

REINTERPRETING ANCIENT EGYPTIAN WALL ART AS EVIDENCE OF EARLY MEDICAL AND CHEMICAL KNOWLEDGE: A VISUAL AND SYMBOLIC ANALYSIS

Sushmita Kumari*

**Ph.D. Scholar, Department of Geography, Lovely Professional University, Punjab, India Email: Sushmitagupta859@gmail.com*

Abstract

The traditional interpretation of ancient Egyptian wall art has mostly been in terms of religious and funerary contexts, though increasing interdisciplinary studies indicate that these works of the visual narrative can also contain the representation of organized empirical information. This paper revises the analysis of chosen wall paintings in the temple and tomb complexes of the Old Kingdom to the Late Period as symbolic depictions of the medical, anatomical and chemical practices of the time. The study involves a systematic analysis of the images of gods like Anubis and Hathor, priest-healers, canopic jars, ritual fire and water, diagnostic gestures of touch and gestures of tactile diagnostics, and objects of an instrument character through the use of a qualitative interdisciplinary approach, which incorporates visual semiotics, symbolic decoding, and comparative analysis of ancient medical texts: the Ebers Papyrus and the Edwin Smith Surgical Papyrus.

It is shown in the analysis that there are strong visual similarities between artistic iconography and documented Egyptian practices, pertaining to organ preservation, trauma assessment, herbal pharmacology, fumigation, sterilization and early chemical processing. The argument about Egyptian temples acting as a place of healing, experimentation, and knowledge transfer is further supported by the presence of some of the same surgical instruments carved in the Temple of Kom Ombo to prove that they also served as a religious facility.

This research fills a major gap in Egyptian logical and medical-archaeological research by placing wall art within the framework of an encoded visual archive of proto-scientific knowledge, not of mythological representation. The results suggest a new interpretive paradigm that includes visual archaeology, ancient medical history and semiotics and it adds to world-wide discourses on the origins, transmission and symbolic preservation of early medical and chemical systems of knowledge.

1. Introduction

The ancient Egyptian civilization has always been of interest to researchers due to the continuity in architecture, monumental stability, the richness of the funerary practices and symbolic richness of religious art. The Egyptians interpretations of the wall paintings in Egypt together with reliefs and iconography in temples have always been taken as ritualistic or mythological in nature meant to guarantee divine protection, the cosmic order and the successful passage to the afterlife. Although this religious reading has been the chief of Egyptological literature over the last several decades, it has also led to a narrow approach towards the possible epistemic and empirical aspects institutionalized in these visual cultures.

At the core of this well-developed visual culture lies a body of proto-scientific expertise, especially in medicine, surgery, anatomy, and in early chemical activity, which is massive but relatively insufficiently explored. Egyptians appear to have been quite skilled in the areas of pharmacology, trauma and anatomy and chemical preparation, which were directly evidenced by written medical sources, including the Ebers Papyrus and the Edwin Smith Surgical Papyrus (Nunn, 1996; Breasted, 1930). These writings indicate that the ancient Egyptian medicine is not entirely magical and ritualistic but observational, systematic, and experiential. But the visual analogs of this medical knowledge, which now stand upon the walls of temples and tombs, have seldom been studied as possible sources of scientific knowledge.

The recent interdisciplinary archaeological-medical-visual-semiotics views imply that often in ancient societies technical and empirical knowledge was coded in the religious symbolism to preserve, legitimize, and transmit a person to the following generations. The Egyptian temples served as both places of worship as well as the administrative hubs of education, medicine and testing of the experiment by the elite groups of priests. Wall art therefore can have been dualistic, as it fulfilled the role of strengthening the religious ideology, but also it also served as visual manuals or symbolic instructions in medical and chemical use.

The visual interpretation of the chosen examples of Egyptian wall paintings of royal tombs and complexes of temples illustrates the repetitive motifs connected with healing and body manipulation. A typical example is the image of the jackal-headed god Anubis who was supervising the process of embalming and was accompanied by canopic jars and ritual tools. Even though conventionally viewed as a strictly spiritual gesture of protection and passage to the afterlife, the exact movements of the hands, spatial arrangement of the instruments and closeness to the human body indicate allusions to anatomical nursing, chemical preservation and post-mortem care (David, 2000). These images could be anatomical experiments and biochemical in nature that were embedded into sacred iconography.

