

'Ancient' mining near Great Zimbabwe

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SYNOPSIS

In proposing reasons for the geographical location of Great Zimbabwe, the paper re-examines the popular assumption that Zimbabwe is comparatively remote from the known areas of 'ancient' gold-mining. The lack of 'ancient' workings in the neighbourhood of Zimbabwe is pointed out, and it is suggested that the mining of placer deposits of gold may have played some part in the development of Zimbabwe on its particular site.

SAMEVATTING

In die soeke na redes vir die geografiese ligging van Groot Zimbabwe, skenk die verhandeling weer aandag aan die populêre opvatting dat Zimbabwe betreklik ver is van die bekende gebiede waar goud in die ou tyd ontgin is. Daar word op die gebrek aan ou delfplekke in die omgewing van Zimbabwe gewys en daar word aan die hand gedoen dat die ontginning van spoelertsafsettings moontlik 'n rol in die ontwikkeling van Zimbabwe op daardie besondere plek gespeel het.

One problem concerning Great Zimbabwe that continues to intrigue archaeologists and historians is the reason for its geographical location. Writing in 1970, Garlake¹ noted that there 'seems to be no satisfactory natural or geographical reason why Zimbabwe was established where it is', and this observation is repeated in his recently published *Great Zimbabwe*². The purpose of this paper is to re-examine the well-established and popular assumption that Great Zimbabwe is comparatively remote from known areas of 'ancient' gold mining. It will be suggested that the mining of placer deposits of gold may have played some part, in conjunction with other factors to be discussed, in the development of Zimbabwe on its particular site.

Summers³ has posited that the position of Zimbabwe 'was determined by its very unusual climate, making it a green island throughout the dry Rhodesian winter', but, as Garlake has explained, the 'natural features surrounding it are no different from many others along the southern plateau scarp, and its reliable, abundant rainfall, luxuriant vegetation, and easy contact with different ecological zones are also typical of the whole area'². This is demonstrated, for example, by the fact that Early Iron Age sherds in this region are not limited to the vicinity of what became Great Zimbabwe but have been found in other sites along the southern escarpment⁴.

Only one other reason has been

advanced to account for the specific siting of Zimbabwe—that the site was traditionally an important religious shrine of Mwari¹. In a more general sense, this latter reason in combination with the stimulus imparted by the developing gold trade with the Sofalan coast after about 1000 A.D. is held to account for the origins of Zimbabwe. Although no real evidence exists to demonstrate a trade route along the Sabi-Lundi valleys between Zimbabwe and the Indian Ocean, Zimbabwe was certainly conveniently placed in relation to the coast⁵, while the importance of the gold trade as a factor in the origins of Zimbabwe has been emphasized by the current research of Huffman⁶.

But such theories, apart from the religious factor, relate to the origin of Zimbabwe in general terms and do not explain why it developed where it did. Because Zimbabwe was and is commonly accepted as being relatively distant from known pre-colonial gold-reef workings, its siting has not been considered as economically or geographically determined by such a factor. Thus, according to Garlake†, 'the settlement of Zimbabwe owes its origins and initial growth to the presence of the [Mwari] shrine'¹. However, the association of Great Zimbabwe with organized religion in general and the Mwari cult in particular is by no means clear⁷, and is in need of considerable research. Consequently, there have been no satisfactory explanations for the geographical location of Zimbabwe.

The number of observations recording the lack of 'ancient' workings in the neighbourhood of Zimbabwe

is impressive. Despite the report by Bent in 1892 of 'gold reefs and old workings . . . about twelve miles from Zimbabwe', and Swan's mention, in the same volume, of 'rich gold reefs . . . about twenty miles to the north-west of Zimbabwe', from which he supposed 'the ancients obtained their quartz'⁸, this was vigorously denied the following year by Sir John Willoughby. He stressed that, although the nearest point of the Victoria gold belt was a mere five miles from Zimbabwe, all the reefs discovered by white prospectors were 'virgin' and that nowhere in the gold belt were there any traces of 'old workings'⁹. Hall and Neal devoted over a page of their book to this problem and even listed the twenty-two European mining claims then registered on the Victoria gold belt, none of which, they said, showed any signs of pre-colonial reef workings. They were of the opinion that the fertile nature of the surrounding countryside and the necessity of grain production somehow caused the 'ancients' to ignore the local gold reefs. Why the one should preclude the other was not explained¹⁰.

