



Comment on K. Zoghlami's Investigating Production Technology and Raw Material Sourcing in 17th-Century Bricks of Ghar El Melh Fortress (Tunisia) Through Geo Archaeological Analytical Techniques

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INTRODUCTION

In a newly published paper, entitled “Investigating Production Technology and Raw Material Sourcing in 17th-Century Bricks of Ghar El Melh Fortress (Tunisia) Through Geo archaeological Analytical Techniques”, Zoghlami et al. (2024) present the results of some Geo archaeological Analytical Techniques treating Bricks of Ghar El Melh Fortress (Tunisia). Consequently, the authors propose a new updated geological map, lithographically column and structural scheme. After many notifications from colleagues, I opened the paper of Karima et al., 2024 and unfortunately I'm surprised and I was disappointed by the apparent scientific theft without mentioning the source/reference, as well as the intentional inclusion of false and omitted information that has no connection to field reality essentially in the structural part which was injected into the article without any interest. Moreover, the writers strive to discuss the structural scheme and provide a new update in certain sections of the manuscript. Regarding this, I'm curious about the connection between 17th-century archaeology work and geological sections and structural scheme that present the accumulation of decades of million years.

EMBEZZLEMENT OF A SCIENTIFIC WORK

I would like to draw the attention to five differences and compare these figures (between [Figure 1](#) and [Figure 2](#), and between [Figure 3](#) and [Figure 4](#)):

Red, green and blue circles show a perfect similarity between the two figures ([Figure 1](#) and [Figure 2](#)). Now focus on the blue circle, it is the same geological section (orientation, locality and scale): this, of course, is not unnoticed. I wonder if the authors have chosen this geological section why they didn't write the reference, it is the result of a published article.

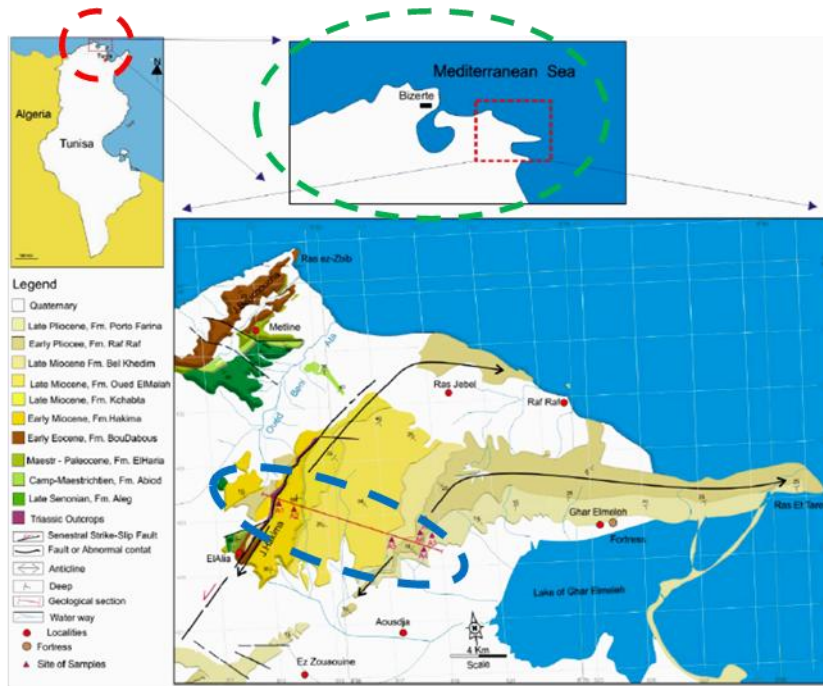


Figure 1. From Zoghlami et al. (2024)