Likewise, statues of the goddess Hathor, often identified with maternity, fertility and curing, often show the goddess holding vessels and being encircled by items that remind images of mortar, jars, tweezers, and cutting tools. All these factors closely resemble the pharmacological traditions recorded in Egyptian medical papyri, in which the practice of

making herbal preparations, mixing compounds and performing rituals in healing are widely described. These scenes were composed in a way that hints to the possibility that they served as didactic images to support medical knowledge using symbolic repetition without being sacrilegious (Pinch, 2001).

Other scenes depict human figures probably physicians of the priests or royal doctors performing therapeutic actions using water, fire, and body movements. These multisensory rituals represent symbolic combination of cleansing, diagnosis and physical therapy. The regular presence of the Eye of Horus on top of such scenes, which was traditionally considered a protection amulet, can also be interpreted as an increased body awareness, sensory perception, and medical monitoring, thus supporting a proto scientific definition of health and healing (Wilkinson, 2003).

When discussed together, these visual texts are indicative of an integrated medical-chemical worldview where the deities are used as archetypal figures of the physicians, apothecaries and healers as opposed to entirely supernatural beings. Their deeds, devices and space set ups distort the traditional pattern between myth and science, implying the empirical knowledge was knowingly encrypted in the sacred visual form so that it could be preserved, powerful, and regulated.

It is on this intellectual background that the key research question that informs this study is whether the ancient Egyptian wall art can be seen as only religious symbolism or also as the organized visual system of encoding and transmitting empirical medical and chemical knowledge. In a bid to respond to this question, the paper will assume an interdisciplinary approach involving the integration of visual semiotics, symbolic decoding and comparative analysis of the ancient medical texts especially Ebers Papyrus and Edwin Smith Surgical Papyrus.

This work can be regarded as debunking the ancient dichotomy between myth and science in the discourse of Egyptology by reinterpreting the chosen wall paintings as symbolic expressions of early empiricism. It is based on a premise that Egyptian wall art was an image-based storehouse of medical and chemical knowledge, available to elite groups of priests and learned professionals only. By so doing, the paper will help to extend the larger debates within the field of visual archaeology, medical history, and the history of science worldwide on the issue of the non-textual transmission of scientific knowledge in ancient civilizations.

The paper has the following structure: in the next section, the relevant literature on ancient Egyptian medicine and symbolic art will be reviewed; following it, the outline of the interdisciplinary methodology used will be given. Thematically visual accounts of the chosen wall art are made in the following sections, then discussed and restricted, and finally, a conclusion is made.

3. Literature Review

3.1 Ancient Egyptian Medical and Chemical Texts

The Egyptian medicine knowledge is one of the best in the ancient world. The Ebers Papyrus (c. 1550 BCE) has contained over 700 prescriptions, and a wide range of treatment has been outlined using minerals, compounds of plant and animal products suggesting the presence of a rich pharmacopoeia (Nunn, 1996). Edwin Smith Surgical Papyrus (c. 1600 BCE) is a rational and observational trauma treatment, including anatomy diagnosis and surgery, on the same note (Breasted, 1930). These papyri show that there was an empirical medical body of knowledge, associated with spiritual and magical practices.

Although the contents of these writings are not unknown in the history of medicine, there has been little to do scientifically to explore the visual analogue of such writings, i.e., the carvings and murals they represent on the walls of temples and tombs. The only academic exceptions are the very few which refer to concomitant symbolic and practical healing practices, such as the opuses by David (2000) and Ghalioungui (1973), without further coming up with a rigorous visual-symbolic framework.

3.2 Visual Art as a Store of Knowledge.

Egyptian wall art has been generally interpreted as religious iconography whereby gods perform ritual acts that ensure rebirth, Godly goodwill or protection in the underworld (Assmann, 2001). However, Foucault (1972) theory of the archaeology of knowledge implies that in most of the early societies, knowledge especially scientific or medical knowledge was encoded in religious, symbolic systems. In this case the Egyptian wall art may be viewed not simply as decoration or ritual, but as a system of knowledge written in stone, as a form of conveying useful knowledge.

