Claude Rilly

Upon Hintze's Shoulders
Today's Challenges in the Translation of Meroitic

Dicebat Bernardus Carnotensis nos esse quasi nanos gigantium humeris insidentes, ut possimus plura eis et remotiora videre… "Bernard of Chartres used to say that we are like dwarfs seated on the shoulders of giants, so that we can see more and farther than them…". This famous aphorism borrowed from John of Salisbury's writings (12th century)[1] is often cited to illustrate how scientific progress is a cumulative process. It also applies perfectly to the Meroitic studies, a philological field where two giant minds have paved the way for present researchers, namely Francis Llewelyn Griffith (1862 – 1934) and Fritz Hintze (1915 – 1993). If Griffith deciphered the Meroitic script and laid the foundations of the study of Meroitic grammar and lexicon, Hintze was the first to apply systematic procedures, mainly borrowed from modern linguistics, to this study. Since I first began to work on Meroitic, unfortunately three years after his untimely death, Fritz Hintze has been for me a model and a mentor. It was therefore a great honour when my colleagues of the Humboldt Universität asked me to deliver a speech for the Fritz-Hintze-Vorlesung. I shall here endeavour to show how Hintze's seminal ideas were a starting-point for further progress in the understanding of Meroitic. Among several other achievements, his penetrating approach to the texts enabled him to make major breakthroughs in the understanding of the writing system and in the analysis of non-verbal clauses. In addition, he clearly perceived the dangers of disorderly comparison with possibly related languages and elaborated a strict protocol for this specific research. Although many other significant points from the cornucopia of subjects he dealt with could be addressed, I shall focus on these three issues, after a brief overview of his most important contributions.[2]

Hintze started his career in 1951 at the Humboldt University as a specialist of Late Egyptian philology. He soon got interested in the study of the Meroitic language, a field which at this time was occupied – plagued would be a more appropriate word – by Ernst Zyhlarz, an Egyptologist and linguist, notorious for his far-fetched theories and his flawed demonstrations. One of his obsessions was to link Meroitic with Afroasiatic (termed then "Hamitisch") languages, despite all evidence to the contrary. Although Griffith had long ago demonstrated that grammatical gender distinction did not exist in Meroitic, Zyhlarz tried to show that there was a morphological opposition between feminine and masculine, a trait which is spread in all the branches of the Afroasiatic phylum.[3] The first article published in 1955 by Hintze, "Die Sprachliche Stellung des Meroitischen", dealt with this particular assumption and other alleged common features between Meroitic and Afroasiatic (more particularly Cushitic) languages. Sticking strictly to the Meroitic texts, he successively refuted each of them. In his conclusion, he did not link Meroitic to any other linguistic family. In his opinion, this language should be considered an isolate, until new data available might reopen the question.

In 1957/58, Hintze directed the East German *Butana Expedition*, a general survey of the Island of Meroe (Hintze 1959a), which ultimately resulted in the Humboldt University opening an archaeological mission in Musawwarat es-Sufra. From that time on, Hintze devoted most of his work to ancient Sudan. In 1959, he published *Studien zur meroitischen Chronologie und zu den Opfertafeln aus den Pyramiden von Meroe*, a short monography revisiting Reisner's royal chronology in the light of the Meroitic funer-

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1 See https://enseignement-latin.hypotheses.org/6359 for a contextual study of this citation.
2 Although the present article is dealing with Hintze's work, the important contributions to the progress of Meroitic studies made at the same time by Bruce G. Trigger, André Heyler, Jean Leclant, Nicholas B. Millet, Karl-Heinz Priese and especially Inge Hofmann cannot be left unmentioned.

For the history of Meroitic studies in these years and further references, see Rilly 2007: 60-64.
3 In secondary literature, the Omotic branch, a group of languages spoken in Southern Ethiopia, is sometimes given as an example of Afroasiatic languages with no grammatical gender. This assumption is incorrect, since all these languages have gender marking, at least for animates. The position of Omotic within or without the Afroasiatic phylum is however a highly debated issue.

ary texts, many of which had been recently published (Dunham 1957). In 1963, he released a long article entitled "Die Struktur der 'Deskriptionssätze' in den meroitischen Totentexten", which was to become a reference paper for the study of Meroitic syntax. During the first conference for Meroitic studies he organised in Berlin in 1971, he presented an important paper, exceptionally written in English to allow for better dissemination, "Some problems of Meroitic philology" (Hintze 1973), where he thoroughly revised the interpretation of the Meroitic writing system.

