

History of Gold Mining in Ghana

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Remarks to the author from the editor

My brother Winfried Peters was born at the 30.11.1952 and died at the 15.05.2001 after a long illness.

He was a diploma mining engineer at the technical University of Berlin and worked there since 1979. He was from 1986 to 1994 for the mineral Commission, Accra, Ghana in the context of several projects as a mining engineer active and taught from 1987 to 1988 as an assistant professor at the university of Tarkwa mining and planning and design of a mine for mining. From 1995 he worked as free employee and external adviser for exploration of mineral resources and mining projects in Ghana. He has published different scientific articles and was the publisher of various publications for the geology and mineral resources in Ghana. He was a member of the Ghana institution of Geoscientists (GhIG) and furthermore a member of the GDMB (German Society of Metallurgists and Mining engineers).

My brother still wanted to publish this book before his death. Unfortunately, it was not granted to him any more to do this.

Winfried Peters was married and the father from 5 children.

I have sighted his estate and processed according to these as his brother. Therefore I am publishing the last works of my brother Dipl. engineer Winfried Peters now, so that his bequest is filled. I have revised this work after best knowledge and conscience.

I would be pleased if this work would find a wide audience and would activate to new and further researches.

The editor, 16th of September 2013

Andreas Peters MSc. MBA

HISTORY ONE

1. INTRODUCTION

This book attempts to outline the history of gold mining and related subjects like marketing, trading and use of gold from the legendary times until today.¹ The work will not limit itself to the borders of present day Ghana but will have to consider also adjacent areas of today's Mali, Burkina Faso, Niger and Nigeria to put especially the earlier historical developments into their proper context.

This History will attempt to piece together not only the technical development of gold mining, but the historical, political and socio-economical pressures which caused and were also generated by the development of the gold mining sector within this geographical area.²

A disadvantage for the historian digging into West African History is the fact that the peoples dwelling in these areas had not developed written records but rather depended on oral tradition of their history. Systematic attempts to preserve this oral history through taping or writing down were undertaken only over the last 100 to 150 years, in sporadic attempts may be a little earlier. The historical events of the last millenium, i.e. from 1000 A.D. to today can be reconstructed for the first half through the written records overcome by the efforts of the muslim scholars, which in a very scientific manner recorded historical, political, economical and social developments in West Africa and in the sub-Saharan areas. Over the last 500 years the advent of European traders, missionaries and adventurers produced written records of events they encountered during their more or less long ventures at the shores of the West Coast. Of course, a lot of information they gathered and laid down in their records was based on hear-say sources because only very few adventurers penetrated the hinterlands. Nevertheless, we will realise that all these records, as one-sided and biased they might be in many cases, together with oral tradition culled from the traditional rulers and archeological evidence, can form

¹ Remark from the editor: My brother stopped with the work at this book in 2001

² Remark from the editor: The book from my brother does not lay the claim to completeness since he ended this book in 2001 shortly before his death.

a quite solid basis for the reconstruction of historic events in West Africa in general and the area of today's Ghana in particular.

Completely different is the picture for the earlier times, i.e. before 1000 A.D. for the three millenia back to 2000 B.C. We are very certain that negroid ethnics were populating the West African lands but we do not know where they came from, how they called themselves, which political and socio-economic systems they had developed for themselves and whether or when they perished, migrated away or were absorbed by other negroid ethnic groups who themselves migrated from almost uncertain directions into these tropical rainforests.

In short, whilst we can speak of the Bono, Gyaman, Guan, Asante for the last millenium, we can only call the previous inhabitants the black "West-African", sometimes differentiated according to distinct cultures named according to the location of their archeological finds, like Ntereso, Nok, Benin etc. These sites prove the existence of highly developed cultural and technical skills expressed in the overcome artefacts found in the excavations. But the curtain in respect of the true nature, descendancy, sociology of these people, who were the originators and perpetuators of these documented cultures, can not be lifted.

Here reflection on the flow of historical events from the ancient times to modern times.

Guggisberg's citation

We will leave it to you, the esteemed reader to form an opinion on the question: Did the development of the gold mining sector benefit the People of Ghana ?

2. THE LEGENDARY TIMES

The ethnic and linguistic diversity in the region of West Africa south of the Sahara confirms the region as an important focus of human development on the continent. In a region approximately the size of Western Europe, the diversity is quite remarkable to this day, there are indications that the region was settled several millenium B.C. by small groups of people (hunters and gatherers) migrating across the region at a time when climates were much more favourable than today and when the Sahara was not such an intimidating geographical barrier.³ Most of these groups appear to have migrated along an east-west corridor, originating in northeastern Africa and spreading across what was then a much more fertile Sahel.⁴ Eventually the use of domesticated livestock and crops resulted in the development of innumerable small communities which is manifest in the ethnic diversity now seen in the region.

By the third millenium B.C., the Sahara area became much drier and essentially partitioned the region so that the interaction and intermingling of Negro peoples from the Sahel and forest regions of West Africa with the Arabs and Berber people of North Africa was much reduced. After that, population growth and the development of regional powers in West Africa resulted in a general migration of people from West africa to the more sparsely populated areas of central, eastern and southern Africa.⁵

2.1 The Shrouded Beginnings

It is claimed by many authors that gold mining was carried out in the area of today's Ghana since times immemorial. Although Junner in 1934⁶ cautiously stated that "In the 5th and 6th centuries B.C. the Phoenicians and Carthaginians sailed around the west coast of Africa and may have reached the

³ Davidson, 1992

⁴ Remark from the author: The Sahel refers to a narrow strip of land across most of north Africa dominated by grassland and savanna area wedged between the Sahara desert to the north and the dense forests to the south

⁵ Kasule, 1998

⁶ Mem. 4, page 1

Gold Coast. Other, later writers present these assumptions more boldly: Quarshie et. al.⁷ state: "Gold mining has been carried out by the natives for thousands of years long before the Phoenicians landed on the Guinea Coast of West Africa." Later on⁸ it continues "The Phoenician sailors are said to have sailed around Africa during the 6th Century B.C."⁹

Reference is made to Tarshish, or Tartessus, which was then the southern part of Spain. This area of Spain was a Phoenician colony for many centuries, later to be known as Carthage, an area known for its mining activity in the days of King Solomon, who colonized the entire northwest part of Africa." The Phoenician vessels from Tarshish were known to have sailed both north and south and reached the Gold Coast, where they became aware of the gold trade. "The gold they found was so fine that it fetched a premium price in Europe."

Kesse¹⁰ writes: "Ghana, formerly the Gold Coast, has been associated with gold from time immemorial. Gold mining has, for a long time, been one of the most important economic activities in Ghana. Trade in gold dates back many centuries to the time when the Phoenicians and the Cartaginians sailed around the West Coast in the 5th and 6th Centuries B.C. Before Europeans from Portugal and Britain arrived between 1453 and 1622, the people had been mining gold for thousands of years."

All these writers were probably drawing on the assumptions published in 1935 by Mosely, Waller, Landon and Evitt, who developed and spread the idea of the Gold Coast being the biblical Ophir, the legendary source of very fine gold for King Solomons court. Because this source is not readily available today, the important passages of this text are quoted in the following:

"There is a curious insistence in biblical records upon the land of Ophir as a region celebrated for its proverbially fine Gold. Mention is made in the Bible as early as the tenth chapter of Genesis in which Ophir is linked with Havilah, which again as early as the second chapter of Genesis is described as "the land

⁷ Quarshie et. al. 1981

⁸ See ibid page 10

⁹ Herodotus and Jona Lendering: The circumnavigation of africa, The Histories 4.42
<http://www.livius.org/he-hg/herodotus/hist01.htm>

¹⁰ Kesse, G.O. in Barnings blue book, page3

where there is Gold, and the Gold of that land is good." The Psalms, Job and Isaiah make use of the Gold of Ophir for comparison with the most desirable of human virtues.

"For the historian the important references, however, occur in the First Book of the Kings and in both Books of the Chronicles, which, even though no accurate information is imparted, permit of some speculation upon a possible location of the far famed region. They tell of King Solomon equipping a fleet with the aid of Hiram, King of Tyre, who supplied "servants and shipmen that had knowledge of the sea."

"It is stated that the ships were sent from Ezion Geber on the shore of the Red Sea, but it also mentions with still greater insistence that it was the "navy" of Hiram that brought the Gold from Ophir, and further that "the King had at sea a navy of Tarshish with the navy of Hiram" and that "once in three years came the navy of Tarshish bringing Gold".

For the readers' convenience the three biblical references will be cited here in full, the text culled from the King James Version:

I Kings, Chapter 10, Verse 11:

"And the navy also of Hiram, that brought gold from Ophir, brought in from Ophir great plenty of almug trees, and precious stones."

I Kings, Chapter 10, verse 22:

"For the king had at sea a navy of Tarshish with the navy of Hiram; once in three years came the navy of Tarshish, bringing gold, and silver, ivory , and apes, and peacocks."

II Chronicles, Chapter 8, Verse 18:

"And Hiram sent him (Solomon) by the hands of his servants ships, and servants that had knowledge of the sea; and they went with the servants of Solomon to Ophir, and took thence four hundred and fifty talents of gold, and brought them to King Solomon."¹¹

¹¹ Remark from the author: One Talent of Gold equals 1612 troy-ounces, ed.

After a discussion of other previously assumed locations for the legendary Ophir like East Africa, in the Far East, Arabia and South Africa the authors Mosely, Waller, Landon and Evitt invite the reader to consider "an entirely novel theory now put forward for the first time, and which would seem to be founded on more conclusive evidence, based upon historical and other data. It is confidently asserted that the Gold Coast is the Ophir of antiquity."

2.2 Basis for Investigations into the Facts

After having confronted the reader with all these assumptions and assertions we should invite to the discussion of several questions to be critically looked at and answered before we could arrive at a final opinion on the historical truth or probability of all those claims quoted above.

First and foremost, it is important for the reader to know the sources of gold in West Africa; three main sources can be identified:

1. The rivers, streams, beaches, i.e. gold contained in unconsolidated sediments in the river beds, along the rivers and streams and at seashores. The gold can be recovered by scooping the unconsolidated material from its source and washing the material to concentrate the gold by gravity. The product is in its majority flake or dust gold, finer or coarser gold grains and from time to time nuggets of various size.
2. Alluvial terraces, old river and stream valleys. The gold bearing sediments can still be unconsolidated, occur above within or below the natural water table or are partially or completely consolidated due to chemical sedimentation and cementation processes. Very often a considerable layer of overburden (i.e. sterile material without any gold content) is overlaying the gold bearing sediments. The gold derived from these sources is in its main characteristics similar to category 1, i.e. mostly dust, grains and a few nuggets. To win the gold, digging tools are a prerequisite, in the case of consolidated sediments simple mining tools are necessary to break the "ore" whether it is won on the surface in large

open cuts or underground in shafts dug from the surface to the underlying sediments.

3. Hard rocks, comprising of metamorphosed sediments or volcanic/plutonic rocks, quartz veins etc. Besides particular mining skills appropriate iron or steel mining tools are necessary to win the gold and to break the ores. The gold finally won will consist of dust or small grains and nugget type concretions might only be gathered when by accident a solid gold veinlet or stringer was encountered.

Then, in respect of all the claims quoted above, three main complexes have to be investigated:

1. Who were the inhabitants on the West Coast of Africa during the two millenia from 2000 B.C to 1 A.D., since when did they value gold as a medium for exchange and mined it for that purpose and by which methods?
2. Which peoples were technically able to reach West Africa by land or sea during those times and what was driving them that far?
3. Are there other trade connections in metals or goods known for those early times which could imply an early trade in West African gold?

To assess the truth of these claims one has to explore deeper into the history secured from written documents and archeological findings as well as to ascertain possibilities and probabilities of contemporary historic events and the scientific and technological abilities of those peoples involved in those ancient times.

The archeological finds of this time period are absolutely meagre because the tropical forest has swallowed up all traces and is still today impeding remote sensing methods to retrace old cultural sites.

The reader should be warned that nothing of this ancient history is absolutely secured and in most cases our conclusions might be mere conjecture. Peoples were migrating over the centuries and where we find their descendants dwelling today does not reflect their living area two milleniums ago. This leads also to the necessity to look at the history of gold mining in a broader regional context than limiting the discussions only to the area of today's Ghana.

2.3 The West African Scene 2000 B.C to 1 A.D.

As already mentioned in the introduction, we do not know which peoples were populating the area of today's Ghana in those days.

Clark¹² states that dependent on climatic and environmental conditions "by the end of the Pleistocene, or shortly after (8000 B.C.), specialized hunter-gather populations are to be found living in more permanent settlements in three kinds of particularly favourable environments. These are the fringes of the equatorial moist forest of the Congo basin and, one may presume, also in West Africa; around the lakes of the Gregory and Albertine Rifts; and on or adjacent to the sea coasts."

With such populations in place the basic conditions for the development of food production and the spread of metallurgy in West Africa were given. Nevertheless, Clark¹³ states that "South of the Sahara, the earliest dated evidence of food production is considerably later (ca. 1000 B.C.). The reason for this is to be found in the extreme richness of the tropical environment. This abundance provided the mesolithic hunter with an unlimited source of meat."

And a little bit furtheron: "Regular contact between the Saharan populations and peoples living in the Sudan and, later, with those in the rain forest zones, must have encouraged experimentation with potential cereal and plant domesticates in these regions, perhaps from the beginning of the sixth millenium onwards, though no dated finds are known before the first millenium B.C."

"It is assumed that this West African complex flourished sometime between 2000 B.C and 500 A.D."....."The Nok Figurine Culture north of the Niger-Benue confluence was thought to date to the period from ca. 500 B.C. to ca. 200 A.D. with an absolute beginning date of 900 B.C." "An important settlement site at Taruga has been dated about 300 B.C."

"The earlier stages might well have been fully Neolithic, but the later era belongs in the early Iron Age even though in some places stone was used

¹² Clark, page 8

¹³ Clark, page 9

along with metal until very late. Effective cultivation in the rain forest zone itself, however, is unlikely on any large scale before the invention of iron tools...."

Although Clark speaks of invention of iron tools here the question of trade of iron tools either manufactured at Nok or Arouane or from farther places or imported via the sea shores must be taken into consideration. Clark himself is convinced: "There is no evidence for a true Bronze Age in Africa outside the Nile Valley and perhaps Morocco and, when metallurgy was introduced south of the Sahara, the techniques employed in the manufacture of copper objects were those adapted from ironworking. This knowledge is believed to have spread either from Meroe sometime between 700 B.C. and 300 A.D. or across the Sahara from the north along the trade routes marked by the chariot (horse cart) pictographs, or, more likely, from both directions. It may have reached Nok by 500 B.C.

Merrick Posnansky provides arguments rather favouring the dissemination from the North via the Sahara. Making reference to Tylecote¹⁴ it seems that there was no trace of iron smelting at Meroe before 300 B.C. and that there is also no technological evidence for the spread of the Meroitic tradition of iron working. Posnansky then states: "The earliest evidence for iron working in West Africa comes from Taruga where a series of dates of furnaces range from 440 +/- 140 to 280 +/- 120 B.C. The distribution of rock paintings and engravings of horse-drawn wheeled chariots in the Sahara indicates two possible trans-Saharan routes in the mid-first millenium B.C., one stretching from Morocco to Mauretania and the other from the Tunisian area across the Tassili and Hoggar mountains to the middle Niger. A knowledge of iron working could thus have come from the Carthaginian area to Nigeria and/or in the trail of copper workers to Mauretania and spread eastwards and southwards."

The reader should bear in mind that clearing of rain forest with stone tools is impossible - only the availability of sharpened iron tools like axes, pangas, cutlasses and hoes did allow the establishment of settlements living on shifting cultivation within the tropical rain forest and consequently the formation of the

¹⁴ R.F. Tylecote: The origin of iron smelting in West Africa; West African J. Archaeol., V (1975), p.6

forest kingdoms. The use of iron and stone tools for a considerable time side by side in West Africa has its similarity in other areas where it is found quite common everywhere that there is a telescoping effect of the use of stone, copper, bronze tools far in the respective Iron Age.

As M. Posnansky¹⁵ puts it: "Iron was the concomitant of agriculture over most of the Guinea forest and was instrumental in allowing populations to expand geographically and numerically."

For the area of today's Ghana as an documented example of a neolithic settlement Clark cited after Davies: "Of particular interest is the site of Ntereso on the White Volta. Here a local Mesolithic/neolithic fishing community, living in permanent dwellings, was later introduced to iron by immigrants, perhaps from Arouane in the Sahara."¹⁶

All these deliberations have now to be set into the context of the questions how and when gold collection and gold mining was probably started by these gather-hunter people who became more or less settled.

Rickard¹⁷ describes that gather-hunter populations "collected the curious sticks and stones, odds and ends, that they happened to see in their wanderings. Any bright object that caught their eyes would be gathered for use as an ornament or to be put aside as a fetish." And furtheron "metal is first used for ornament; it is not used for the making of useful implements until it becomes plentiful." This statement can be easily verified when studying the early times of the copper, bronze-brass or iron times. In the case of aluminium, just 200 years ago this metal was due to its scarcity also first used for plates and cups for kings only.

Rickard states further¹⁸ when hunters "wandered along the edge of a stream, which was their natural highway, they detected the small lump, or nugget, of bright gold, left on the bank after a freshet..... Such bits of yellow stone were treated as other stones that early man fashioned into tools and weapons; when

¹⁵ Posnansky, Merrick: Brass Casting and its Antecedents in West Africa, Journal of African History, XVIII, 2, (1977), p. 291

¹⁶ Davies, O.: Archeological Exploration in the Volta Basin; Bulletin of the Ghana Geographical Association, Volta Basin Research Project Publication No. 9, 28 - 33 ; 1964.

¹⁷ T.A. Rickard, The primitive use of gold, page 1

¹⁸ T.A. Rickard, The primitive use of gold, page 3

therefore he hammered the gold, he discovered that it was too soft for practical purposes, so he made it into an ornament - a ring or a bracelet - to be worn by him or by his woman. The Egyptian hieroglyph for gold is a necklace, indicating the original use that was made of the metal. In Babylonia the symbol for gold was a collar." Gold does not tarnish on exposure to the air, but remains bright and shiny; and for this reason it is preferred to the other metals for the purpose of adornment."

Gold, as known, is very malleable and therefore larger grains or nuggets can be formed into ornaments or wires and plates mechanically, i.e. without any metallurgical treatment.

Small grains and of course the gold dust needs metallurgical treatment to transform them into ornaments, wires, plate or any other useful form. For a population lacking this metallurgical knowledge gold dust has only value for religious purposes¹⁹ which per se involves already the perception of a precious value of the gold dust. If the value of gold dust is established in such populations then gold dust will be used as medium for exchange (trade) with other peoples. It is not important that a regular or even a sporadic trade has to occur as long as the value of gold for exchange has been established. Trade can be sparked off for acquisition of special skills or knowledge, for acquisition of services or acquisition of goods.

Rickard gives lateron²⁰ a nice description of the transformation of a gather-hunter to a miner: "When primitive man had learned to look for gold in the river gravel, he noticed some pieces that were half buried in the sand, thereby suggesting that others might be found embedded below the surface. Whereupon he scraped it; and then using a stick, or his wooden spear, he poked into the sand and turned it over in a rough way, with the consequent finding of more bits of gold. Next he sifted the sand, using water to aid him. He had begun a simple mining operation. In due course he noticed that the gold could be separated from the sand by reason of the difference in specific gravity, so he washed the alluvial detritus with effective motions in a wooden pan, the

¹⁹ Remark from the author: powdering of bodies, corpses or sacred implements

²⁰ T.A. Rickard, The primitive use of gold, page 12

batea of the South American aborigines, or in a calabash, the gourd of the Nigerian miner."

The product of this panning process, alluvial gold will definitely be of a high purity in the area of today's Ghana, where fineness of alluvial nuggets of above 950/1000 is not uncommon.

