From Prehistoric Shamanism to Early Civilizations: Eye Floater Structures in Ancient Egypt*

By Floco Tausin

Abstract

This article is based on the assumption that prehistoric shamanic rituals include the perception, interpretation and depiction of what we today know as eye floaters (*muscae volitantes*). It is suggested that, together with other shamanic symbols, floaters continue to be experienced and depicted not only in later shamanic societies up to the present day, but also entered the visual arts of early civilizations. The present article supports this thesis from the example of ancient Egypt. A closer look at Egyptian visual arts reveals geometric structures and characteristics that are typical of eye floaters. It is speculated that two central mythological concepts, the sun and the world, are directly or indirectly inspired by the perception of floaters.

Key words: eye floaters, entoptic phenomena, phosphenes, visual arts, ancient Egypt, shamanism

What are eye floaters?

Many people experience mobile and scattered semi-transparent dots and strands in the visual field, best perceived in bright light conditions (See Figure 1). They float according to eye movements, which makes them hard to focus on. People often consult their eye doctors because they are worried by these dots and strands.

Usually, the doctors check the patients’ eyes, find nothing to worry about and reassure the patients that these dots and strands are called eye floaters or vitreous floaters, also known as *muscae volitantes* (Latin: “flying flies”). They are explained as opacities in the gel between the lens and the retina (*vitreous humor*) due to the age-related liquefaction (*synchysis*) and the collapse of the collagen-hyaluronic structure of the vitreous (*syneresis*), which at some stage causes the...
detachment of the vitreous from the retina (posterior vitreous detachment) (Sendrowski/Bronstein 2010). These dots and strands are idiopathic. That is, they cannot be attributed to a pathological cause and are harmless and do not need treatment. All of this typically results in the ophthalmologists advising the patients to “just ignore the floaters.”

In a number of articles, I have shown that ophthalmology often uses “eye floaters” as a broader collective term for different vitreous opacities which are attributed to different causes. I have argued that the idiopathic dots and strings most commonly seen by individuals may not be vitreous opacities at all. Instead, they can be understood as entoptic (i.e. “from within the visual system”) geometric light phenomena similar to phosphenes or form constants (See Figure 2) (Tausin 2010)

**Figure 2: Subjective visual phenomena:**
A) Bluefield entoptic phenomenon. When looking at the blue sky for a longer time, tiny luminous dots appear, moving in curved tracks. They are also seen very clearly in conditions of low blood pressure. Physiological explanation: leucocytes moving in eye capillaries. B) Eye floaters. Physiological explanation: vitreous opacities. C) Geometric patterns collectively known as "form constants," observed during altered states of consciousness which are induced by hallucinogens, near-death experiences, psychological stress, epilepsy, migraine headaches, etc. Physiological explanation: stimulated visual cortex (V1) neurons create specific patterns on the retina. D) Phosphene pattern, colored light specks seen in the dark (or with eyes closed). They are induced by mechanical, electrical or magnetic stimuli, e.g. when pressure is put on the eyeball; or neuro- biologically by light stimuli (looking at a bright light for some time, “afterimage”) or light deprivation. Physiological explanation: random firing of retina neurons. Source: author. (Tausin 2010, 2011b)

Phosphenes and form constants look similar to doodles of pre-school children. This fact has led some psychologists and pediatricians to relate the two and propose the study of development of neuronal patterns via the children’s scribblings (Kellogg 1965; Baker/Kellogg 1967). On the other hand, Kellogg’s work has been cited to challenge an archaeological theory of the late 1980s: Dowson and Lewis-Williams (1988) suggested that the abstract European cave art of the Upper Paleolithic is inspired by form constants, seen by shamans during altered states of consciousness. Whether these prehistoric signs are shamanic art or children’s drawings: fact is that these same patterns

**Figure 3: A Barasana (Tukano) Indian (Vaupe, Colombia) draws phosphene patterns into the sand according to his visions during a yaje (ayahuasca) ritual (Reichel-Dolmatoff 1978).**

