

THE OSTRACON

THE JOURNAL OF THE EGYPTIAN STUDY SOCIETY

PUBLICATIONS COMMITTEE

Robert Bigelow	Dena Newkirk
Patricia Cavenee	Maryanne Patterson
Susan Cottman	Frank Pettee
Ingrid Giffin	Mary Pratchett
Rhonda Hageman	Jan Stremme
Richard Harwood	

ESS STAFF LIAISON

Jeff Stephenson

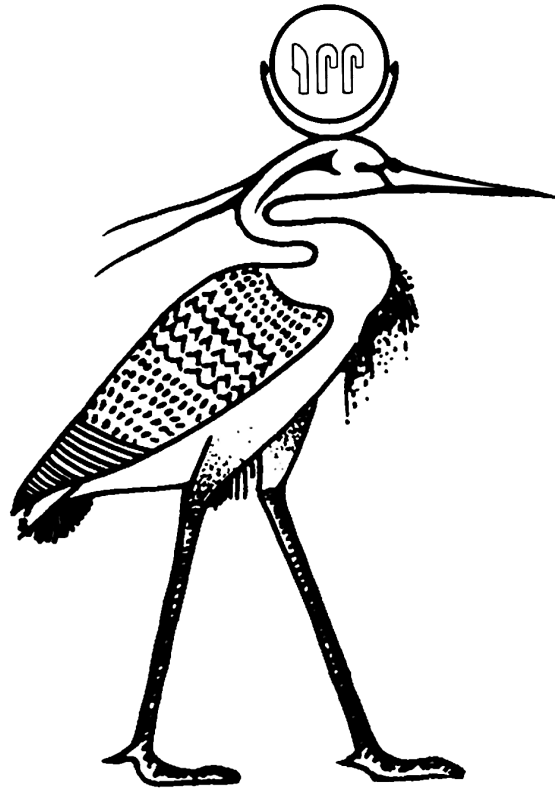
The Ostracon is published one or two times a year by members of the Egyptian Study Society. The ESS is a non-profit organization whose purpose is to study ancient Egypt. It is a cooperating organization with the Denver Museum of Nature and Science. Articles are contributed by members and scholars on a voluntary basis. Member participation is encouraged. Nothing may be reprinted in whole or part without written permission of the author.

For submission guidelines, see the ESS Web site at www.EgyptStudy.org or e-mail the Editor at Ostracon@EgyptStudy.org.

The opinions expressed in The Ostracon do not necessarily represent the views of the Publications Committee, the Egyptian Study Society, or the Denver Museum of Nature and Science.

©2006 Egyptian Study Society

Publication of The Ostracon is supported by a grant from
THE PETTY FOUNDATION



IN THIS ISSUE ...

COLORING THE ANCIENT EGYPTIAN WORLD
Heather Van Benthem

Coloring the Ancient Egyptian World

Heather Van Benthem

It is perhaps surprising to the casual observer that the ancient Egyptians used such an enormous amount of color. Temples and tombs were originally covered with colorful paintings. Thousands of years of exposure have stripped away the vestiges of this remarkable art from most outer surfaces, leaving those who wish to study Egyptian painting with what little remains on interior surfaces, papyri, some statues and written records.

In order to achieve uniformity in style and size, artists used guidelines on both interior and exterior walls to make grids for most of the paintings and carvings. These were similar to chalk lines used today, but in ancient Egypt string was dipped in red paint, stretched across a wall and snapped at regular intervals. The secondary artists drew the outlines of figures and glyphs within the grids using red paint, and master artists then corrected the drawings in black paint before the final painting or carving was completed.

Scaffolding was used for higher areas, and lamps provided interior light. These lamps were made of clay and were filled with vegetable oil or animal fat and floating wicks; it is probable that a small amount of salt was added to the oil to produce little or no smoke. Painting implements included water pots, palettes of shells or broken shards and palm fiber or reed brushes.

Colors were mixed with water and adhesive, most likely a form of gelatin glue (size), gum or egg white (albumin) to bind the paint to the surface being painted. Gypsum plaster was usually used on walls, and whiting (chalk) plaster was most often used on wooded objects. A thin layer of varnish was sometimes used over a finished painting, as can be seen most notably in the temple of Seti I at Abydos.