In 1979, in a special issue of *Meroitica* entitled *Beiträge zur meroitischen Grammatik*, Hintze wrote his longest contribution to the study of Meroitic. He applied to the grammatical structures of this language a theory he called "strukturanalytische Methode". This approach, inspired by Chomsky's generative grammar, focused on sole syntactic features, irrespective of the meaning of the texts. Although Hintze made in this study significant advances in several areas of the Meroitic grammar, his work was received with polite indifference by his colleagues. The major concern of Meroitic studies is to find a key to the translation of the texts, so that an approach unrelated to meaning seemed to them irrelevant, even if Hintze emphasised that it was an intermediate step towards the same goal. After this disappointing reception, he wrote only two articles about Meroitic, both in *Beiträge zur Sudanforschung*. These papers, albeit short, can also be counted among his seminal works. The first (Hintze 1987) deals again with the interpretation of the Meroitic writing system. It complements and illustrates his contribution of the first conference for Meroitic studies (Hintze 1973). In the second article (Hintze 1989), he delivers an ultimate state of play of comparative linguistics applied to Meroitic. He establishes a roadmap for a safe comparison between Meroitic and Nubian, which must include the reconstruction of proto-forms of their alleged common ancestor, namely Eastern Sudanic – a step which at this time was still in limbo. Irony of scientific history or prescient vision of the future of Meroitic studies? Hintze's last article deals precisely with what has now become the most promising avenue of research toward the translation of the language of Kush.

Hintze's interpretation of the Meroitic writing system

Even before his decipherment of the Meroitic scripts was complete, Griffith stated in *Areika* that the signs were alphabetic (Griffith 1909: 47). Each of the two sets, hieroglyphic and cursive, included 23 characters, which was too few for a "syllabary", but very close to alphabets such as Greek, with its 24 letters, or Phoenician, with 22 letters. Full syllabaries, i.e. scripts marking each different syllable with a specific sign, generally include from 40 to 60 signs, for instance 46 for the Japanese kanas, 56 for the Cypriot syllabary. However, Griffith could not account for the absence of some expected vocalic signs, for example in ⳍⳝⳡⳅⳋ *Amni* "Amun", where a vowel should have been present between the two consonant, as shown by the Greek transcription *Erg-amenes* of the name of king Arkamani. Similarly, the name of Napata, ⳝⳍ ⳼ⳝ *Npte*, missed the two "a" present in the Greek transcriptions *Napata* or *Napate*. Some words did not even exhibit any vowel, for instance *pqr* "prince". Griffith suggested that short vowels could have been neglected in writing (Griffith 1911: 7, 16), so that the Meroitic script would actually be a "defective alphabet".

How Hintze developed his new interpretation of the Meroitic writing system is a mystery. In his first article on this subject (Hintze 1973), he just gave the results of his reasoning without detailing the steps or providing any evidence thereof. In a later article (Hintze 1987: 41-43), he briefly produced some evidence he curiously termed as "additional" ("zusätzliche Argument"), although it was the first time he did so. In addition, he apparently did not recognise this new interpretation for what it was – a major discovery, but simply considered it "a systematisation of different observations and remarks made by Griffith" (Hintze 1987: 41). In fact, it was a real revolution: the Meroitic script was not an alphabet, be it defective or not, but an alphasyllabary. This type of writing system, combining the segmentation of words found in full syllabaries and the economy of signs found in alphabets, is only attested in four scripts and their scions: Brahmi,[4] Old Persian, Ethiopian (*fidël*) and Meroitic. It is widespread today just because the Brahmi script gave birth to numberless scripts in India (Devanagari, Bengali, Telugu, etc.) and in the neighbouring countries (Tibetan, Thai, Javanese, etc). The change introduced by Hintze was by no means trivial, but had a significant impact on the interpretation of several aspects of the Meroitic

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4 The Kharosthi script, used in ancient Pakistan, could be added to the list. It is however close to Brahmi in its principles, even if the common opinion among specialists tends towards an independent development from the same source, namely Aramaic. See Salomon, R., 1995, On the Origin of the Indian Script, in: Journal of American Oriental Society 115.2: 271-279.

language. For instance, the final sequence *-lo* of non-verbal clauses was considered by many scholars a single morpheme.[5] And indeed, there is never any word-divider between the two signs. But a sequence *-l:o* was impossible, just because the written unit is the syllable and cannot be severed by a word-divider. This sequence actually includes two morphemes, the article *-l*, added to a preceding noun, and the copula *-o* "it is", but the syllabic nature of the Meroitic script precludes any marking of the boundary that lies between them.