The findings above make it clear that gold had no other practical value for the neolithic miner than for adornment because unalloyed gold is too soft for other applications. Therefore other neolithic ethnics like the Red Indians in comparison preferred the red copper over the yellow copper²¹ "It is recorded by Cameron that when in the Katanga province of the Congo region, fifty years ago, he ascertained that the natives preferred the red copper to the yellow, meaning gold, because the metal we deem precious was too soft for practical purposes."

The question now remains, when did this neolithic miner realise that this gold can be used not only as an adornment but as a medium of economic exchange?

It is assumed here that this experience was introduced from outside, i.e. already higher developed societies. Only one contact was necessary where the neolithic gather-hunter was able to strike a deal, for example to barter gold against a copper, bronze or iron tool. As long as the value of gold ornaments or nuggets for barter had been experienced, there was no importance attached to a regular or only sporadic trade because the neolithic hunter had enough time to wait for the next opportunity.

With rising demand for the commodity gold and with the advent of iron tools for farming which tools had to be bought it is likely that primary sources of gold were also tackled, when near surface. When the first hard rock mining of gold was undertaken has to be determined in the light of several, additional preconditions precedent:

- a) Permanent settlements to allow the operation of a mine

²¹ Remark from the author: look for Reference in Crane or as Rickard reports, page 6

- b) Food production to supply the settlement with a permanent food source largely independent from the surrounding rain forest resources, which would diminish with longer presence of the settlement.
- c) Iron tools to carry out the mining/digging.

2.4 The Mediterranean Situation from 2000 BC Onwards

In the Mediterranean Sea the sea-trade from before 2000 B.C. to about 1350 B.C. was totally dominated and controlled by the Minoans from Crete. Their control of the sea was so complete that they did not even deem it necessary to protect their settlements and palaces on Crete with the everywhere else ubiquitous walls for defence. There were no other fleets for invaders available to reach Crete without the consent of the Minoans.

But from 1500 B.C. other nations also learned to master ships by joining Minoan fleets to understudy them or by hiring them for services. It is recorded, that the Phoenician cities started to build trading fleets from ca 1450 B.C. onwards.

At about 1350 B.C. catastrophe hit Crete, the Minoans lost their fleet either through a major volcano eruption in the Aegeis or by an attack by the Greek Mykenians or both. The mediterranean super-power collapsed and a period of disorder and piracy prevailed for at least some 100 years, well documented in Egypt during the reign of Ramses the Great (1290 - 1224) with invasions by the "sea-faring nations" against which all land-based powers of the time (Egypt, Hittite, Assyria) tried to form alliances for their defence.²²

By 1200 B.C. the mediterranean trade and the sea was again under full control by the Phoenicians who from their main bases of Tyre and Sidon sent ships which passed Gibraltar²³ and they founded Gadir²⁴ in 1104 B.C. on the Atlantic coast of Spain together with Tartessus at about the same time.

²² Ki Zerbo, page 62

²³ Remark from the author: the Phoenician word for the Pillars of Hercules

²⁴ Remark from the author: greek: Gadeira, roman: Gades, today: Cadiz

The only other minor sea-forces in co-existence in the Mediterranean were the Greeks who confined their area of influence and action to the Aegean Sea and the Etruscians²⁵ in northern Italy, who were noted as a sea-trading nation at around 700 B.C. until their subduction/assimilation by the ascending Romans. These culturally highly sophisticated Rasena seem to have had friendly relations to the Phoenicians (and to the Carthagians). In fact, their origin is unclear and it could be that they were close relatives either of the Minoeans or the Phoenicians themselves.

The Phoenicians, like their predecessors the Minoeans, were never able to develop any substantial land force to protect their homeland²⁶ as well as all their other trading posts they founded on Cyprus, Sicilia, Italy, Spain, North-Africa and behind Gibraltar to the north and south against aggressors. Their real strength was based in their fleets and their ability to just leave one place and sail to new shores for trade or survival. They had developed or acquired the art of navigation according to stars and had accumulated an encyclopedic knowledge about prevailing winds and streams to enable them to sail without keeping contact with landmarks, an ability only available again more than 2000 years later to the Spanish and Portuguese navigators.

The most flourishing time of the Phoenicians falls from 1200 B.C. to about 800 B.C. in which time-span the fruitful relations to the biblical king Solomon have to be placed. The Phoenician king Hiram reigned from 969 B.C. to 936 B.C.²⁷ and through his trade agreements with Solomon the Phoenicians gained access to the Red Sea and were allowed to use the harbour at Ezion Geber in the Gulf of Akaba. This opened to them from 950 B.C. onwards the trade routes along East Africa, which, we will see later, provide an advantage when trying to circumnavigate Africa.

The homeland of the Phoenicians came under immense pressure from 876 B.C. onwards and would never regain peace so urgently needed for sustainable and profitable trade. Phoenicia was subdued by the Assyrians and in fact, the

²⁵ Remark from the author: Rasena

²⁶ Remark from the author: today's Libanon

²⁷ Ploetz, Karl Julius: Der große Ploetz, World History, 11th ed., Verlag Ploetz, Freiburg/Wuerzburg, 1986

Phoenicians bought their relative freedom and independence for the next 150 years by paying heavy tribute to the Assyrians, which they derived through levies on their merchants. The pressure led to increased colonisation of the western Mediterranean by the Phoenicians, the foundation of Carthage by the legendary Dido or Elissa falls at about 814 B.C. and has to be seen as the creation of safe-havens for the event of further aggressions against the main Phoenician homeland.

This aggression was soon renewed and the Assyrians tightened their control and therefore 728 B.C. Sidon and Tyros resisted the oppression. Sidon was destroyed, but Tyros, situated on an insula, was able to withstand and won another 20 years of peace. 701 B.C. again invasion by Assyria forces, Sidon surrendered, but Tyros was conquered and her king had to flee to Chittim (Cyprus). 677 B.C. Sidon revolts and was completely destroyed by the Assyrians. But shortly afterwards, Assyria lost power to the reascending Babylonians and Phoenicia was again quite independent until in 608 B.C. Pharaoh Necho of Egypt took over.

This urged in 605 B.C. Nabopolassar of Babylon to send his son Nebukadnezar to claim the Phoenician mainland and Phoenicia surrendered to him. Following Egyptian advice, Phoenicia revolted and Nebukadnezar came back, destroyed Sidon again and besieged Tyros for 13 years, after that part of the city situated on the mainland had been completely destroyed by him. During this time the Greeks started to take over the trade in the Mediterranean, because the Phoenicians were not able anymore to exert the necessary control in the eastern part of the Mediterranean.

Carthage had built its own fleets from 650 B.C. onwards, especially after the main homeland went into more and more trouble and they had gradually taken over the other trading posts including those behind Gibraltar on the Atlantic coasts. Insofar became the name Phoenicians interchangeable with Carthagians until Tyros ceased to exist by the final destruction by Alexander the Great in 332 B.C.

Whether it were Phoenicians or Carthagians, who were asked by Pharaoh Necho²⁸ to circumnavigate Africa, is therefore without importance. Herodotus, the eminent Greek historian in the 5th Century B.C. wrote in his HISTORY IV:42: "We know about Libya (Africa) that it is everywhere surrounded by the sea apart from that area, where it is connected with Asia. This fact was first discovered by Necho, the Egyptian king, who discontinued the building of a channel between the Nile and the Arabian Gulf and ordered Phoenicians to travel by sea with a number of ships to the pillars of Hercules²⁹ and to return via the Mediterranean sea to Egypt. The Phoenicians left Egypt via the Sea of Eritrea and sailed into the southern ocean. When autumn approached, they went on-shore, wherever they were at the time and after sowing of grains on a piece of land they waited until harvest. When again ready they continued their travel by sea: this was the reason that two years passed by, only in the third year they had passed the pillars of Hercules and were on their way home. After their arrival they told³⁰ that they had observed the sun on their right hand during their travel around Libya. In this manner the extent of Libya was discovered."

To travel around Africa clockwise had certain advantages over the anti-clockwise travel direction as chosen by Bartholomeu Diaz and Vasco da Gama in the late 14th Century (1497 to 1499). From their harbour in the Red Sea the Phoenician ships were propelled first by prevailing northern winds until they reached the Indian Ocean and could then use the prevailing southern stream along the East African coast which also helped them to pass the Cape of Good Hope, where Vasco da Gama had to overcome adverse streams and winds. West of this Cape the winds are prevailing from the south, which were driving them along the continent to the north. Only along the western part of Africa, where the Passat winds are prevailing, navigation might have been difficult, but this area was quite known to the Phoenicians from previous trade connections along the north- and west-African coast. After passing Gibraltar the rest of the journey, which had a total length of 21.000 km, to arrive in Egypt, was a mere routine.

²⁸ Remark from the author: 609 B.C. to 593 B.C

²⁹ Remark from the author: Gibraltar

³⁰ Remark from the author: I for my part do not believe it, but others may do

The readiness of the Phoenicians to undertake that "expedition" gives the clue that for them the circumnavigation of Africa was nothing new, even if that was not known to their contemporaries like Pharaoh Necho. The Phoenicians were certainly not very keen to disclose their trading routes and although they had their own alphabet and wrote down quite a deal, they did not lay down much about their sea-trade for the simple reason, that they did not want to relay information to any possible competitor. The historical record by Strabo in his Geography might underscore this behaviour: A Phoenician captain sailed to the Cassiterides, i.e. the tin-islands, as Cornwall in Southeast England was named. Tin was a very important metal to produce together with copper the bronze, the main metal for weapons and tools in those days. Tin was found only at particular places like northwest Spain, Ireland and Cornwall. When the captain noticed that a Roman ship followed him to discover the trade route for tin-trade, the captain decided to change direction and drove into shallow waters, where both ships were wrecked. The Roman captain and his crew died but the Phoenician captain was able to rescue himself and return home. He was later compensated by the state for the loss of his ship and the cargo, which he sacrificed to keep the trade-route confidential.

This secrecy might account for the absence of any record in respect of the disputed assumption that the Phoenicians reached South America in the first millennium B.C. When circumnavigating Africa clockwise and entering into a storm in front of the Southwest-African coast, the ship will be with high certainty driven westwards and would arrive at today's Mexico or Venezuela. And exactly there, at Tres Zapotes and La Venta big heads carved out of basalt with negroid facial appearance (1.8 m high, 10 t weight) have been found which were dated around 550 B.C.³¹ How did the La Venta people come into contact with black men if not taken along by the Phoenicians/Carthaginians?

Carthage was the true daughter of Tyrus and continued to be a sea-faring nation for another 200 years after Tyrus had been finally subdued and destroyed by Alexander the Great in 332 B.C. The control of the trade in the western part of the Mediterranean Sea and especially of Gibraltar had already

³¹ Irwin, C.: Kolumbus kam 2000 Jahre zu spät, (Columbus came 2000 years too late), Deutscher Taschenbuch Verlag, Munich, 1968

passed into the hands of the Carthaginians about 500 B.C. and there are records of their travels along the northern and western coast of Africa to trade for goods and slaves and establish colonies.

One of the disputed records of this trade activity is the Periplus of Hanno, a description of an expedition of Hanno of Carthage along the West Coast of Africa. Hanno was either the father or the son of Hamilkar, a general who attacked Sicily in 480 B.C. Therefore, the periplus could be either dated about 500 B.C. to 520 B.C or 480 B.C. to 460 B.C.

The report had been presented as a gift for his safe return by Hanno himself to the Temple of Baal/Melkarth in Cathage and was obviously copied by a Greek visitor, because the report is only available in Greek language and was included by Aristoteles in his "Wonderful Narrations" in the 3rd Century B.C. According to this "Periplus" Hanno sailed with 60 ships along the north- and west-African coast and reached the area of today's Cameroon and returned then because they were running out of provisions. The report makes mention of "gorillae" which they caught near the turning point of their journey, but the description given rather suggests that they caught "pygmies", which were in those days ubiquitous in tropical Africa.

Carthages position in the western Mediterranean became more and more precarious due to the Roman expansionism. Step by step they lost their Italian trade connections with the Rasena (Cherusker) in the 6th Century B.C., they lost Sicily,³² later Spain³³ which had all far reaching effects on their metallurgical abilities to produce weaponry (copper and tin) and finally were subdued by the Romans in the third Punic War. Scipio Africanus Minor destroyed Carthage completely 146 B.C. in the third Punic War from 149 to 146 B.C. This seems also to mark the end of organised Carthagian fleets and the sea-faring skills of the Phoenicians/Carthagians were only in their smaller part absorbed by the Romans, who remained largely a land-bound military force.

³² Remark from the author: First Punic War 264 - 241

³³ Remark from the author: Second Punic War 218 - 201

2.5 Comparisons and Conclusions

As mentioned, when the Phoenicians/Carthagians were able to circumnavigate Africa at Pharaoh Necho's time, they were also already able to do that 300 years earlier at King Hiram's time.

It is likely, that contacts of the Phoenicians with the West African inhabitants created the understanding of the value of gold in barter trade and therefore induced the inhabitants to mine alluvial gold for such trade, may that trade have been as irregular and small through the infrequent visits of the Phoenicians.

Evidence for such contacts could be fayence-beads, jade beads or items, Egyptian, Cretan, Roman pottery, Greek or Roman coins, which to the authors' knowledge, have not yet been unearthed in the area of today's Ghana.

Coins as a medium of exchange were developed by the Lydians at about the 6th Century B.C. They were round pieces of precious metal stamped on one or both sides. Later other peoples took over the idea of having in a coin a piece of value for exchange without the necessity of weighing at each transaction.

Two factors seem to have fixed the attention of historians to sea-trade: The development of the sea-trade of the Portuguese from the 14th Century A.D. onwards and the presumed impermeability of the Sahara Desert to man before the introduction of the camel.

The landtrade between the Mediterranean and West Africa, and Upper Egypt and the Sudan and West Africa might have been far more developed and at an earlier time than previously known and by historians accepted. A holistic approach to such trade is necessary: Trade in copper, tin or iron does not preclude trade in gold and vice versa.

Taylor³⁴ investigated the possibility of "whether Carthage received tin" from the Jos plateau of north-central Nigeria but he found the evidence nebulous, making answers both inconclusive and speculative. Sutton however submits "that a broader perception of the history of West African mining and metallurgy - gold, copper and iron as well as tin - would help us in addressing this particular

³⁴ A Nigerian tin trade in antiquity? Oxford Journal of Archaeology I, 1982, p. 317-324

issue and by extension the whole question of early trans-Saharan cultural and commercial contacts."

A little bit later Sutton states: "Even if a convincing case for the mining and trade of Nigerian tin at so early a period (i.e. the first millenium B.C.)- or for that matter of gold in regions further west - cannot be pressed on the available evidence, there are at least good signs of copper mining and smelting at two widely separated localities on the Sahara's southern edge, with strong suggestions of Mediterranean connections. If such metal was being transported northwards, we have to consider how. Equally relevant - but more elusive - is what was traded in exchange."

Taylor found "that the fifth century B.C. was critical to Carthage's tin requirements following the rift in its commercial connection with Etruria." As already mentioned, the Rasena³⁵ lost their independence to the rising Romans and were assimilated. Taylor "further sees Carthaginian exploration of the Atlantic coasts of both Africa and Europe at that time as a natural reaction to her relatively isolated position in the Mediterranean", which is especially true for the time 450 B.C. to 146 B.C., the year of Carthage's final destruction by the Romans. In this context Sutton makes mention of the Periplus of Hanno, but finds it doubtful whether such voyages could have reaped much commercial success - or have come close to the tin sources. Therefore: "Confining attention to overland transport, we should, like Taylor, assume that the period precedes that of camel-caravans. The significance of horses - and apparently of carts - is suggested by Saharan rock-art."

Sutton discusses then shortly the Early Iron Age and states: "It is not longer arguable that sub-Saharan iron industries began late or as impoverished imitations of those of the Mediterranean and Nile valley. For in several regions of the middle African belt - notably central Nigeria -accomplished smelting was established around the mid first millenium B.C." He then questions "whether the "Nok culture" of central Nigeria constitutes an important centre of early iron-working from the middle of the first millenium B.C. or whether, rather, it should be merely seen as representative of a broad contemporary

³⁵ Remark from the author: Etruscans

development across West Africa." For the case of copper, Sutton points to the copper mines in the south-western Sahara at Akjoujt and some 2000 km further to the east at Azelik and Agades, which all were in operation in the middle of the first millenium B.C.³⁶ The latter being situated 2000 km south of Carthage and 1000 km north of the Jos tin-fields.

He comments: "Assessing then the evidence in its African and Mediterranean contexts at the same time, a strong circumstantial case may be made for a spread of iron technology across the central Sahara hand in hand with North African demands for copper³⁷ about the eighth to fifth centuries B.C."

Finally, for the gold of Guinea, Sutton rightly states that "previously the penetration of the Sahara and Mediterranean interest in West Africa have been considered foremostly in relation to gold. The obvious weakness of this approach is that the gold derives from the western parts of West Africa and can have had no bearing on routes from the region of Carthage towards Air and Nigeria, whether in later or earlier times. All the same, now that we are beginning to discern a more complicated metals trade in both the central and the western Sahara stretching back to the earliest Iron Age, we ought to consider where the gold fits in." Sutton makes the final point by stating: "The signs of copper-mining, smelting and smithing in particular localities in the southern Sahara during the first millenium B.C., and of a North African connection especially on this south-western side, require that we keep an open mind, true though it is that the main gold-fields lie well to the south of Akjoujt and its copper.³⁸ For it is likely that gold would have been noticed and admired locally before its international value was appreciated; and once a trade in a base metal had begun in that direction, it is difficult to believe that the existence of a more precious and obvious one would have remained secret for many centuries."

It seems obvious that the amount and diversity of early metal trade in North and West-Africa has been widely underestimated in the past. Because of the hazy information on the affairs in West-Africa in the first millenium B.C., indications of

³⁶ Remark from the author: in the case of the area around Agades probably as early as 2000 B.C.

³⁷ Remark from the author: and perhaps tin

³⁸ Remark from the author: and of the horse-and-cart depictions

metal production and trade have been taken as isolated events and the links between different mining and smelting areas, market places and consumers had been covered up by time. The authors think the same to be valid for a far more important trade product for human survival, i.e. salt. Nothing is obviously known about the sources and trade routes of salt for those people who mined the copper at Agades, the tin at Jos and the iron ore at Taruga and Nok. Salt definitely had to come from the coast of West Africa (leaving the brine springs at Daboya aside), and these salt trade routes to the north were even more likely congruent to those for the gold. More and more pieces of these early economic systems are appearing and we should not close our mind to the postulation that in the middle of the first millenium B.C. trading relations might have been as extensive and substantial as in the times more than one thousand years later, where by islamic scholars written records have survived to be recognized by us today as facts.

HISTORY TWO

3. The First Millenium AD

3.1 Introduction

Junner in his short history given in Memoir No. 4 stated in 1934 carefully: "Overland routes between West Africa and the Mediteranean also appear to have been in existence in very early times, but the Sahara proved a difficult obstacle and very little trade passed this way until the Saracens reached the Niger early in the 9th Century"

In the previous chapter we have pointed towards the possibilities of a more or less extensive metal trade including gold either via sea or land before the end of the first millenium B.C. between the Mediterranean and the West African Gold Fields.

For the first millenium A.D. we do not have to consider any sea-bound trade because the golden millenium of sea-faring nations had come to an end entirely, somehow at the same time with the establishment of the Roman Empire.

3.2 The Early Trans-Saharan Gold Trade (Romans and Byzantians)

Garrard, in his publication "Myth and Metrology: The Early Trans-Saharan Gold Trade", after listing all arguments against an early Trans-Saharan Trade before the first millenium A.D.,³⁹ very convincingly establishes an early trade connection from about the 3rd Century A.D. onwards by using weight standards for gold coinage and gold dust as striking evidence. He summarises: "Coins and weights provide evidence which can throw light on the origins of the Trans-Saharan gold trade. Such a trade does not seem to have existed before the end of the third century A.D., but from 296 to 311 an irregular gold coinage was issued at Carthage, and by the end of the fourth century there were significant changes in the North African tax system to enable more gold to be collected.