Geologists were similarly puzzled; in 1894, A. R. Sawyer was sanguine regarding the future of the Victoria gold belt, 'considering that such rich outcrops—as there undoubtedly were when this goldfield was first discovered—had remained undiscovered for centuries by the ancients whose headquarters were so near (Zimbabwe), and who otherwise were such good prospectors, as evidenced by their work in all the other goldfields'¹¹. Again, as regards Zimbabwe, it appeared curious to Mennell that 'though gold-mining

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†Later Garlake was more cautious².

seems to have been the main object of the "ancients", and many gold ornaments have been found in the ruins, there are no old workings within a radius of about 20 miles¹².

MacIver¹³ and Caton-Thompson, the first scientifically-trained archaeologists to examine the Zimbabwe ruins, also noted the absence of 'ancient' workings, while the latter, in her concern to refute the ancient and exotic origins attributed to Zimbabwe by certain earlier investigators, further suggested that there 'seems no tangible warrant whatsoever for the view that Zimbabwe was a distributing centre of the gold trade'¹⁴.

The exhaustive lists of 'ancient' workings compiled by Summers in his *Ancient Mining in Rhodesia* failed to reveal any significant pre-colonial mining activity in the Victoria district, although the reported existence of two 'ancient' reef workings, one of which was for copper, was recorded. Summers apparently treated the report about the gold-working with caution, merely observing that 'the miners who opened up the Dove Mine considered that there were small ancient workings there'¹⁵. A glance at the geological map of the country around Fort Victoria, however, shows the Dove Mine to be close to the present rifle-range, at the north end of which 'dolly' or grinding holes have been discovered. According to Wilson, 'there are nine such holes on a flat outcrop of gneissic granite, and around this outcrop is a low mound of soil containing quartz chips and some pieces of banded ironstone. These fragments on panning show traces of gold'¹⁶. It would seem reasonable to suggest that the two sites are linked, Wilson's report thus giving credence to the opinion of the workers at Dove Mine. This appears to be the only known example of a

*The Victoria gold belt did, of course, contain some rich patches, on occasion with 'dolly' holes nearby. The relationship between many of these grinding holes and gold mining in this district is not clear.

†A number of attempts were made to develop reef mines in this area between 1892 and 1893, but none met with any lasting success²⁰.

‡True alluvial gold can be found in the Tokwe River to the present day²⁶.

pre-colonial gold-reef working in the Victoria gold belt.

In fact, the Victoria gold belt is a notoriously poor* one, and from 1890 up to the end of 1960 only 58,615 ounces of gold were recorded as having been produced from 237 206 tons of ore. This gives an average grade of 4.9 dwt per ton, which, until recently, was low even for comparatively sophisticated European methods of recovery. It is certainly well below the suggested¹⁷ limit of 'ancient' payability, i.e., 16 to 20 dwt per ton. Given such a profitability constraint, it is hardly surprising that 'ancient' reef-mining operations for gold did not take place to any significant extent on the Victoria gold belt, but there is evidence suggesting that the working of placer deposits of gold may have been of some importance in the areas close to Zimbabwe.

In nature, gold can be separated from its surrounding matrix by the 'effects of solution, frost fracture, insolation and even root penetration'. Where such natural processes involve a flow of water strong enough to move the gold grains to the bottom of a water-course, an alluvial deposit is formed. If the gold is moved only a short distance without going to a water-course, such a deposit is termed an eluvial one¹⁸. Both alluvial and eluvial deposits are referred to as placer deposits. De Launay's description of these deposits illustrates one of the points to be made in this paper: 'These ores are . . . the . . . result . . . of an erosion by which the rocks and lodes have been dismantled, crushed and concentrated, most probably both mechanically and chemically. Nature has taken it upon herself to save our pockets by carrying out for us the labour which, under other circumstances, we are obliged to perform with difficulty by means of our stamps, our sieves and our shaking tables. The result is that ores very poor in themselves have been able to give productive alluvia. It would be quite erroneous to imagine the reverse to be true, that, when productive placers are found, the original lodes must also necessarily give industrial results'¹⁹. So, poor as the Victoria gold belt is and was in

terms of reef gold mining, this need not necessarily preclude the possibility that the placer deposits in the district have been worked profitably.