Hintze explained the Meroitic writing system as follows: "Every consonant, which is written without a vowel sign, signifies Consonant + Vowel a̲. Hence t̲ is /ta/, b̲ is /ba/ (…) Therefore all Meroitic letters denote syllables, not only te̲, to̲, etc." (…) Consonant + Vowel, if this vowel is not /a/, is written with consonant + vowel sign e̲, i̲, or o̲. So li̲ is /li/, not /lai/. (If there have been diphthongs in Meroitic, like [ai], [au], it was not possible to distinguish between /li/ and /lai/ in writing.) For /te/, /to/, /se/ and /ne/ the special letters te̲, to̲, se̲, and ne̲ are used." (Hintze 1973: 322) To summarise Hintze's interpretation, which is not only concerned with the system but also with the phonological values of the signs (Hintze 1973 and 1987), the 23 Meroitic characters can be grouped in four categories:

– 15 vocalic signs with inherent vowel /a/:
for ex. ⊿, transliterated *b* = /ba/;[6] �, transliterated *k* = /ka/.
– 3 vocalic modifiers for syllables other than X + /a/:
ϛ *e* = /ə/ or zero; ↵ *i* = /i/ or /e/; ∕ *o* = /o/ or /u/.
– 4 vocalic signs with fixed vowels:
⅄ *ne* = /nə/ or /n/; ⌐/// *se* = /sə/ or /s/; ⌐*te* = /tə/ or /t/; ⌣ *to* = /to/ or /tu/.
– 1 special sign for initial /a/:
ϛϲ *a*.

Thirty years later, this theory proved sound and corrections or modifications introduced in the meanwhile were marginal. The bulk of recent work on the Meroitic writing system was to draw all the consequences of Hintze's interpretation and has been dealing in more details with Meroitic "orthography".[7] The example of initial vowels, which was only summarily treated by Hintze (1987: 49), can illustrate

how deeper analyses can be conducted in following the principles he has established. Alphasyllabaries are well tailored to the transcription of languages where syllabic structure of words is mainly CV (consonant + vowel), like Japanese. When it comes to transcribe nude consonants, either in final position (-V-C) or in clusters (-C-C-), or nude vowels, either in initial position (V-C-) or in hiatus (-V-V-), alphasyllabaries need special expedients, from which the most common is the use of dummy signs. The Tibetan script, for example, has the same dummy sign for all initial vowels (symbolising 0-consonant), to which the usual vocalic modifiers are added in order to specify which vowel is intended. In Meroitic, the system is not so elegantly simple. From the first century AD on, two signs are used for this purpose.[8] The first is ϛϲ, transliterated *a*, for initial /a/ and /u/ (possibly also /ə/ and /o/), which no diacritic to distinguish which of these vowels must be read. The second is /// , transliterated *y*, for initial /e/ and /i/ and in this case, like in Tibetan, the vocalic modifiers are added: ϛ for /e/ and ↵ for /i/. The same dummy sign *y* is also used for hiatus: the Egyptian name *Taesi* ("the one of Isis") is in Meroitic ↵ϲϛ///⅃, *Tyesi*,[9] reading /taesi/ and not */tayesi/.

The main changes from Hintze's interpretation of the Meroitic script occurred in the phonetic value of signs. He stated for example that ϛ *e* read /ə/ or zero[10], whereas ↵ *i* read /i/ and /e/. It is actually more probable that *e* reads /e/, /ə/ or zero and *i* reads just /i/ (Rilly 2007: 400-401). Consequently, the three signs with fixed vowels *e* also have three possible realisations: ⅄ *ne* = /ne/, /nə/ or /n/; ⌐/// *se* = /se/, /sə/ or /s/; ⌐ *te* = /te/, /tə/ or /t/. Other recent changes are ∕⅃ *q* = /kʷ/ (labialised velar stop)[11] and ⋛ *p* = /b/. This variant of ⊿ *b* is an Egyptian legacy used mainly in words borrowed from Egyptian nouns preceded by the article *p3* (*perite* "agent", *pelmos* "strategos", etc.) and by extension, in initial position in native words (*pwrite* "life").[12]

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5 See for example Priese 1971 :77.
6 Note that the transliteration in italics, inherited from Griffith and kept hardly unchanged since his time, is a convenient way to transcribe the texts sign by sign, but yields by no means a faithful rendering of the pronunciation. The transcription into slashes is a phonological rendering.
7 See Rilly 2007: 286-314; Rilly 2012: 35-48.

8 Before this date, the vocalic modifiers *e* and *i* could be used independently for initial /e/ and /i/. This infringement of the principles of alphasyllabaries was later corrected.
9 REM 0088, 0135, 1098. See Rilly 2007: 294.
10 This letter is used as dummy sign for consonant clusters and final consonants: see Rilly 2007: 298-300 (with references to similar interpretations by different scholars in 299, note 2) and Rilly 2012: 41-42.
11 Rilly 2007: 374-379; Rilly 2012: 112-113.
12 In addition, the phoneme /p/ is absent in Northern East Sudanic, the linguistic family of Meroitic: see Rilly 2010: 213-216, 345, 378-379. The Meroitic word *pwrite*, reading /bawarit/, "life, vital strength" is related to Proto-Nubian *beeridi and to Nara bóórʃi, both meaning "strength" and comprising an initial /b/. The Proto-NES word can be tentatively reconstructed as *bogir-i-ti. Moreover, /p/