The only colors employed were red, black, white, yellow, green and blue. Creativity seems not to have been a prime directive in color choices, as their usage was symbolic and demonstrative. For example, women were usually depicted in yellow, while men were usually shown in red. Foreigners to Egypt's south were usually depicted in black to distinguish them from Egyptians and other foreigners.

While it is interesting to consider where each color was used, it is even more interesting to examine why each color was chosen. Mankind has made strong and fairly consistent connections with colors since long before the ancient Egyptians created their masterpieces. Could it be, then, that the ancient Egyptians made subconscious decisions in choosing which colors to associate with their painted images, particularly the gods? Was there an innate human directive that drove them to connect with the emotions inherently assigned to color by all of mankind, past and present?

Healing with color in the ancient Egyptian world started with the god, Thoth. “[T]he Ancient Egyptians used colored minerals, stones, crystals, salves, and dyes as remedies, and painted treatment sanctuaries in various shades of color” (Graham 1998, 5). Healing with color has continued and grown over the millennia and is still practiced by those seeking alternative medical solutions today. Many experiments, both accidental and directed, have been done over

the centuries to determine the effects of color on the human mind. This interest has also been applied to the study of the paintings of the ancient Egyptians.

Red was one of the most important colors in ancient Egypt and was derived from iron oxides and red ocher. It also was “a pigment used from the earliest prehistoric times” (Redford 2001, s.v. “color symbolism”). Red is associated with feelings of arousal, disturbance, anger, danger and fury. It is an intense color that increases blood pressure and elevates muscle strength. It stimulates the sympathetic part of the autonomic nervous system—the involuntary actions of the nervous system that prepare the body to react to stress or emergency situations. Red spurs the survival instinct of fight or flight. Given that early Man was chiefly concerned with matters of survival, it is logical that his first foray into the world of color would be red. It is a life-giving and protective color, again demonstrating the benefit of adrenaline in a world of survival.

Red is also associated with blood, fire and the sun, each of which has the power to give life and to cause harm. Interestingly, plants grown under red light tend to shoot up faster and taller initially but experience stunted long-term growth. Rodents kept under red light develop larger appetites and growth rates. These are both indications of a live-for-now response, which may be one reason for the short life expectancies of early Man.¹

In ancient Egypt, the god Set is usually depicted in red. He caused storms and was the personification of evil and the powers of darkness. He represented chaos and threatened order in the world, yet he also protected the sun god each night through the underworld. The sun is the most basic need on Earth, and the world certainly must have seemed more chaotic to the earliest humans; therefore, using the primal color red for Set seems an appropriate choice. Furthermore, people with red hair or skin were thought to be under the power of Set. There is an interesting connection here that is related in the Bible. In the Old Testament story of twin brothers Esau and Jacob (Gen. 25: 24–27), Esau was born covered with red hair; Jacob was not. Esau spent his time out hunting, while Jacob farmed. There seems to be a clear distinction between the association of red with earlier humans (hunter-gatherers) and the softer colors used after the later innovations of agriculture and animal husbandry.

Black was another important color in ancient Egypt. It was derived from carbon, such as soot or charcoal. To the ancient Egyptians, black symbolized death, night and the underworld, which are all regenerative concepts in the Egyptian worldview. It was the color of transformation. Indeed, it was the color of Egypt itself, as it was used to depict the fertility and resurrection that came with the silt left by the inundation of the Nile. The area of Egypt directly alongside the Nile was called black Egypt, and the desert was known as red Egypt.

Osiris, the god of the afterlife, and Anubis, the god of embalming, were often painted black or dark green. Re's name was also often written in black, regardless of the color of the surrounding text. Black is sometimes associated with royalty, in accordance with their

renewal and resurrection in the afterlife and their connection with Osiris. As opposed to red, black was considered to be a lucky color. This is interesting as it corresponds to the modern accounting system that shows debts and liabilities in red and credits and assets in black.

White came from calcium carbonate (whiting or chalk) or calcium sulfate (gypsum). White is all colors together, representing the full visible spectrum. Sunlight, directly or indirectly, is required by all life on Earth. Life, including mankind, evolved under this light and requires the full spectrum in order to function properly. To the ancient Egyptians, white signified the verb sense of light, as in the sun “whitened” the Earth in the morning. It was used to denote the moon, as well.