---

Phosphenes and form constants look similar to doodles of pre-school children. This fact has led some psychologists and pediatricians to relate the two and propose the study of development of neuronal patterns via the children’s scribblings (Kellogg 1965; Baker/Kellogg 1967). On the other hand, Kellogg’s work has been cited to challenge an archaeological theory of the late 1980s: Dowson and Lewis-Williams (1988) suggested that the abstract European cave art of the Upper Paleolithic is inspired by form constants, seen by shamans during altered states of consciousness. Whether these prehistoric signs are shamanic art or children’s drawings: fact is that these same patterns
are often seen by contemporary mystics and shamans during altered states of consciousness in the context of meditative practices or ecstatic rituals (Dowson/Lewis-Williams 1988; Hedges 1982). (See Figure 3)

As yet, idiopathic eye floaters have not been acknowledged as a specific, artistically and spiritually relevant phenomenon that are similar in many ways to phosphenes. This may be due to the fact that eye floaters are not attributed to states of the human nervous system (like other entoptic phenomena), but to the clouding of the vitreous. However, my own experiences with eye floaters during altered states of consciousness, guided by my mentor Nestor, led me to the conclusion that while eye floaters may be seen in everyday states of consciousness, they react to inner states. For instance, they improve in size and luminosity during meditation and other altered states of consciousness (Tausin 2009b). It is reasonable, then, to consider the possibility that floaters have been observed along with other entoptic phenomena by shamans and mystics. I suggest that looking at more distinctive structures of eye floaters and comparing these structures with relevant visual arts of different cultures and traditions may support this hypothesis.

Eye floater structures

In-depth observation of floaters reveals distinctive structures that have not been convincingly explained by ophthalmologists (Tausin 2011a). The two most striking structural features are the twofold dualism and the different states of concentration. Both features are best seen in the floater dots. Let’s look at the first feature: The dots are circular and concentric. They are dualistic, for they contain a core and a surround. Furthermore, there are two types of dots: those with bright surround and dark core, and those with dark surround and bright core. (See Figure 4.) The core-surround contrast and the two contrasting types of dots is what I call “the twofold dualism” of eye floaters.

The second distinctive structural feature are the different states of concentration. On closer observation, one and the same floater spheres (or strings) can appear as big and rather hazy or as small and clearly outlined. The transition from one state to another is fluid and proceeds at variable speeds. For the sake of simplicity, I distinguish an initial or relaxed state and a final or concentrated state. In general, when looking at floaters, it seems that most floaters are initially relaxed, that is, bigger, closer and more transparent. With increasing time of observation, they change into the concentrated state: They become smaller, the core disappears, as the light gets more intense. After completion of the concentration – a quick glance to somewhere else may suffice – the spheres and strings change back into the initial relaxed state. (See Figure 5.) These states of concentration may indicate the observer’s inner state of concentration, suggesting – among other findings – that these types of eye floaters are not eye debris but arise from the nervous system (Tausin 2011b).
Therefore, I propose that the floaters might be relevant for healing and spirituality (Tausin 2009a).

While such observations are ignored by modern academic ophthalmologists, they might have been featured in earlier cultures and as they are seen in non-Western cultures today, as mentioned above. The present article provides further arguments for this thesis by examining the images and culture of ancient Egypt. I suggest that some of the prominent representations in Egyptian visual arts contain geometric structures and characteristics that are typical of these eye floaters.

The Egyptian sun

Since the earliest days of the Old Kingdom (from 2800 BC), the sun was believed to be the manifestation of a deity, the god Ra (or Re) due to its life-giving warmth and its regular cycle. The cult of the sun was developed in various centers of the kingdom, especially in the "sun city," Heliopolis. From 15th century BC, it spread rapidly throughout Egypt. In the process, many local and regional deities were identified with Ra. He was imaged and invoked as anthropomorphic creator god Re-Atum in Heliopolis, as Amun-Re in Thebes, as the falcon or hawk Re-Harakhti and as sun rolling scarab Khepri. A sun disk (Aten / Aton), was often pictured in the representation of Ra and sun-related deities.

Figure 6. The falcon-headed Ra with sun disk (Wikipedia)

In the Egyptian hieroglyphic writing, the name of Ra is expressed as in Figure 7.

Figure 7: The name of God Ra in Egyptian hieroglyphics (Wikipedia)

The sign (pronounced “re” or “ra”) is said to represent the sun, but is also used for “date,” “hour” or “time.” It is striking that the sun is symbolized by two concentric circles. In the abstract visual representation of Ra, these circles often become circular disks with different colors and ratios. They are depicted in combination with other elements and symbols. Examples include the scarab Khepri who rolls the sun above the horizon, and the solar boat in which Ra moves across the sky by day and across the underworld at night. Several attributes are often combined with the sun disk to express its power: one or two cobra snakes (uraei), the wings of Horus, and hands.