Some other changes are still a work in progress. It has been previously seen that *y* was used as a dummy sign for marking initial vowels and hiatus. It is not sure that he also had a phonetic value. The glide /y/ (in phonetic alphabet [j]) is also absent from the phonological inventory of most related languages and cannot be reconstructed in the proto-language.[13] My impression is that this letter, inherited from Demotic, did not match the Meroitic phonology, but was kept just as an orthographic tool. However, the question is far from settled and needs further investigation, word by word. This letter occurs in many instances with back vowel /a/, in which case a dummy function is unlikely: for example *sytl* in REM 1044/60, which should read /sayatala/ or *pyk* in REM 0094/10, which should read /bayaka/. But these words are obscure *hapax legomena*, so that it is impossible to know if there were alternative spellings.

A last point that also needs further examination is the value of signs ⊂ *x* and ʒ *h*.[14] In a first analysis (Rilly 2007: 383-386), I resumed Griffith's position by ascribing to ⊂ *x* the value /χ/, a velar fricative like Egyptian *ḫ*. For ʒ *h*, I suggested that it was a labialised variant of *x*, /χʷ/, because it can replace *x* in some cases, but is mainly used with labiovelar vowels /o/ or /u/. The same distribution can be observed between *k* and *q*, which is a labialised velar consonant /kʷ/. Only five equations for *x* and *h* could be found with Egyptian, Coptic and Greek words or with Egyptian transcriptions from Meroitic, but they all supported this interpretation: the Meroitic personal name *Phome* "Pachomius" is in Coptic ⲡⲁϧⲟⲙ with a *hori* and the place name *Phrse* "Faras" is in Greek Παχωρας with a *khi*, which letter in Late Greek was already pronounced [χ]. An alternative hypothesis had been shortly and timidly proposed by Priese (1973: 291, with question mark) and resumed with the same caution by Hintze (1987: 43). They noticed that the Old Nubian letter ⲅ for the velar nasal /ŋ/ (the English sound spelled "ng" as in "king") is very similar in shape to the Meroitic sign ⊂ *x* and sug-

gested accordingly that this sign was borrowed from Meroitic and could have originally had the value /ŋ/. But this value did not match the philological data quoted above and I rather followed the opinions of Peust and Browne, for whom the Old Nubian sign would be a modified Greek *gamma*.[15]

A recent discovery has changed the situation. In 2015, a mysterious artefact was offered for sale by a Belgian gallery.[16] It was a magnificent sistrum in gilded bronze, engraved on the loop with an inscription in poor Egyptian hieroglyphs giving the name of the Meroitic king Arnekhamani. The epithet "beloved of Isis" ascribes the object to a late date in the reign, after 220 BC.[17] On the handle, another inscription was engraved at the same time in very archaic Meroitic characters, and this is indeed the earliest datable Meroitic text found so far. It begins with the name of the king, *Elxmni*, followed by the title *qor[e]* "ruler". Compared with its Egyptian transcription, *Jrnḫ-Jmn*, the only form of his name that was known until now, the Meroitic original is somewhat unexpected. The double value *r/l* for the Egyptian lion-sign in foreign names is well-known and so are the different vocalic transcription of the digraph reed + seated man, /a/, /i/ or /e/. Nevertheless, the absence of the consonant *n* in the Meroitic version is at first glance surprising.

It has a parallel in the name of one of the princes of Natakamani and Amanitore, in the first century AD, Arikankharor. This name is written in Meroitic *Arikxror*, for instance in the Lion temple at Naga but *Jrknḫrr* in its Egyptian transcription on the walls of his chapel in Beg. N. 5 . A third instance is probably the name of king Piankhy, in its Egyptian transcription *P(3)ᶜnḫy* and in Meroitic *bohe* (Rilly 2001: 366-368), written this time with *h*, the labialised version of *x*, because of the preceding labiovelar vowel. In all those instances, the Egyptian transcriptions include, before the velar consonant, a sign *n* which does not appear in the Meroitic spelling of the same names. In the case of Prince Arikankharor, the only one that was known so far, scholars ascribed the absence of *n* in the Meroitic spelling to a well-known rule of the Meroitic writing system: the nasal consonants are not written when occurring immediately before

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is rare to the extreme in the linguistic area formed by the native languages of Sudan, even in non-Nilo-Saharan languages (e.g. Beja).

13 Exceptions are Nara and Kenuzi Nubian, probably not Afitti. In Nara, this glide is found mainly in loanwords from Tigre and Arabic and in diphthongs (*ay, oy*), where it has a vocalic nature (second mora of the diphthong) and could as well be written i. In Kenuzi, it is a secondary development from Old Dongolawi palatal nasal /ɲ/ (= ñ), probably due to Arabic influence, cf. Dongolawi *koɲ* "face, forehead" vs. Kenuzi *koy*, Dongolawi *oɲɲi* "excrement" vs. Kenuzi *oyyi*. See Rilly 2010: 239 and n. 354 (Kenuzi); 293 (Afitti).

