## The Numismatic Heritage Of Aksum - Coinage As A Multilateral Source In Studying Cultural History<sup>1</sup>

## Wolfgang Hahn

Coins are documents reflecting the material culture as well as the ideology of a country in various ways. Within the historical sources the testimony of the coins is the more important the sparser the other sources are flowing – especially when the continuity of the cultural development was interrupted in the course of history. This is the case with the greater Ethiopian region where several breaks have disturbed the literary tradition of historiography whilst the coins have survived the storms hidden in the earth in relatively large numbers.

It is not self-evident, but highly significant that a monetary system based on coinage was established here at the Southernmost part of the world as known in antiquity and that it was kept over the considerable period of 330 years after which it disappeared and the country fell back into a non-monetary, typical African economy based on barter.

The coinage of the old Abyssinian empire called after its capital Aksum extended from about 290 AD until about 620 AD. The present overview of our knowledge, how the numismatic evidence can be interpreted and which problems exist in its investigation, should provide an introduction to the subject.

The discipline of ancient numismatics was unaware of the Aksumite coinage until the 1830s when isolated pieces were brought to Europe by travellers: at that time they puzzled the scholars who had, of course, been familiar with Greek, Roman and even Persian coins for quite a long time. When Enno Littmann published his first volume of the Deutsche Aksum Expedition in 1913 compiling the testimonies for the history of Aksum then available to him he also noticed the coins and, of course, recognized their value as a primary source material. He could list 84 coins

1 Parts of this contribution are based on an English adaption of the first part of my article "Äthiopische Münz- und Geldgeschichte von Endubis bis Haile Selassie kurzgefasst – Ein numismatischer Beitrag zur Äthiopistik", published in: Mitteilungen der Österreichischen Numismatischen Gesellschaft 42, 2002, 61-70 and was used for my contribution read at the 2<sup>nd</sup> Conference on Science, Cultural Heritage and Tourism, University of Mekelle in June 2005.

only; 24 were of gold, 9 of silver and 51 coppers. This is about 1½% of what is known today. Littmann also contributed some comments on these coins which were really judicious given the very limited evidence he was able to command at that time.

It is not necessary to dwell on the history of numismatic research in the Aksumite field because this had already be done in the proceedings of the first Littmann Conference, albeit in German<sup>2</sup>. It is sufficient to summarize that a systematic research on Aksumite coins started only 80 years ago<sup>3</sup> with the pioneering publications of Arturo Anzani, an Italian amateur, in the 1920s and 1930s<sup>4</sup>. Afterwards the stock of numismatic material was increased by the excavations undertaken at several sites from the 1960s onwards<sup>5</sup>. This was followed by a rapidly increasing number of progressive publications on the subject<sup>6</sup>.

One of the basic tasks of numismatic research is the documentation of coins in numbers as large as possible and this is the groundwork of all further investigations. The level of progress we have reached in pursuing this task is very diverse regarding the different areas of ancient coinage. If we look at what has been assembled of Aksumite numismatic material since Littmann's expedition and compare it with other fields like Roman, Persian or early Islamic coins it must be admitted that we are still in the beginnings. A longstanding project, however, is under work at the Numismatic Department of Vienna University<sup>7</sup>.

The emergence of Aksumite coins has changed dramatically since Littmann's days. The causes are manifold. With the publication of new contributions, especially catalogues like that of Munro-Hay which has become a reference work wherein the main types known are described and discussed this field has attracted more and more attention amongst historians and stimulated also collectors. The supply