³⁹ Remark from the author: and therefore putting our previous chapter into jeopardy

The SOLIDUS, a coin first issued in 312, provided the standard used for weighing gold-dust in the Trans-Saharan trade, while copper, a major item of merchandise in that trade, was being imported to Jenne-Jeno by A.D. 400. This strongly suggests that the gold trade first assumed significance in the fourth century. The trade was evidently flourishing before the Arab conquest, for the Byzantine mint of Carthage produced a copious output of gold between 534 and 695.

For weighing gold-dust, the standard based on the Roman ounce and the solidus was retained by the Arabs, and survived until the nineteenth century in the Western Sudan. It was also adopted by the Akan of Ghana and Ivory Coast, who made it the basis of their weight-system from about 1400 to 1900."

Records cited by Garrard in respect of changes in the North African tax regime from payments in silver or kind to payments demanded later exclusively in gold as well as the height of recorded tax payments lead him to estimate the early Trans-Saharan gold-trade in the 4th Century A.D. to about 10.000 ounces p.a. The quantities of gold available for minting at the Byzantine Carthage mint must have been very substantial later in the 5th to 7th Century A.D taking the number and diversity of coins struck into consideration. The Byzantine empire obviously lost a major source of gold supply in the time of Justinian II, forcing the Carthage mint to close down in 695. This tallies exactly with the Arab invasion of North Africa, who then took over the Trans-Saharan gold trade and started issuing gold dinars at a mint at Kairouan in Tunisia. Arabic records indicate that North Africa was rich in gold and the Arabs were able to loot and collect tributes in gold in amounts of thousands of ounces. Garrard states: "It is obvious from these sources that the gold trade did not spring into existence with the Arab conquest, by the mid-seventh century there was gold-dust and a great caravan route in Byzantine North Africa. The gold already present in North Africa acted as a spur to Arab ambition."

To put the above in the historic context it should be recalled that the founder of Islam, Mohammad was born around 570 A.D., the Hidschra happened at 622 and Mohammad died in 632 A.D. Omar I. (634 to 644) conquered the Arabian peninsula and Egypt, Carthage and the North African coast were overrun by

697 and this prepared the basis for the conquest of the Spanish peninsula. The islamic/arabic expansionism towards the north in Europe was stopped at Poitiers in France in the year 732 by Carolus Martell. The islamic expansion on the African continent towards south continued for the next centuries in several waves of islamic peoples.

Of special interest are Garrard's investigations into the weight-standard for gold dust in the Trans-Saharan trade. The SOLIDUS gold-coin of 4.5 grams weight was introduced by Emperor Constantine in the fourth century and remained one of the most important coins in international commerce until the 13th century.

The success of this coin was due to its high standard and regular weight, and the fact that six coins were reckoned to make one Roman ounce, which made the coin convenient in trade. Garrard establishes that the Roman ounce and the Akan gold weights based on the islamic uqiya are for practical purposes the same: 25.4 to 27.6 grams. The mithqal (metkal, metikale) of gold-dust is established at about 4.4 to 4.5 grams and is found among the Akan weights as nsoansa of 4.4 gram. 12 mithqals of 4.5 grams, i.e. 54 grams, were equivalent to two roman ounces of 27.5 grams. Garrard states: "The evidence confirms that up to the nineteenth century the standard used for weighing gold-dust in North Africa and Western Sudan was the mithqal of 4.4-4.5 grams and the uqiya of 27.0-27.5 grams. This exactly corresponds with the weight of the SOLIDUS and the Roman ounce. The solidus was one-sixth of the Roman ounce, the gold-dust mithqal was one-sixth of the uqiya, and among the Akan of Ghana and Ivory Coast the nsoansa was one-sixth of the corresponding ounce."

"If further evidence of the chain of transmission is required, we may recall that the Roman and Byzantine name uncia was transmuted by the Arabs into uqiya, and by the traders of Timbuktu into wakia. The Graeco-Roman drachm became the Arab dirhem, a name which lingers in modern Ghana as darahima. Similarly the Arab mithqal is still remembered in Ghana as metikale."

Garrard concludes from his investigations that Trans-Saharan trade began probably towards the third century A.D. coinciding also with the introduction of the camel as pack animal, which is documented in literature and sculpture not

before the first or second century A.D. but becomes quite common in the third and fourth century.

Here we have to consider that the Sahara desert became with time more and more a barrier to the people and their trade. Climatic change caused the expansion of the desert proper from 1000 B.C. onwards and resulted in an enlargement of the area of the desert and the loss of many oases and wells due to accelerated lowering of the ground water table. The distances between water points enlarged and an old saying of the indigenous Tuareg states: The feet of man are too short for the desert. Survival in such an environment depends on the availability of a pack-animal to carry sufficient water supplies.

Consequently, when the desert became impenetrable for horses and carts by the first centuries of the first millennium A.D. horses were replaced by camels, which had become quite common in the Arabian peninsula in the first millennium B.C.

The fact that Byzantine solidi coins are strongly localised in Tunisia rather than Morocco suggests that beside the often cited trade-route between ancient Ghana and Morocco other, alternative, more eastern trade-routes were in existence, via Gao and Jenne-Jeno and Garrard admits that there was an "already well developed trade network in the Savannah and Sahel zones". He explains: "So far as we know, North African merchants never succeeded in penetrating to the relatively inaccessible gold-producing regions of West Africa. They had no opportunity to discover the gold at its source, but were presumably alerted to its presence by the fact that it was used in the Sahel towns. In parts of West Africa, therefore, the limited exchange of gold through regional exchange networks may predate the fourth century." Later he states in respect of the sources of the gold: "While there may have been sporadic panning for gold in earlier times, the great expansion of gold production in the Bambouk and Bure areas, with regular extraction from shaft mines, would have occurred from the fourth century onwards, with the opening-up of the Trans-Saharan trade. Bambouk and Bure were evidently an important source of gold. The two goldfields are fairly close to each other..... with Bambouk as the principal supplier to ancient Ghana and Bure supplying Jenne-Jeno, Gao, and in later times towns such as Bitu. Another possible early source was the so-called Lobi

goldfield. Gold dust could also be panned in small quantities in parts of northern Nigeria, and further south the town of Ife was built on a small goldfield." Garrard points out in a footnote, however: "The important Akan goldfields further to the south⁴⁰ do not appear to have been exploited until about the fourteenth century."

The following investigations into the often cited "Silent Trade" will point out, that this last assumption of Garrard will have to be rejected. Black miners produced gold in areas further south but the Trans-Saharan trader did not come into direct contact with them. All kinds of rumours were spread by interested middlemen that the black gold mining tribes further south be of horrible facial appearance, being cannibals, unable or unwilling to speak and other tales.

3.3 The Myth of the Silent Trade

Several Arab as well as European writers have given testimonial to a practice known as "silent trade" in West Africa which purport to describe exchanges of imported goods for gold from Sub-Saharan Africa.

P.F. de Moraes Farias describes this silent trade as follows: "These exchanges are said to have been made according to very particular rules: two⁴¹ trading parties would transact business with one another. They would do this not only without the help of middlemen but also without speaking to one another, or coming face to face or even within sight of each other. Elaborate precautions would in fact be taken to prevent any kind of direct visual contact. Despite this mutual avoidance and the resulting impossibility of negotiating rates of exchange, agreement presented no serious difficulties. Bargaining was carried out through gradual adjustment of quantities, arrived at by alternate moves by the two parties. Though each of the two in turn would have to leave his goods unguarded in a place accessible to the other, neither would take advantage of this for dishonest purposes. A shared table of market and moral values, as well

⁴⁰ Remark from the author: the Lobi goldfield is meant here

⁴¹ Remark from the author: and only two

as⁴² silence and mutual invisibility, were thus the trademarks of such exchanges."

He then ably explodes the myth of silent trade "on the strength of a close re-reading of the relevant texts" and "advances the hypothesis that the accounts of silent trade in West Africa are a misleading combination of a mythical stereotype with concrete evidence about the traditional African trade through broker pattern of exchange." He suggests "that reiteration by various sources formed a chain of literary borrowings that either distorted or masked the realities of African trade, on which the same cliché was superimposed time and again."

Silent trade was first mentioned by Herodotus, but that the Carthaginians had willingly "abandoned their traditional and well known policies of commercial secrecy and were willing to allow the free circulation of classified information on the least known of their sources of precious metals" does make this account more than a little unlikely.

The first Arab account is found in the works of al-Mascúdí, who wrote in the tenth century but who never visited West Africa himself. His two passages, one on the gold mines bordering the kingdom of Ghana are adjudged by de Moraes Farias to be unreconciled accounts of the same story and probably "merely the vestigial reminiscences of Mediterranean traditions similar to those recorded by Herodotus."

The next Arab source, Yaqút, writing in the thirteen century and also never visited West Africa "has since been regarded as solid historical evidence for the existence of silent trade." The traders who travelled to the south of the Maghrib to the land of gold "stop here⁴³ and recover....and recruit jahabidha and samasira for their negotiations with the owners of the gold....They procede until they arrive at the place that divides them from the owners of the gold. There they beat the big drums that they have brought, which can be heard from the horizon of the region inhabited by the Blacks... When the traders know that these people have heard the drums they produce whatever they have brought of the goods Then they withdraw to a distance equivalent to one travelling

⁴² Remark from the author: and in spite of

⁴³ Remark from the author: in Ghana

stage. Then the Blacks come out and put certain amounts of gold beside each ware, and leave. The traders come again and each of them takes the gold found beside his merchandise, which he leaves there. Then they beat their drums and depart."

This text is self-contradictory if the initial lines of the recruitment of jahabidha and samasira are not ignored. Samasira means "brokers", "middlemen", "agents". Jahabidha means gold tester, the one who weighs gold coins or tester of the quality of goods. Yaqut describes therefore a kind of broker system in place, operated by the people of ancient Ghana who acted as middlemen and therewith secured their strategic position in the gold trade without having the mining of the gold under their direct control. The Arab traders or "Maghribi merchants" did not come direct into contact with the producers of the gold for several reasons. The gold-producer would only accept goods guaranteed in their quality by the Ghanaian middlemen, who were likely to be able to speak their language and know their particular customs. Another reason for the producers to shy away from these islamic Maghribi traders might have been the fact that islamic traders were also known as slave traders everywhere else in Africa.

P.F. de Moraes Farias then proves that other islamic writers like al-Zuhri (twelfth century), al-Quazwini (thirteen century), Ibn-al-Wardi (14th or 15th century) and al-Bakuwi (15th century) had just borrowed their accounts from Al-Masqudi or Yaqut. Even al-Umari, who wrote between 1342 to 1349 had to quote somebody else in respect of the silent trade and whilst his records are one of the best in respect of Mali's history - he was able to interview people who had well known the Malian ruler Mansa Musa during his famous pilgrimage to Mekka and Madina in 1324/25 - the Malians did not mention anything about silent trade. Another islamic scholar, Ibn Battuta, who visited himself Mali and the western Sudan in 1352/53 did not write a single word about silent trade.

Therefore, in short, there is not even one explicit islamic source describing the silent trade in the way it was perceived to exist. European travellers, who spread the tale from 1450 onwards, seem to have relied only on those Maghribian and islamic sources, which have been listed and discussed above. The first and important writer on West African trade affairs, Alvise da Ca da

Mosto, a Venetian in employ of the Portuguese, explicitly stated that during his two voyages in 1455 and 1456 he had his information obtained mostly from Arab or Moorish sources, i.e. from second hand sources. Therefore, his remarks on silent trade in the records of his first voyage cannot establish a prima facies case, his remarks were based on hear-say.

3.4 The Trans Saharan Trade between the Sahelian Kingdoms and the Arab Traders

It seems to be now well established that the Sahelian kingdoms derived their wealth from the status of middlemen, brokering and controlling the trade with the black gold producers further south on one hand and the arab traders coming from the north on the other hand.

The first powerful kingdom of the western Sudan was the Ghana kingdom. The extent of its wealth, organization and power was later referred to in glowing terms by the Muslim geographer al-Bakri.⁴⁴

This powerful kingdom of early Mande-speaking people which may have existed from as early as 300 AD⁴⁵ to about 1100 AD, was generally centered between and immediately north of the Niger River and the upper reaches of the Senegal River in what is now northwestern Mali and overlapping slightly into southern Mauritania. Much of the wealth of ancient Ghana came through its control of the gold trade from the nearby Bambouk goldfields which are located in a contiguous area of western Mali, eastern Senegal, and northern Guinea. The Bambouk (or Bambuk) area appears to be the largest and most important of the early gold mining areas of West Africa and covers much of what is now referred to geologically as the Kenieba inlier and more or less centred on the Faleme River. Gold from Bambouk was taken to the major Ghana trading centres further north⁴⁶ where they linked up with the western trans-Saharan caravans from the north bringing down much needed salt along with cloth, metal

⁴⁴ Iliffe, John Africans: The History of a Continent, Cambridge University Press, Pages 323, 1995

⁴⁵ Buah, F. K., West Africa since A.D. 1000, Book One: Von West Africa since A.D. 1000: History notes, Macmillan, 1974

⁴⁶ Remark from the author: Audaghost, Walata, Timbuctu, Gao

implements and weapons. Buah⁴⁷ gives evidence of various early writers who described the riches of Ghana.

1. „Al-Fazari, an Arab astronomer, writing in A.D. 773-774, referred to the kingdom as "the land of gold".
2. Al-Hakam, an Egyptian historian, writing in the ninth century referred to it in similar terms.
3. Another ninth century Arab geographer, Al-Yakoubi, having described other territories in the Western Sudan, added, 'Finally, there is the kingdom of Ghana, the king of which is powerful. In his country there are gold mines. Under his power there are other kingdoms and gold is found in all these regions'.
4. Al-Hamadhani, also writing in the ninth century, described Ghana in the following glowing, obviously exaggerated terms: 'A country where gold glows like plants in the sand in the same way as carrots do, and is plucked at sunset.'
5. Ibn Hawqal, who visited Sijilmasa, and perhaps parts of the kingdom of Ghana, wrote in A.D. 977 about Audaghost⁴⁸ the following words: 'The kings of this town have relations with the king of Ghana⁴⁹ who is the richest on earth because of his gold.'
6. But Al-Masudi, an Arabic geographer, writing in A.D. 943 recorded the following: 'The kingdom of Ghana is of great importance, and it adjoins the land of the gold mines All the gold which the merchants obtain is minted in the town of Sijilmasa... Under the supreme rule of the king of Ghana are a number of lesser rulers, and in all their kingdoms gold is visible on the ground and people extract it and set it like curds.'

Al Bakri reported: 'All pieces of gold (nuggets) found in the mines of the empire belong to the king, although he lets the public have the gold dust that everyone knows about.' And: When the king gives audience to his people, to listen to their complaints and to set them right, he sits in a pavilion around which stand ten

⁴⁷ Buah, F. K., West Africa since A.D. 1000, Book One: Von West Africa since A.D. 1000: History notes, Macmillan, 1974

⁴⁸ Remark from the author: which was within the frontiers of Ghana

⁴⁹ Remark from the author: residing in the capital Kumbi Saleh

pages holding shields and gold-mounted swords. On his right hand are the sons of the princes of the empire, splendidly clad and with gold plaited in their hair... The gate of the chamber is guarded by dogs of an excellent breed... They wear collars of gold and silver, ornamented with metals...'

In 1154 Al-Idrisi, referring to the wealth of the kings of Ghana, said that the royal possessions included a nugget of pure gold weighing 14 kilograms, to which the king's horses was tethered. Quite appropriately the king of Ghana bore the title KAYA MAGHAN, which meant "Lord of the Gold".

By about 1100 A.D., this ancient kingdom of Ghana was much reduced in power by its northern Berber neighbours, the Almoravids, who regained temporary control of the western Saharan caravan routes.

In 1076, under the leadership of Abu Bakr, these Almoravids captured Kumbi, Ghana's capital the first time, but had to withdraw. But this conquest weakened the reputation of Ghana and several vassal states gained their independence, others openly started war against the empire. In 1240 the empire of Ghana was finally annexed by Sundiata Keita of Kangaba, the founder of the Mali empire.

The Mali empire, by its height of influence around 1350, extended from the Atlantic Coast all the way to Gao on the Niger, a distance of 2000 km. The rise of the Mali empire was greatly aided by the discovery of large new goldfields in the Bure district in the upper reaches of the Niger river and its tributaries covering the area that now approximately includes Siguiri and Mandiana in northern Guinea and probably overlapping into the neighbouring areas of Kangaba, Kalana, and Yanfolila of southern Mali. This vast empire formed by the union of largely Malinke and Soninke tribes was centred close to modern day Bamako and although it only lasted for about two centuries, it became widely known for its wealth and order as well as a centre for enlightened Islamic studies. The worldly Moroccan traveller Ibn Battuta accompanied a caravan to the region in the early 1350;⁵⁰ his reports, only translated in various European languages much later, noted the splendour of the thriving trading cities of Timbuctu and Gao on the Niger River. Ibn Battuta is also a principal source for

⁵⁰ Davidson, 1992; Iliffe, John, 1995; Kasule, 1998

the often repeated story of the great Malian king Mansa Kankan Musas famous caravan pilgrimage to Mecca in 1324.

This king, perhaps the most important ruler of the Mali empire, ascended the imperial throne either 1307 or 1312 and died in 1337. His reign coincides with the rise of the Bono empire in today's Ghana, situated in the Brong Ahafo region.

Along with his enormous entourage of reported 60.000 attendants and hundreds of camels loaded with goods, he brought a substantial horde of gold which he distributed liberally along the way; in Cairo, this caused much consternation amongst the gold dealers for it greatly depressed the value of the commodity in the local market for many years after his departure. Davidson quotes Egyptian writers who wrote about this event shortly afterwards. According to them the amount of gold brought along this journey was specifically noted and amounted to about 30.000 ounces or 1 ton Au. Buah⁵¹ quotes from an unnamed source that "He was also said to have taken 100 camel-loads of gold, and 500 slaves, each holding a gold staff weighing 1.8 kilograms." From this account, the total load may have even reached twice, i.e. 2 tons of Au.

The Songhay tribes had long dominated the long bend in the Niger River in the region of what is now eastern Mali and centered at the historic city of Gao. Their wealth came through their vital control of fishing along the river and their strategic position as a destination point for many caravans from the north. Their dislike for Malian leaders to the west eventually led to the overthrow of the old Malian empire by Sunni Ali (1464 - 1492), to be replaced by yet an even more extensive, but short-lived, Songhay empire which reached its zenith of influence in the early 1500s when it dominated all of the Central Niger River and maintained tributary control over the waning Mali kingdom to the west and the emerging Hausa and Kanem-Bornu states to the east. Thus its influence covered almost the entire Sahel region. Gold again played an important role in the wealth of this empire through indirect control over the existing goldfields far to the west as well as control over the overland trade routes from the emerging

⁵¹ Buah, F. K., West Africa since A.D. 1000, Book One: Von West Africa since A.D. 1000: History notes, Macmillan, 1974

gold producers in the Akan states like Bono far to the south. Gold along with kola nuts,⁵² ivory and slaves from the forest and coastal states were taken north to the Songhay cities of Djenne and Timbuctu where they would be traded for goods brought down from the north as well as highly regarded cloth manufactured further to the east. The Songhay power was much reduced by 1600 due to invasion by Moroccans from the north and by the earlier arrival of various European trading nations to the Atlantic coast in order to directly access products from the Akan states as well as all the neighbouring coastal tribes right up to Senegal.

As mentioned above, one of the early Akan states is Bono, which is said to have been founded by King Asaman (about 1295 to 1328), who led his people southwards from the north until they finally established the capital of their kingdom at Bono-Manso or Begho. The traditions record that this Bono kingdom obtained its wealth from its extensive gold mines.⁵³

In his "Esmeraldo de Situ Orbis" Pacheco Pereira reports on Mandingo traders coming from Mandingua (Mali) to the Gambia to meet Portuguese ships there and to barter gold for red cloth, bracelets and other goods. Pereira then mentioned, based on information gathered from these traders, a country rich in gold called TOOM, two hundred leagues away from Mandingua.