14 Formerly transliterated *ḫ* and *ẖ* respectively

15 See Peust 1999: 78, n. 58; Browne 2002: 10 ; Rilly 2007: 384 n. 2, 393-394; Rilly 2010: 17.

16 I received several digital photographs for expertise but could not see the artefact or have any information about its provenience. I was recently told that it had been sold to an unknown buyer, probably before I presented a paper on this sistrum in the Conference for Meroitic studies in Prague in September 2016. The publication of this paper is currently in preparation.

17 See Török's comments in FHN II: 581.

another consonant.[18] The most famous and conclusive example is *kdke* "Candace", which was realised /kandake/, as shown by the Egyptian, Greek and Latin transcriptions, although the sign *n* is absent in the Meroitic spelling of this word. This may suffice to explain why the letter *n* does not appear in the Meroitic versions of the names Arikankharor, Arnekhamani and Piankhy. However, in all the transcriptions of native Kushite words into Egyptian, Meroitic *x* and *h* are spelt *nḫ*. By contrast, all the Meroitic words whose Egyptian, Coptic or Greek counterparts do not show any *n* before *ḫ* are precisely borrowed from Egyptian (*Phome* "Pachomius", *Phrse* "Faras", and perhaps *Xs* "Khons"). Is it a mere coincidence, due to the scarcity of the sample?

Another explanation can account for those divergent spellings in Egyptian transcriptions. The digraph *n+ḫ* might be a way to transcribe the Meroitic velar nasal /ŋ/ which was absent from Egyptian phonology, just as Early Germans and Saxons used the digraph *n+g* to write the same sound, which did not exist in Latin. In both cases, the velar nasal is broken down into two consonants reflecting each of his phonetic constituents, a nasal (*n*) and a velar (*ḫ* in Egyptian, *g* in English and German). Furthermore, the existence of a velar nasal in the Meroitic phonology, written ⊂ *x* and ⌇ *h* in labiovelar context, could account for the borrowing of the sign h in Old Nubian alphabet to write the same consonant, as suggested by Priese 1973. The shape of this Nubian sign in Soba Nubian, attested in several graffiti from Musawwarat, is indeed very similar to the late versions of the Meroitic letter and differs greatly from a Greek gamma (Rilly 2010: 17, n. 17). In addition, all the languages of the Northern East Sudanic group, to which Meroitic belongs, have a nasal velar (Rilly 2010: 335, 345).

This new interpretation does not cancel the previous one. It is obvious that *x* and *h* in *Phome* "Pachomius", *Phrse* "Faras" and *Xs* "Chons" are faithful transcriptions of the Egyptian consonant *ḫ*. It means that there was for these two Meroitic signs a double standard. In Egyptian loanwords, they kept their original value and read /χ/ and /χ^w/.[19]

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18 Rilly 2007: 300-103, with further references.
19 In a previous study (Rilly 2010: 16, 18, 376), I suggested the voiced counterparts /ɣ/ and /ɣ^w/ (*gh-* in traditional transcriptions, like Arabic *ghazal* "gazelle"), because I assumed that this consonant, stranger to the phonology of NES languages, was a development of an earlier *g. The present interpretation of course overturns this previous hypothesis. In a field so little explored as the study of Meroitic, and liable to dramatic changes due to the discovery of new texts (here Arnekhamani's sistrum), such reversals are inescapable.

In native words, the same signs were used for /ŋ/ and /ŋ^w/. This differentiated reading is by no means unparalleled: in English for example, the digraph *ch* reads /tʃ/ in native words ("chin", "much") and /k/ in Greek loanwords ("chaos", "archaeologist"). However, this new hypothesis still remains fragile and requires further examination, possibly for all the numerous words that include these signs.

HINTZE'S ANALYSIS OF NON-VERBAL SENTENCES

Hintze's contribution to the clarification of Meroitic syntax is obviously the highlight of his research work on the language of Meroe. It is particularly developed in his long article "Die Struktur der 'Deskriptionssätze' in den meroitischen Totentexten" (Hintze 1963) and his short monography *Beiträge zur meroitischen Grammatik* (Hintze 1979). The first is a comprehensive classification of all the descriptive sentences found in the funerary texts, which at this time made up the bulk of the Meroitic corpus. The second is more theoretical and applies methods borrowed to modern linguistics, particularly Chomsky's generative grammar. It comprises a first part that deals again with the descriptive sentences of the epitaphs, and a second part where he attempts at clarifying the morphology of the complex verbal compounds used in the funerary benedictions. As mentioned previously, he tried in this work to keep away from semantic interpretations and to focus exclusively on the grammatical structures of the language.