- W. Hahn, Zur Geschichte der Materialerfassung in der aksumitischen Münzkunde, in: W. Raunig S. Wenig (edd.), Akten der 1. Internationalen Littmann Konferenz (2.-5. Mai 2002 in München), Meroitica 22, Berlin 2005, 60-66.
- 3 The history of research in Aksumite numismatics is dealt with in the prevailing reference work of A. Munro-Hay, Aksumite Coinage, London 1996.
- 4 A. Anzani, Numismatica aksumita, Rivista italiana di numismatica 1926, 5-100, 1928, 5-64; 1941, 49-73 and 113-29 (unfinished)..
- 5 A comprehensive study of all excavation coins is still missing, but the coins of the Mission française d'archéologique (1956-68) were recently examined in a doctoral thesis by E. Godet (Paris 2003). For the statistics of the Aksum excavation coins see W. Hahn, Eine Fundmünzstatistik der Grabungen in Aksum bis 2008, in: S. Wenig (ed.), In kaiserlichem Auftrag, vol. 2, Wiesbaden 2011, 373-77.
- 6 The volumes of the Survey of Numismatic Research which are published at the occasion of every International Congress of Numismatics (taking place at intervals of 5-7 years) include chapters on Ethiopia: the last appeared in Glasgow 2009 (p. 582-84). A bibliography up to 1996 can be found in Munro-Hay (as note 3).
- 7 Collecting the relevant data started in the early 1980s. Although a cooperation with experts like Munro-Hay and Godet seemed desirable only an occasional interchange of ideas could be accomplished and the project developed as a purely numismatic enterprise. Notes on the current work are being published in the Mitteilungsblatt des Instituts für Numismatik und Geldgeschichte der Universität Wien; inquiries are welcome.

followed the demand and new technologies favour the trading. However, the coins found in Tigre still seem to be chance finds, not detector finds. Therefore their surfacing has not been accelerated so much as this is the case in most countries of the Near and Middle East.

The aforesaid project of documenting the numismatic heritage of Aksum has to cope with this situation:

- What has to be registered: In theory every coin accessible by any means, i.e., in publications, electronic media, photos or, in the best case the originals themselves
- Which data do we want to store: Pictures, provenances, the whereabouts, the weights and, what is rarely to achieve, the metal composition.
- How are these data stored: Still in form of paper files, only partly computerized.
- Which are the sources: there are in principle four categories, viz
  - 1. Published catalogues of collections and find reports,
  - 2. Unpublished collections of museums,
  - 3. Unpublished private collections and
  - 4. Material to be observed in trade (which usually finds its way to 3).

The first two are static, that means the coins are fixed, but the respective number of pieces may increase. The other two are fluctuating as private collections are seldom stable.

The inherent problems of these categories are:

- Most publications, especially the older ones, are insufficient in their information, often they do not indicate the weights and offer no illustrations of serviceable quality which could, of course, also be a question of bad preservation.
- Some museum collections, not only in Ethiopia, are difficult to access, especially if they are not well kept due to the lack of well trained personel and technical equipment; very often there is no facility to get photos or photographing is restricted by the regulations of the authorities.
- Many private collections are kept clandestine for various reasons, e.g. because the owners fear taxation or thieves or they have to hide the origins of their acquisitions. Some collectors are jealous of others touching their coins. Fortunately there are others who are proud of showing or even exhibiting their treasures.
- The coins circulating in the international dealers' trade are by far the most promising category, but to observe them requires well established and cultivated connections. The number of larger and smaller firms and single dealers all over the world is difficult to prospect. Of course, not all of them issue printed sales lists or auction catalogues. To collect these as a general source of numismatic material is of primary importance, but completeness is impossible. Much of this stuff could be amassed in the Numismatic Department of Vienna University. However, it has to be considered that coins in trade are

bought and resold so that recurring pieces must be identified as counting only once. The quality and reliability of the informations given by dealers depend on their level. Since about ten years auction sales and private sellings are also made via internet. To observe this entirely new source of material and to store the relevant data requires even more expenditure of labour.

The most important public collections of the world containing Aksumite coins are those of the old national museums with large coin collections of universal character. Although the Aksumites are, of course, only a small part of these collections as a whole they can amount to large numbers, but not necessarily of high quality. Starting in the 2<sup>nd</sup> half of the 19<sup>th</sup> century they were acquired from travellers and later on from the coin trade. The situation in Ethiopian museums is different. Here the coins mainly come from excavations, but on two occasions large private collections from abroad have been purchased. This can be seen as an attempt to reverse the flow of antiquities.