The semiotic theory and the connotation of images concept in particular (Hitchcock 1964) by Roland Barthes support the idea. It may be given a meaning of life or fertility, although when combined with vessels, gestures of the anatomy, and vegetal imagery may be interpreted as therapeutic, or even chemical.

3.3 Temple Art and Surgical Instruments and Healing Rituals.

The oldest surgical equipment is the Temple of Kom Ombo dedicated to Sobek and Haroeris that is made of concrete. The reliefs carved by the speaker also show Sculpels, forceps, and suction cups, which are also quite comparable to the contemporary surgical equipment (Jarus, 2017). The instruments are presented under the same conditions with the appearance of the divine characters and they confuse the boundaries between the fragments of religion and surgical skills. The goddess of healing (Hathor) might appear on the wall art in the form of a vessel bringer, the hand signifier or a creature close to the incense burners. Her relationship to the healing process is reasonable in the iconography of this scholar along with Pinch (2001), however, no one has discussed whether these gestures could be compared to the popular medical or chemical treatment, such as sterilization, herbal infusion, or anatomical manipulation.

3.4 Research Gap

Most of the existing works are yet again dichotomous; be it through interpretation of the text-based medical papyri or interpretation of the visual art on the basis of religious beliefs. It has few studies that seek to understand the Egyptian wall art as a source of scientifically informative visual system. This research gap leaves no chance to assume the possibility that the practical knowledge of medicine and chemistry were enlisted in the religious iconography by the artists of the ancient Egyptian world and were introduced in the metaphorical symbols, which could be understood by the educated priesthood.

The proposed study will address a significant gap in the Egyptological and scientific discourse by reconsidering such artistic scenes through the prism of the visual semiotics, comparative anatomy, and chemical archaeology approach.

4. Objectives of the Study

The key objective of the given study is to redefine chosen examples of Ancient Egyptian wall art with the help of scientific and symbolic approach and to find some traces of early medical and chemical experience

The specific objectives of the study are the following:

4.1 Primary Objective

- To investigate how visual elements in Egyptian wall art such as deity gestures, tools, and ceremonial practices—encode empirical knowledge related to medicine and chemistry.

4.2 Secondary Objectives

To accomplish the main aim, the research has the following secondary objectives:

- A. To decode in a systematic way the semiotic images of anatomical, surgical, and early chemical processes found in the chosen examples of the wall art of the Ancient Egypt.
- B. In order to critically analyze the presentation of deities like Anubis and Hathor as symbolic archetypes of physicians, healers and proto-chemists, and not to see them solely as purely mythical and religious figures.
- C. To construct a systematic and systematic system of symbol decoding which would combine the traditional Egyptological understanding of hieroglyphic and visual symbols with the medical and chemical understandings that are scientifically based.
- D. To show that Egyptian temples and complexes of tombs did not just serve as spiritual and ritual places but also as institutional repositories and centres of transmission of empirical scientific knowledge, which was available, first and foremost, to priestly aristocrats and academic professionals.
- E. To close the disciplinary divide between art history, medical archaeology, and chemical ethnography by suggesting an interdisciplinary process of interpretation that sees sacred visual art as a technology of safeguarding and transmitting old scientific knowledge.
- F.

5. Methodology

The paper is interdisciplinary qualitative research that includes both visual semiotics and symbolic interpretation and background analysis and archaeological setting. The approach is specifically intended to unravel some of the Egyptian wall paintings as a potential origin of the ancient medicine and chemical knowledge.

5.1 Data Collection (secondary data)

Graphical Data Sources and Acquisition.

The data in the form of images representing the wall art produced in Ancient Egypt is the visual information on the topic that will be used in the given research:

A. Temple and Tomb Reliefs:

Wall reliefs and carvings of large temple and tomb complexes, such as Kom Ombo, Philae, and Theben tombs were studied. These reliefs, as well as other ritual objects used in temples, also contain symbolic and practical messages that are applicable to the healing practice and the early chemical practice.