Non-verbal sentences are the only large syntactic units that are now almost completely clear in Meroitic, due to their numerous occurrences in the funerary texts. By contrast, verbal sentences, found chiefly in the narrative texts, such as the royal chronicles, are just in an early stage of exploration. In order to follow the significant contribution Hintze made to the analysis of non-verbal clauses and how his work was seminal for later progress, I am quoting here three passages of epitaphs from Karanog, which I chose brief for the reader's convenience.

(1). *Wiritelito-qowi* (REM 0289, nomination of the deceased)
(2). *ant : Mnp-se Brtrl : stelowi* (REM 0289, descriptive part)
(3). *Metekdi-lowi* (REM 0242, nomination of the deceased)

When Griffith first published these texts, shortly after his decipherment, his grammatical analyses

were still inaccurate (Griffith 1911). He suggested that the phrase -*lowi* was used "for the copula (?) or emphasis" and did not comment the phrase -*qowi*, although he viewed the short alternative version -*qo* as an adjective meaning "noble". Both phrases are ignored in his translations of the epitaphs:

(1). "Wiretelitê"[20]
(2). "mother of the prophet of Amanap Baratare [sic]"[21]
(3). "Metekazi"[22]

Hintze's analysis of these elements was still in its infancy in his first study "Struktur der Deskriptionssätze". He suggested that -*lowi* included a determiner -*l*, followed by a participle marker -*o* and an optional element –*wi*, whose role was not clear, but which could be present or absent (in this case, the phrase becomes -*lo*). Sixteen years later, his analysis had significantly changed. The participial nature of -*o* was abandoned in favour of a copula role (unconjugated equivalent of the verb "to be"). The old interpretation of *qo-* as an adjective meaning "noble" was also ruled out. His analysis of the two phrases was now the following (Hintze 1979: 192-195):

-*qo (wi)* < *qe* "this one"+ copula -*o*- ± emphatic particle *wi* = "this one is"
-*lo (wi)* < -*l* "he, she" + copula -*o*- ± emphatic particle *wi* = "he /she is".

The translation of the two sentences (1) and (3) that introduce the deceased in the beginning of their epitaph could then be translated as follows:

(1). *Wiritelito*   -*q*   -*o*   -*wi*
      "Wiretelito   this   is   (indeed)"
      "This is (indeed) Wiretelito."
(3). *Metekdi*   -*l*   -*o*   -*wi*
      "Metekadi   she   is   indeed)"
      "She is Metekadi."

As for the description of the family relations of the deceased in REM 0289, if Griffith's translation was correct, he rather guessed the meaning in combin-

ing the elements he knew than accurately analysed the sentence. Hintze, who was a man of rationality, struggled a long time to understand this particular structure. The main obstacle was his obstinate idea that kinship terms were verbs and not nouns. If they were nouns, these terms would be in genitive relation with the noun phrase mentioning the relative of the deceased: "she is the mother of X", "he is the brother of Y", etc. However, the Meroitic genitival structure was known since Griffith's first studies: the genitive was placed after the main noun and followed by the genitival marker (a postposition) -*se*. Sentence (2) includes such a structure, *ant: Mnp-se* "the priest of Amanap", literally "priest Amanap-of". For that reason, Hintze long stuck to the idea that kinship term such as *ste* "mother", *kdise* "sister", etc., were verbal forms "to be mother of", "to be sister of ", even if this is very rare among the languages of the world. It is only in his *Beiträge zur meroitischen Grammatik* that he finally changed his opinion and admitted, almost reluctantly, that there were two genitives in Meroitic, a "progressive" genitive N_1 + N_2 + -*se* as in "the priest of Amanap" and a "regressive genitive" N_2 + N_1 as in *Brtrl ste* "the mother of Baratarala" (Hintze 1979: 56-57). According to this new theory, Sentence (2) could be analysed and translated as follows:

(2). *ant :*   *Mnp*   -*se*   *Brtrl :*
      "of (the) priest   Amanap   of   Baratarala
         ste   / l   -*o*   -*wi*
      (the) mother   / she   is   (indeed)"
      "She is (indeed) the mother of the priest of Amanap, Baratarala"

Even if Griffith's and Hinze's translations are more or less similar, or at least provide the same information, Hintze's interpretation shows how much the analysis of the Meroitic syntax had progressed between 1911 and 1979. Of course, some details were still fragile. For instance, the accurate function and nature of the optional "emphatic" particle -*wi* remained obscure – and still is today. More awkward was the use of the article -*l* for a third person pronoun and particularly the use of a personal pronoun to introduce the deceased in sentence (3), whereas a demonstrative should be more appropriate, as in sentence (1). The most recent analysis allows for a correction of this anomaly.[23] The *l-* in -*l-o-wi* (var. -*l-o*) is not the subject of the copula, but the article belonging to the preceding noun phrase. *Brtrl:*

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20 Griffith, who had originally only three "equations" between Meroitic and Greek/Coptic for this sign, read *ê* (long /*e*/) the vowel we now read *o* after Hintze (1973: 322-323).
21 The last sign "*l*" of the name *Brtrl* "Baratarala" was erroneously read "*e*" by Griffith. In Late Meroitic, the two signs are fairly similar.
22 The sign *d* was initially read z by Griffith, see Rilly 2007: 368-369.