This delicate question has various aspects. Viewing it not from the point of legislation, but of scholarship, not influenced by irrational or ideological feelings one has to stress that ancient coins are of a rather different nature than other artefacts or objects. They have always been a mass product and intended to move freely as a medium of exchange. Therefore in principle we do not have to allow for unique pieces – even the rarest coins can become frequent by the unearthening of more specimens. According to their circulation in ancient times Aksumite coins, especially the golden, were found outside Ethiopia and in fact more of them have Yemenite or Indian provenances. Even the small change, silver and copper coins, entered the long distance trade of late antiquity. It is the same situation as with the other contemporary coins: e.g. Roman coins are found everywhere in the ancient world, of course in Aksum too8. Nobody would think of repatriating them all to Rome. It is certainly useless to argue against international laws destined to project the so called cultural property. They are made by lawyers with little knowledge of the circumstances which prevail in reality. The Aksumite coins available in Ethiopia are sufficiently plentiful to bring together the whole typological spectrum and to have it on display at one or several museums. Bureaucratic rules can only impede the progress of international research.

This research is built on a methodology which to a large measure relies on statistics in order to reach scrutinizable results of adequate exactness. The effect of the survival chance can be diminished by augmenting the number of registered specimens, especially if they come from different provenances. Our aim is to get an idea about the size of production, at least in comparision between different reigns, whether the flow of coin striking was increasing or decreasing. A low coining activity may be caused by lack of metal or lack of demand, if there was enough coined money available for all purposes. A comparatively equal flow of coins may allow to estimate the extention of a certain issue and chronological deductions.

<sup>8</sup> W. Hahn, Auf den Spuren des spätantiken Münzverkehrs in Aksum, Money Trend 38, 2006, Nr. 3, 192-195.

A better indicator of the size of a coinage than merely the number of survived specimens is their relation to the number of dies which were used to strike them. Needless to say, the observation of the dies involved (which differ in very small details only) is a matter of preservation and experience, a difficult task not to be entrusted to untrained amateurs. The numerical relation between coins and dies enables us to reckon with statistical formulas by which we may approach the absolute frequency of the coin type under survey.

One of the results is an impression of the dimensions the Aksumite coinage has had in relation to that of the Roman empire which was the leading power of its time with many active mints. Despite its substantially smaller volume the Aksumite coinage has an imperial nature, that means it does not belong into the category of purely representative issues occasionally struck by many local potentates or towns which come down to us by chance only. Compared to the Roman empire the structure of the Aksumite empire seems to have been relatively loose and therefore the coinage was probably not always continuous or on an equal level; its duration nevertheless reflects a long period of economic prosperity resulting from a mighty position over wide areas of strategic importance.

The first Aksumite coins were struck during the last quarter of the 3<sup>rd</sup> c. AD, at the same time when the Roman empire recovered from a longstanding crisis. Emperor Diocletian is well known for his administrative reforms. He regulated the states economy by strict measures. The entire coinage system was rebuilt step by step in 286, 293 and 301<sup>9</sup>. The export of Roman gold coins was seemingly restricted and this rendered the long distance traders on the Indian route short of their medium of exchange. Thus the king of Aksum who controlled the outlet of the Red Sea into the Indian ocean had the chance to fill a gap in the market by producing gold coins of his own; perhaps the Roman traders persuaded him to do so and to turn his treasury into coined money. This must have happened in the 290ies AD. Fractional values in form of silver coins followed soon and copper coins had to serve the small market of the towns so that the currency had a double destination: for the inward and outward flow and together it was a demonstration of might.

The Aksumite currency from its beginning imitated the Roman model. We have to take into account that issuing gold coins in the orient was always a matter of prestige proper to emperors ruling over deputy kings: the example of the Roman emperor was followed by the Shahinshah of the Sasanian empire in Persia as well as by the neguse negest of Aksum in a typical *imitatio imperii Romani*.