Figure 8: The winged scarab Khepri moves the sun, which is protected by two cobra snakes (uraei). The sun’s outer circle contains a number of circles and is thus represented as distinct from the inner disc. Below Khepri: Ra with sun disk in the solar boat. Note that the ratio of the surrounding disk to the core disk is different from Khepri’s sun. (Uehlinger 2000)
Figure 9: Winged sun disk, symbol of protection. According to the myth, Horus-Ra, the falcon god associated with the sun god, destroyed the enemies of Ra in the form of the winged sun disk (Source: Web reference)

The Pharaohs of the 18th dynasty even separated the solar disk (Aten) from anthropomorphic deities and established a new cult. Under the rule of Amenhotep IV (a.k.a. Akhenaten or Echnaton, 14th century BC), the solar disk became, for a short time, the only approved deity of Egypt. It was regarded as the essence of the forces of all the gods, as well as the luminous source of all being with which man can become one.

The depiction of the sun, as well as its mythic significance, raises the question whether the symbol was actually inspired by the visual perception of the sun, or whether there are other possibilities. If the concentric circles are taken seriously, the sign may give the picture of an eye, which would fit the often mentioned eye of Ra – the sun. If we consider the sign not as a stylized and simplified form, as in the case of the sun or the eye, but as a realistic depiction of something actually seen, then the vitreous floaters could be the source of that perception. Floaters have two main characteristics in common with the sun: Since they are seen in bright light conditions, we best notice them at the sky; in addition, we may perceive the brilliant light radiated by floaters if we concentrate on them for a while. Besides the concentric circles, there are other characteristics in ancient Egyptian’s depiction of the “sun” that resemble floaters more than the sun: The contrast between the surrounding disk and the core disk is often made clearly distinct by using different colors or patterns; and the proportions of the surround and the core are different in each case, as shown in the pictures above. This corresponds to the two contrasting types of floaters and their different states of concentration, as explained above (Tausin 2008).

A closer look at the sun’s accompanying symbols reveals further hints. The sun disk often appears to be moving within or along with “elongated structures” like snakes, wings or boats. This could point to the floater strings that are often seen to contain and to move along with the spheres (Tausin 2009). In Egyptian art, this is especially true of the snakes that accompany the circles: On the one hand, cobra snakes, the uraei, are shown to bear and surround –
and thus protect – the sun disk; on the other hand, sun god Ra is said to fight demon snakes at night while moving through the underworld. From that point of view, and due to their contact and “moving along” with the sun, snakes could be understood as figurative interpretation of floater strings.

Figure 11: A Snake with legs and wings carries the sun disk. Papyrus (n/a 1965)

The Egyptian World

The mythic concept of the world inhabited by the ancient Egyptians reveals the same structure as the sun. Many origin myths have in common the idea of a primeval chaos, often described as an original sea or waters (Nun). From this sea a mound or island raises that develops into the world known to the Egyptians. This process is reminiscent of the floater spheres in which a core appears or disappears, depending on the state of concentration (Tausin 2008).

The Egyptian world itself is often depicted containing the very same structure: a circular disk which includes a variety of concentric circles. In the spacious surround of the disk on the image below, the foreign countries known to the Egyptians are represented; a middle thin circle contains the symbols of the Egyptian administrative districts; and the core of the disk depicts the land of the Nile with its gods and humans. On the top of the surround rests enthroned the winged sun disk. In sum, the picture resembles a floater dot. This suggests that floaters served the Egyptians as visual structures to depict notions of worldly and cosmic order.

Further concentric circles in the arts and crafts

Egyptian craftwork provides many examples of concentric circles or rings that may be related to the symbolism of the sun and the world – and at the same time might be depicting floaters. For example, scenes of everyday work regularly show workers weighting rings of different colors. Scholars argue that these rings represent gold and silver poured into rings of fixed weights (Mueller/Thiem 2000, 141f.). In my opinion, it is not entirely clear if they really are rings (without core) or rather disks with cores of different colors, as some paintings suggest. Thus, visually and mythologically, due to its brilliance, gold was

Figure 12: The world according to the ancient Egyptians in the 4th millennium BC (Owusu 1998)

Figure 13: Weighting gold or divine and mythic power? Disks with yellow surrounds
associated by the Egyptians with the sun. Therefore there is reason to consider the possibility that these workers metaphorically “weighed” divine power against other mythological or worldly goods.