B. Museum Archives:

To maintain authenticity and reliability, images recorded in museums that are internationally recognized like the British Museum, Louvre Museum, and Metropolitan Museum of Art were used.

C. Field Documentation:

Further photographs were made on field visits which captured the visual material in its natural archaeological setting.

Image Selection Criteria

The chosen photos have a number of important features that are pertinent to the aims of the study:

- Illustrations of healing movements and curative measures that were related to deities like Anubis, Hathor and Thoth.
- Canopic jars, incense burners, ankhs and objects that could have been created as surgical or chemical tools were present.
- Bodily manipulation scenes, pouring of liquids, and ritual fire and water use of bodily manipulation and multi-sensory healing processes, and proto-scientific practices.

5.2 Analytical Framework

5.2 The research is structured using the following analytical tools:

A. Visual Semiotics (Barthes, 1964)

Denotation: Explicit description of images (e.g. boat, a fire, a pose).

Connotation: An interpretation of meanings which are symbolic (e.g., healing, chemical reactions, purification).

The use of this semiotic model allows one to find two meanings in the symbols, both spiritual and scientific realms that are hidden in the wall art.

B. Archaeology of Knowledge (Foucault, 1972)

Studies the structure, flow of knowledge in ancient cultures in the form of symbols.

Hypothesizes that religious locations and ritual activities served as both teaching environments, in which the divine images coded both practical operations and knowledge at the same time.

C. Comparative Analysis

Egyptian tools and scenes are related to known medicine practises in Ebers and Edwin Smith Papyrus.

Symbolic parallels are drawn between the early medical traditions (Greek medical tradition, Indian medical tradition) of oriental antiquity and Egypt especially.

5.3 Symbol Decoding Framework

The logical evaluation of the main visual items was conducted in the pictures with the aid of the properly planned symbol decoding table. This table aligned:

Symbol (e.g. ankh, canopic jar, hand gesture)

Old Religious interpretation.

- Redefining science (e.g. life energy, chemical containment, surgical action)

Patterns were identified using this paradigm and was also applied in the form of evidence-based reinterpretation.

5.4 Academic and Ethical Concerns.

- All images include those that are in the public domain or museum and cited.
- Existing literature regarding Egyptology and historical-medicine forms the basis of the interpretations without speculations.

Result Analysis / Interpretation.

This chapter positively analyses one of the selected Egyptian wall art and considers the visual signs and patterns of the stories as the early forms of medical and chemical practices. The discussion is structured according to the themes, as well as visually through the combination of the symbolic decoding and comparison of the ancient medical literature.

6.1 Anubis holding Canopic Jars and embalming ritual (Image 1)

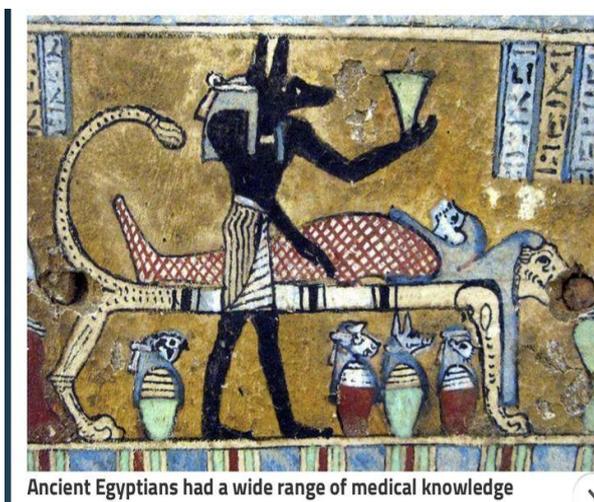
In this one, the God Anubis is shown with four canopic jars near a horizontal human shape in front of Anubis with his head greatly exaggerated to resemble jackal. Traditionally, this picture is employed as an extension of an embalming procedure when it is Anubis, who oversees body preparation to the afterlife. However, a closer examination will give items that are suggestive of a proto-anatomical or surgical situation.

The existence of canopic jars where the inner organs were kept implies that there was a great amount of knowledge regarding the preservation of inner organs and preservation by chemicals. This is in connection to the fact that the mummification process included the presence of natron, resins or bitumen in mummification practices that dated back to the early antecedents of chemistry (David, 2000).

