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Marginalia in the 'bible' of pollen analysis: Gunnar Erdtman and the annotations of a displeased 'evangelist'

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Highlights

- Gunnar Erdtman, Knut Fægri and Johannes Iversen were pioneering palynologists.
- Erdtman annotated the *Text-book of Modern Pollen Analysis* by Fægri and Iversen.
- These personal 'marginalia' in the 'bible' of palynology are very revealing.
- Analysis of marginalia informs early scientific perspectives within the discipline.

Abstract

This paper examines the annotations within a copy of the first edition of the 'bible' of palynology – *Text-book of Modern Pollen Analysis* – by the Norwegian botanist Knut Fægri and his co-author, the Danish botanist Johannes Iversen, published in 1950. The marginalia are the work of Swedish geobotanist Gunnar Erdtman, made in his personal library copy of 'Fægri & Iversen'. All three palynologists were amongst the most prominent figures in the history of the field. Erdtman himself had earlier (1943) produced *An Introduction to Pollen Analysis* and very much saw himself as the master of the discipline. He was probably unaware that his comments would be open to scrutiny and this paper seeks to assess his observations of two would-be usurpers of his palynological crown. Apart from extensive notes, underlinings, drawings, and textual marks, he queried or contradicted factual statements and, pedantically, English usage and reference order. His use of such interaction is to be found elsewhere within his archives, although not to the same extent as seen in Fægri and Iversen's classic tome. As well as an addition to the critical apparatus available for the appraisal of an academic's work, the marginalia allow an insight into the thinking of a pioneer scientist, and they reveal a spontaneity and a persona which might otherwise be hidden.

Introduction

The annotation of texts, whether books or other documents, is a frequent and unexceptional phenomenon. Irrespective of sentiments regarding the defacement or useful adornment of documents, marginal or within-text (interlinear) marks and comments can be observed as *scholia*, explanatory comments, dating to at least the 4th century BC (Dué and Ebbott, 2019). Such additions are found especially in theological manuscripts and AD 1819 saw the first use of the word 'marginalia' (sing. marginalium) applied in English by 'G.J.' in *Blackwood's Magazine* (probably Samuel Taylor Coleridge; Jackson, 2001, p. 7). The use of textual annotation and their study has a long history in literature and the humanities (e.g. Coleridge, 1851; Lipking, 1977; Stoddard, 1985; Grafton and Jardine, 1990). This is less so in science, but Pierre de Fermat's note of ca 1637 in Diophantus's *Arithmetica* ('*Cuius rei demonstrationem mirabilem sane detexi hanc marginis exiguitas non caperet*' ['I have a truly marvellous demonstration of this proposition which this margin is too narrow to contain']) Singh, 2005, p. 66), and the extensive remarks of Charles Darwin (Darwin, 1990), represent notable instances. There are further treatments in the history of science (e.g. Sheets-Pyenson, 1981; Beddall, 1988; Secord, 2000; Yale, 2011) and in the social sciences (Attenborough, 2011; Attenborough and Stokoe, 2012).

This paper examines the annotations within a copy of the first edition of what became the 'bible' of palynology – *Text-book of Modern Pollen Analysis* – by the Norwegian botanist Knut

Fægri and his co-author, the Danish botanist Johannes Iversen, published in 1950. The marginalia are the work of Swedish geobotanist Gunnar Erdtman. All three palynologists were major figures in the history of this particular area of science. The marginalia reflect Erdtman's strong feelings concerning the contents of the book and, arguably, provide an insight into his feelings of being disregarded.

Pollen analysis (palynology) has been termed 'the single most important branch of terrestrial palaeoecology for the late Pleistocene and Holocene' (Roberts, 2014, p. 33). Since its recognised launch in 1916 (von Post, 1916a; Edwards et al., 2017), there has been a growth in the number of papers exploring the development of palynology (e.g. Manten, 1966, Manten, 1967; Sarjeant, 2002; Demchuk and Riding, 2008; Nordlund, 2014; Birks and Berglund, 2018; De Klerk, 2018; Edwards, 2018; Edwards and Pardoe, 2018; Troels-Smith et al., 2018; Edwards and Mao, 2021). The current paper seeks to contribute to the field by examining reactions to its most iconic textbook.

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Section snippets

Lennart von Post

Ernst Jakob Lennart von Post (1884–1951; Fig. 1) was born close to Stockholm, the only child of a lawyer and farmer – his mother died while he was in his infancy (Manten, 1967). He entered the University of Uppsala in 1901 intending to study zoology, but under the influence of the geologist Arvid Högboom and the botanist Rutger Sernander, von Post's attention switched to landscape development and associated chronological issues. His master's thesis on peat bogs won the Linnaeus Prize of the...

The marginalia

Annotations are to be found on a total of 85 pages of the 160 main pages (Preface onwards) of the 169 page monograph. The many pages which are saturated with comments, underlinings, arrows and sketches, counterbalance the 75 unblemished sheets. This

exposition can only refer to a selection of the marginalia. After an initial purview of the annotations in the opening pages and chapter(s) of the *Text-book*, and a consideration of the types of response displayed by Erdtman, the opportunity is taken ...

Discussion

In an appreciation of Knut Fægri, his colleagues remarked (Moe et al., 2002, p. 1): Deliberately using the term “Modern Pollen Analysis” in the title of the first edition marked a radical shift from Lennart von Post, for whom pollen analysis was a geological tool mainly for dating, to that of Fægri and Iversen to whom pollen analysis was a tool for long-term ecological studies and palaeoecology....

Although the Preface to the second edition recorded that:
The term “modern” in the title of the first...

...

Conclusions

Was Erdtman simply an angry man, disturbed over a lack of recognition within his own country or Scandinavia at least, when he thought he knew better than anyone else? His contemporaries found him ‘rather imperious’, ‘a man who treated me as a schoolboy, not a peer’, or ‘not someone I could ever warm to’ (Edlund and Winthrop, 2014, p. 16), ‘the Pope of Palynology’, ‘over-harsh in dealing with what he considered the errors of his contemporaries’ (Sarjeant, 1973, p. 323). But he was someone who...

Finale

It is perplexing that Erdtman was not mentioned in the 1950 Preface to the *Text-book* given his then dominance in the field. The second edition of the volume (Fægri and Iversen, 1964) was not dedicated to ‘any particular person, but to all the pioneers in pollen analysis of whatever aspect’ (p. 10). The third edition (Fægri and Iversen, 1975) was dedicated by Fægri, understandably, to Johs. Iversen who had died in 1971. The fourth edition (1989) was dedicated ‘To the memory of Gunnar Erdtman’....

Declaration of Competing Interest

There are no conflicts of interest....

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