23 Rilly 2007: 540-548; Rilly 2010: 385-387; Rilly & De Voogt: 163-166.

stelowi in Sentence (2) must be broken down as *Brtrl: ste-l / -o-wi* "(she) was the mother of Baratarala" and not *Brtrl: ste / -l-o-wi* "she was (the) mother of Baratarala". The predicative marker *-o* (pronounced /u/, probably < *u-u) contains its own subject and means "it is". In Sentence (3), the same structure can be found. The name of the deceased is actually not *Metekdi* but *Metekdil*, a compound meaning "the female child" and including the article *-l*. One can compare with French family names such as Leroux, Legrand ("the red-head", "the big one"), which are originally nicknames including the French article "le". Consequently, the clause *Metekdilowi* must be broken down as *Metekdi-l / o-wi* and not *Metekdi/ l-o-wi*. The usual predication of proper names in the initial nomination of the funerary texts is X *qo-wi* < X *qo-o-wi* "this is X", where the demonstrative *qo* "this" is the subject. However, if the proper name contains the article, *qo* gives way to the inherent subject of *-o(-wi)* "it is".

In the plural, for example in *antlebkwi* "they are priests", the boundary between the predicate and the group subject + copula must also be moved to the right. It is not, as suggested by Hintze, *ant / leb-kwi* "priest / they are", but *ant-leb / kwi* "the priests / (they) are" with the plural article *-leb* attached to the noun *ant* "priest" in the predicate and the plural copula *-kwi* "they are". The copula in Meroitic is therefore *-o(-wi)* in the singular and *-kwi* in the plural. The final element *-wi* is optional in the singular, but is always present in the plural. No explanation has been found so far for this peculiarity, reflecting how much remains to be discovered.

Hintze's protocol for identifying the family of Meroitic

Hintze's stance on comparative linguistics applied to Meroitic is somewhat puzzling. On the one hand, unlike the vast majority of his colleagues (with the notable exception of Inge Hofmann), he never took a stand in favour of an affiliation of Meroitic to any linguistic family. On the other hand, he never stopped studying Old Nubian, on which he published several papers. His first article on Meroitic (Hintze 1955) reflects this ambivalent attitude. The paper aimed at refuting the link between Meroitic and Cushitic languages assumed by Zyhlarz and was therefore focused on comparative linguistics, but in his conclusion, he referred to the famous specialist of comparative linguistics in African languages, Joseph H. Greenberg, who considered Meroitic a linguistic isolate in a paper published in 1950. Some

years later, in 1963, Greenberg published his *opus magnum*, *Languages of Africa*, where he classified all the languages of the continent in four macro-families or phyla. One of these was Nilo-Saharan, a phylum that was more or less constituted of all the languages spoken in Eastern Africa that were neither Afroasiatic nor Niger-Congo. Nevertheless, the core of this phylum, the Eastern Sudanic family comprises languages such as Nubian, Nara, Nilotic and several other groups, which undoubtedly are linked by strong genetic ties.

In 1964, Bruce G. Trigger published in *Kush* an article entitled "Meroitic an Eastern Sudanic: A Linguistic Relationship"? In this paper, he listed many resemblances between Meroitic and several Eastern Sudanic languages, particularly Nara (called then "Barya"), a small language spoken in Western Eritrea, and Nubian. Unfortunately, Trigger partly resorted to lexical data forged by Zyhlarz and limited his comparison to surface resemblances, without trying to produced reconstructed forms of the proto-language. During the first Meroitic conference in Berlin, Hintze could show easily how fragile was the link suggested by Trigger (Hintze 1973). He even made a mock comparison of Meroitic and Uralo-Altaic language family (to which Turkish belongs), to demonstrate how feeble was Trigger's methodology.

Finally, in his last paper on Meroitic (Hintze 1989), Hintze delivered a more positive message on the linguistic comparison of Meroitic with Nubian. He admitted there were many striking resemblances between the structures of both these languages. However, these resemblances could also result from common typological features without genetic link: Meroitic and Turkish for example belong to the same typological group of languages, so that many similarities can be found between their syntactic structures. The role played by areality also cannot be rule out: languages spoken in the same area, which is the case of Meroitic and Nubian, tend to have numerous commonalities. For that reason, Hintze emphasised the absolute necessity to work out a reconstruction of Proto-East Sudanic (the family of Nubian) in order to check if Meroitic could be included in this language group.

