Facial depiction of a Roman Period mummy with portrait from the Fayoum Oasis, Egypt

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Discovery	• Er-Rubayat (Fayoum Oasis)
^{14}C	• Roman Period (1st – 2nd cent. AD)
Details	• Child mummy, portrait presenting the face of a young girl with typical Roman hair style and jewellery.
Acquisition	• Acquired in or after 1887 by Austrian merchant Theodor Graf • 1927: purchased for the Collection of Classical Antiquities at todays Staatliche Museen zu Berlin (Germany) • 1989: handed over to the Egyptian Museum and Papyrus Collection, where the mummy is still housed (inventory number: ÄM 36101/01).

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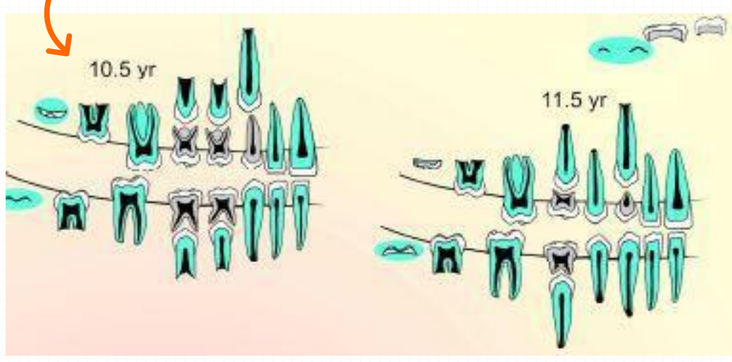
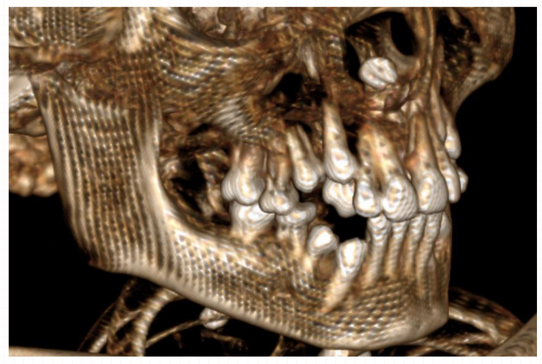
Biological profile based on CT analysis

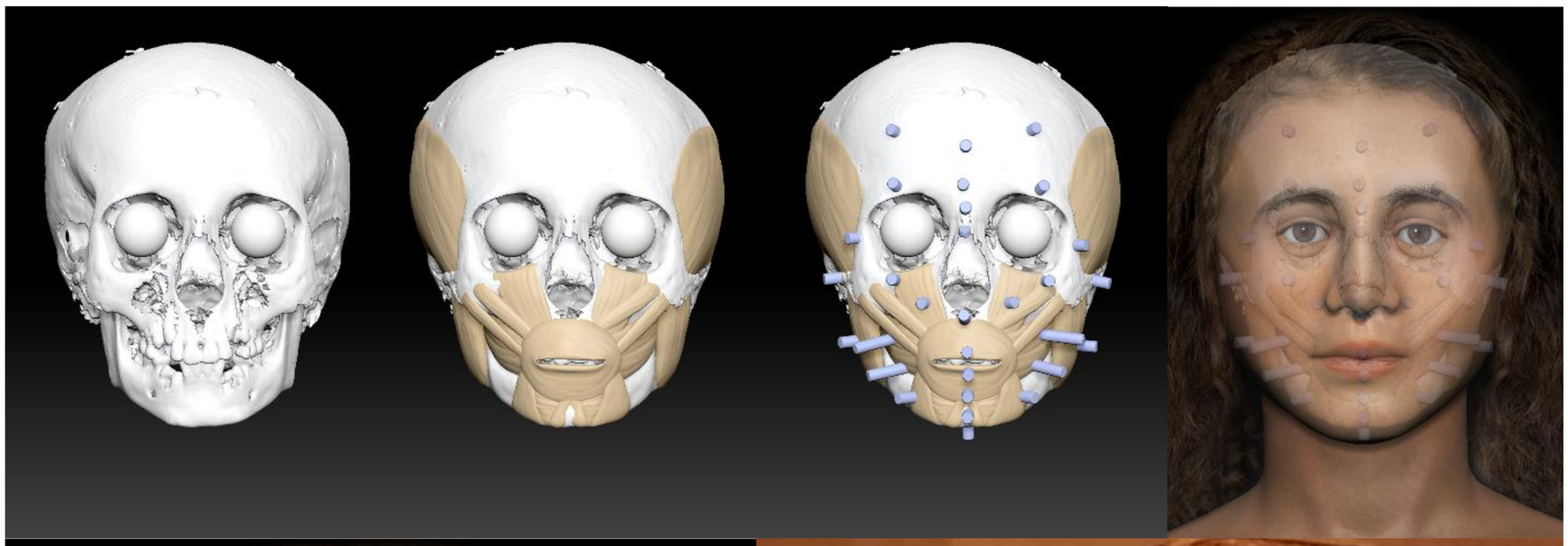
Sex Female	• Although to assess specific sexual traits in immature skeletons is ambiguous. The morphological sexual traits of the pelvis (e.g., wide subpubic angle) would suggest that this individual is a female.
Age at death 10-12 Years old	• Dental development and eruption (Ubelaker, 1978; AlQathani, Hector, & Liversidge, 2010) • Maximum diaphyseal length (Maresh 1970; Boccone et al. 2010; Primeau et al. 2016/2019) • Epiphyseal diaphyseal fusion (Scheuer et al., 2009)

Dental analysis: AlQathani et al. (2010)





Facial depiction



Depiction Process

- Muscles and facial soft tissue depth pegs are modelled virtually onto the skull following Wilkinson (2004, 2010).
- Choice of colour and textures was discussed with the Eurac team.
- Texturing process follows a hybrid 2.5D method as described by Roughley and Liu (2022).

Facial soft tissue depth

There are no known facial soft tissue depth studies of the modern population of children in Egypt. The mean of two datasets were used as a guide:

- White British 11-12yrs (n=28) Ultrasound (Wilkinson, 2004)
- Turkish 9-13yrs (n=75) CT (Bulut et al., 2015)

Influences

- The shape of the facial features were estimated from the shape of the skull.
- Without aDNA, the colour of hair, skin and eyes were based on the portrait.
- The texture and length of the hair was estimated based on the portrait.

Potential Bias

- Methods used to estimated facial features and facial soft tissue thickness may not fit the ancient population.
- The painted portrait may be stylised.
- Cognitive bias from the depiction practitioner.

Avoiding Bias

Bias could be reduced through scientific grounding, peer review, and collaboration (Wilkinson, 2020).

- Scientific standards were used throughout the process of feature estimation from the skull, however, we do have to acknowledge bias related to population specificity of these methods.
- The face was depicted with minimal facial expression to avoid inferring personality or character.
- The textural choices were peer reviewed from colleagues in Face Lab and Eurac.

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