The gesture used by Anubis on the body can be seen as a ceremonial gesture either of treatment or anatomy analysis, found in the Edwin Smith Papyrus on trauma management (Breasted, 1930).

The position of tools surrounding Anubis looks like surgery procurements in the Kom Ombo Temple where scalpels and forcep and suction cups are carved out of stone (Jarus, 2017).

Thus, on one hand, being an embodiment of protection and transition, Anubis is also embodiment of embalmer-surgeon.



Ancient Egyptians had a wide range of medical knowledge

Image 1

6.2 Hathor Seated on Vessels, Ankhs and Herbs (Image 2 & 3)

In the second and the third images, there is the goddess Hathor sitting and is surrounded by ritualistic objects which are ankh, a vase and a lotus flower as well as burning incense. This scene has traditionally been understood as an offering blood sacrificial scene. The scene and the materials are, however, showing pre-pharmacological principles.

The Vessels and mortars adjacent to Hathor are akin to vessels used to blend herbal formulae which is credible to herbal remedies that were recorded at the Ebers Papyrus (Nunn, 1996).

Another explanation of the ankh that can be considered the symbol of life, however, is the moved healing forces such as the contemporary day symbols of bioenergy therapies or even pressure related healing (Barthes, 1964).

Inhalation therapy, sterilization or early aromatherapy may be marked by the use of herb burning.

Hathor is even touching the patient directly, perhaps because of physical examination or to delude the patient- the form of healing involving the mother Pinch (2001) describes.

This is the information that accords Hathor as a motherly protectionist not merely but also as a proto-pharmacist or healer involved in the production and distribution of medicine.

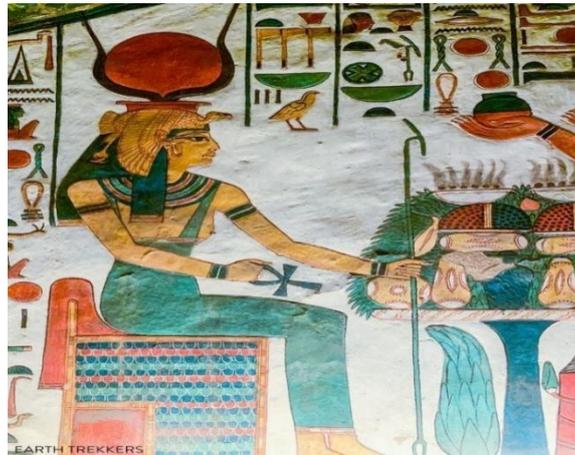


Image 2

6.3 Multi-Figure Scene Healing in Fire, Water, and Touch (Image 4).

We are able to observe in this work performance of two male actors doing some curing or ritualistic intervention of someone seated. The strongest graphics that should be used in defense of this interpretation are:

Fire bowl: It relates to purification that in this specified case may include sterilization by thermal process or sterilization by heat (David, 2000).

The reason may be the hydration, the ablation or the herbal infusion which was common in the Egyptian and the Ayurveda practices (Ghalioungui, 1973).

Tactile gestures: These involve touching, or being involved in touching close to the head and the shoulders that may indicate diagnostic touch which is identified in the early stages of trauma, and during a neurological examination (Breasted, 1930).

The above scene also has eye of Horus above, which is not only amuletic, but also interpreted as representing sensory healing and the anatomy (of eyesight, pineal gland or state of mind) (Wilkinson, 2003).

The entire picture is decipherable as primitive medical curative process, ritual, symbolic defense and empirical treatment.