With that in mind, I began in 2003 to explore again the link between Nubian and Meroitic, which became obvious to me in the course of my work on the Meroitic texts. Compared with Trigger, I had the double advantage that, on one hand, Meroitic was better known than it was in 1963, thanks to Hintze's, Hofmann's and Millet's studies, and that, on the other hand, Nilo-Saharan languages were better described. In the field of Nubian languages especially, I could

rely on new data about Midob Nubian by Werner, Birgid by Thelwall, Kordofan Nubian by Jakobi and Old Nubian by Browne.[24] I finally added first hand data on Nara and Nyimang by conducting my own linguistic enquiries in Sudan and Eritrea. The reconstruction of Proto-East Sudanic, as advocated by Hintze, is for the moment out of reach because of the great number of languages it includes, especially in the Nilotic group. Fortunately, I could demonstrate that Nubian belongs to a sub-family of Eastern Sudanic, already postulated by Bender,[25] which I termed "Northern East Sudanic" (NES). This family comprises some twenty different languages in four groups: Nara (Eritrea), Nubian (Egypt and Sudan), Taman (Darfur and Chad), Nyima (Nuba Mountains in Sudan). Nara and Nubian are the closest languages to Meroitic and can be included with it in an Eastern branch of NES, whereas Taman and Nyima are two separate branches. The reconstruction of the phonology, the proto-lexicon and, partly, of the morphology of Proto-NES constitutes the major part of the volume dedicated to the family of Meroitic (Rilly 2010). In doing so, I hope I have been been faithful to Hintze's expectations in his last article. My only regret is that he did not live long enough to comment it and in all likelihood, to criticise many aspects of my demonstration, but I am bold enough to think he would have agreed on the results.

A single example will suffice to show the significant role that the linguistic comparison with NES languages can play in the translation of Meroitic, now that the link between them has been securely established. We have previously seen that the signs *x* and *h* in native words very likely had the values /ŋ/ and /ŋʷ/. The name of Queen Amanishakheto, in the end of the first century BC, contains "Amani" "Amun" and a verbal compound. As it is spelt several times Amanishakhete, it can be compared with the name of another queen (or the same under an alternative name), Shanakdakhete, which clearly means "Shanaka (local form of Mut) has given birth to her".[26] The stem of the verbal compound *-sxeto / -sxete* in Amanishakheto's name is *-sxe*. According to the new value of sign *x*, this stem should be pronounced /saŋ/. A similar root can be found in Proto-Northern East Sudanic, *suŋ "give birth","beget", in Nyimang *suŋɔ*, in Kordofan Nubian (Dilling) *šiŋ*, in Old Nubian and Nobiin unn-.[27] The name of Queen

Amanishakheto, according to this comparison, very probably means "Amun has begotten her" and the numerous Egyptian parallels among the royal Egyptian names support this assumption.

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24 Werner 1993; Thelwall 1977; Browne 1997 and 2002.

25 Bender 1996, where this sub-family is designated by the two letters Ek. See Rilly 2010: 158-159.

26 See Rilly 2017: 261-263.

27 Cf. Rilly 2010: 448 [56]. My reconstruction was then *sun- because of the Old Nubian reflex *unn-*, where the disap-

pareance of initial *s is regular. Nevertheless, the final *-n* is probably an Old Nubian development of *ŋ, as in *aman* "water", from Proto-NES *ᵐbaŋ. The reconstruction of the root for "give birth" must therefore be corrected to *suŋ. The vocalic variance, especially the /a/ of Meroitic, has numerous parallels (Rilly 2010: 379-380).

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Zusammenfassung

Der Artikel beschäftigt sich mit dem Vermächtnis von Fritz Hintze für die meroitischen Studien. Der Autor untersucht den signifikanten Fortschritt, der durch Hintze zwischen 1955 und 1989 in drei verschiedenen Bereichen des Forschungsfeldes gemacht wurde, nämlich in der Interpretation des Schriftsystems und der Lautwerte, der Analyse der Syntax von non-verbalen Sätzen und schließlich in den Gefahren und Voraussetzungen von linguistischen Vergleichen mit verwandten Sprachen. Für die gegenwärtige Forschung zeigt er, wie Hintzes bahnbrechende Ansätze auch aktuell einen weiteren Fortschritt bei diesen Themen bringen konnten. Dabei werden neue Lautwerte für die meroitischen Zeichen x und h vorgeschlagen, die auf der jüngsten Entdeckung des frühesten datierbaren meroitischen Textes, graviert in ein Sistrum, das den Namen des Königs Arnekhamani trägt, basieren.