Moraes Farias states then: "Toom seems to be a transcription of the name Ton given by the Dyula or Wangara to the lands inhabited by the Akan-speaking peoples; that is, to present day Ghana and Ivory Coast."

Andre Alvares de Almada published in 1594 his "Tratado Breve dos Rios de Guine", which was factually based on information gathered personally on the coast around the 1560th and 1570th. He mentioned the interesting fact that the king of Mali or the Black Emperor was widely respected, as de Almada puts it: "whom all the Blacks of this Guinea we are talking about obey.....The

⁵² Remark from the author: Kola nuts come exclusively from the forest regions and were highly prized by the Muslims as it is a strong stimulant and the only one permitted by the Islamic practice. It was especially useful to the caravan traders during their demanding treks across the Sahara. Kola nuts are still extensively used throughout West Africa, especially at festivals and celebrations, but also in the daily life by drivers and workers to fight sleepiness and tiredness.

⁵³ Buah, F. K., West Africa since A.D. 1000, Book One: Von West Africa since A.D. 1000: History notes, Macmillan, 1974

inhabitants of the "Mina" refer to this king as "Big Elephant", so well known is he to all the Blacks who obey his name over more than 300 leagues.

HISTORY THREE

4. The Quest of the Early European Traders for the Gold of the Akan states

The Akan states cover much of what is now southern Ghana and overlap slightly into eastern Cote d'Ivoire. The earliest origins of these states are not well established but folklore and linguistic characteristics indicate ties with the Mande speaking groups in the broad region of the headwaters of the Niger and Senegal rivers. The rise and waning of powerful kingdoms, such as Ghana, Mali and Songhay empires, is likely to be accompanied by dispersal of disgruntled tributary groups as well as ambitious supporters seeking new trade and more land.⁵⁴ Thus, the slow movement of northwestern ancestors along the northern margins, and eventually through the dense coastal forests would be a natural process. Intermingling with earlier indigenous tribes as well as those which may have entered the coastal areas from the north and east probably resulted in the demarcation of many new small tribal territories throughout the region.

Traders and possibly settlers from the northwest were no doubt aware of, if not knowledgeable in gold mining and they may have played a role in the development of gold mining in and along the margins of the forest areas. When exactly the Akan states became important gold producers is also not known but probably coincided with the development of the regional trading centres at Djenne and Timbuctu on the Niger river system. Earliest reports of trading activities from these cities indicates gold as an important commodity. Most likely this gold came from the south rather than from the traditional Boure and Bambouk sources much further away to the west. The rise of Djenne and Timbuctu as influential trading centres corresponds well with the eastward expansion of the Mali empire in the mid 1200s and probably coincides with the increasing importance of the Akan goldfields. Certainly by about 1400 the Akan city of Begho⁵⁵ located on the northern fringe of the heavily forested areas is

⁵⁴ Iliffe, John: Africans: The History of a Continent, Cambridge University Press, Pages 323, 1995

⁵⁵ Remark from the author: According to Mc Farland, Begho was a prominent trading centre for about 400 years starting in the late 1300s but it had probably existed since at least the 3rd century A.D. It was

mentioned as an important gold trading centre through which much of the gold is channeled on its way to the major cities along the Niger River far to the north. By this point, the Akan goldfields probably overshadowed the older sites further to the northwest and no doubt provided a very substantial amount of gold that eventually found its way into emerging European states and markets.

The Songhay empire was also founded on these wealthy trading centres which remained influential until at least the 1500s when European traders began to establish more direct contact with gold traders along the Atlantic coast. By the end of the 1500s, the Moroccan invasion of the Songhay cities along the Niger and the growing trade with European merchants would have substantially reduced the amount of gold traded through the northern routes.

"Until the fifteenth century West Africa had been connected to and influenced by the world outside Africa only indirectly, through its relations with the peoples of North Africa. This situation began to be altered as a consequence of the European exploration of the West African Coast. Between 1434 and 1482, seamen from the nations of Western Europe, principally from Portugal and Castile, explored the whole coastline from Cape Bojador to the mouth of the Congo (river) and beyond".⁵⁶

Trade forts and castles were built on the coasts and permanent trading links were established not only between West Africa and Europe but between West Africa and the newly discovered West Indies and the American continent. Millions of West Africans were transported as slaves in a triangular trade across the Atlantic to provide a cheap labour force in the plantations of the "New World". The profits from there and the gold and other merchandise from West Africa flew to Europe and was used there for state and nation building creating the economic base for the colonial rule over the whole of West Africa to be finally established in the 19th century.

conquered by the Ashanties in 1730 and by 1800 it was in ruins. It was located adjacent to the Nimpeni River, approximately 35 km WNW of Wenchi in the Brong Ahafo Region.

⁵⁶ Fage, J. D. An Introduction to the History of West Africa, Cambridge, 1955

4.1 The Emergence of New Trading Powers in the Mediterranean

The Islamic expansion had conquered the whole Iberian peninsula in the eighth century, Byzantium, the capital of the East-Roman empire had been taken and the Turks carried their flags later to the doors of Vienna. After a period of division and weakness the West European nations started to fight back and by the middle of the thirteenth century the Islamic forces were confined to a small stronghold at Granada in Spain. Crusades were organized to free the historical towns of early Christendom, which meant to carry the military attack into the heart of the Islamic controlled Middle East, which was carried out with the blessing of the Pope but with more or less disastrous results for the crusaders.

In northern Italy, Venice and Genoa emerged as maritime city-states which opened a lucrative trade with the Arabs who were the middlemen for merchandise originating from the Far East. When Venice got the upper-hand in this trade, Genoa had to look for new opportunities in the West and with their highly skilled sailors and geographers and the knowledge that by circumnavigating Africa the trade to the riches of India and the Far East could be opened again they reached the Canary Islands about 1270 and in 1291 a Genoese expedition set out to sail around Africa and, although it did not return, probably succeeded in reaching East Africa.⁵⁷

The military and economic decline of Genoa led to a brain-drain of their sailors and geographers to the courts of the emerging Iberian kingdoms, where their skills and experience was in high demand. One should remember in this context, that Christopher Columbus (Cristobal Colon) was a Genoese by birth.

During the re-conquista, the reconquest of the Iberian peninsula from the Arabs Christian kingdoms like Aragon, Castile and Portugal had emerged, of which the most active in respect of West Africa became Portugal.

⁵⁷ Fage, J. D. An Introduction to the History of West Africa, Cambridge, 1955, page 42

4.2 Henry the Navigator

The attempt to oust the Arabs from Morocco, which was without success, had one result: Prince Henry, the fourth son of the Portuguese king, was placed as governor at Ceuta in 1415, and he had for the remaining of his life to 1460 the best position to acquire first-hand knowledge about West African lands. Dom Henrique o navegador spent most of his energies to organise expeditions for systematic exploration of the West African coast by ships, earning him the name "the navigator". Being well off by holding monopolies in fishing for tuna, production of ceramics and soap, he had enough funds on hand to promote his lifelong interest to discover the African coast and to push his sailors with the aim to circumnavigate the continent.

At Cape Sao Vicente he assembled a braintrust of cartographers, mathematics, ship-captains, ship-builders in a palace containing a star observatory, planning bureau and map drawing offices, of which today only a small chapel and, carved into the ground, a WINDROSE of 43 m diameter remain.

The motor behind his efforts was not alone the trade with West Africa and later to establish commercial relations with the markets around the Indian Ocean, but also to outflank the Arabs and to join forces with Prester John and the Christians in Abyssinia (Ethopia).

In this line, knowing very well that the Arabs did not control the West African gold producing regions, he hoped to establish direct contact with the negroe peoples in West Africa, which might be converted into Christian allies, while their trade would be re-routed direct to Portugal.

Fage⁵⁸ summarized the Portuguese purpose in undertaking the exploration of the West African coast as follows: "(1) To direct the trade first of West Africa and later of the Indian Ocean into channels which would not be under the control of the Muslim merchants of the Levante and North Africa, but which

⁵⁸ Fage, J. D. An Introduction to the History of West Africa, Cambridge, 1955, page 44

would bring it directly to Europe to the profit of Portugal. (2) To find, or to convert and create Christian allies in Africa to join with the Europeans in a joint onslaught against Islam."

It is said that he equipped more than 50 expeditions and send them south along the coast to expand the terra incognita of the African continent. But the progress of the Portuguese exploration was slow: Madeira was discovered in 1418, but no Portuguese ship passed Cape Bojador before 1434. The Azores were re-discovered in 1439, Cape Blanco passed in 1443 and the island of Arguin found, where 1448 the building of a fort was commenced. About 1446 the mouth of River Senegal and Cape Verde were reached and when Henry died in 1460, the Portuguese ships had reached the area of today's Sierra Leone.

When Diego d'Arumbaja, a portuguese navigator, reached the Guinea Coast in 1462, he found the native chiefs of a Negro tribe "distinguished by chains of gold hanging from their necks, and they had various gold ornaments on their head, and even on their beards".⁵⁹

It took another 28 years until Bartholomeo Diaz, of course a Portuguese, passed the Cabo Tormentoso, which was renamed by his king into Cabo da Boa Esperanca, or today Cape of Good Hope.

4.3 The Developments on the Gold Coast

There is a disputed claim by the French that sailors from Dieppe had reached the Guinea Coast at Liberia in 1364 and reached Elmina, where they built a small fort in 1413 at the place of today's Elmina Castle.⁶⁰ This claim could be supported by the fact, that there is indeed a "French Bastion" to be found at the Elmina Castle. Albert van Dantzig⁶¹ explains in this respect as follows: "This bastion, originally built as a quite separate fortification guarding the mouth of the Benya, probably got this name because it was meant to keep the French,

⁵⁹ Cited from Rickards, Robert Kerr, *Voyages and Travels*, Vol. II, p. 278, 1824

⁶⁰ Junner, Mem 4, page1

⁶¹ Dantzig, Albert van: *Forts and Castles of Ghana*, Sedco Publishing, 1980, pages 96

who had become serious competitors to the Portuguese by the middle of the sixteenth century, away from the port of Elmina. The name has also given rise to the rather unlikely story that French sailors reached the Guinea Coast long before the Portuguese, and built a fort at Elmina in the fourteenth century, of which only this bastion remained. The origin of this story can be traced back to the French author Villault de Bellefonds, who, with conscious historical falsifications, wanted to establish French 'rights of priority' in the area."

In 1469 King Alfonso V. of Portugal leased the 'African Enterprise' to Fernando Gomez for five years with the condition attached to explore at least 100 leagues of coastline every year. Gomez did even better and had reached Gabon at the expiry of the contract, but the contract was not renewed because the Portuguese king had seen the profitability of the trade along the West African coast and reserved this 'bonanza' for himself.

Portuguese vessels commanded by Juan de Santerem and Pedro de Escobar reached the Guinea Coast in 1471, landed near the mouth of the Pra river and traded with the native inhabitants for gold dust. According to Pacheco Pereira the first trade took place at or near Shama, and the whole Coast was called "Mina" in those times.

Diego d'Azambuja either took or built Elmina Castle in 1481/82. Christopher Columbus is said to have accompanied one of d'Azambujas expeditions between 1480 and 1485. In partnership with his brother he conducted a map making business south to the Gold Coast and out to the Madeiras and Azores.⁶²

The Portuguese enjoyed their possessions and a trade monopoly on the Guinea Coast as long as the division of the World between them and the Spanish, laid down first in the Treaty of Alcacovas of 1479 which excluded the Castilians from the West Coast of Africa and later on by the Treaty of Tordesillas ratified by the Pope in 1481, was binding. For the next 120 years Portugal had besides Sao Jorge da Mina at Elmina two other permanent trading posts on the Gold Coast, Fort San Antonio at Axim (built 1515) and fort San Sebastiao at Shama, built at 1523.

⁶² Remark from the author: Anin, 1994

After the Reformation and the dwindling power of the Pope, other nations, who did not recognize the supremacy of the Pope any longer and consequently felt no reason to observe his "world economic order", arrived at the Guinea Coast and started trading. The French were first, but were shortly followed by the English, Danes, Swedes, Dutch and Brandenburgers.

1542 a French ship arrived at Cape Three Points and returned to France with 1000 ounces.⁶³

In 1553 some ships under the command of Thomas Wyndham arrived at London with 150 lbs. of gold-dust from the Guinea Coast. A year later John Lock arrived with another 400 lbs. and from then on hardly a year went by without adding to this gold supply, in the years 1555 and 1556 Towerson obtained gold and ivory from several places between Cape Three Points and Accra.

John Lock recounted his experience on the Guinea Coast in 1554:

"As to the manners and customs of the people on the Guinea coasts, their princes and noblemen pounce (dust) and raise their skins in different figures, like flowered damask, and although they go in a manner all naked, yet many of them, especially the women, are, as it were, laden with collars, bracelets, hooks, and chains, either of gold, copper or ivory. Some of their women wear on their bear arms, certain foresleeves, made of plates of beaten gold, and on their fingers rings of gold wire, with a knot or wreath, like that which children make in rush rings.⁶⁴

The English court observed these trading activities with some interest, but until 1618 the English trade remained unorganised and without any royal protection.

A Dutch captain, on his way to Brasil, was driven by storm more or less accidentally to the Gold Coast in 1592 and returned home with some gold, after having been imprisoned for some time by the Portuguese. The Dutch opened immediately trading posts at Moree (Fort Nassau), Anomabu, and Dutch

⁶³ Remark from the author: Daaku, 1970

⁶⁴ Cited from Rickards, John H. Moore, Voyages and Travels, vol. 1, p. 316, 1778

Commenda. In the following 50 years the Dutch ousted the Portuguese from Elmina and later from all their castles on the Gold Coast by force.

The loss of the last fort, San Anthony at Axim, to the Dutch in the year 1642 did not finish the Portuguese' engagement on the Guinea Coast entirely. In 1721 the Portuguese reopened their interest in Whydah, occupied Christianborg on the Gold Coast 1679 to 1682 and were otherwise still active in general trade along the West African coast right through much of the eighteenth century.⁶⁵

By the year 1651 the English had built a fort at Coromantine after which in the West Indies all the slaves who came from the Gold Coast were named Coromantines.⁶⁶

In or about 1826, after a devastating defeat and loss of prestige the English under Mc Carthy⁶⁷ had suffered in 1824 at the hands of the Ashantis, the Home Government determined to abandon the Colony and only the efforts of George MacLean, a Scottish, saved the Colony for the British Empire.

Purchase by the English of the Danish forts by 1850 and of the Dutch forts by 1871.

THE AFRICAN GOLDRUSHES

Ntotroso gold rush and desaster (ca. 1860 to 1865)

Junner reports in 1933:⁶⁸ "Alongside the village of Jedu 0.4 mile north-west of Ntotroso are the remains of some old workings excavated according to the local people more than 70 years ago", i.e. around 1860 to 1865. "The workings consist of a series of contiguous pits, now 15 to 20 feet deep and up to 50 feet in diameter, stretching for 100 yards in a direction NNE-SSW mag., with numbers of the usual small circular pits extending for 70 yards SSW and 60 yards north od the main excavations." Junner stated further that although in quartz samples taken he did not find any gold and from the dirt and loam only a

⁶⁵ Posnansky, Merrick: Brass Casting and its Antecedents in West Africa, Journal of African History, XVIII, 2, (1977), p. 299

⁶⁶ Mosely, Waller, Landon/Evitt p. 33

⁶⁷ Remark from the author: who was killed and decapitated

⁶⁸ Remark from the author: ARGS 1933/34, page 9

little very fine gold was obtained that all this work would not have been done unless something attractive was found. "According to the local chief during the rush and excitement to dig quickly and extract the gold-bearing stone a golden duck - the guardian of the gold - suddenly appeared and by its quacking caused the workings to collapse with the result that 60 workers were buried. This was the end of the Ntotroso mine and no one in the locality has since ventured to search for gold."⁶⁹

⁶⁹ Remark from the author: ARGS 1933/34, p. 9

HISTORY FOUR

The dawn of the 18th century marked major new events on the Gold Coast; one was the dramatic rise of the Asante empire and the second was the proliferation of slave trading. The two events are at least partially, if not substantially related. The rise of the Ashantis was by military force which gained them many captives of which many would eventually be traded at various coastal ports.

The history of the rise of the Ashanti (also Asante) people as a regional power ties in closely with the history of gold mining in the region. Gold has always been a dominant commodity in the culture of the Ashantis and an important part of their wealth. The name Ashanti immediately connotes gold and in their local dialect the heartland of Ashanti power was historically known as 'Sikaman'. Land of gold. The early days of the rise of the Ashantis date to about the mid 1600s, when various clans in and around the vicinity of present day Kumasi joined into a general union to consolidate their power,⁷⁰ probably to help resist the powerful Denkyirans. At this point, they were paying tribute to their Denkyira neighbours to the south and west who were the dominant power at the time. However, gold mining within their own lands was providing the Ashantis with wealth to buy more weapons and slaves;⁷¹ many of these were used to work in the goldfields and thereby further increased the wealth of the Ashanti king and his senior councillors.

Osei Tutu, who during his adolescence spent quite some time at the court of Denkyira during Boa Amponsem I. reign, became the uniting king of the Ashantis, who with the help and wisdom of his councillor, the great priest Okomfo Anokye, convinced all people that the soul of the Ashanti nation was enshrined in a "Golden Stool" which Okomfo was said to have received from heaven. This metaphysical symbol of unity and strength established and combined with shrewd political powerplay with the different rulers of the Asante states ensured the recognition of the Asantehene as the overlord or paramount ruler of all Asante, who installed his royal court at Kumasi.

⁷⁰ Davidson, 1991; Edgerton, Robert B.: The Fall of the Asante Empire, The Hundred-Year War for Africa's Gold Coast., New York, first published 1995

⁷¹ Remark from the author: at first from the European traders who were bringing them from further east

As a second step of consolidation of Osei Tutu's reign and position in Ashanti the invasion and total destruction of the Denkyira empire in a decisive battle in 1701 has to be noted. This battle at Feyiase, during which the Denkyirahene was beheaded, was reported upon by Bosman, who mentioned in his letters that over 100.000 people died in this battle, including 30.000 Akim warriors who had come to the aid of the Denkyirans. Shortly afterwards the Akim state was subjugated. As noted previously, both the Akim and Denkyira states were large gold producers, whose production now fell exclusively into the state coffers of the Ashantis.

Osei Tutu's efforts were followed up by his successors, namely Opoku Ware I., Osei Kwadwo, and Osei Bonsu, so that by the end of the 1700s, the Ashantis maintained control over a vast empire covering an area just beyond the present day borders of Ghana. However, The Fanti and Ga clans along the coast, although overall much weaker, still maintained their independence, partly by seeking protection from the European forts and powers along the coast. Nevertheless, the Ashantis thus controlled virtually all of the gold producing areas in the region and had achieved a long-standing goal improving their direct access to trading posts, mainly on the western portion on the coast.

Once the Ashantis had defeated the Denkyirans, all of the European trading groups took notice and tried to establish amicable relations with the Ashantis. The Ashantis in turn were more than happy to promote friendly relations with the intent of only expanding trade relations.⁷² Unfortunately, this trade not only included large amounts of gold but slaves as well since these were now in fairly abundant supply due to the many conquests of the Ashantis and their far ranging influence to the north where slave trading was extensive. In addition, it was apparently customary for the Ashantis to almost use exclusively slave labour⁷³ in most of their own mining operations but this would not have extended to all of the tributary states.