In 1904, R. H. Goddard, a prospector, discovered a payable placer deposit in Fern Spruit, not far from Zimbabwe (Fig. 1). The existence of such deposits in the 1890s, and part of Fern Spruit itself had been briefly worked in 1891, but apparently with no significant† success^{21, 22}. The more spectacular nature of Goddard's discovery had the valuable side effect of causing Fern Spruit and the neighbouring districts to be examined thoroughly for indications of 'alluvial' gold, and this search revealed signs of 'ancient' exploitation of placer deposits. The local Mining Commissioner²³ noted that the 'Ancients evidently worked this Alluvial as numerous holes can be seen', while one of his companions²⁴ on a later tour of inspection of the placer discoveries commented: 'A great deal of country appears to have been worked by the ancients for alluvial; in many places whole hillsides have been turned over'. He added that this 'may account for there being no ancient workings on reefs in this district; the alluvial was perhaps richer and easier to win'.

The news of Goddard's discovery prompted one Regan²⁵ to write to the editor of the *Financial News* claiming that in 189(3?) he knew of a find of alluvial gold along the Tokwe River‡ and 'also from a position east of the river, in low, marshy ground'. He further asserted that 'in the neighbourhood of the Victoria district there have been unearthed mining tools as used by the ancients . . . in surface and alluvial mining'. If such tools were discovered, they have failed to come to the attention of professional investigators and are not mentioned in various publications by archaeologists. Indications of alluvial gold in the Victoria district are also mentioned in other contemporary European sources, one of which briefly mentions a successful gold-panning experiment in a spring near the Zimbabwe ruins in 1892^{27, 28}. It is noteworthy that, in 1893, Sir John Willoughby suggested that,

Victoria district had been known to European prospectors since the early because of the absence of nearby 'ancient' reef workings, 'the Zimbabwe people . . . may possibly have obtained some small portion of gold from washings in the beds of the numerous intersecting streams'. He added that 'recently, the occupier of a neighbouring farm claims to have discovered an alluvial goldfield within six miles of Zimbabwe . . .'⁹.

Some attempt must be made to date the placer workings in the neighbourhood of Great Zimbabwe, but it should be stressed that, because of the unsatisfactory nature of the available evidence, the following suggestions are very tentative*. An examination of documentary material does provide certain negative evidence indicating that there was no gold working near Great Zimbabwe later than the sixteenth century. Mauch's description of his travels in the area during 1871-2 mentions iron but not gold mining in progress²⁹. A detailed Portuguese document of 1857³⁰ describes all known gold, copper, and iron mines in Southern Zambezia. Places mentioned include the goldfields of central Matabeleland near Inyati and Insiza, the Umkondo copper mines, various mines ranging from near present-day Gatooma to around Umtali, and some to the north. Even a small goldfield only two leagues long near Odzi is mentioned. The document refers to the situation under the late Changamire Empire, but mentions events up to and including its fall. It therefore seems unlikely that placer deposits near Zimbabwe were being worked in the early nineteenth century, and, because of the tendency of the Portuguese to repeat obsolete information, perhaps the eighteenth century as well. Seventeenth-century authors referring to the famous 'Mother of Gold' goldfield made it clear that they were linking this with the powerful polity of 'Butua', which, since it was recorded by Conceicao as being taken over by Changamire

in the latter half of the century, must almost certainly be the Khami culture area^{31, 32}. It is only in the mid-sixteenth century that mines are mentioned in the Zimbabwe area, this time in connection with a ruin that is certainly Zimbabwe³³.

There is one further piece of speculative evidence; the Mining Commissioner for Victoria in 1904 noticed a link between the faint traces of terracing found widely in the district and the 'rounded Diorite boulders' characteristically associated with the placer deposits^{34, 35}. Garlake has postulated a rapid increase in the population around Zimbabwe in the late fourteenth and early fifteenth centuries, citing as proof of this 'the intensive terracing of the Acropolis Hill and rich deposits in the Valley immediately below the Hill'³⁶. It seems that this terracing was more widespread than indicated by the above account, and that boulders and stones, originally moved in some instances because of the workings of placer deposits, were later utilized for terracing or, more correctly, for the construction of hut platforms. If this suggestion is acceptable, it would mean the exploitation of placer deposits in the area near Zimbabwe some time before the end of the fourteenth century.

