

IL ABSTRACT TEMPLATE

THE AFFECTING OF THE TRADITIONAL NUMERATION SYSTEM BY WESTERN CURRENCY INTRODUCED AFTER COASTAL CONTACT WITH AFRICA: A CASE STUDY OF MENTAL ARITHMETIC PROCEDURES OF THE YORUBA-IDAASHA OF BENIN REPUBLIC (WEST AFRICA)

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After the European coastal contact with West Africa, implicit basic European monetary units are introduced into the Yoruba traditional numeration system (Sègla 2001, 2016, 2017). In Central Benin Republic where the Yoruba-Idaasha live, these are /dola/ which value is 5 francs CFA (5 FCFA), introduced by the French colonial administration and the /paun/ which is equivalent to 25 francs CFA (25 FCFA). These basic European monetary units constitute a new numeral system basis within the traditional one that was originally and ancestrally mainly base 20, and also base 200 and 2000. For example, 50 francs CFA coin and 100 francs CFA coin are respectively implicitly translated nowadays by /paun meji/ (1 pound, twice) and /paun merin/ (1 pound, 4 times). Similarly, bank notes of 500 francs CFA and 1000 francs CFA are respectively associated to /paun ogun/ (25 francs CFA, 20 times) and /paun ogun meji (paun ogoji)/ which means /25 francs CFA 20 in two times, or forty times/. The former may be also named by /apo okan/, which means 'one bag' of 1000 francs CFA.

Finally, after observing methodically mental arithmetic practices of the Yoruba-Idaasha women and craftsmen in markets and villages in Central Benin Republic, the study demonstrates that the use of foreign monetary implicit units and the traditional ones simultaneously has softened or simplified the traditional system which, originally, is known to be very sophisticated. In conclusion, it appears clearly that the studied mental arithmetic procedures of the Yoruba-Idaasha of Benin Republic reflect other similar practices by decomposition through addition, subtraction, multiplication and division in the ancient Egyptian method that has been observed on the papyrus of Rhind (Dahan-Dalmedico and Peiffer 1986; Sègla 2001). Indeed, the formula /n, 11 times/ on the papyrus of Rhind described as to be a number equivalent to $8n$, $2n$ and $1n$, thus, an addition of $(8n + 2n + n)$ is the same method that is mentally used by the Yoruba-Idaasha of Benin Republic in West Africa.

Key words: traditional numeration, Yoruba-Idaasha, Benin Republic, implicit monetary units, mental arithmetic procedures, papyrus of Rhind.

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