In addition to gold, bread also may have been associated with the symbolism of the sun and, therefore, may possibly represent floaters. This is suggested by the dotted disks in containers and baskets. Scholars refer to these disks as breads and cakes, provided for soldiers or gods. The latter becomes evident in the many scenes depicting sacrifice rituals; along with water, wine, meat, vegetables and flowers, bread was part of the usual offerings to the gods and the dead. Whether the dotted disk structure of the bread really represents the sun disk, or rather refer to the eye of Horus – for bread was found, according to a myth, in the pupil of Horus’ eye (Lurker 1989) – remains uncertain.

Another famous example of Egyptian handicraft is Khepresh, or the “blue crown.” This royal headdress was worn by New Kingdom pharaohs from the 18th dynasty. It is all covered with dotted circles which may represent the sun disk – or floaters, respectively; other scholarly interpretations include representations of curly hair or tortoise shells.

The concentric circles or dotted disks appear as decorations on many vessels and jewelry, especially during the 18th dynasty, when the abstract solar disk was gradually established by the Pharaohs as the only legitimate god. For example, vessels with hot glass drops of decreasing size and contrasting colors (Figure 16); ceramic beads with painted “eyes” (Figure 17), or engraved stone or ore amulets (Figure 18).

Figure 14: Priests and/or relatives performing rituals on a mummified deceased: The God Anubis (or a priest with an Anubis mask) holds the mummy, in front of which women mourn; two priests conduct the rituals of the opening of the mouth in order to animate the mummy. Behind the men, a pile of bread (dotted circles) and other food and drink is ready to be offered to the deceased, as he must be fed to live in the after-life. Scene from the Book of the Dead. (Wikipedia)

Figure 15: Blue crown, taken from a sculpture, ceramics, 18th dynasty. (Freed 2002)
Shamanism in Ancient Egypt?

Attributing abstract and figurative spheres and strings in Egyptian art to eye floaters is possible, but remains speculative. The floaters interpretation would become more valid if Egyptian culture could be shown to have been influenced by consciousness altering practices or ecstatic trances. For such practices – which I refer to as shamanic practices – are known to induce or intensify the perception of entoptic phenomena in the practitioners (Tausin 2010). According to Egyptologists, there are no indications of shamanic practices in the religious traditions of Pharaonic Egypt. The main characteristics of Egyptian religion involved priests ritually worshiping the gods in temples and on the occasion of festivals; the divine representation of the king; individual practices of magic; and funeral and death cults. The Egyptians seem to have lacked practices like meditation or ecstasy. In other words, they seem to have lacked shamanic elements (Assmann 2003, 1984).

A closer look, however, reveals shamanic symbols and themes in texts and illustrations, such as the hybrids of humans and animals, the powerful and generative position of androgynous beings, the mythic significance of arts and crafts (especially metal working), as well as the symbol of the ladder for shamanic traditions of psychic layperson readers. There is also a growing body of research on the
ascent or descent of souls to the heavens or the underworld (Stutley 2003). Another indication is the use of mind-altering plants. Some practices of worship such as the “festival of drunkenness” to honor the goddess Hathor at Dendera included drinks like beer or wine, music and dance (Assmann 1984), all of which may produce mind-altering states. There is evidence that ancient Egyptian alcoholic beverages were enriched with hallucinogenic plants like wormwood, mandrake or henbane (Raetsch 2004; Balababova et al. 1992). These characteristics are generally acknowledged to be common to shamanic practices (Eliade 2004).

In popular modern literature, outside of arenas of academic studies, there is a wealth of literature on shamanic aspects of early Egyptian religion and culture. While it is difficult to know how much credence to give these stories, their richest sources lies within modern western “traveling clairvoyance,” also called “remote viewing;” on psychic awarenesses that transcend the normal limits of time; and on reincarnation memories.

Figure 19. Anthropomorphic being with concentric and dotted halo as head. Tassili, around 6000 BC (Nephilim Skulls International)

Finally, recent findings of Upper Paleolithic rock art in Egypt, which is similar to European rock art previously linked to trance states (Huygen et al. 2007; cf. Tausin 2010), suggest yet another reason to assume shamanic influences in ancient Egypt culture.