Before attempting to assess the significance of the placer deposits in the neighbourhood of Zimbabwe, it is necessary to determine their nature more precisely, because eluvial as opposed to alluvial deposits 'are generally, if not universally, much less rich in metal'³⁷. Although present-day geological opinion suggests that the deposits in all likelihood were eluvial, informed opinion in the Victoria district at the turn of the century was apparently divided over the question. The local Mining Commissioner reported³⁴ that the deposits were inspected by many mining engineers, the majority of whom considered the gold to be alluvial. 'The nuggets are all of fair size', wrote the Mining Commissioner, 'in fact no fine or leafy gold has been found . . . the average size was about $\frac{1}{2}$ a dwt. There is also no gold bearing reef situated above the claims so that it seems

difficult to find anything to support the theory that the gold is shed [i.e., eluvial] gold'. He concluded triumphantly that the 'largest nugget so far found weighed 2 ozs. 1 dwt., a particularly fine specimen for shed gold!'. Other observers noted that the gold was 'but little water worn and indicative of its proximity to the original matrix from which it has been shed'³⁸, an opinion which was shared by the British South Africa Company's consulting engineer³⁹.

One further important qualification should be borne in mind concerning certain of the evidence discussed in this paper. The two years prior to Goddard's 'alluvial' discovery in 1904 had seen the fortunes of the Southern Rhodesian mining industry reach such a low point because of over-capitalization and speculation, among other reasons, that a beginning had been made towards the restructuring of the industry in an endeavour to place it on a more profitable footing. The period 1902/3 was one of economic depression in Southern Rhodesia, partially relieved in 1904 by the artificial stimulus of the 'Banket' boom. When reports of rich 'alluvial' discoveries in the Victoria district reached the British South Africa Company administration and directors in Salisbury and London, they may well have regarded them as heaven-sent to bolster confidence in Southern Rhodesian shares at a time when doubts concerning the 'Banket' boom were already being voiced†. At the local level, Victoria had been comparatively neglected as a goldfield following the 'rush' to Matabeleland in 1893-4, and its one major remaining economic prop—the grain trade—appears to have progressively collapsed after 1902. In this context, the enthusiasm displayed by the British South Africa Company administration and the local Mining Commissioner, while understandable, must naturally be treated with caution. The Mining Commissioner's map, part of which is reproduced here (Fig. 1), was obviously greatly exaggerated. On closer inspection, the placer deposits did not warrant the hoped-for 'rush', despite claims that practically 'the whole of our

*I am indebted to Dr D. N. Beach for his advice on this section.

†Chartered Company shares rose by almost 17% following reports on the Victoria 'alluvial' ⁴⁰.