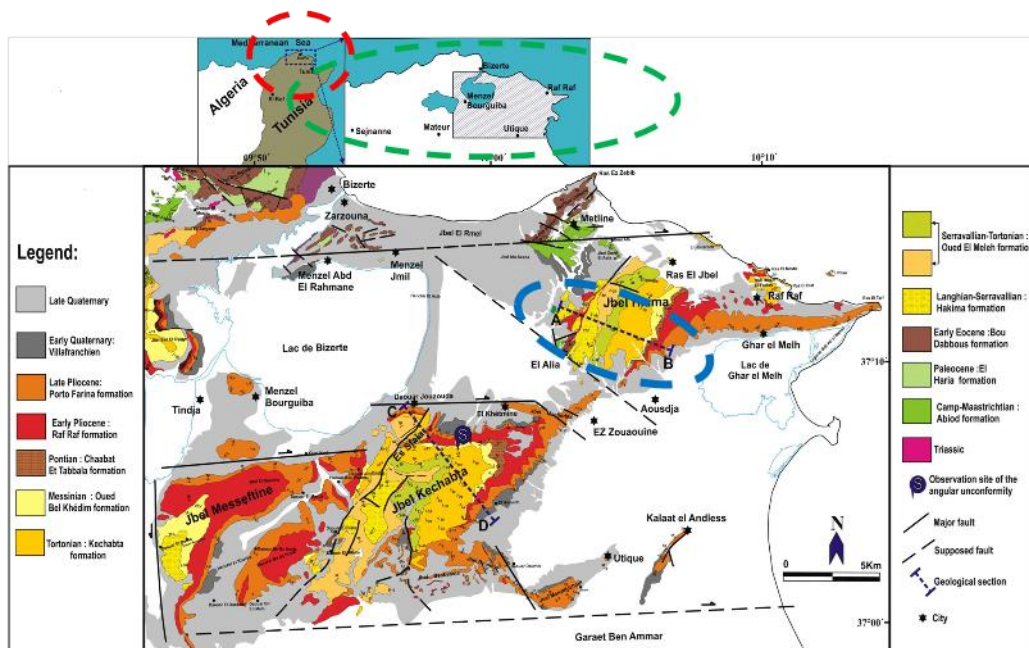


Figure 2. From Azizi and Chihi (2017)

The two geological sections of the two different articles (Figure 3 and Figure 4) confirm this scientific embezzlement: According to the structural scheme given by Karima et al., (2024), the section must necessarily pass through two anticlines but unfortunately the authors did not check the section and they kept the same geological section (by layer) of Azizi and Chihi (2017), which means, that is not unnoticed (see geological cross sections comparison: same orientation, locality and scale).

If the author understood tectonic structures and honestly followed his new updated structural scheme here it should be a second anticlinal structure, this is an apprentice geology (see the locality of the geological cross section Figure 1), that's why I thought for a scientific embezzlement.

Following the writers structural scheme, here, it should be the second anticline structure

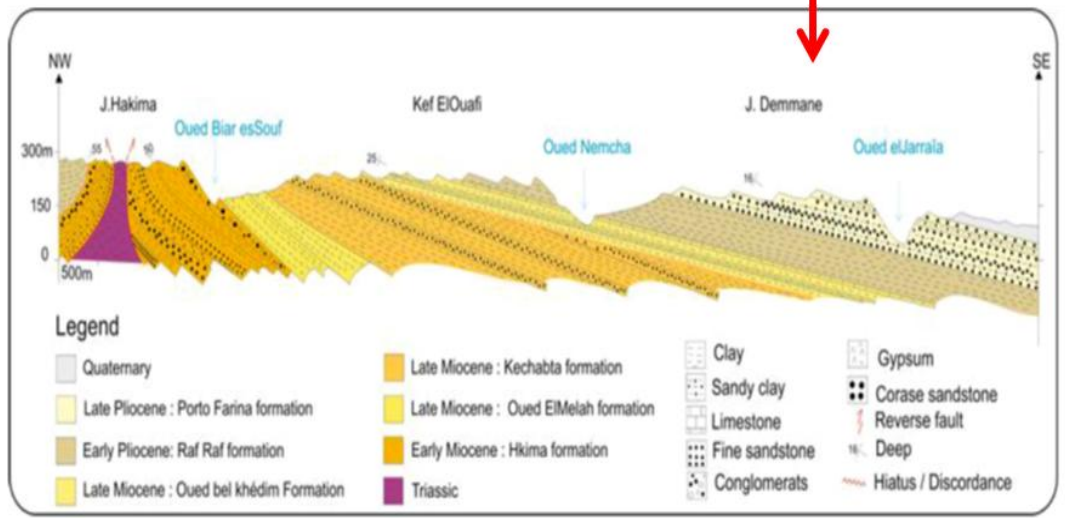


Figure 3. From Zoghlami et al. (2024)