⁷² Edgerton, Robert B.: The Fall of the Asante Empire, The Hundred-Year War for Africa's Gold Coast., New York, first published 1995

⁷³ Edgerton, Robert B.: The Fall of the Asante Empire, The Hundred-Year War for Africa's Gold Coast., New York, first published 1995

The question of the use of slave labour in gold mining but also the question how these states financed themselves through taxes and dues was made the subject of a fierce scholarly dispute between the historians E. Terray and R. Dumett, which Terray lastly decided in favour to his theses with his final publication on "Gold Production, Slave Labour and State Intervention in Precolonial Akan Societies" (1983). According to Terray, there were two modes of gold mining in the Gyaman: "Panning for alluvial gold deposited by streams flowing over gold-bearing ground and the digging of actual mines." Terray then proves that large numbers of slaves were used in the gold mining, in the alluvial working side by side with free people but in the more dangerous deep pits slave labour formed the essential part of the manpower used. The particular features of the digging of mines was observed by several travellers who penetrated into the hinterland at the beginning of the 19th century. Meredith in his 1812 account reports that the "natives dig as if forming a well until they come to a dark coloured stone which is interspersed with gold, which is recovered by grinding the stone to powder and washing it."

Mungo Park 1812 observed as follows: "We travelled about half a mile west of the town (Shrondo) when we came to a small meadow spot of about four or five acres of extent, in which were several holes dug resembling wells. they were in general about 10 to 12 feet deep; towards the middle of the meadow spot the holes were deepest and shallower towards the sides. Their number was about thirty, besides many old ones which had sunk down...."

Denys De Montfort observed in 1814 the digging of gold and gave the following description: "The negroes, therefore, work only the auriferous sands and the gneiss and schistous beds and banks of granite, which constitute the base of their mountains and which being friable are easily dug into. If they attack the sides, they dig a fosse in the first place from twenty to thirty feet in depth, on an indetermined breath, until they begin to be alarmed for the crumbling down of the earth; the gold, as being heavier than quartz, schorl, and feldspar, the constituent principles of primitive granite, has been deeper seated in their common fall: they begin to find it however at the depth of three feet: they had no idea of using props of wood. The earth thrown up during the digging is laid in heaps on the edges of the fosse, where other miners, their wives and children,

receive it in bags and carry it to the nearest river on their head, for the Negroe never carries any thing on his back....."

These wells or round pits of about two to three feet diameter were dug closely spaced within an prospective area, depending on the watertable in the ground in exceptional cases up to 150 feet deep but on the average 60 to 80 feet. Timbering of these shafts was unknown and pumps to dig below the water table were not available. Adits, tunnels and drives were only in favourable circumstances driven and the circular pits were rarely connected at the bottom. It was rather observed that the single shaft was widened at the bottom to attain the shape of a bottle but with the danger of an immediate collapse, especially when rains set in.

Under special geological and topographical conditions gold bearing quartz reefs and conglomerates were also worked by means of large pits and long narrow open cuts and trenches as much as a third of a mile in length and 80 feet deep. Coastal tribes like Ahanta, Apollonians (Nzema), Gwiras and Wassaws engaged in this mining technique, which they probably had observed during some of the Portuguese and Dutch mining ventures.⁷⁴

In his 'Description of the Coasts of North and South Guinea' J. Barbot in 1732 provided a description of how the people working the lower Ankobra River obtained alluvial gold: "They plunge and dive under the most rapid streams, with a brass basin or wooden bowl on their heads, into which they gather all what they can reach to at the bottom; and when full return to the bank of the river with the basin on their head again, where other men and woman are ready to receive and wash it, holding their basins or bowls against the stream until all the dross and earth is washed away, the gold, if there is any in the basin, by its own weigth sinking to the bottom. When thus cleaned and separated they turn it into another vessel till quite clear of sand and earth. The gold comes up some in small grains, some in little lumps as big as peas or beans or in very fine dust."

The final cleaning of the gold was carried out in a blackened wooden bowl with the aim of a chicken-feather and some small pointed stick with which the last

⁷⁴ Sutherland, D.A.: The Primitive Uses of Gold and Methods of Gold Mining, Accra, Gold Coast, Government, Print 1952

impurities were removed. The gold dust and the small grains were then kept in a cleaned shell of the ubiquitous, edible snail. Nuggets were normally the possession of the chief or king and had to be surrendered.

The last leads to the question of how the state was financed in those days: The gold mining sector was largely administered by the Abusa system, which is still a feature in agriculture in modern Ghana. Under this system, the landholder, the chief⁷⁵ was to receive one third of the production, the lessee or operator of the mine one third and the workers the last third. In many cases, besides the surrender of the nuggets to the chief, the chiefs were entitled to an additional share, the so called 'saturday earth', i.e. the workers had to work on saturday and deliver the ore won to the collectors sent by the stool.

With another day in a week normally prohibited for working due to restriction imposed by agricultural or other deities, the production of five day sometimes was not enough for the lessee and cheating set in. First and foremost the hiding of nuggets was an common way to increase one's share, even if, like in Ashanti, the death penalty was imposed on this crime. In Asante the nuggets were to be handed via the chiefs to the Asantehene!

Describing gold mining in Manso-Nwanta, Arhin indicates, for example:

"Men went gold digging with their wife or wives and unmarried sons and daughters.Gold mining required secrecy since a man might want to keep the bigger nuggets, sika po, which should be delivered to the Manso-Nkwantahene who sent them to the Asantehene.....Men did not go mining with nephews or nieces. Although the latter were their heirs, it was suspected probably for that reason that they might betray an uncle who kept nuggets."

There was also a lot of cheating with the saturdays earth, where many delivered barren material instead of ore. The partition of the production into equal thirds was also only carried out honestly when a representative from the chief was present.

Chiefs therefore employed larger amounts of slaves to mine gold on their own, in such case all production fell undivided to the chief. The above shown

⁷⁵ Remark from the author: not owner, because the land belongs to the clan or tribe

cheating led later to the preparedness of the chiefs rather to lease gold fields to Europeans for rent and royalty payments than giving such land to their own kin. The payment returns of the European lessees were more regular and honest than the returns delivered by their subjects.

In general it was observed that the Ashantis were increasingly involved in 'hard rock mining on high grade veins. Most of the work was done by slaves and at some major sites, as many as several thousand men, women and children would be engaged in various activities. Usually the men would be in the mine workings, with the women and children involved in crushing the rock at surface, washing the crushed rock and recovering most of the gold by expert panning. To this day, these time proven methods are still used most effectively in small-scale, artisanal workings throughout the country and region.

Further methods employed in winning gold and superstitions connected with it. Nuggets were not only kept by unfaithful subjects for economic benefits but also for re-burying to grow gold. The myth of growing gold was also adhered to at other places of the world. Livingstone, when observing the people of Manica washing the sediments of river banks, noted: "When they find a piece or flake of gold, they bury it again, from the superstitious idea that this is the seed of gold; and though they know the value of it well, they prefer losing it rather than the whole future crop". Livingstone suggested that the burying of the gold nuggets originated in the desire to avoid seizure by the chiefs, but this explanation is not necessary, because in ancient and in modern times alike there has prevailed a mythical notion that metal grows in place underground.

Richard Burton, speaking of the natives of the Gold Coast, says that "as a rule, nuggets are the royalty of kings and chiefs; but in many places these "mothers of gold" are re-buried, in order that gold may grow from them."⁷⁶

Such ideas ((growing gold)) persist to our own day. Thomas Egleston, formerly Professor of Mining in Columbia University, states that in the Southern States it was believed that the tailings from abandoned mines became enriched in process of time, the amount of gold obtainable being proportioned to the period

⁷⁶ Cited from Rickard, page 27, and Livingstone, David: Missionary Travels, page 683, 1858.

they had lain untouched, thus measuring the opportunity given the gold to grow.⁷⁷

Rickard continues: In this case a simple explanation may suffice. The gold was intimately associated with the pyrite, the decomposition of which in due course liberated the precious metal, and rendered it therefore amenable to amalgamation in the stamp mill.

Sir Richard Burton tells us how the indigenous people of the Gold Coast in West Africa obtained gold by underground operations.⁷⁸ "To follow the small stringers of gold-bearing quartz, they dug circular pits, into which they came and went by means of footholds, or notches in the side of the excavation. The broken quartz was hoisted in a basket and carried to a hut, where it underwent preliminary roasting, so as to facilitate the breaking of it into small pieces. This crushed ore was taken to the women, who pulverized it, by grinding upon cankey-stones, such as they used for kneading their daily bread. The grinding was done at night to the accompaniment of much jollity and carousing. The pulverized ore was finally washed in calabashes. This description is incomplete, but Edward T. Mc Carthy tells me that in 1882 at Prestea he saw the natives using the old fire-setting method to aid them in excavating the rock in the bottom of the shafts. They cut wood into faggots, 14 inches long and 5 inches thick; these they dried in the sun and tied neatly into bundles. One of these would be placed at the bottom of the shaft, in which the natives were digging into a quartz vein; the wood was set on fire, to be replenished at intervals during two days; at the end of three days they emptied small pots of water upon the heated rock at the bottom of the shaft. Then they descended and cleaned up the ashes and remnants of the fire. Meanwhile the native blacksmith had made a chisel fixed to a handle three feet long; and with this they pried into the cracks formed by the fracturing of the rock, so that they deepened the shaft by two feet with each fire-setting. They begged the English engineer not to go into the mine in his boots, because leather would scare away the gold.

⁷⁷ Cited from Rickards, p. 28, source Egleston, T.: Trans. Am. Inst. Min. Eng., vol. ix, p. 638, 1881

⁷⁸ Ref. Burton, Cameron, To the gold coast for gold, Vol. II, p. 116, 1883

This is corroborated by the famous black surgeon, Dr. Africanus B. Horton, who stated that it was forbidden for any one in European dresses or boots or who could read and write to go to the diggings.

A lot of fetishism took place, the closure of mines by fetish when silver was met with or after collapse was already mentioned. Junner even goes to the extent to state that most of the fetishes were put for economic reasons. According to Meredith (1812): "fetish was commonly put on the gold mines to prohibit the lower classes from getting intimately acquainted with that which would deprive them of their agricultural employment and introduce a life of idleness and debauchery amongst them."⁷⁹

Collapses of workings, accidents were often believed to have been caused by the fetish and regular sacrifices of chicken or sheep were deemed necessary to pacify disgruntled gods, sasabonsams, dwarfs and other guardians of the gold.

The cock or golden duck was often regarded as one of the principal caretaker of the gold; when the gold gave out it was because the guardian spirit had flown off with it, and when the working collapsed the accompanying rumbling of the earth was believed to be the cackling or quacking of the cock or duck.

A typical example for such event is the Ntotroso gold rush and disaster (ca. 1860 to 1865)

Junner reports in 1933:⁸⁰ "Alongside the village of Jedu 0.4 mile north-west of Ntotroso are the remains of some old workings excavated according to the local people more than 70 years ago", i.e. around 1860 to 1865. "The workings consist of a series of contiguous pits, now 15 to 20 feet deep and up to 50 feet in diameter, stretching for 100 yards in a direction NNE-SSW mag., with numbers of the usual small circular pits extending for 70 yards SSW and 60 yards north of the main excavations." Junner stated further that although in quartz samples taken he did not find any gold and from the dirt and loam only a little very fine gold was obtained that all this work would not have been done unless something attractive was found. "According to the local chief during the

⁷⁹ Sutherland, D.A.: The Primitive Uses of Gold and Methods of Gold Mining, Accra, Gold Coast, Government, Print 1952

⁸⁰ Remark from the author: ARG 1933/34, page 9

rush and excitement to dig quickly and extract the gold-bearing stone a golden duck - the guardian of the gold - suddenly appeared and by its quacking caused the workings to collapse with the result that 60 workers were buried. This was the end of the Ntotroso mine and no one in the locality has since ventured to search for gold."⁸¹

The rise and fall of the Ashanti empire

By the early 1800s when the Ashanti empire was at its height, several visits and subsequent reports by Dutch and English visitors⁸² revealed much about the Ashanti capital and its modus operandi. The visitors were invariably impressed with the cleanliness, order and wealth of the state as well as the stature and appearance of its many inhabitants. The wealth was accumulated through their own gold mining activities as well as through the annual tributes from a host of vassal states. The tributes were primarily paid in gold, slaves and livestock; the Ashantehene in turn provided gifts to his senior councillors, military leaders, chiefs and extended family whereas the treasury used the tributes to finance a large civil service such as tax collectors, police and militia groups used to maintain peace throughout their empire.

By the early 1800s, the Ashantis had grown weary of the disrespectful Fanti middlemen who continued to demand tribute on goods passing through their territories on their way to some of the major trading posts in the central area around Elmina and Cape Coast. The Fanti were intent on maintaining their influence despite the Ashanti's far superior military might and this required continued support from the British trading posts whose landlords were various Fanti chiefs along the coast. Bloody skirmishes erupted and eventually the British were forced to intervene on behalf of their Fanti landlords although they knew that their real commercial interest lay with the very wealthy Ashanti state. In 1807, the Ashantis attacked and decimated the Fantis around Cape Coast in a bloody battle which eventually led to a siege of the undermanned English fort

⁸¹ Remark from the author: ARG 1933/34, page 9

⁸² Edgerton, Robert B.: The Fall of the Asante Empire, The Hundred-Year War for Africa's Gold Coast., New York, first published 1995

at Cape Coast. Vastly superior fire power forced the large Ashanti army to retreat.

Peace was temporarily restored but relations between the Ashantis and Fantis remained bitter. In 1824, the newly arrived British Governor, Sir Charles Mc Carthy decided to intervene in support of the Fantis and unwisely prepared to attack a large advancing Ashanti army whose intentions were to once again give a brutal lesson to the Fantis. Mc Carthy's column, which had separated their main force, sadly misjudged the Ashanti strength and bravery; his column was ambushed and destroyed at Nsamankow near the Pra River. After loosing most of his men and badly wounded, it is said that Mc Carthy took his own life rather than be captured. The Ashantis claim to have captured him and sat him on one stool and he was beheaded.⁸³

A time of insecurity and of roaming Ashanti marauders ensued until 1826 the British, along with a large force of combined Fantis and Gas, gained some measure of revenge when their substantial army, equipped with heavy artillery, faced a large Ashanti force in the open, flat ground between the towns of Katamanso and Dodowa. The Ashantis were in this battle at a great disadvantage in the open field and were especially vulnerable to the concentrated fire power of the British artillery.⁸⁴ A heavy toll was extracted from the Ashantis and they were forced to withdraw. This battle of Akatamanso set the point of the beginning decline of the Ashanti power.

Despite this victory the English in 1827 decided to withdraw their political activities from the Gold Coast to avoid further involvement in military skirmishes between the Ashantis and coastal tribes. This decision certainly did not please the English merchants on the coast, they expected now far better prospects for their trade. The Crown promised the Committee of Merchants a subsidy of 4000 pounds per annum for the upkeep of the castles and forts in English possession and agreed to appoint a soldier, Lieutenant (later Captain) George Maclean, as President of the Committee, after some time of mismanagement of affairs by the merchants.

⁸³ Remark from the author: in the 1980th this particular stool was returned by the British to Kumasi

⁸⁴ Edgerton, Robert B.: The Fall of the Asante Empire, The Hundred-Year War for Africa's Gold Coast., New York, first published 1995

It was only his arrival in 1831 that peace between the British and Ashantis was established. His aim was to conciliate differences with the Ashantis and to promote more trade. Maclean's forceful personality and fairmindedness earned him universal respect and almost two decades of peace and prosperity followed. Only the efforts of George MacLean saved the Gold Coast Colony for the British Empire. Unfortunately, after his death in 1847, his successors possessed neither the enlightened attitude nor his administrative skills to build further on Maclean's achievements.

Although the Dutch and English traders were dominant along the Gold Coast throughout the 18th century, their European competitors continued to maintain a presence. The Brandenburg-Prussians eventually gave up and sold their interests in the Western Region to the Dutch for 6000 Ducats on 22. Nov. 1717. Because of the merchant prince John Conny, who, being the landlord of the castle, was not notified or asked for his consent, the Dutch were unable to take over their new possession. In 1718 the Dutch lost patience and sent three ships with soldiers, but this force was ambushed by Conny's force and more than thirty Dutch were left dead on the shores. Eventually, in 1724, a combined force of the Dutch and English drove Conny's forces into the hinterland and took possession of Castle "Gross Friedrichsburg" which they renamed Fort Hollandia.

The French made half-hearted attempts to establish bases on the Gold Coast but abandoned these in favour of their better established position along the coast of Senegal,⁸⁵ in modern day Cote d'Ivoire at the mouth of the Comoe River. These bases were indeed, quite successful apparently, to tap the gold trade from the north and they were also able to garner some of the gold from the Ashanti empire. The British much reduced the effectiveness of the Half Assini post, when, in 1786, they built Fort Apollonia which became the outlet for a considerable amount of gold produced west of the Ankobra River, in the coastal areas populated by the Nzema clan. The term Apollonia probably was taken from previous Portuguese references to this area and was used well into the 20th century by Europeans who referred to the indigenous population as

⁸⁵ Remark from the author: In the mid 1700s, the French apparently established a trading post in the vicinity of Half Assini, at the southwestern tip of modern Ghana. This was an outpost to their larger, fortified base further west at Grand Bassam (Wilson, 1856).

Apollonians.⁸⁶ Many 'Apollonians', or, more properly, Nzemas were used extensively as mine labourers early in this century at Obuasi and in the Tarkwa district. They were known everywhere as the best skilled miners on the coast.

The Danes were more dogged and, in the 1700s, established several posts along the eastern parts of the Gold Coast, from around Accra to the Volta River and just beyond to Keta. The area in and around Accra was especially active and included the Dutch and English, as well as the Danes who, in 1661, had established a modest base at Osu, Christianborg. This base was later expanded on several occasions to a much larger fortified post which today remains the official residence of the President of Ghana and includes many offices of the executive branch of Government.

The Accra posts were initially intended to tap the growing production from the eastern goldfields in the Akim area⁸⁷ but soon slaves became the main export commodity. Certainly this was the focus of the expanding Danish presence throughout the 18th century which saw the height of the trans-Atlantic slave trade⁸⁸ that the numbers is not likely to be less than 12 million. The worst period was the 18th century when over half of the total traffic of human cargo was taken from African shores and perhaps another 25% was taken in the first half of the 19th century before international pressure finally brought the trade down dramatically. The western parts of the Guinea coast were the principal source of slaves during the early phases of this trade but gradually the focus moved eastwards to the Dahomey (Benin) and Nigerian coasts and then southwards to central and southern Africa. The Portuguese colonies in Angola and Mozambique on the east coast of Africa were the sources of an enormous number of slaves, destined mainly for Brazil, for several hundred years and it was only very late in the 1800s that a halt was put to this trade. The Gold Coast area may have supplied up to 10 % of the total traffic up to the early 1800s.

⁸⁶ Junner, 1935

⁸⁷ Remark from the author: especially from the Kibi district

⁸⁸ Remark from the author: Estimates of the traffic in slaves from Africa vary widely but there does appear to be a general concensus (Fage, J. D., 1961; Davidson, 1991; Illife, 1995).

Fage⁸⁹ indicates that in the most active periods, mainly in the late 1700s, up to about 10.000 slaves were taken annually from the Gold Coast.

In the late 18th century, persistent public campaigns against slavery had gained momentum in various European countries, especially Britain, Holland and Denmark. Eventually these were successful despite dogged resistance from commercial interests that included prominent gentry and parliamentarians who had extensive holdings in overseas sugar plantations. In 1804 it became illegal for Danish citizen to participate in slavery, Britain followed in 1807 and Holland in 1814.⁹⁰ In 1833, Britain banned slave trading in all of their slave trading ban colonies.⁹¹ At a time when 'Brittania rules the waves', effective and aggressive maritime patrols intercepted many ships and released slaves along the coast although it would be decades before the trans-Atlantic trade would subside to a trickle. Many of the early releases were settled at Freetown (sic) in Serra Leone. Later, released slave communities developed at Lagos (Nigeria), Libreville (Gabon) and Liberia became a safehaven for slaves repatriated from the United States.