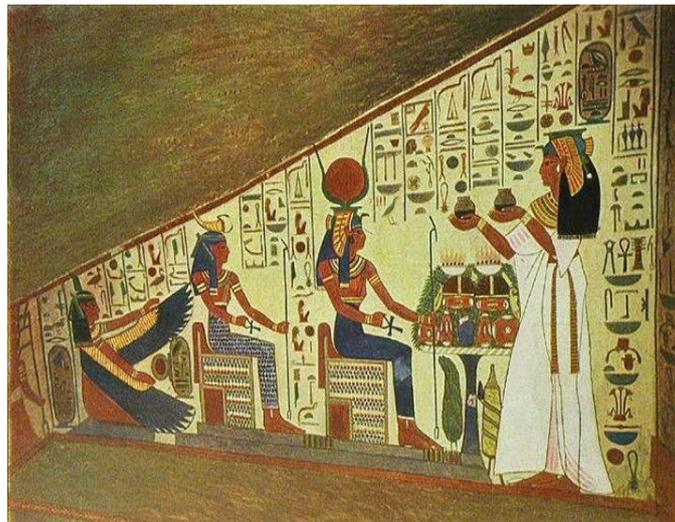


Image 3

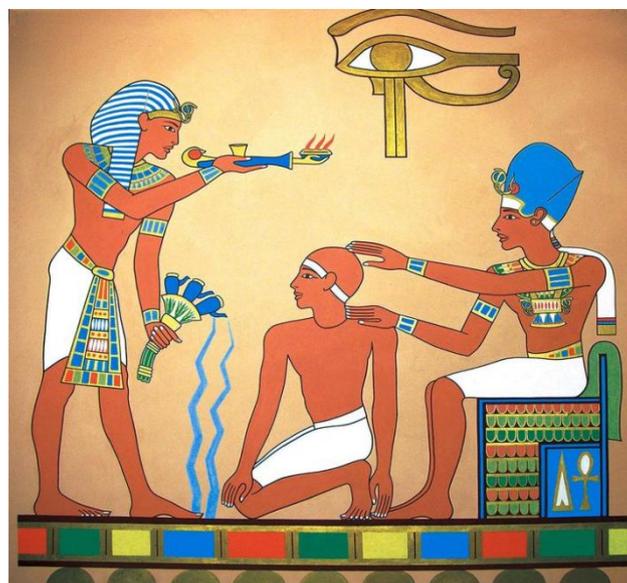


Image 4.

6.4 Symbol Decoding Table Summary

Symbol	Traditional Meaning	Scientific Reinterpretation
Canopic Jars	Preserve organs	Chemical containment and anatomy awareness
Anubis	Protector of the dead	Archetypal surgeon / mortuary chemist
Hathor	Healing goddess	Proto-pharmacist administering herbal treatments
Fire/Incense	Purification	Sterilization, fumigation, aromatherapy
Ankh	Life	Bioenergy or therapeutic transfer
Water	Spiritual washing	Herbal infusion, internal cleansing
Eye of Horus	Protection	Symbol of anatomical awareness and health

This combined visual and symbolic analysis tells that Egypt wall art was a multi-level means of communication, that incorporated a sacred, medicinal, and chemical meaning. The art was not only in its uses, religious in nature, but also acted as guides to the eye or symbolic documents of the useful knowledge.

7. Discussion

The redefinition of Egyptian wall writing as a treasure trove of medical and chemical early knowledge opens up a new avenue of questioning the manner in which science was instantiated in the sacred and symbolic image cultures. This discussion has taken into consideration the analysis results provided with references to historical sources and theoretical background particularly how complex empirical knowledge was transported through visual semiotics, religious archetype, and material culture in ancient Egypt.

7.1 Wall Art -Medium of Proto-Scientific Education.

The Egyptian knowledge systems were unable to segregate the problems of science and religion among themselves as is happening in the scientific records in the current times. Religious myths were also predisposed to code medical information through the fact that the gods had rituals of their own, which were copied to imitate human acts. The disparate similarity of instruments that appear like scalpels, forceps, jars and tactile gestures, pattern of actions and other features appears to imply that most wall of the temples were visual manuals, i.e. not of the entire population but those in the elite of the society in the area of priest- physical healers (Nunn, 1996; Assmann, 2001).

This will be in tandem with Foucault (1972) in his mind that the sharing of knowledge in the primitive societies was purely done through a disciplined institution of the visual-symbolic manifestations which were internalized in the power-containing forms i.e. the temples, in this case. The codification of the procedural knowledge of early chemistry and anatomy-correlated history is committed by the use of the repetition of the healing gesture and by touching the vessels and by making such factors as water and fire purposeful.