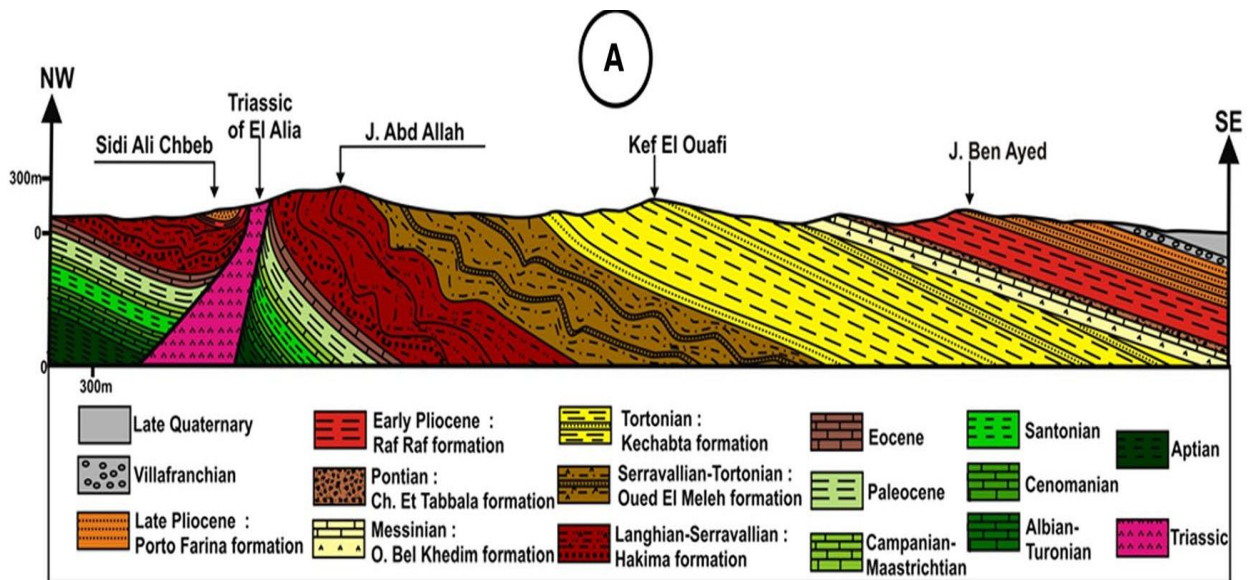


Figure 4. From Azizi & Chihi (2017)

INTENTIONAL INCLUSION OF FALSE AND OMITTED INFORMATION THAT HAS NO CONNECTION TO FIELD REALITY

The writers (Zoghlami et al., 2024) intentionally added dipping signs (green circles in Figure 5) which is not consistent with the geological map “No7” (Buroillet, 1952) and no longer exists on the field.

The writers intentionally added an anticline axis (Figure 5: red circle) which coincides neither with the field data nor with all previous works (Buroillet, 1951, 1952; Ben Ayed, Viguier, & Bobier, 1983; Kacem, 2004; Mejri, Buroillet, & Ben Ferjani, 2006; Melki et al., 2011; Mejri, Regard, Carretier, Brusset, & Dlala, 2010; Mejri, 2012; Harrab, Mannai-Tayeche, Rabhi, & Zargouni, 2013; Azizi & Chihi, 2017, 2021). It is a simple monocline structure.

In their lithostratigraphic column (see Figure 6) the authors present a Pliocene succession (Raf Raf and Porto Farina formations) which exceeds 1450m in thickness and the same remark for Oued Bel Khedim formation with 483m in thickness. These values greatly exaggerated are not consistent with either the tectonics that controlled sedimentation, with the basin bathymetry or with previous works (Buroillet, 1951, 1952; Ben Ayed et al., 1983;

Kacem, 2004; Mejri et al., 2006; El Euch-El Koundi et al., 2009; Melki et al., 2011; Mejri et al., 2010; Mejri, 2012; Harrab et al., 2013; Azizi & Chihi, 2017, 2021).

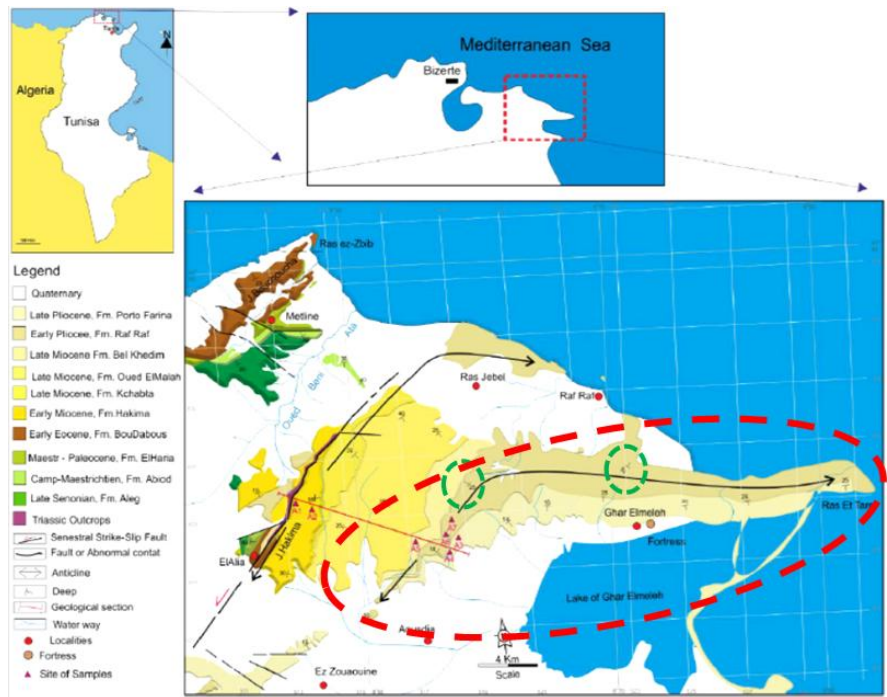


Figure 5. From Zoghlami et al. (2024)