In the Gold Coast, these events, as well as many internal changes, were felt in many ways and slave trading was on the decline. After the Ashanti defeat at Katamanso in 1826, local skirmishes continued as many tributary states fought to regain their independence. There were a few interludes of peace and prosperity but overall the trading activities, including gold production, were on the decline. The tradeing pie became smaller and was not sufficient to support all of the competing European groups. At the same time, various European religious groups, who were the most prominent leaders of the anti-slavery movement, decided it was time for West Africans to benefit from Christianity and so missionary work became the order of the day.

During the same period, Britain started to become the most dominant European power and, in 1821, the British Government, however reluctantly, took over the administration of the coastal forts⁹² which up to this point had been run by

⁸⁹ Fage, J. D., 1961

⁹⁰ Fage, J. D., 1961

⁹¹ Davidson, 1991; Illife 1995

⁹² Fage, J. D., 1961

commercial groups. Leaders such as Governor Maclean had become more active in non-commercial affairs by helping to resolve disputes amongst various coastal groups. In 1844, numerous coastal states ceded certain judicial rights⁹³ to Britain in return for which they would receive protection from their still powerful, unpredictable and bellicious Ashanti neighbours.

On the commercial scene, even more dramatic events were soon to take place. The Danes, not being able to replace their slave trading revenue, eventually sold their interests in five Gold Coast Forts to Britain in 1850⁹⁴ for 10.000 engl. Pounds.⁹⁵ This was followed by an agreement between the English and the Dutch to swap trading posts; the English took over all of the Dutch possessions east of Cape Coast whereas the Dutch assumed the British posts west of Elmina. These sales and swaps were intended to consolidate interests and reduce administrative and commercial overheads but they were not popular with many of the local groups who preferred a more competitive commercial environment rather than a dominant power in any one jurisdiction. Besides, the swaps were done without the consent of the landowners, who in some cases objected to the take over, especially by the Dutch. Dutch enthusiasm for the Gold Coast continued to wane and in 1872 they sold all their interests to the English for the paltry sum of 3.790 pounds and some legal or administrative concessions in other parts of the world.⁹⁶ The Gold Coast was soon to become a British Colony.

The sale of Elmina by the Dutch, in particular, infuriated the still powerful Ashantis because they had a strong claim to the area by prior treaty agreement, the famous Elmina note.⁹⁷ In fact, the Dutch had paid annual rent to the Asantehe. Furthermore, the Ashantis had been engaged in permanent hostilities with the Fantis and occasionally in minor conflicts with their protectors, the English. A major conflict with the English was inevitable and the Ashantis had been arming and preparing themselves for several years. Their

⁹³ Dantzig, Albert van: Forts and Castles of Ghana, Sedco Publishing, 1980, pages 96

⁹⁴ Fage, J. D., 1961

⁹⁵ Agyemang, Fred M.: Accused in the Gold Coast, 2nd ed., Waterville Publication House, 1993

⁹⁶ Dantzig, Albert van: Forts and Castles of Ghana, Sedco Publishing, 1980, pages 96

⁹⁷ Edgerton, Robert B.: The Fall of the Asante Empire, The Hundred-Year War for Africa's Gold Coast., New York, first published 1995

traditional coastal enemies were weak and the English did not appear to have the resolve to involve themselves in a major military campaign. Besides, the Asantehene Kofi Karikari like his predecessors was since long interested to achieve direct access to part of the coast to cut out any middlemen in their trade. In 1872 a large Ashanti army approached the coast without any major engagement with the British but they were, after a lot of marauding and plundering, stalled by logistical problems and widespread disease; this forced a withdrawal back to Kumasi. This time, the Colonial Office in London took the matter seriously and sent out a veteran campaigner, Sir Garnet Wolseley, along with a strong army equipped with the newest long range rifles and artillery. Wolseley's strategy was to pre-empt the matter and march on Kumasi. This he did in 1874; major battles were fought against a very large Ashanti army in the vicinity of Bekwai, some 25 km south of the capital. Despite astonishing bravery and effective tactics, the Ashantis were soundly defeated; once again, the overwhelming superiority of the English fire power was decisive. Kumasi was sacked and burned down, mainly by a large contingent of Fante prisoners who had been liberated by the victorious troops that included many soldiers from the coastal region.⁹⁸

Immediately after the defeat of the Ashantis, a treaty was signed and before the year's end, the Gold Coast was declared a British Colony. This included only the coastal area and the tributary states south of the traditional Ashanti mainland, which became a protectorate.

As noted previously, up to 1875, commerce in the Gold Coast during the 19th century experienced a few periods of prosperity but the long overdue decline of the slave trade plus the ongoing political turmoil had devastated business activity. This must have been particularly true of the gold mining activity throughout the country which were very dependent on political stability. However, a new period in gold mining was about to begin.

⁹⁸ Edgerton, Robert B.: The Fall of the Asante Empire, The Hundred-Year War for Africa's Gold Coast., New York, first published 1995

HISTORY FIVE

5. Modern Mining - 1875 to 1985

By the beginning of the 19th century, various European land explorers had started to enter Africa, to them the terra incognita, on journeys of discovery to answer many of the geographical enigmas on the vast continent and, in some cases, to introduce Christianity to the indigenous populations. These journeys were widely reported upon in the European press and Africa became a new frontier which captured the imagination of many European nations. As more was discovered about Africa, the general European attitudes started to change from a purely 'trading' to an acquisition, conversion and development' mentality as Africa was now seen to be a large undeveloped treasure chest of natural resources which could help the industrial economies of Europe by supplying a host of primary products. To develop these resources, European finance would be required and, to maximise their returns, it would be necessary to assume a more direct control over the producing areas. By the second half of the century, various European nations had already staked out their general claims and positions and this was soon to lead into the 'scramble for Africa'.⁹⁹

The scramble really got underway following the humbling defeat of France by the Prussians in 1871 (Cardinall, 1931). To regain prestige, France decided to embark upon the acquisition of foreign lands and Africa was the prime target. The competition ensuing got a little out of control so that a conference was convened in Berlin in 1884-85 to confirm spheres of influence. The dominant players were, of course, Great Britain and France, Germany had become a powerful nation and fought to get a sizeable stake. Portugal was conceded areas in southern Africa where it had been active for centuries and Spain was provided a toe hold on the coasts of northwestern and central Africa. Italy's interest in northern Africa was recognised and King Leopold of Belgium adroitly managed to stake claim over much of the Congo Basin.¹⁰⁰

⁹⁹ Remark from the author: The British historian/author Thomas Pakenham provides a fascinating and very readable appraisal of this period in his book 'Scramble for Africa (1991)

¹⁰⁰ Davidson 1991; Pakenham, 1991

The rapidly fading Ottoman Empire maintained claim over parts of the north African coastal areas. Holland had opted out in order to concentrate on its vital interests in Asia, where the others agreed to give large concessions.

Thus began the colonial period in Africa which was to continue for almost a hundred years and which was to affect its development in a profound manner. Of course, Great Britain's interest in the Gold Coast was secure, especially after the Dutch sold all their coastal posts to their British rival and after the Ashanti armies had been defeated at Bekwai. Later Britain extended effective control further north by signing treaties with numerous local groups although it was a while before they settled the borders with the French on the west and north, as well as the Germans in the east.

Shortly after Britain declared Gold Coast a colony in late 1874, a new phase in the gold mining industry was seen to follow. This marks the beginning of a long period of modern mining in the region which involved efforts to implement new technologies and undertake gold mining on larger scales. Again, these phases are best understood in their context with local, regional and global economic and political events which are mentioned very briefly.

The Early or First Jungle Boom 1875 - 1885

Certainly for well into the first half of the 19th century, the government in Great Britain had shown very little interest in taking over direct administrative control of the Gold Coast. No doubt this was partly because of the anticipated costs in administration but merchants on the coast had lobbied for greater involvement to control disputes amongst the many coastal and inland groups and to provide administration and infrastructure to enhance trading opportunities. The war with the Ashantis and perceived threats from other European trading rivals forced Great Britain's hand and the Colonial Office in London eventually began to take a much more proactive policy.

Various European business interests had been well aware of the gold potential of the West African region, especially the Gold Coast, and had witnessed the enormous gold rushes that had taken place in California and eastern Australia

at mid century. After 1874, more direct access to the promising areas in the Gold Coast should now be possible with official Government backing and a new gold rush was believed to be just around the corner.

The First Jungle Boom, as these flurries of exploration were later to become known, was underway by the mid 1870s. It was far more a 'mini boom' than 'big boom'. It was quite a modest beginning because the region had dense forests with very poor access and the local chiefs still maintained effective control over most of the land whether it was an official British colony or not and they were not yet ready to fully open the area to a deluge of foreign fortune hunters. It took some time before many local chiefs realised that substantial direct and indirect benefits would come their way by opening up the country to foreign groups. There is also a persistent reference to the fact that many of the paramount chiefs felt that local miners working on a tributary basis were always cheating them of the one-third portion which traditionally was due to the chief.

At this point, the French business entrepreneur and adventurer turned prospector and miner, Marie-Joseph Bonnat,¹⁰¹ enters the picture. Bonnat hailed from a farming community around Macon in central France where he was born in 1844.¹⁰² E. T. Mc Carthy (1919), mining engineer and a great nephew of the unlucky governor Mc Carthy, who was killed in 1824 during the Ashanti campaign, provided in his reminiscences the best life description of his friend and companion Bonnat in the early Tarkwaian days: "Marie Joseph Bonnat was a remarkable man; as I have already said, he was the pioneer of modern gold mining in West Africa, and it is in memory of my old friend that I pen an outline of his life as he gave it to me when we were camping one night on the banks of the Ancobra."

"Bonnat was left an orphan when about sixteen or seventeen years of age. His father (who had been a farmer in central France) left his property mortgaged, where upon the three brothers finding their resources gone, set out for Paris with only a few francs in their pockets. The eldest turned back and afterwards

¹⁰¹ Remark from the author: For some reason, Junner mistakenly called him Pierre Bonnat, probably from pere, father, and several later writers, no doubt using Junner as their source, perpetuated this error; Cardinall (1931) also erred in calling him Jules.

¹⁰² Rosenblum, 1972

became a priest. The other two arrived in Paris and spent their last franc on a night's lodging. As evening came round again they agreed to part, thinking it easier to find work and food singly than together, but arranged to meet at an appointed place the next day. The brothers never met again."

"Bonnat succeeded in getting a place as shoeblack in a hotel; advancing then into the kitchen, he eventually became chef. After some years thus spent, he happened to hear that two African ivory hunters were staying in the hotel. He waylaid them one night as they were about to enter their bedrooms, and begged them to take him to Africa as their cook, offering his services for a year for nothing. This resulted in his being engaged by them. He went to West Africa. A few years later the hunters retired, leaving Bonnat in possession of all their belongings, including a small factory on the coast. Then he started business on his own behalf."

"It was when returning after a successful hunting expedition, laden with ivory, that he was captured by the Ashantis on the Volta River, and held a prisoner for some three years, until released with his German fellow-prisoners (which in fact were a Mr. and Mrs. Ramseyer from Switzerland and a German Missionary, called Kuehne; ed.) by Sir Garnet Wolseley in the course of his Coomassie campaign. While a prisoner he was treated at times as a prince and at others with the greatest cruelty, depending on the vagaries of the king. At times denuded of every stitch of clothing he was compelled to make mud bricks, and at night was often tied to a tree so that he could neither sit or lie down. On other occasions he feasted with the king, and was shown all his treasures of gold, which were enormous. It was during one of these visits to the king that he first learnt of the Tarquah gold mines and determined, whenever released, to visit them. He carried out his purpose, and returning to France he endeavoured to form a company to explore and develop the gold deposits by modern methods."

"During this visit¹⁰³ he became engaged to a daughter of a French banker, who, thinking him an adventurer, would not give his consent. Returning to Tarquah and fully convinced of its wealth, he again tried to form a company."

¹⁰³ Remark from the author: which proved unsuccessful

"This time he succeeded in interesting M. Verillon. The Tarquah and Abosso were then floated under the name of the Cote d'Or Company. Soon afterwards the Effuenta concession was acquired by James Irvine, of Liverpool; he formed the Effuenta Gold Mining Company. Meantime Crocker, the senior partner of Swanzy & Co., the oldest firm of traders on the coast, commenced work on a quartz vein a little beyond Abosso.¹⁰⁴ This proved a failure, but the attempt led eventually to their working the continuation of the banket deposit at Abosso.¹⁰⁵ This is now the Wassau Company's property."

"A few months after Effuenta was started, the Gold Coast Company was formed and commenced work at the opposite end of Tarquah, on what is now known as Abbontiakoon. These were the pioneer companies of the Gold Coast, and they had been attracted here to through Bonnat's persistence and pluck in bringing the gold deposits to public notice."

"When I first entered Tarquah, although the King had granted the concession to Bonnat, the natives still remained in possession of the mines, and it was only by the process of gradual absorption that they were finally eliminated."

"Day and night one could hear the women and girls grinding the ore extracted from the hundreds of small shafts situated on the hills, and scores of women were to be seen washing out the gold therefrom, standing up to their waists in the swamps behind the town."

"In those days all supplies¹⁰⁶ had to be transported on the heads of natives, for the plantations around Tarquah were not sufficient even to supply the native town itself. Transport therefore was not only costly, but exceedingly difficult and intricate, as a system of weighing and checking each load at the several stations along the road had to be organised, and then again the native carriers were consuming the food, and had to be despatched back directly they arrived without a moment's delay."

"Bonnat's knowledge of the language and customs of the natives was invaluable in this respect, and made comparatively easy what otherwise would

¹⁰⁴ Remark from the author: Satchen Concession, or Crockerville, ed.

¹⁰⁵ Remark from the author: i.e. the Adja Bippo, ed.

¹⁰⁶ Remark from the author: even of food

have been a gigantic task. Although we were too early, this work ultimately led to the development of the country. It was during these days that Bonnat and myself determined to attempt the riddle of the Kong Mountains, a geographical problem then almost as great as the Mountains of the Moon."

"With this object in view we gathered information from native traders. Finally it was arranged between us that he should go home, collect what equipment we needed, and that I should follow him home just for the voyage and return immediately with him. Accordingly Bonnat started six weeks in advance. On my arrival at Liverpool I received a telegram from him saying he was married and wished me to come over and join him and his bride near Macon."

"It seems that his brother, from whom he had parted as a boy in Paris, had gone to the East, and dying suddenly on his way home, had left Bonnat two-thirds of a substantial fortune. Thus the obstacle to his marriage was removed. On meeting Bonnat I did all I could to dissuade him from going back to Africa; but to no purpose. This he said was to be his last visit, and unfortunately it proved true."

"Before starting on our journey we made a trip up the Ancobra River to re-visit some old mines and Tarquah. It was in the village of Bamiankor that we spent our last night together. Bonnat and I had just sat down to a native dish of "flou flou" and "foo foo" when who should walk in but the late Commander Cameron, who, seeing our boat on the river, had reckoned on getting a good meal, as his supplies had become exhausted with the exception of a pint bottle of beer and a small tin of pate de foie gras. With these tucked under his arms he walked in, much to our surprise."

"Next morning I said good-bye to Bonnat, who left with a bad cold, probably contracted in swimming a river, with the understanding that we should start in a week's time. Arriving at Tarquah he was taken ill. He wrote me a note the day before his death, sending it down by native runner, and saying he would soon be up again and looked forward to our journey. Apparently he was in the best of spirits. Alas as I was striking camp a runner came in with a letter that Bonnat had suddenly got worse and was no more. The news was a severe shock to

me, but how much greater to the woman who had been his wife for six weeks, and his betrothed for five long years."

"Later on I heard more particulars of M. Bonnat's death. He had had a bad cold and on top of it got fever, and went off very suddenly at the last."

The exact day of Bonnat's death was July 8th, 1881 and not, as often claimed 1882. Bonnat was buried in Tarkwa in the old European cemetery.¹⁰⁷ His young widow requested later the transfer of his remains to France. Therefore local folklore claims that he was exhumed and cremated in 1882 and his ashes sent to Macon in France where they were re-enterred and his grave is in existence there to date.

Mc Carthy remarked further: "It is of interest to note that the french claim to have imported the first gold from Elmineh as long ago as 1382, and 500 years afterwards they were to lead to re-open the Gold Coast to modern enterprise on the initiative of Bonnat, who was truly the father of modern gold mining in West Africa. J. Skertchly was, I believe, the first technical man to examine the Tarquah mines; he came in 1877 on behalf of the French, and was followed in 1879 by J.H. Harvey and myself, who described the deposit as a "Quartz reef" to which I demurred, for it was undoubtedly what is now termed 'banket'."

Bonnat's role as father of modern gold mining is today contested by many historians¹⁰⁸ on the strength of his actual achievements.

Bonnat was certainly not the first who tried to introduce modern mining techniques and methods in this area. Rosenblum¹⁰⁹ quotes the case of "Thomas Hughes, a native of Cape Coast who attempted to open a gold mine in Wassa Amenfi in 1860, extracted a promise of assistance from the local British authorities before importing expensive European mining machinery. African head-porters transportet it to Wassa Amenfi and prospecting operations were begun under Hughes's supervision. King Quacoe Mensah forbade Hughes from entering the actual area of operations for fear that his European-style boots and clothing, even though worn by an African, would frighten the gold god away.

¹⁰⁷ Remark from the author: which was situated just behind the new SSB building

¹⁰⁸ like P. Rosenblum, 1972 and H.J. Bevin, 1960

¹⁰⁹ Rosenblum, 1972

The King's precaution proved effective when Hughes' men found a fine vein of gold. ...The King expelled the would be miner from Wassa Amenfi in September 1961 and reportedly destroyed his machinery. When Hughes requested the assistance the local British had promised to render earlier, they proved powerless to help him. Hughes was ruined financially ..."

Bonnat was also not the first to assess the Tarkwa Goldfields and to stake the first concession in the Tarkwa area. This honour is due to J.A. Skertchly who arrived after a previous visit in 1871 again in March 1877 at the Gold Coast. "Although it was near the end of the dry season he and his companions made their way to the Tarkwa goldfield where he estimated that 6.000 Africans were mining for gold. Convinced of the Tarkwa field's great potential, they purchased a 20 years concession covering an 800 square-yard area on April 25, 1877, from Chief Quabina Angoo. The terms of this first European concession in the Tarkwa area have not survived. During their three months stay, Skertchly's party dug a 27 foot long adit into a hill and obtained an 18 pence sample worth of gold before returning to England to raise capital for mining machinery."¹¹⁰ Skertchly hoped to raise 100.000 pounds but the capitalisation of the 'West African Gold Mining Co' formed in 1878 was mere 50.000 pounds in 10 pound shares, of which only the legally required minimum of 7 shares was ever sold. The company which had taken over Skertchly's Tarkwa concession of 1877, never came into operation and was dissolved in 1886.

Lastly, Bonnat never achieved any successful modern gold mining operation, neither in alluvials nor in hard rock as the following records will vividly show. These records are not easily available and therefore cited here in some length.

T.J. Foster, the Secretary of the Tarcquah and Abosso Co,¹¹¹ in 1936 recalled the following events: "Dates conflict, but it was probably in 1876 (on 23.1.1877, e.d.) that Bonnat lectured before the Paris Geographical Society on his explorations and adventures and spoke of the possibilities of the Gold Coast as a gold field. A French mining engineer, Monsieur Albert Verillon, happened to be present. He was interested in a "Patent Suction Dredger for Sand", the invention of Monsieur Bazin. A. Verillon was a gentleman of huge proportions

¹¹⁰ Rosenblum, 1972

¹¹¹ Remark from the author: Holmes

and of equally large enthusiasms and optimisms. Monsieur Bazin was a gentleman with a 'Jules Verne' mind. Mention a problem and he would invent something to meet it. With true Gallic enthusiasm Messieurs Bonnat, Verillon and Bazin formed a 'participation' to exploit the Ankobra..."

This participation led to the formation of the first company Bonnat was connected with as a director, the 'Societe des Mines d'Or de l'Afrique Occidentale' in late 1876. For this company Bonnat led his first 'gold expedition' in March 1877 to the Gold Coast where they arrived at Axim on 10th April, after the usual three-week voyage.