It is noteworthy that abstract symbols in stone age rock art, such as circles, dots and lines, can generally be found in all of North Africa (Ravilious 2010). This suggests it is also possible that some symbols of Egyptian art could have been imported from other regions. A promising site would be Tassili n’Ajjér in Algeria, containing one of the largest collections of stone age rock and cave paintings and engravings, which are attributed by some researchers to shamanic trance experiences induced by hallucinogenic mushrooms. Similarities between the Tassili rock art and the ancient Egyptian visual arts may be explained by possible contacts of (predynastic) Egyptians with the ancestors of the Algerian Tuareg (Coppen 2010). Of note, concentric circles or dotted disks are part of the ancient Tifinagh scripture found in Tassili, as well as part of the Tassili visual art. These Neolithic signs could have spread to Egypt and developed into the Egyptian hieroglyphic and abstract representation of what become known as “Aten” or “sun disks.”

In summary

This article is based on the assumption that prehistoric shamanic rituals include the perception, interpretation and depiction of entoptic phenomena, including phosphenes, form constants and others (Dowson/Lewis-Williams 1988). I hold the opinion that, together with other shamanic symbols, these phenomena continue to be experienced and depicted not only in later shamanic societies up to the present day (Tausin 2010; Hedges 1982), but also have entered the visual arts of early civilizations.

In this article, I focused on a single entoptic phenomenon, so-called idiopathic “eye floaters,” and on the history of ancient Egypt. While there is no direct evidence of floaters in Egypt, typical structural features like the twofold dualism and the alterations in floaters seen in various states of concentration can be found in a number of abstract and geometric depictions from Pharaonic Egyptian art. These depictions, repeated in many paintings and carvings on walls and craftworks, reflect two central mythological concepts: the sun or sun-god (Ra) and the world. If these speculations are accurate,
then vitreous floaters have had an immense impact on the ideology, mythology and arts of Pharaonic Egypt. This impact may have come about directly, by way of living Egyptian shamanic traditions or other practices that include altered states of consciousness, or indirectly by way of artistic conventions passed down from prehistoric times.

References:

The pictures are taken from image hosting websites, from scientific publications (online and print) and/or from my own collection. Either they are licensed under a Creative Commons license, or their copyright is expired, or are used per the copyright law doctrine of ‘Zitatrecht’, ‘fair dealing’ or ‘fair use’.


Hedges, Ken: Phosphenes in the context of Native American art, American Rock Art 1982, 7-8, 1-10.


Kellogg, Rhoda: Form-similarity between Phosphenes of Adults and pre-School Children’s Scribblings. In: Nature 1965, 208(5015), 1129-1130.


Lhote, Henri: Les gravures rupestres de l’Oued Djerat (Tassili-n-Ajjer), 2 vols., Alger 1975


Tausin, Floco: Open Eye Meditation. In: IJHC 2009a, 9(3).


Wikipedia (Figure 6) http://de.wikipedia.org/wiki/Datei:Sun_god_Ra.svg

[“This is an expansion upon an earlier article, “In the Eye of Ra: Floater structures in the visual arts of ancient Egypt” by Floco Tausin]

The author:
The name Floco Tausin is a pseudonym. The author is a graduate of the Faculty of the Humanities at the University of Bern, Switzerland. In theory and practice he is engaged in the research of subjective visual phenomena in connection with altered states of consciousness and the development of consciousness. In 2009, he published the mystical story “Mouches Volantes” about the spiritual dimension of eye floaters.

Contact:
floco.tausin@eye=floaters.info
www.eye=floaters.info
The book:

‘Mouches Volantes. Eye Floaters as Shining Structure of Consciousness’ is a mystical story about the closest thing in the world. Floco Tausin tells the story about his time of learning with spiritual teacher and seer Nestor, taking place in the hilly region of Emmental, Switzerland. The mystic teachings focus on the widely known but underestimated dots and strands floating in our field of vision, known as eye floaters or mouches volantes. Whereas in ophthalmology, floaters are considered a harmless vitreous opacity, the author gradually learns about them to see and reveals the first emergence of the shining structure formed by our consciousness.

*Mouches Volantes* explores the topic of eye floaters in a much wider sense than the usual medical explanations. It merges scientific research, esoteric philosophy and practical consciousness development, and observes the spiritual meaning and everyday life implications of these dots and strands.