7.2 Reframing Deity Roles: From Divine Agents to Medical Archetypes

Most forms of traditional Egyptology have always held that other gods like Anubis or Hathor were mythical animals that were associated with protection, death, and fertility. However, they are visually represented to suggest that they bring out deeper archetypes, attributes of work in surgery, embalming, women medicine, and chemistry.

- One can recreate anubis as a lying human being using canopic jars that can then be recreated as a proto-anatomist or mortuary surgeon. His contact with the dead could not only indicate spiritual transformation but also post-mortem tests on the body by experiment as it would subsequently discover in autopsy (David, 2000).

Hathor is commonly depicted to possess vessels and herbs and other signs of life like ankh that she is shown to be a nurturer-healer or a pharmacist who attend to the chemical preparations and healing rituals (Pinch, 2001).

These reinterpretations cause these gods to become more human as they will be symbolic actions of people practicing them and they will be acting in the presence of God. This is in accordance to the semiotic rule created by Roland Barthes where the religious emblems tend to be dual connoted both spiritual and useful (Barthes, 1964).

7.3 Comparative Civilizational Foresights.

When comparing it to the other known ancient civilizations, e.g. India and Mesopotamia, one can demonstrate that there are similar overlaps between the symbolisms and the empirical practice. The gods that symbolize Indian Ayurveda Healing rituals include Dhanvantari who holds a pot of elixir- the same way the vessels depicted in Hathor. In Mesopotamian culture, the caduceus is applied in mythological as well as medical aspects. It is these similarities which also serve to hint that the ancient people coded their scientific knowledge along those ways that would make it sacred and reproducible, i.e. divine imagery.

7.4 Research Implications to the Modern Science History and Visual Archaeology.

The fact that they are proto-scientific texts helps to decolonize the history of science as the producers of empirical knowledge within or without the West. It also makes us know more of how symbolic systems, which we had already dismissed as no more than religious systems, might be in usefulness documentaries of medical and chemical art.

In addition, the semiotics and archaeology combination can offer a blueprint of the modern visual analysis and suggests the potential of alternative research to comprehend the symbolic art in various ancient societies using cross-disciplinary study.

7. Limitations and Future Research

7.1 Limitations

This study, while offering a new interdisciplinary perspective, is subject to several limitations:

1. Lack of direct textual confirmation: Many symbolic interpretations do not have one-to-one validation from contemporary Egyptian medical papyri.
2. Subjective nature of visual decoding: Semiotic and iconographic analysis is interpretive, and outcomes may vary depending on the researcher's perspective.
3. Fragmented and incomplete wall art sequences: Several murals are partially damaged or missing, which restricts full contextual understanding.
4. Limited archaeological cross-verification: Only a few sites—such as Kom Ombo provide physical medical instruments that can be compared with the wall art.
5. Cultural-symbolic ambiguity: Religious symbolism and scientific symbolism often overlap, making precise separation difficult.

7.2 Future Research Directions

Future research on this topic may expand in the following ways:

1. This paper will examine iconography services based on artificial intelligence (AI) and their application to the iconographic analysis of existing iconography studies. <|human|>AI-aided iconographic analysis:
2. Agreement Patterns in medical and anatomical and chemical patterns can be recognized using pattern-recognition algorithms and machine learning.3D reconstruction of temple spaces:

3. The virtual reconstruction of Kom Ombo, Abydos, Karnak and Dendor can be useful in collaging the role of wall art, tools and ritual space when acting together. Comparative fieldwork across multiple temple sites: Broader field studies can validate whether similar medical-chemical symbolism appears consistently across Egypt.
4. Studies conducted on a comparative basis, intercultural: Egyptian visual medical symbolism can be compared by researchers to the initial Indian, Mesopotamian, and Greek traditions of healing.
5. Combined with osteoarchaeological and bioanthropological data: Surgical marks, biochemical residues, and human remains can help to show that described procedures were indeed being used.