The 330 years of Aksumite monetary history have produced substantial issues struck by a series of kings whose names – numbering twenty – in most cases are only known by their coins. About 620 AD this activity ended as abruptly as it had begun. In a wider context this end has to be connected with the Persian invasions

<sup>9</sup> The best study of Diocletian's coinage is: K. Pink, Die Goldprägung des Diocletianus und seiner Mitregenten, Numismatische Zeitschrift 64, 1931, 1-59 and id., Die Silberprägung der Diocletianischen Tetrarchie, Numismatische Zeitschrift 63, 1930, 9-38.

of Palestine and Egypt which isolated the Aksumites and cut them off the Red Sea trade, but the details of the city of Aksum's decline are still not fully cleared up<sup>10</sup>.

Turning to the metrology and denominations of the Aksumite coin system we have to reckon with the use of the three classical metals in changing alloys as common throughout the ancient world. The quantities of minted coins and their standard, i. e. their weight and fineness depended on the supply of these metals. Although the ideal was coining in unalloyed metal, it was in principle possible to stretch out gold with silver, silver with copper or zinc or both (brass), and copper with lead or tin.

Of importance for the choice of the standard was on the one hand the actual ratio of value between gold and silver which oscillated between 1 to 10 and 1 to 20, and on the other hand a certain coordination with the Roman trade coins was required. The basis of weighing was rendered by small natural units: as such served corns of cereal in the Near East – mainly of wheat corns with the theoretical relation of 4 to the Roman carat which is the seed of the carob tree. In the practice of weighing, of course, not the single corn, but a multitude was used to tare the scales. The usance to build up a certain unit of weight or value by means of two equal halves is derived from this process. It is also reflected in the conception of the Aksumite gold standard which was first built on halves of the contemporary Roman gold coin.

The technique of coin striking and the mint control was that of the late Roman world. The weight of the Aksumite gold coins was adjusted piece by piece within narrow margins of tolerance. The metal came out of the Inner-African rivers<sup>11</sup> and was purified by cuppelation to a fineness of about 98% which counted as pure gold in that time. But this high standard of the beginnings was not kept for long. In the course of centuries the fineness<sup>12</sup> fell to 50% and the weight of the gold coins underwent two reductions from 2.7g to 2.2g and 1.7g where it was stabilized from about AD 370 onwards; this latter weight corresponded to 1/10 of the weight unit of the common Semitic Shekel (which consists of 120 habbas [Gə'əz gabs] = 360 grains of wheat)<sup>13</sup>. The standards of the silver and copper coins must have followed

- 10 For the archaeological sight cf. D. W. Phillipson, Ancient Ethiopia, London 1998, 125f. Laurel Phillipson, Ancient Gold Working at Aksum, Azania 41, 2006, 27-60 suspected a connection with a decrease of gold mining in the neighbourhood of Aksum.
- 11 The well known story told by the 6<sup>th</sup> century author Cosmas Indicopleustes (Christian Topography II, 52) gives us a fanciful idea how the native gold was collected and brought to Aksum.
- 12 Several series of metal analyses have been undertaken, especially regarding the gold coins, cf. J. N. Barrandon, E. Godet, C. Morrisson, Le monnayage d'or axoumite: une altération particulière, Revue Numismatique 1990, 186-211. For the silver coins (the source of which is to be questioned) a larger series of analyses of Aksumite silver coins is under way, cf. M.Blet-Lemarquand, E. Godet, W. R. O. Hahn, Les monnaies axoumite d'argent: premieres résultates, Bulletin de la société française de numismatique 56, 2001, 86-8
- 13 Cf. W. Hahn, Überlegungen zum Gewichtssystem der aksumitischen Goldmünzen, Mitteilungsblatt des Instituts für Numismatik und Geldgeschichte der Universität Wien, 25, 2002, 5-8.

similar calculations, but they are difficult to reconstruct because of their cursory adjusting.

We do not know the names given to the coins by the Aksumites. In those days it was usual to call the coins either according to their metal, for instance golden (which would be *wärq* in Gə'əz), or according to their value, for instance denar (=piece of ten), or after their image or the name of the king, if not foreign words from other cultures were borrowed, e. g. the drachm from the Holy Bible.