Bonnat with his group ascended the Ankobra River with a fleet of canoes to reach Awuduah, the residence of Quabina Angoo, Chief of Apintoe and friend of Joseph Dawson, who in turn was a close companion to Bonnat since their captivity in Kumasi. Some of his canoes capsized, equipment was lost. Foster continues his narrative: "They took with them the new gold mining implements of Monsieur Bazin's invention. These consisted of a "Sand Pipette" and a "Gold Washer". The former was to be sunk into the sand, which was then to be pumped through it and passed to the washer. Monsieur Verillon told me that the "washer" worked splendidly in Paris; that you put a bucketful of sand and one small nugget into the machine, turned a handle and the nugget was always found in a little drawer at the bottom of the machine. Unfortunately, the "washer" never had a chance to display its capacities. Essential parts of it were lost when one canoe overturned. And then the river bed¹¹² was found to consist of gravel and stones and the "Pipette", designed for sand only, would not function."

"With the failure of the European dredging machine, Bonnat turned to African dredging methods in order to verify the wealth purportedly lying on the river bottom. He hired three African divers to use their primitive wooden bowls to clear away enough of the debris so that they could reach some of the ores which the machine had been unable to reach".¹¹³ According to Foster, Bonnat wrote: ".. At 2 o'clock in the afternoon they approached the auriferous ground, which is a bed of white sand and earth rather clayish. The diver who was at that moment at work returned with a triumphant air and showed me the iron

¹¹² Remark from the author: about two miles above Awuduah at Bush Castle

¹¹³ Rosenblum, 1972

implement he was using. I could see the gold there very distinctively. I had it washed by women¹¹⁴ and in a few moments we had about 10 shillings worth of gold.¹¹⁵ The men went on working saying they had not yet reached the rich layer which was now very near, when a new fall of gravel stopped their work."

Foster reports that further diving efforts during the next days eventually led to the recovery of 2 to 3 ounces of gold before the river's current filled up the under water excavation. "This gold was kept in a sealed bottle in the Paris Office; I saw it many years ago; it was exceptionally coarse gold - rice grain size - and very rusty in colour. It was; I believe, not only the first but all the gold obtained."

"The equipment of his 'First Expedition' having failed; Bonnat turned his thoughts to diving dresses and European divers. 'Scaphanders' and again 'Scaphanders' became the burden of his letters".

While waiting for new equipment Bonnat decided to look into other gold mining possibilities. Chief Quabina Angoo offered him a concession of 25 miles along the river Ankobra to dredge for gold, but Bonnat first took only a three month option. In May 1877 he undertook an expedition to the Mankomah mines, about four miles away from Awuduah. The supposedly rich mines were heavily flooded and no samples could be taken.

On June 4th, 1877 Bonnat took his first Concession, about 20 miles non-exclusive dredging rights for 10 years along the Ankobra for a royalty of 200 pounds per year plus 12 large cases of gin and 24 pieces of cloth. Being now in business with him, Chief Angoo mobilized people to help Bonnat diverting the stream which caused the flooding of the Mankomah mines and after heavy bailing one pit was made accessible and a sample taken. The ore sampled turned out to be worth 4.800 pound per ton, a value that can only be explained that the Chief's men salted the sample. Bonnat took on 22 September 1877 a five years lease over an area covering a circle with 500 yard radius for 450 pounds, payable in five installments.

¹¹⁴ Remark from the author: whom Bonnat had hired to replace the "washer"

¹¹⁵ Remark from the author: about 15 grams

In the meantime, his French and English backers raised the required additional capital through incorporation of the 'Compagnie Miniere de la Cote d'Or d'Afrique, or better known as African Gold Coast Company Ltd. which was capitalised at 50.000 pounds. End of 1877 this company sent several experts to assess conditions and properties on the Gold Coast. Among them were an experienced mining engineer named Sebillot, an agent named Jay, later Major General E. Wray, Colonel J.G. Lightfoot, and C.J. Harvey, a man with over 30 years mining experience.

When the group arrived at Bush Castle on January 21, 1878, rafts were built to allow the new diving suits to be used. Again, the divers were not able to remove the loose pebbles and lay bare the goldbearing stratum below due to the heavy current of the river. Foster reports: "General Wray himself went under water and was convinced of the impossibility of doing anything with diving dresses alone.... his diving exploit nearly had a serious end. Rolling stones trapped his feet, he escaped by getting of the weighted diving boots, where upon he rose to the surface, feet first - the heavy scaphander helmet keeping his head down - and this kicking vision so scared the boys that they stopped the air-pumps and 'went for bush'; the General was hauled ashore only just in time. One of the diving helmets was found many years after on top of a fetish rock in the river and was considered great 'Ju-Ju'."

General Wray never stopped in believing in the richness of the Ankobra gravels and over the years presented various technical proposals how to exploit this wealth.

After the Ankobra failure and after an thorough inspection of the famous Mankomah mine, which proved worthless with ore recovered of less than 3 pounds per ton value¹¹⁶ the group moved to Tarkwa due to information obtained about rich gold finds there. On February 18th, 1878 a concession in the Tarkwa field was granted to the African Gold Coast Company for 100 pounds consideration and 3 % profit participation. This concession was to become the Tarkwa Mine.

¹¹⁶ Remark from the author: instead of 4.800 pounds per ton

Bonnat was employed as Deputy Director of the Company and left in charge of the operations in Tarkwa, despite his lack of any formal mining training. During his three years with the company, he often was in full responsibility of the mining operations, in March 1880 he was in charge of a 16 man European staff.¹¹⁷ Besides his duties he found still time to acquire further concessions, so on 18th April 1879 for the concession covering the Abosso mine.

Summarising, Rosenblum¹¹⁸ states: "In terms of gold prospecting, mining and extraction, Bonnat's career in the Gold Coast was a failure. He discovered no new gold mines. The results of his mining and extraction works were so poor that the African Gold Coast Company's managing director in Paris had to make a personal visit in Tarkwa in 1880 to assess the reasons for the mine's failure to produce a profit. The reality of Bonnat's failure has been forgotten and he is now remembered as the person responsible for the introduction of modern gold mining in the Gold Coast. "

The main achievements of Bonnat were his abilities in convincing colonial officials by a large number of letters to change their attitude towards gold mining and to have promoted the goldfields of Tarkwa in Europe in what would be called today a public relation campaign. Many important personalities, among them the colonial secretary Lord Carnarvon and Belgium's King Leopold II, received Bonnat for presentation of his travel experiences.

The creeping first gold boom

In addition to Bonnat's group, there were a few other note worthy efforts to modernize and increase local gold production in southern Ghana. Much of this interest was kindled by a number of promoters in Great Britain with various business ties in the Gold Coast. According to Rosenblum,¹¹⁹ approximately 25 companies were formed in the period 1878 to 1883; most of these had raised

¹¹⁷ Rosenblum, 1972

¹¹⁸ Rosenblum, 1972

¹¹⁹ Remark from the author: An excellent analysis of this initial boom is contained in the unpublished PhD thesis of Paul Rosenblum at Columbia University. Rosenblum goes through the trials and tribulations of several of the most prominent junior mining groups active in the area and assesses the reason for the ultimate failure of most of these groups, 1972.

their capital through investors in Great Britain where, for many years, various newspapers and industrial and geographical journals had been reporting the potential of the Gold Coast. Overall, initial investor interest was modest at best, probably because the region had been known for major upheavals in the past and it was a notorious difficult place to work because of its reputation as a 'white man's grave' due to the very high fatalities amongst the Europeans caused by malaria, yellow fever, small-pox and dysentery. In most of the military campaigns, more soldiers were lost due to illnesses than from battle wounds, and a very high percentage of traders and administrative staff, including Governors, died at this post before their contract periods were completed. No doubt most of this was simply a lack of resistance to local disease but a number of reports also indicate that the rough life styles of many Europeans on the coast compounded the problems substantially, especially alcohol misuse. It was not until early in the next century that medical means were discovered to mitigate most of the major problems such as malaria and yellow fever.

However, quite a few companies were able to raise enough risk capital to undertake acquisitions in many areas and admirable efforts were made to start new mines using more modern methods of mining and treatment. As is always the case in such 'gold rushes', many promoters and businessmen were simply interested in acquiring concessions and then flipping them into companies for cash and shares; Sir R. Burton (1883) used the colourful term 'concession mongering' to describe these activities. In most cases, European businessmen would employ agents to identify and acquire the prospects through local chiefs and then put the properties in companies that they had established and floated in Great Britain. The acquisition terms were usually quite reasonable; very modest annual rentals of 5 to 20 pounds per year were applied during exploration and development phases which were increased when production had started to 100 to 200 pounds combined with a 1-3% net profit interest or royalty.¹²⁰ When these concessions were vended to the public companies, the acquisition terms were often very substantial and, in many cases, took up much of the cash available to the company, leaving often not much funds for development, payment of wages and purchase of machinery.

¹²⁰ Rosenblum, 1972

For example, Rosenblum¹²¹ details the dealings of the Gold Coast Mining Company Ltd. which acquired the unproven Izrah concession¹²² that had been visited and favourably reported upon by the famous Burton and Cameron duo (1883). The property was granted by the paramount chief of eastern Apollonia (Nzema) to an agent of James Irvine, a wealthy palm oil dealer from Liverpool; the chief received a down payment of 12 pounds plus an agreed annual rent of 120 pounds once production started. Irvine then set up the Gold Coast Mining Company which in turn agreed to pay Irvine 75.000 pounds for the concession; approximately 42.000 pounds was paid in cash and the remainder in paid up shares valued at 1 pounds per share. To compare that transaction in today's value it would be equivalent to approximately 17.650 ozs of gold;¹²³ at a current gold price of 300 US\$/oz, this payment would amount to about 5.3 Mio. \$!! This may be an extreme case but a few others were of similar magnitude. Irvine was also involved in several other companies where he struck similar arrangements. It should also be noted that the 'experts' who reported on the property, that is Burton and Cameron became directors of Gold Coast Mining. Another company in which they were both directors, African Gold Coast Syndicate, had bought the Inyotrow concession just west of Axim for 40.000 pounds.¹²⁴ This included cash of 17.500 pounds and the remainder in shares; the company was only left with 5000 pounds of working capital.

Irvine seems to have been one of the few who really made a fortune out of the first gold boom. This palm-oil trader had become aware of the gold potential already in 1858 but waited until 1880 before engaging into concession mongering. He ordered his agents to nose around and to buy concessions on his behalf. The two most active agents were Robert Bruce Napoleon Walker and an African named William M. Grant, the father/grandfather of Paa Grant. Both agents visited many of the prospective areas and bought for paltry sums many concessions on Irvine's behalf. Many of these prospects had been exhausted and abandoned by African miners long before Walker and Grant

¹²¹ Rosenblum, 1972

¹²² Remark from the author: approximately 25 km WNW of Axim

¹²³ Remark from the author: 1 oz gold in 1881 was worth 4.25 pounds

¹²⁴ Mc Carthy, 1882

purchased them. Another weakness of their mode of acquisition was that the extent or exact location of the concession was questionable due to missing surveying of the lease areas or some concessions went into litigation because two chiefs were claiming the area as being their respective stool-land.

Irvine was the one who organized late in 1881 a public relation junket to boost the interest in Gold Coast mining companies on the stock exchange in London. For this purpose he invited and financed an expedition with the aim to prove the concessions acquired by Walker and Grant. To lead this expedition he engaged two well known travellers and Africanists, Captain Sir Richard Francis Burton and Commander Verney Lovett Cameron.

R. Burton was a well known traveller, explorer and translator of exotic and erotic Arabic and Indian literature in the Victorian area, who was often looked at with frowns especially because of his erotic literature work. He was said to be in command of more than 20 languages and left behind a vast amount of papers describing his many impressions and adventures.¹²⁵ Burton, while considering himself an expert in mining, had never had any actual experience or formal training besides observing others doing mining jobs during his various travels to all parts of the world.

The same was the case with Commander Cameron, whose only experience in gold mining had been a visit to the Californian Goldfields where he picked the idea of 'hydraulicking', i.e. washing with the aim of high water pressured monitors large amounts of gold bearing soil down the valleys into long sluices, where the gold was separated by gravity. Cameron, who had previously done a good deal of travelling the wide and breaths of Africa came first to the Gold Coast in spring 1881 as a member of the Akanko Gold Mining Company's promotional expedition.

The two travellers reached the Gold Coast in January 1882 and visited some of the Irvine concessions. They contributed both to a two-volume travel description entitled 'To the Gold Coast for Gold' which remains an interesting account of the first gold rush on the Gold Coast.

¹²⁵ Remark from the author: Unfortunately, after his death his widow went through these papers and burned everything which did not meet the prude standards of the Victorian epoche

The early junior companies had followed Bonnat to the Tarkwa district where numerous concessions were taken up in areas that cover most of the eastern margins of the narrow but high grade conglomerate horizon stretching from Eduapriem, Detchikrom, Tamso, Mantraim and Effuenta in the south and extending through the main Tarkwa zone¹²⁶ northwards to Abooso and beyond Adja Bippo, Cinnamon Bippo to Chida and Damang. Even the Teberebie area on the western limb of the Tarkwa syncline together with Akontansi, Kotra Verchi, Takunasu and Ajopa were under grant and a small vein deposit¹²⁷ was exploited east of the Tarkwaian units in what was known as the Crockerville prospect in the Satchen concession.

The famous African doctor, Dr. James Beale Africanus Horton even got in on the act by acquiring concessions in many parts of the country, including several in the Tarkwa and Prestea/Broomassie areas which were later to become very significant producers.

It is believed that Horton owned more mining concessions than any other individual in the early 1880s. Dumett (1966) claims that 'of approximately 109 different concessions registered at Cape Coast from May 1878 to June 1882, it was estimated J.A.B. Horton held 31'.¹²⁸

Many other concessions were taken up in the Ahanta and Nzema areas closer to the coast; these included the Akanko, Izrah and Apatim prospects. By the early 1880s, virtually all of the 'juniors' were floundering and most were essentially out of funds. The early investor interest had waned considerably, partly due to the failure of the instant riches (dividends) that had been promised by the enthusiastic promoters. There were also indications of further turmoil in the region by the disgruntled Ashantis¹²⁹ and this made the public even more hesitant to invest further into Gold Coast ventures.

¹²⁶ Remark from the author: Tarkwa, Abbontiakoon, Fanti

¹²⁷ Remark from the author: in the southern extension of today's Abooso open pit!

¹²⁸ Remark from the author: Dr. Horton was another remarkable individual. Born in Sierra Leone in 1835, he went to the UK for an education and returned to the West Coast as an army physician, eventually earning the rank of lieutenant general. He was a highly regarded medical officer and was widely published on medical, economic and geographic subjects. In 1868 he published a geology of the Ahanta district. Obviously he also had some good business acumen and appears to have done very well in dealing with properties (Mc Farland, 1985)

¹²⁹ Remark from the author: The so called Ashanti Scare

Rosenblum¹³⁰ provides a very interesting table showing the capitalization of and the acquisition costs for their respective concession by some of the 25 companies formed between 1878 and 1883. The total capitalisation totalled well over 1.250.000 pounds. By end of 1881 about 70 concessions had been purchased but only five operations had begun mining.

In the time period from 1885 to 1893 another 20 companies were formed with a capitalisation of about 1.000.000 pounds. Six out of them were mere reconstructions of older juniors, which had run bankrupt due to exhaustion of funds. A typical example is the Akanko mine, a prospect near the Ankobra, north of Essarman that never became a mine. Between 1881 and 1890 at least five different companies successively tried to bring this quartz vein into production, without success. The responsible mining engineer for this property was reported to lodge rather at Secondee in the healthy seabreeze than to go to the hinterland to inspect and direct the mine development. A boiler house, shafts and other rusty equipment are still today witness of these futile attempts.

Moore and Guggisberg also reported: "There were cases of mine managers, men drawing anything between 100 and 150 pounds a month as salaries, landing at Sekondi and Cape Coast and never getting any nearer to the mines which they had come out to work."

In addition, excessive drinking has been a common problem in the Gold Coast mines. Burton and Cameron (1883) reported upon a company doctor who drank 62 bottles of cognac during his 23-day voyage to the Gold Coast, and Irvine let us know about the mining engineer sent out by the Guinea Coast Mining Company, who drank 34 bottles of brandy, champagne and beer on his journey down to the Coast, landed drunk, lived drunk, distinguished himself by instructing to have tunnels and adits be driven rather away from than towards the gold deposits and, after 21 days, died drunk.

Out of the other 24 companies mentioned above, only a few, about 11 or 12, ever started mining and only one single company was ever able to send enough gold to England to enable the board to pay a dividend before the turn of the century. This was achieved by the Wassau (Gold Coast) Mining Co.

¹³⁰ Rosenblum, 1972

There were many reasons for the failures of these companies and therefore for this initial, first boom. Most of these reasons were equally well applied for many of such failures in future booms to come. Most of the promoters knew very little, if anything, about professional exploration and mining; they were certainly unaware of the substantial time lag before exploration leads to production.¹³¹ Once their exaggerated promises for quick dividends did not materialize, their ability to raise additional funds were compromised, because a number of investors hesitated 'to throw good money after bad'.

Quite a number of promoters were 'true believers' in the potential of the region whereas others were mainly out for a quick gain and felt little commitment to really develop mining opportunities. Some of the latter proved very successful to amass larger amounts in cash for concessions, shares and director's fees from the companies, which in many cases were left cash-strapped after the acquisition of an area for operation.

The unfavourable reputation attached to Gold Coast mining shares earned them in financial circles the name 'Jungle shares' as well as the absence of well-known politicians or financiers on the board of directors, as they were always to be found in important, well operated chartered companies of this time, made it difficult for the Gold Coast companies to attract capital.

Many of the groups employed managers who also lacked real mining experience so they could not utilize the limited capital of the companies effectively. Where experienced mining engineers were utilized, they rarely had the managerial skills to work in an environment where an ability to work effectively with local labour was essential. Besides, experienced miners tended always to order mining equipment which turned out to be too large or inappropriate for the deposits they were to tackle on the Gold Coast. A lot of expensive machinery ended up in the bush without having ever been installed or used.

Even more serious as the inability of the first managers to understand the true nature of the deposits they were dealing with. In fact, while discovered 8 years before the deposits on the Witwatersrand, the similar nature and deposition of

¹³¹ Remark from the author: lead time

the banket was realised only years later. Some early companies believed for a long time the existence of a massive golden core in the depth of the Tarkwa hill. Without proper understanding of the mineralogy of the ore, some of the extraction processes were inappropriate or wrongly applied, the worst example being the findings at Effuenta, where the management was unaware that the copper plates of the stamp mills had to be coated with mercury to recover the gold from the sludge.

Under capitalization was almost always a critical issue and many of the managers did not know a good property from a bad one and therefore spent a lot of money on properties with poor prospects. Sometimes, having at the beginning reported very favourably on such poor prospect to the shareholders, it became a case of preserving reputation of the engineer and the board of directors to delay communication of the actual findings to the shareholders, who in turn lost all confidence when the final, disappointing results had to be put on the table.

There can be little doubt that the difficult terrain, the dense vegetation obscuring all the underlying geology, tropical climate and health issues contributed substantially to the failures. For the latter, a vivid description given by Mc Carthy¹³² might suffice to give the facts on the 'white man's grave':

"Four years after I left the coast, two of us made out a list of forty-four or forty-five white men that we had known in my first year there, including ourselves, and out of that list only four of us were left. Of these many had died from pure climatic causes, others from drink or accidents. Cameron and Burton in those days read a joint paper before the Society of Arts, making out that the climate was by no means so bad as generally supposed.