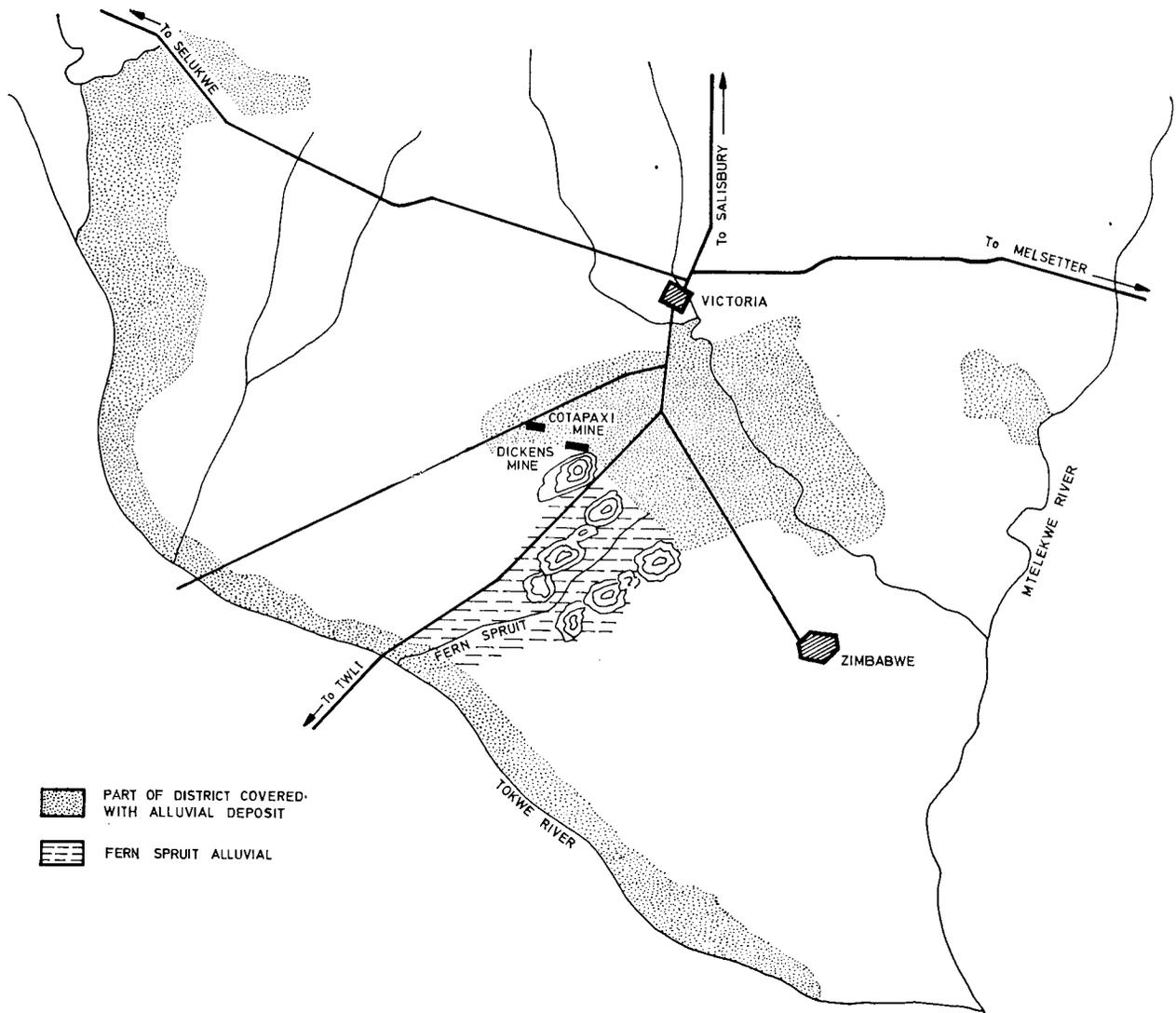


Fig. 1—Fern Spruit placer deposit (copied from a map in communication M3/8/1/1⁸⁵).

Gold Belt is covered with an Alluvial wash varying in thickness from 1 ft to 4 ft⁸⁵.

While the evidence for pre-colonial placer mining in the areas surrounding Zimbabwe is unsatisfactory on a number of grounds, the positive factors deserve stressing. Although the geological evidence is confused, it is hardly necessary to postulate the existence of fabulously rich and extensive placer deposits in order to suggest some such relationship. It is possible that, unlike reef mining, pre-colonial gold washing and/or placer workings were viable on lower returns than those acceptable to Europeans. This is indicated by the comparative lack of success that has attended European efforts to work alluvial areas along the Mazoe and Ruenya rivers, for example,

where Africans have washed gold for centuries and occasionally still do so. In most parts of the world, the exploitation of placer deposits of gold (and especially alluvial ground) has normally preceded reef workings, and it could be suggested that such deposits in the Victoria gold belt were worked by Later Iron Age people, probably in response to the Muslim coastal presence. This, together with the other factors previously discussed for the origins of Zimbabwe, may have provided a particular economic reason for the growth of Zimbabwe, as opposed to other Later Iron Age sites on the southern escarpment. This suggestion does not conflict with present explanations for the development and later decline of Zimbabwe. By their very nature, placer deposits

tend to be relatively easily and swiftly worked out, this exhaustion perhaps forcing the inhabitants of Zimbabwe to rely on goldfields further away.

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