Apparently the mint of Aksum was not a small barbarian forge, but properly equipped and perhaps staffed with foreign specialists. This can be seen in the quality of die-engraving, in the roundness of the flans and the well centred striking. In the earlier time the flans were thick and allowed the engraver a high relief the drawing of which is full of details. Later on the flans were broadened in order to have more place for a complex picture and so the relief got flattened, but the drawing shows more of schematic routine. The thinner flans of less metall fineness tend to crack especially when struck hastily without heating; but direct overstriking on older coins is rarely met: thus the Aksumites did not avoid the expenditure of melting down older or foreign coins.

An Aksumite speciality which nowhere else occurred in the history of classical minting is the partial gilding we can observe on many issues of silver and copper coins. This was done by the rather difficult procedure of fire gilding which was a new achievement at that time<sup>14</sup>: An amalgam of gold dust in mercury was brushed on the relevant parts of the coin and vaporized. This had two effects: On one hand the little coins looked more impressive and more valuable, on the other hand the colour of the gold emphasized certain parts of the image, especially the sacred parts, as it symbolizes the colour of the sun.

The typology<sup>15</sup> of the coins is determined by the principle that image and inscription are correlated, they supplement each other: The inscription explains or interprets the picture which in turn can express symbolically more than it is possible to write on the small place left for the inscription. It is notable that the written word was of such importance, but this cannot be taken as a sign of widespread literacy within the Aksumite populace. There were always clerics or writers at hand to serve as interpreters. In the beginnings the script and language used on the Aksumite coins was Greek as lingua Franca internationally spoken on the far trade route from the Mediterranean to the Indian ocean. Because of this extern destination the Greek inscriptions were kept on the gold coins throughout with few exceptions until the end. On the silver and copper coins it was replaced by Geez sporadically in the 4<sup>th</sup> century and permanently from the 6<sup>th</sup> to the 7<sup>th</sup> centuries. Mostly it was written without noting the vowels, but the introduction of vowelling can be dated by means of some rarer coins very early, i. e. about AD 330/40<sup>16</sup>.

<sup>14</sup> On the method of ancient fire gilding cf. P. A. Lins and W. A. Oddy, The origins of mercury gilding, Journal of Archaelogical Science 2, 1975, 365-73.

<sup>15</sup> Cf. W. Hahn, Symbols of pagan and Christian worship on Aksumite coins, Nubica et Aethiopica IV/V, 1999, 431-54.

<sup>16</sup> Cf. W. Hahn, Die Vokalisierung axumitischer Münzaufschriften als Datierungselement,

The principal message of the Aksumite coin types was the heavenly legitimation of the king ruling over the country allotted to him. Thus the image of the king is surrounded by religious symbols: in pagan times these are the moon, the sun and stars taken from the astral cults of the cultural sphere of South Arabia. They were replaced by the cross as the sign of the new, Christian religion and itself a solar symbol. This symbol is higher-ranking than the kings image and can therefore replace the latter on the obverse of the coins; in these cases the king's image is restricted to the reverse and the coins become anonymous because the obverse inscription which normally included the king's name now contains a religious slogan refering to the cross instead<sup>17</sup>.

Otherwise the rule is that the double representation of the king, on both sides of the coin, serves to depict him in two different attitudes, for instance as warlord with spear and as peacekeeper with a branch. This is the standard type of the gold coins. There is a connection between the double representation and the circumscription which starts on one side, calling the name and title of the king, and is continued on the other side with specifications where he rules; his so called clan name (introduced by the Gəʻəz word *bisi*)<sup>18</sup>, or his father's name may follow.

The rest of the formulas to be found on the well known monumental inscriptions and refering to the divine authority could be expressed on the small coins only in the form of the pictorial device. To understand the composition it is important to know that in the Greco-Roman world the official image of a ruler - which was distributed to announce his accession and used by embassies as presentation gift - was fixed on a gilded round shield, the socalled clipeus. By their round form the coins carried the ruler's image as on a round presentation shield. This impression was reinforced by the partial gilding of the central area separated by an inner circle. Because it was forbidden to depict God in person Christ as the supreme ruler was only symbolically represented by his cross which was also treated as an image put in the circle of the round shield accompanied by religious circumscriptions. This led to the appearance of Christian slogans on the Aksumite silver and copper coins, first in Greek, lateron in Gə'əz. In the course of such translations a slight alteration of the sense happened as the connotations could differ, e. g. in Greek it is the king of the land of the Aksumites, in Gə'əz the negus of Aksum, and consequently the Greek word for land (chora) is translated into Gə'əz by hagär which means country and city.

