ERGOTISM, MEDIEVAL MEDICINE, AND COGNITIVE DISTORTION:
An Expanded Interdisciplinary Hypothesis for the Voynich Manuscript

Abstract

The Voynich Manuscript continues to defy linguistic and cryptographic approaches. This expanded paper develops a unified hypothesis: that the manuscript was likely created by a scribe immersed in medieval women's medical knowledge while experiencing ergotism-induced alterations of perception, language, and symbolic processing. This framework integrates agricultural history, climatology, monastic practice, neuropsychology, manuscript studies, and visual analysis.

1. Historical Context

Between 1400 and 1450, Europe experienced repeated climatic disturbances caused by the Little Ice Age. Cold, wet seasons reduced wheat yields, forcing increased consumption of rye. Rye crops, particularly in Central and Eastern Europe, were vulnerable to ergot fungus. Chronic exposure produced hallucinations, vasoconstriction, sensory distortion, and episodic aphasia, all of which align strongly with features of the Voynich text and imagery.

2. Monastic Scribal Culture

Monasteries preserved and produced medical manuscripts, including herbal treatises, balneological guides, and astrological calendars. A monk-scribe would have both the training and tools to produce a manuscript of the Voynich's complexity. Monastic diets, heavily reliant on bread, placed scribes at increased risk for ergot exposure, especially during years of poor harvest.

3. Women's Medicine as a Thematic Backbone

The Voynich manuscript exhibits striking overlap with medieval women's medicine: diagrams of baths, fluid channels, reproductive symbolism, and zodiac-linked timing charts. These align with known gynecological and obstetric manuscripts. Under cognitive distortion, such material could easily shift into hybridized, surreal, or exaggerated forms while retaining thematic coherence.

4. Cognitive Effects of Ergot

Ergotism produces characteristic neurological distortions: dreamlike consciousness, symbolic blending, hallucination, and glossolalia-like language output. Crucially, structure may remain intact while semantic content collapses. Voynichese reflects this: consistent morphological patterns with no decipherable grammar or vocabulary. The text behaves like language without being reducible to meaning.

5. Image Analysis Under Hallucinatory Models

The plants in the manuscript appear as composites, exaggerations, and distortions—traits highly consistent with hallucination-driven recollection. The baths and anatomical figures display topological fluidity, loops, and symbolic compression. These features map closely onto modern neuropsychological profiles of hallucinations, including sensory blending and the breakdown of spatial logic.

6. Why Cryptographic and Linguistic Approaches Fail

Ciphers require stable, invertible structure. Natural languages require semantic domain clustering. Voynichese possesses neither. AI and statistical models consistently fail to extract meaning because the text may not encode any. Instead, it may be an output of disrupted cognition mimicking the form of language.

7. The Integrated Hypothesis

The manuscript is best interpreted as a medical–herbal work whose creator experienced cognitive impairment from ergotism. This explains its structure, imagery, language-like text, medical content, and resistance to decipherment. Rather than a riddle, the manuscript may be a record of a lived mental state within a real historical crisis.

8. Conclusion

Reframing the Voynich Manuscript through ergotism does not solve it; it humanizes it. It transforms the manuscript from an encoded text into an artifact of historical health, perception, and medical practice. This approach unites its contradictions and grounds it firmly in the realities of 15th■century Europe.