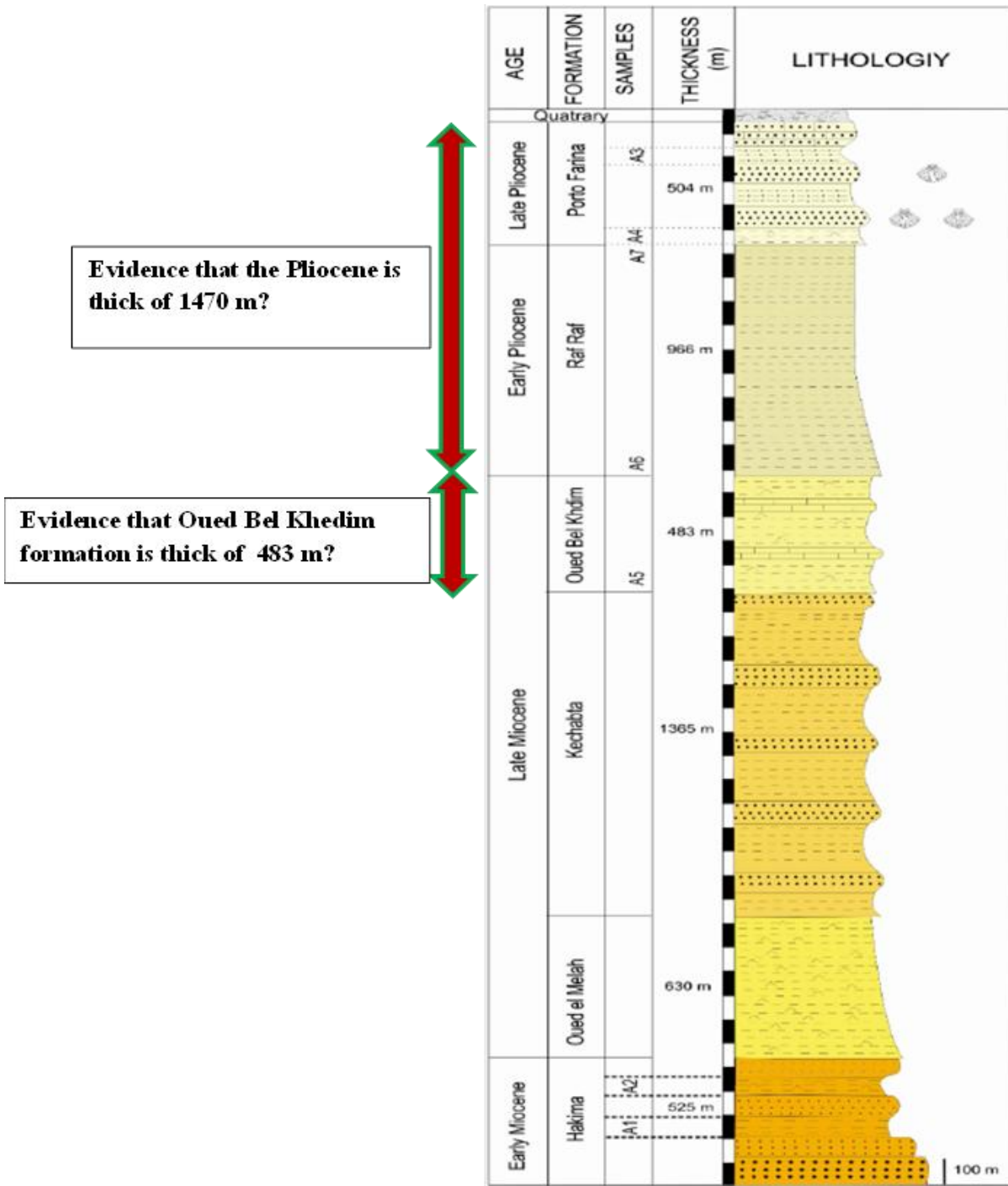


Figure 6. From Zoghlami et al. (2024)

CONCLUSION

In this paper we discussed and commented some sections and figures of the newly published article by Zoghlami et al. (2024). I wrote this comment to clarify some ideas and avoid deceiving the reading committee, particularly new researchers who can use these data as concrete supports. I know well that foreign authors do not have in-depth ideas on the tectonics of this region but I think that my remarks will be taken in the spirit of sportsmanship, and I do not mean to insult, but to seek purely scientific information.

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