The term *chora Abassinon* – the land of the Abyssinians – is used highly suggestive in the conversion manifesto which reads on the coins: "may this (sign of the cross/pictogram) please the country" (Greek: touto arese te chora / Gəʻəz:

Litterae Numismaticae Vindobonenses 3, 1987, 217-25.

<sup>17</sup> Cf. W. Hahn, The "anonymous" coinage of Aksum – typological concept and religious significance, Oriental Numismatic Society Newsletter 184, Summer 2005, 6-8.

<sup>18</sup> The interpretation of the "bisi-name" is still a matter of dispute. It does not seem to be the same as the horse-name which only appears in modern times, but might have been intended as corresponding to the Romant nomen gentilicium. F.de Blois, Clan-names in ancient Ethiopia, Die Welt des Orients 15, 1984, 123-5 advocated a matrilinear clanname.

*la-hagär ze-yedlu*) because it carries the whole land ideology of the Holy Bible, especially in connection with the choice of kings' names as Noe and Kaleb<sup>19</sup>. The Ethiopian church in her earliest times has found her own place in the history of salvation by identifying Abyssinia with Ethiopia which was the Greek equation to Kush in the Hebrew Old Testament. There it stood for the Southernmost part of the earth which was allotted to Noah's son Kush (Gn.10) and several promises in the Bible were connected with it. Furthermore, Ethiopia has a special connotation in the theology of the New Testament because the spread of the Christian faith to the ends of the world was a prerequisite for the second coming of Christ (Mk.13,10).

On the Aksumite coins this cosmological dimension was expressed by various designs of the cross and its framing<sup>20</sup>. Besides the round shield other frame-forms were used: tetragonal, octogonal or like an almond. In the imagination of the ancients the tetragonal form was a symbol of the world, the almond of heaven and the octogon of Christ's resurrection on the new sabbat, which was stylized as the eight day of a renewed creation of the world. The Greek cross with four equal arms has serif-ends thus resembling a letter: the X which is the initial of Christ and it is also a symbol of Christ's domination into the four directions of the wind, to the four ends of the world according to ancient thinking.

Another, more complicated form of the cross, the socalled cross-crosslet pronounces the same idea. With a gilt central spot the luminous cross is meant as the colour of gold depicts the sun light in the ancient symbolism of colours. Luminous crosses in the sky, probably halo-phenomena, were prodigious for Christian eschatology, as forerunners of the second coming of Christ (Mt 24,30). More complex ornamental crosses combine the luminous cross with the Greek cross or the cross-crosslet. On the other hand the socalled Latin cross which has a shorter horizontal bar in a higher position and is the cross of passion occurs but rarely. If it is put on a staff it becomes a real object, the processional cross; it had not only the function of a spiritual weapon, but also of a military sign. It could be held by the king as a cross sceptre or descend on his crown. By the way these are the oldest pictorial representations of such cross objects which were destined to dominate the religious art of Ethiopia.

During the late period of Aksumite coinage the cross appears in connection with architectural designs such as a schematic arc. Historical events at that time may justify us to see in them a part of the cathedral of Aksum or of the Holy sepulcre in Jerusalem<sup>21</sup>.

To sum up the interpretation of Aksumite coin typology is just in its beginnings. Turning to what numismatics can contribute to the crucial questions of chronology we may assert that the reconstruction of the sequence of the kings renders some important fixing points within the very vague timetable especially since the

<sup>19</sup> Cf. W. Hahn, Noe, Israel und andere Könige mit biblischen Namen auf axumitischen Münzen, Money Trend 33, 2001, 124-28.

<sup>20</sup> Cf. W. Hahn, Diener des Kreuzes – Zur christlichen Münztypologie der Könige von Abessinien in spätantiker Zeit, Money Trend 32, 2000, 58-63.

