate, vegetation and other human interference make it difficult, even impossible to assess



whether additional images surround or adjoin all that now remains as readily visible. I give one example (you may need to view it in a darkened room⁴) from an area only a few hundred yards

4 Image extracted and enlarged from <https://www.bing.com/maps?osid=e58b4227-7726-4f95-b4da-c958214093da&cp=51.17887~-1.826208&lvl=15&style=h&imgid=b8df51d9-1233-43ff-a52a-7250e8968a26&v=2&sV=2&form=S00027>, copyright Microsoft and others as shown on the web page

from Stonehenge - for Salisbury plain would be one of the few obvious places in the UK to look for the kind of trace surface art in question - but without any confidence that the identification is valid, and not a false-positive generated, say, by trench or spoil from relatively recent drainage pipe or cabling work. Some of the proposed Band of Holes images may have a similar explanation, but it is unlikely that they all do. The pristine aridity of the area's climate helps not only to identify mooted original art work, but also to distinguish it from later additions, artistic or otherwise.

A different perceived problem with the Nasca art work and with any proposition that the Band of Holes and adjoining interventions are also deliberated images is the method of construction, and indeed appreciation. To many it will appear that the images can only be enjoyed properly if viewed from above, which seems to imply a similar requirement as to their construction. To some that suggests aerial competence, balloons or flight. I do not necessarily think the reasoning is entirely wrong, but there is much else to consider first and as well.

Others have already proposed that some of the Nasca designs could be enlargements of textile or pottery motifs. Machu Picchu and maybe other sites in America and around the world appear to incorporate stones serving as 3-d models of the wider landscape. I cannot comment further as I have no relevant expertise, but I can see how the same basic concept - design enlargement (or diminution) - makes much sense in the context of Linear and cult art. (For "enlargement" generally, see O KO KO WO in Section 6 of *The Problem*.)

Fundamentally, as other have again already recognised, the challenge of constructing at least some Nasca, as Pisco, art may be a cartographic one. For if their creators had the cartographical competence to represent the land surface on a smaller scale (whether two or three dimensions), then there is no reason why they could not also draw or configure images of their choosing on that model, nor any reason why they could not then enlarge the relevant dimensions on the ground, using their own interventions as well as naturally occurring features to achieve the desired effects.

Linear and cult art appears to revolve around a fertility cult, rooted in turn in "mother earth". Representations of the earth, maps by any other name, appear to have played a long and distinguished role. See for example the representations of Africa in Section 2 of *The Problem*. Artists working in the tradition of Linear and cult art were not always or only interested in what we would now generally regard as the only true rationale for mapping, namely accuracy and utility.



Thus "maps" attributed to the medieval Maximus Planudes or Piri Reis appear to be deliberately distorted so that what appears to be an atrocious map actually conceals hidden imagery. The examples below, extracted from a map of Britain, use infill or wash as well as the map details to suggest multiple images⁵. In the first illustration, I have rotated the map 180

⁵ Image public domain, <https://commons.wikimedia.org/w/index.php?curid=38811505> and at https://en.wikipedia.org/wiki/Maximus_Planudes

degrees; note the "give-away" incursion of the land outline outside the border at yellow X. The outline and detail of the upside-down mainland of Britain now appear configured to suggest a frontal woman in a low-cut dress (red), possibly reading (turquoise). To her left, a corvid and hare (green, turquoise).



More detailed imagery, again attributable to both land, legend and wash may be seen in an extract from the map in its "correct" orientation.





A right-profiled pig (red) merges into the suggestion of several descending right-profiled youths of varying size, action and portion (turquoise, purple, green). Cornwall is configured to suggest a left-profiled crocodile (blue), whilst above the wash is applied to suggest a right-profiled female (yellow). The precision of the select interventions helps suggest larger, complete images.

My purpose, though, is not to explore the creativity of this and similarly remarkable medieval maps, but to indicate, rather, that they provide some analogy for the Pisco imagery. In the one case, human and other forms are projected onto a map. At Pisco they are projected onto the surface of the earth itself. Both share similar techniques - such as minimal interventions to suggest images, overlap, multiplicity - and probably motifs. Both, working in opposite directions, reflect awareness of scale.

But does the scalar model thesis provide a wholly satisfactory explanation for the creation of the Band of Holes? I find it difficult to judge, given the likelihood of some damage to the holes and the limitations of available photographs. But it doesn't seem to me fully to explain how

- the holes appear to interact *variously*, both internally within the band and with adjacent surface interventions that are not part of the band itself, in order to project multiple images. That would seem to suggest a scaled map not only showing the holes but retained over quite some period of time, on which the various interventions are marked or proposed;
- the same holes seem intended to suggest different images from different perspectives and in different light, or, more simply, the visibility of images varies according to the angle of view. One might have *assumed* that imagery would be limited to what is suggested by a perpendicular viewing from directly over the map.

So other considerations need to be taken into account. First and foremost, it is not obvious that much if not all of the imagery suggested by the Band of Holes and adjacent features is not visible from the ground, whether nearby slopes or even the level terrain itself, particularly with the aid of poles, ladders or scaffold towers. Only autopsy could help clarify the possibilities. The almost overwhelming plethora of often overlapping imagery might be partly explained by the fact that discrete images are designed to be best viewed, obliquely, from different slopes, but imperfectly visible from more than one, as in the 1930s photograph.

Nor is the age of at least some of the imagery secure. It seems to me conceivable that some of it could date from the 19th or 20th centuries (or even 21st), when both flight and telescopic

visualisation would have been commonplace. The Band of Holes is also apparently referred to as smallpox hill (cerro viruela), which may well refer to its appearance, but it *might* also reflect an intention that the artefact should serve as a kind of commemoration of the catastrophic impact of the post-Columbian disease on the indigenous populations. The strong worm and rodent imagery, the similarity of the holes to burials, might contribute to the concept.

Even so, I find it hard to visualise how, in practice, either flight or telescoping - whenever and howsoever achieved - would help in real-time *construction*. Both also seem to require simultaneous two-way communication between observer and constructor.

It also seems to me implausible that the Pisco artefacts can all be explained as post-Columbian. Whilst digging or constructing a "typical" Band hole might not in itself appear a time-consuming labour, the care of differentiated design and execution probably is, and the multiplicity or layering of superimposed and adjacent images even more so. But if we are looking at a tradition of, particularly Linear and cult art that extends back into the pre-Columbian era, then it is not just possible but highly likely that our understanding of pre-Columbian art and culture, and maybe its more general history too, is significantly incomplete, even, in part, completely erroneous.

Leaving to one side the issues of construction, I think it necessary to concede that those who feel the images, whether of Nasca or Pisco, can only be properly and fully appreciated "from the air" do make a reasonable point. But then so does the view that religious art - if such this be - is often in some sense hidden, its visibility to humanity not necessarily of prime or even any significance, except in so far as the knowing it exists but inability to see adds to a sense of the mysterious divine⁶.

⁶ My own material in this paper is freely available for any lawful public or private non-commercial use so long as the source, and its sources, is duly acknowledged, and such use exercises rights regarding its own use by others that are no more restrictive. Regard should also be had for the rights of those whose work I have used, which may be different. My use of their material in no way reflects their approval or otherwise of my statements or graphics (including extractions from and enlargements of photos). All mistakes are my own. I cannot guarantee that web pages are still live.