A very venerable Gentleman, a retired army surgeon, opened the discussion somewhat on these lines: -

" Mr. President, Ladies and Gentlemen,

"With one leg in the grave, and the other out of it, for my doctors have given me only a few months to live, I have made it a solemn duty to come here to-night,

¹³² Mc Carthy, 1918

even if it hastens my end, to warn the audience against believing in such a description of the climate as has been given by the two illustrious travellers.“

"My experience brought home is a deadly one. In one expedition alone I saw forty men die out of forty-four. I warn any one here against going out there, or inducing any friend to go. It is as deadly a climate as any in the world. It is my solemn duty to raise my protest against this misleading paper," and he sat down.

Then there arose a Mr. W---, a very handsome man, magnificently built, with silver grey locks and beard. "Mr. President, Ladies and Gentlemen, with all due deference to the gallant gentleman who has just sat down, I make bold to state that had he prescribed my remedy, he would have brought his men all back."

Everyone was almost breathless to know what this remedy was. He went on:-"I flatter myself," he said, slapping his hand across his chest," there is no finer specimen of humanity in this room tonight than myself, yet I have lived for forty years and over on that coast, and the remedy? I will tell you on my honour it has been a bottle of brandy before 11 a.m. every day of my life." The contrast between the two speakers was great.

The story Mr. W-- gave of himself was, I believe, a true one, a case probably of the survival of one whom nothing could kill."

It is clear that with the adverse health prospects in the 1880s not the first selection of mining engineers and geologists were taking contracts to work at this dangerous place.

Most of the companies blamed the difficult and expensive transport problems as a major factor but, although this was surely a difficult problem, some groups were able to solve their transport problems so that, in many cases, it was a secondary issue.¹³³

Equally, labour was considered by many of the so-called visiting European mining experts to be a major issue but this was more of an attitude problem and lack of managerial skills on the part of the Europeans than the ability of local labour. Many of the early foreign groups on the Gold Coast imported unskilled Kru labour from Sierra Leone who came out on one year contracts.

¹³³ Rosenblum, 1972

Cameron¹³⁴ predicted that with the start of mining the wages of the Kroos had started to rise and that the Fantis were beginning to find out that they can use powder in mining for blasting and therefore make more money by mining for themselves than working for wages.

He mentioned that the French had brought 137 Chinese coolies to carry out works and that during five months they were working, none of them had died and he believed that with such persevering race all labour problems would be solved.

Quite a few early references were less than flattering about the abilities and attitudes of various local groups on the Gold Coast although the Nzemas¹³⁵ came to be known as good miners in the mining camps.

Wassaws, Ashantis and others were not very enthusiastic to work for daily wage for the Europeans when there was always the alternative in agriculture or indigenous gold mining to make better earnings. In addition, the supposed shortcomings of the indigenous people was more a reflection of preconceived prejudices and managerial incompetence by the early European managers. Rosenblum¹³⁶ cites a perfect example where company officials on the Prestea projects blamed local labour for some of their poor results but the labour problems largely arose after the companies had failed to pay their employees for many months on end.

Delayed payments and consecutively arising labour disputes were the order of the day in those early days, mainly caused by inavailability of funds in the companies, delay in transfer of funds, mailing of insufficient funds or sending unacceptable coinage.¹³⁷

A typical example of the heavy handed manner labour was handled at gun-point in 1881, when pressing for their righteous demand for payment long overdue to them is given by Mc Carthy:¹³⁸ "The first two (European staff, ed.) to arrive had rather a rough beginning. It had so happened that the money sent out from

¹³⁴ Cameron, 1882

¹³⁵ Remark from the author: Apollonians

¹³⁶ Rosenblum, 1972

¹³⁷ Remark from the author: the workers demanded to be paid in silver

¹³⁸ Mc Carthy, 1919

home for wages had twice been carried down the coast, as the surf had been too heavy to land it. Two months and these Kroo boys could no longer believe it was coming. Tom Brown (Mc Carthy's headman, ed.) had been very quite of late and I saw he was troubled. One day about 3 p.m. the Kroos struck work and came up all armed with machetes and demanded to be paid off. The two new white men I took aside and told them to go to their own bungalow, that I would probably send them down two or three men; when they arrived they had to make them sit down and then to draw their revolvers and keep them prisoners until relieved. Meantime I had told Tom Brown to tell the boys to sit down in front of my house. Tom said he feared the boys "were too much bad make plenty palaver."

He, I believe, trusted me, and I had to trust him. Everything depended upon this. I sent away a small Fantee boy by the back of the house into the bush with a note to ask Bonnat to send the King with his men over without delay. "Now Tom," I said, "this palaver no be bad one, you do what I go tell you, you believe me speak true, so you do what thing I tell you and do the same one time (quickly). Well you stand down there and talk for boys" (i.e. interpret). All being seated three men wanted to speak, evidently the leaders. So I told them to go to the lower house, and I would come by and by and settle all palaver. After a little talk it was agreed, and to my surprise they went. I saw them enter the house, the boys began to murmur and Tom began to talk in angry tones to them. Behind the front of the verandah I had my rifle, the boys began to get up, so I said to Tom, "Tell them all sit down I go talk to them." After a few refusing, at least all were seated. "Now, Tom, tell them," I said, "the first boy to get up I will shoot, and tell them so one time," and as he about completed the sentence I swung out my rifle and kept it at the ready over them. Then I talked to them through Tom, and for nearly two hours I kept every man sitting, each afraid to rise. I felt I had them, but was getting very anxious as to whether the King would come. At last I heard the tom toms and blare of horns coming nearer and nearer. The Kroos got anxious. I told them the King was coming, but I would not let him hurt them if they did as I told them. Meantime as I afterwards learned the Kroo ringleaders walked into the trap laid for them and were taken prisoners. The King arrived and some of the French staff. He wanted to kill the Kroos for

having threatened me. At last it was agreed that the ringleaders should be sent home and their back pay forfeited to the others, that if the money did not arrive within a month I was to take them all down to the coast and see the traders paid them off in kind."

These treatments meted out to the workers were unfortunately not rare events. Morel¹³⁹ claimed that the 'incentives to labour' consisted of 'the boot; the stick; abuse; inadequate pay; and dishonest dealings, and the Aborigines' Rights Protection Society presented evidence that 'the native employees have been brutally treated, kicked about, and often had revolvers pointed at their heads when they demanded their wages'.¹⁴⁰

The above saves us to determine on whom the blame for labour disputes was to lay. With a decade or two more, as mining activities on the Gold Coast increased and became professionally organised, reports from engineers and experts visiting the area¹⁴¹ indicated that many of the indigenous groups were amongst the best labourers in the world with the capacity to take over most of the highly skilled positions once they were provided adequate training and incentive. When provided fair remuneration and directed by effective and fair management, local groups excelled and the problem was sometimes rather in preventing them from overworking. To this day, the same situation exists.

Another setback was the several times rumored threat of an impending Asante invasion of the Gold Coast going along with the adverse observation of a Government Spokesman in the House of Commons, that the Government had long ago warned the companies that it would assume no responsibilities for protecting either their interests or their employees in the Gold Coast.¹⁴²

Silver¹⁴³ generally blames for the failure of European mining the role the colonial state played. The colonial government rather footed the economy of the colony on agriculture than industrialization and consequently did not carry through any legislation to alienate land or impose direct taxation, which

¹³⁹ Morel, 1968

¹⁴⁰ Silver, 1981

¹⁴¹ Curle, 1905

¹⁴² Rosenblum, 1972

¹⁴³ Silver, 1981

measures had forced the local population to sell their labour cheaply to the mines due to separation from their traditional means of production. This policy was well based on the fact that the colony had a dominant peasant based economy, for example in 1881 57,3 % of the Colony's exports were palm-oil based and only 10 % derived from gold.¹⁴⁴

The inferiority of mechanised European extraction methods over African hand operated recovery of the gold was depending on the particular nature of the blanket ore with its lower grade compared to quartz ore and its extreme fineness of the gold contained in the matrix only. Even with best operated gravity extraction recoveries of only 70 % could be expected and it required a new extraction technology to provide a breakthrough with these ores. This new technology came to the Gold Coast in 1895 with the MacArthur-Forrest cyanidation process for chemical extraction of the gold.

Beyond doubt, the results of this first goldboom were disappointing and the production statistics confirm the failures of efforts to introduce modern exploration and mining techniques. The official production levels in the Gold Coast between 1880 and 1901 never raised above 24.300 ounces per year (1889) which was considerably less than the production achieved by pure African mining in many years of the premodern mining era.

The Table from Silver „Export of Gold from the Gold Coast 1880 to 1901“¹⁴⁵ clearly shows that European mines hardly produced two third of the total annual production and the already insignificant level dropped in 1898. In that year only one mining company remained in operation. Gold output fell further in the next three years to a record low of about 6.000 ounces in 1901, when European gold mining in the Gold Coast had virtually died.

¹⁴⁴ Silver, 1981

¹⁴⁵ Silver, 1981

African mining during and after the advent of the Europeans

Situation at Tarkwa

Europeans visiting the Tarkwa goldfield between 1878 and 1880 reported that large amounts of African pit miners were working in the Tarkwa area and were doing remarkably well.¹⁴⁶ It was estimated that the average earning per miner was about 1 shilling to 1 shilling 6 pence; 6 pence per day being regarded as the barest minimum or cut off, below which return the pit was abandoned. In rich pockets, the earnings of 2 to 10 shillings were observed and Holmes¹⁴⁷ cited a case of 40 pounds a day for a team of three workers.

Skertchly,¹⁴⁸ who came first and reported on the Tarkwa Goldfield gives a vivid account of the mining activities of the African miners in Tarkwa:

"At the time of our arrival there were upwards of 6.000 men and woman at Tacquah, all engaged in working the gold. The auriferous metal is found in a series of parallel reefs, descending at about the angle of 45, encased by walls of hard quartz and pseudo-quartz of a ruddy greasy look. These reefs have been worked from very early times, the country for miles around being honeycombed with holes and washing pits. Of geology and mineralogy the natives have not the slightest idea, since we continually came across shafts put down in the most absurd positions. Indeed, it required a very sharp eye to detect the deserted shafts in many places, for they were sunk close alongside the path, or, indeed, in the old pathway itself, so that one had to travel by a series of zigzags between the pits.

These shafts are quite curiosities in themselves, being in some cases as much as 80 feet deep, and about 2 feet in diameter, sunk as straight as if they had been bored with a huge auger, and in not one of them was there a single stick of timbering. The mouths of the old shafts were in many cases covered loosely with fallen branches or leaves, so that the unwary traveller stepping upon them would suddenly find himself precipitated to the bottom, or, as was generally the case, into the accumulated water, which, in some cases, rose to within a few

¹⁴⁶ Remark from the author: Skertchly, Holmes, Bonnat

¹⁴⁷ Holmes, the year was not indicated by my brother (the editor)

¹⁴⁸ Skertchly, the year was not indicated by my brother (the editor)

feet of the surface. The shafts are dug by means of a small hoe, shaped somewhat like an Indian Bassoolah, the iron being about 2 inches broad and 4 or 6 inches long. The workman squats on his hams and scrapes the sandy earth into a small calabash, which, when filled, is drawn up to the surface by his companions. The shaft is just large enough to allow the miner to turn round in, and means of ascent and descent are afforded by holes cut in the sides into which the miner inserts his toes, after the fashion of the old chimney-sweepers' boys when ascending a chimney. Of course having no pumps, and baling, except on a very small scale, being impossible, operations have to be suspended as soon as water is reached, and indeed but little can be done at all during and shortly after the rainy season. In alluvial ground the gold is found in and beneath a stratum of blue clay, resting upon a substratum of hard rock, or in a layer of gravel. In some districts the whole of the sandy gravel below the surface soil is auriferous.

Where reefs are worked, they have either been struck by sheer luck when sinking a shaft, or are outcropping reefs worked downwards from the surface to water level. The latter is the case at Tacquah, where the strike of the reefs runs along the side of a hill, dipping towards the west at an angle of about 45 degrees. The head- and foot-walls are composed of syenite as hard as flint, through which the natives are unable to penetrate, so that, unless the reef is wide enough to allow a man to work in it, with elbow-room on each side, they can do nothing with it. The shafts run down with the reef at an angle of 45 degrees, and at Tacquah are about 40 feet deep. The tools employed are hammers, generally of European manufacture, about 2 lbs in weight, and chisels made by native blacksmiths from the commonest bar-iron, tempered haphazard by being plunged into cold water. Others use chisel fixed into wooden handles like gouges, and with these rude implements, aided by the light of a palm-oil lamp, with a piece of rag for wick, they work in gangs of two or three day and night.

At Tacquah there are rude ladders constructed of bamboo as means of access, and the mouths of the shafts are covered with a shed. By working all day, two men can cut out about a cubic foot of the reef. The quartz is placed in a calabash, which is tied upon a handkerchief and sent up to the workmen at the

surface. They convey it to their homes, and set about the process of pounding it with hammers until it is reduced to powder. This, again, is placed on a slab of syenite or granite about 2 feet square, resting at an angle sloping from the operator on a crutch of three sticks, held together what sailors would term a grommet of rope. A handful of the pounded stone is placed upon the slab and rubbed fine with a stone shaped like a baker's roll, to which a slight rotatory motion is communicated as it is rubbed backwards and forwards on the slab. The ground quartz is caught in a calabash placed at the lower edge of the large slab, and, as a rule, it takes the whole night to grind down a cubicfoot of stone, it being the custom for the miners performing this branch of labour to work all night, enlivening the time with songs and frequent potations of trade gin. The accumulated dust is carefully swept together, and the floor carefully gone over, so that every particle of the auriferous quartz is gathered up, and every three months or so the floor of the grinding shed is hoed up and washed or 'panned' off.

The ground quartz is then handed over to the wives of the operators, who invariably perform the operation of washing, and not unfrequently that of grinding too; and during the whole of my stay in Wassaw I never saw a male washin the dust, although female children of six or seven years of age not unfrequently engage in the work. The implements consist of a large wooden bowl about three feet in diameter, cut out of the solid, one or two similar but smaller bowls, a few feathers, a few calabashes, and a shell or two of the large edible snail.

Taking their stand knee deep in the creek on one of the numerous waterholes on its bank, they place a handful or two of the dust on one of the smaller bowls, dip it under water, and pick out any large pieces which appear to contain gold, and which have escaped grinding. The residue is then washed, with exactly the same oscillatory motion as do the Australian miners with their prospecting dishes, the bowl being held above the larger one, which floats on the water beneath, being prevented from being drifted away by the current by the knees of the operator. As the bowl is rocked from side to side the lighter particles separate from the heavier, and are, after being carefully inspected, thrown on one side.

This process continues until nothing is left in the large bowl except a mass of black sand, amongst which a few grains of gold sparkle in the sunlight. This washed sand is then placed in one of the calabashes and subjected to very careful washing, the calabash being rocked over a larger one, and this again over the largest, so as to catch every particle which might run over the edge. Gradually the amount is reduced until a thin line of auriferous particles is seen glittering along the upper edge of the sand; and this is then picked out with the feather and washed in a still smaller calabash, until the dust is cleared of every particle of black sand. The gold is then carefully brushed into the snail shell with the feather, and thus the operation continues until the whole mass of rock is washed over. Each woman, as a rule, takes her stand in a particular hole, and when the washing has continued for some weeks, the water is bailed out of the hole and the mud at the bottom panned off, and at the same time the floors of the huts where the stone is crushed are also subjected to their periodical washings.

The results vary considerably. The gold is so exceedingly fine, that in spite of all their care, and the expenditure of unlimited time and patience, the washers loose a very large percentage. Taking a fair average, we may say that cutting out will occupy one day, crushing a second, and washing two more - four days in all; the return being three pennyweights, to be divided amongst four miners and four washers.¹⁴⁹

The reefs belong to the king or to chiefs, who receive or are supposed to receive one-half of the stone cut out; but in most cases, when any stone is given as royalty, the miner takes particular care to pay the landlord in stone either utterly barren or from the least auriferous portion of the reef. The discovery of a pocket is the signal for a great debauch among the lucky finders and their friends; so that, as a rule, they are poorer after their rejoicing than before, for gin is up to 4s. 6d. a bottle at Tacquah, and he is a very poor miner who cannot put away a bottle on his own account before total insensibility deprives him of the power of swallowing. All large nuggets are the prerequisites

¹⁴⁹ Remark from the author: 3 dwts. are equivalent to 4.5 g Au or about 1/7 of an ounce of 84 shillings worth, therefore a return of 12 shillings was divided among eight workers, the single return being 1/6.

of the king, but these are seldom found, or, if found, are broken up so as to avoid the claim.

Situation in Tarkwa

The boom and the indigenous activity turned the villages of Tarkwa and Abosso and very soon Prestea also into wild and brawling frontier towns. One contemporary observer referred to the 'uncommonly active life' at Tarkwa, and another described a situation where 'nearly every house in Tarkwa and Abosso is a grog shop, and both are the resorts of the ruffians of the country'. The 'great amount of drunkenness which at present prevails' and the existence of too many 'saloons, gambling halls and worse' was complained about. The population of Tarkwa was said to exist of 'renegades from the coast who were on the run from the law' as well as the 'scum of many races' whose object was 'to take back from the Industrious miners their hard won gold'.¹⁵⁰

Records of indigenous mining techniques outside Tarkwa

Coastal people like the Ahantas, Wassaws and especially the Apollonias used open cut mining techniques which created large pits and long narrow cuts and trenches as long as 600 metres and up to 30 metres deep.

The African miners adapted some of the European mining techniques and merged them with their experiences. At Asante Akyem in the Oweri Valley "Open cut mining on the reefs, with banking and benching to a depth of some 200 feet was practised at least from the early 18th century onwards."¹⁵¹

At the famous King Prempeh Mine advanced mining techniques were used, which enabled the African miner to develop underground workings for 250 to 300 feet into the hill, with timbered galleries measuring 7 by 9 feet to be constructed along the entire length of the reef.¹⁵² This mine was not located by

¹⁵⁰ Silver, 1981, citing after Rosenblum, Dahse, Dickson

¹⁵¹ Wilks, 1989

¹⁵² Armitage, Montanero, 1901

the British before 1896, but was then virtually expropriated after Prempehs detention and exile to the Seychelles. It was then given to a Company.¹⁵³ The mine was renamed Bilpraw mine.

At Prestea, as well as other places, the art of fire-setting was well known and in widespread use. Mc Carthy provides a detailed account:

"..but I will mention here an incident as throwing light on how the ancients worked in hard stone without the use of explosives.

The shaft sunk (at Prestea, ed.) had reached a depth of 135 feet, when we struck the old reef of gold stone in the bottom of it. The Chief of Essaman, the village nearby, came with a long procession to make a petition, the first part of which was that if the gold reef was blasted the new method would frighten the gold in the rock and it would run away. I was to let them do as the traditions handed down from the past told them how to do it.

The second part was that as soon as we had broken the reef would I discard my boots, as the gold fetish did not like leather, in other words it was unlucky; so I gave them leave to use their own method and that I would not put on my boots at first entry into the mine. They then cut and made up dry wood into a number of little faggots, and heaped these on the bottom where, setting fire to them they burned for three days and nights, replenishing the faggots from time to time.

Next they poured water down and after about another three days it was sufficiently cooled to go down, and I did so minus my boots. They had got my blacksmith to make chisel shaped tools, which they fastened to the end of stout sticks. The quartz or stone of the reef had been cracked and shivered, and into these cracks they drove their chisel edged tools and then levered out the stone. In this way they broke down the rock to a depth of about two to two and a half feet. They then came up and a big fetish custom was carried on in the village after which they made no further objection to our continuing to work it in our own methods. This was the beginning of what is now a large mining establishment at Prestea. The village of Essaman had then a population of about 300, now it has some 7000.

¹⁵³ Remark from the editor: my brother has not given the name of the company

Addition of the Editor:

Unfortunately, the book of my brother ends in this place. In the end he has not managed to process the current story completely up to the year 1985 and any more. Due to the circumstances that my brother 2001 has died and I am not a mining engineer and therefore I am not able to write and definite the end of this story, I would like to apologize me for this abrupt one end of the story. I hope, that you got some new informations and can take for your work new knowledge from this publication of the gold mining in Ghana.

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