<sup>21</sup> Cf. W. Hahn (as note 20).

medieval kings' lists are of little value for the earlier time. The most controversial issue amongst scholars in previous debates was the date of the introduction of Christianity as the conversion of the dynasty is clouded by legendary narrations. The religious symbols on the coins were, of course, altered accordingly and this change which can be dated by means of numismatic statistics not earlier than the 340s AD confirms the dating in the traditional Ethiopian chronography - if the Ethiopian era of Mercy is correctly reduced into AD years. The coins also help to estimate the time when Aksum began to decline, as their production ended around 620 AD. As everywhere the coins are a decisive element for the dating of excavation levels provided they are closely dateable themselves<sup>22</sup>. To achieve this goal we have to analyse all kinds of available information by numismatic methods.

A very significant aspect for the economic history is the spread of coins. A large number of coins were found in Aksum itself, but they are also known from other sites along the old trading routes, especially at Adulis, the main harbor of the Aksumite empire. The most frequent finds are small copper coins circulating on the local market centers quite similar to the situation throughout the Roman empire. Additionally the occurrence of silver coins is relatively frequent. Regarding the gold coins our impression is somewhat different. They served as treasure money and for the long distance trade. Registering the hoards of gold coins would supply an important tool of numismatic methodology, but in most cases they were dispersed and are difficult to reconstruct. We know of such hoards from Aksum, Adulis, the Yemen (where Aksumite garrisons existed)<sup>23</sup> and last, not least from Southern India where they served as depots of Roman trading firms<sup>24</sup>. Compared to this few stray finds of Aksumite silver and copper coins have emerged outside Abyssinia. We can trace some small coppers infiltrated into the monetary circulation of the Roman empire, especially in Egypt and Palestine, where Jerusalem and other centers of pilgrimage are outstanding<sup>25</sup>. Isolated pieces were also detected in excavations of Red Sea harbors like Aqaba<sup>26</sup> and Berenike<sup>27</sup>. In general, the documentation of coin finds is still very fragmentary.

Summarizing the present state of Aksumite numismatics we must stress on the fact that – despite being only of a marginal interest within the scope of international research – recent activities have enlarged our material basis and the knowledge

- 22 The opposite way dating coins by archeological arguments is but rarely effective; it was tried by D. W. Phillipson, Archeology at Aksum, Ethiopia, London 1993-97 (cf. II, 500-03)
- 23 Cf. W. Hahn, Eine numismatische Spurensuche im alten Jemen vom axumitischen Okelis zum türkischen Scheich Said, Money Trend 32, 2000, 58-63.
- 24 Cf. H.and L. Nawartmal, Spätantikes Handelsgold in Südindien, Money Trend 30, 2998, 52-57
- 25 In the article of W. Hahn, Touto arese te chora –St. Cyril's Holy Cross cult in Jerusalem and Aksumite coin typology, Israel Numismatic Journal13, 1999, 103-17 a list of Aksumite coins found in Palestine is given.
- 26 D. Whitcomb, Ayla, Art and Industry in the Islamic Port of Aqaba, Chicago 1994, 16ff.
- 27 S. E. Sidebotham and W. Z. Wendrich, Berenike: A Ptolemaic-Roman port on the ancient maritime spice and incense route, Minerva 13,3, 2002, 28-31.

of the main types seems to be quite advanced, but this does not exclude the possibility of novelties surfacing occasionally<sup>28</sup>. The application of die analyses, metal analyses and statistical methods needs a large number of available coins and, fortunately, this is increasing due to excavations and the observation of the antiquities trade as stimulated by collectors. But the most important promotion is a common conscienceness of the role numismatics can play in the concert of cultural sciences. This can only be achieved by passing on the results in a way that they are apprehended by non-numismatists.

<sup>28</sup> There are discrepancies about what to count as (main) types and what to regard as (die-) variants; in this regard the reference work of Munro-Hay (as no. 3) is inconsistent! Furthermore the existence of modern forgeries adds to our embarrasssment.