The article is an effort to question the two sides of the sacred and the scientific through the swing of deities not only as the figurative of divine figures but a figure of scientific insight too. This helps you understand the notion that temples and tombs are graphical labs, where experimental knowledge had been archived symbolically, and this could be retrieved by the elites in the priesthood and the healers.

It is an interdisciplinary lost that raises the new twist to the unravelling of the ancient Egyptian culture but in the unity of the Egyptology and the science of medical archaeology and visual anthropology. It also leads to a further reconsideration of other traditional systems of symbolism in the world that makes the researchers to doubt the non-mythical explanation of the visual accounts to find out the scientific wisdom between the visual accounts.

And finally, when we regard these images as sacred, we do not only add to our stock of ancient science, but we are honouring the intellectual heritage of old people whose input has been felt everywhere in human enlightenment.

8. Conclusion

This paper has engaged a systematic and interdisciplinary reinterpretation of some ancient Egyptian wall art, that goes beyond the traditional ways of reading those texts as either religious or funerary in nature. Through visual semiotics, symbolic decoding, and comparative analysis with other historical medical texts, e.g. the Ebers Papyrus and the Edwin Smith Surgical Papyrus the research demonstrates finding that these visual texts encode empirical knowledge concerning medicine, anatomy and early chemical practices.

This analysis reveals that gods such as Anubis and Hathor, which, in many ways, can only be considered mythological or religious figures, can also be interpreted as the archetypal embodiment of early physicians, physicians and proto-chemists. Equally, other artifacts, like canopic jars, vessels, ankhs, ritual fire, and water, are portrayed not just as a symbolic rite tool, but as a part of anatomical care, chemical preservation, pharmacological treatment, and multisensory curative activities. The tactile gestures such as the Eye of Horus and empirical recognition of anatomy and an empirical observation of the anatomy, which appears in religious iconography.

This research attempts to present a challenge to the dichotomy of myth and science in Egyptology by placing wall art in a context of proto-scientific knowledge. It assumes that not only were temples and tomb complexes places of worship, but also places of visual laboratories and warehouses of medical and chemical knowledge, available to priest caste and scholastic practitioners. This dual role underscores the advanced process through which the knowledge acquired by the ancient Egyptians was stored and passed across generations as well as ritualized in the Egyptian society.

Also, when contrasted with other ancient civilizations like Indian Ayurveda and Mesopotamian medical symbolism, the homogeneity of the parameter of encoding empirical knowledge in sacred visual languages, indicates that these cultures were not an isolated world-wide sphere of proto-scientific education.

Finally, the proposed study provides a novel interpretive paradigm integrating the visual archaeology, medical history, and semiotics that proves that Egyptian wall art was used as the medium of preservation and communication of practical scientific knowledge. It is not only in recognizing these works as the depositories of empirical insight that much can be known about the culture of the ancient Egyptians but it is also respectful to the intellectual heritage of a culture that excelled at the integrations of art, science and ritual.

References:

1. **Breasted, J. H. (1930).**
2. *The Edwin Smith Surgical Papyrus.* University of Chicago Press.
3. **David, R. (2000).** *Handbook to Life in Ancient Egypt.* Oxford University Press.
4. **Ghalioungui, P. (1973).** *Magic and Medical Science in Ancient Egypt.* Hodder & Stoughton.
5. **Nerlich, A., & Zink, A. (2008).** The history of ancient Egyptian medicine. *Journal of Anatomy*, 213(4), 475–490. <https://doi.org/10.1111/j.1469-7580.2008.00957.x>
6. **Nunn, J. F. (1996).** *Ancient Egyptian Medicine.* University of Oklahoma Press.
7. **Pinch, G. (2001).** *Handbook of Egyptian Mythology.* ABC-CLIO.
8. **Wilkinson, R. H. (2003).** *The Complete Gods and Goddesses of Ancient Egypt.* Thames & Hudson.
9. **Barthes, R. (1964).** *Elements of Semiology.* Hill and Wang.
10. **Foucault, M. (1972).** *The Archaeology of Knowledge.* Pantheon Books.
11. **Jarus, O. (2017).** Ancient Egyptian surgical tools discovered in Kom Ombo Temple. *Live Science.* (Website citation, APA format)
12. <https://www.livescience.com/>