White was also the symbol of purity, omnipotence, the sacred and simple. It was the color associated with priests and their tools and holy ceremonies. Many temple floors were covered in white calcite, popularly referred to as “Egyptian alabaster.” White was also employed to depict silver when used in conjunction with gold, depicted in yellow. In addition, “because red and white were opposites in meaning, they were at times placed together to symbolize completeness” (Stratos 2001, 5). Given the qualities associated with each color, this appears to be a joining of good and evil to fully embody the human and divine experience and motivations. On a less ethereal—and more practical—level, white was also the color of most of the clothing shown in paintings.

Yellow was derived from yellow ocher, indigenous to Egypt, and from orpiment, imported from Asia. It is a highly active color, stimulating the nerves and, often, violent reactions. It has been suggested that there might be a correlation between yellow streetlights and violent crime.² It is the color linked with intellect, rationality, will, personal power, and the abuse of power. It causes stress disorders and digestive problems.³

Perhaps it is its explosive nature that caused yellow to be used by the ancient Egyptian painters as a daytime color and to be connected with hunting, a daytime activity. It also carried solar significance and was linked with the sun and with gold. Yellow represented the eternal and indestructible. The flesh of the gods was said to be have been made of gold. The color yellow bears a close link with Re and the deceased’s transformation in the afterlife as the deceased hoped to join the gods in the afterlife.

Green paint was made with powdered malachite, a natural copper ore from the Sinai and Eastern Deserts; or from a frit, an artificial substance used for making glazes and enamels. Green has been used since prehistoric times in association with life. The color symbolized new life, growth, fertility, rebirth, resurrection and vegetation. As mentioned above, the god Osiris was often painted with green skin in reference to his resurrection and power over new vegetation. Green is a healing color, connected with well-being and flourishing health. The Eye of Horus amulet, worn to provide good health and protection, was often green.

To the ancient Egyptians, malachite and turquoise were symbolic of joy and delight. Green turquoise was especially valuable because of its rarity and its importation from Turkey and was connected with Hathor and the sun at dawn. The stone was often used in funerary equipment due to its strong association with the sun’s rebirth each day. Coffin faces were painted green to identify them with Osiris and to guarantee rebirth in the afterlife.

Green was also the color of the heart scarab amulet, which was placed in the chest cavity of a mummy to protect the actual heart from any mishap. In an interesting cross-cultural connection, in a Far Eastern belief in a system of seven chakras

that run through the body, the heart chakra is considered to be green in color. According to Helen Graham’s work (1998), so strong is the connection with the heart that the color green is associated with unconditional love, compassion, forgiveness, understanding, sensitivity and immunity. Along with blue, green stimulates less violent reactions and has positive and beneficial effects on Man.

The final color in the ancient Egyptian palette is blue. Blue was also the last color to be used chronologically, not being added until approximately 2550 BCE. Initially rare, with the passage of time, blue became the most prestigious color. It was derived most commonly from a frit created by heating together silica, a copper compound (usually malachite), calcium carbonate and natron. It also came from the mineral azurite (blue carbonate of copper) and lapis lazuli. Lapis lazuli was imported primarily from Turkey and, along with turquoise, was associated with joy and delight.

Blue is connected with tranquility, well being, calmness and regeneration. It decreases blood pressure and relaxes anxious people. Blue stimulates the parasympathetic part of the autonomic nervous system, which opposes the sympathetic nervous system (stimulated by the color red). Its effect is in slowing the heart rate and causing muscle fibers to smooth, blood vessels to dilate and pupils to contract. Blue is the antithesis of red in that it engenders a reaction of calmness and relaxation. This later-added color and the stability it fosters parallels Man’s progression from a survival-based, instinctual existence to a rooted and more secure way of living. This is further evidenced by plant and rodent studies. Plants grown under blue light grow more slowly at first but ultimately become tall and thick. Rodents under blue light grow denser coats. Both of these studies indicate a surety of a longer lifespan and the luxury of more time to expect and prepare for the future.⁴

In the ancient Egyptian world, blue was the color of heaven, the night sky, water and the primeval flood, out of which the sun was born each day. These were somewhat more advanced beliefs, developed when survival was no longer the primary goal and time could be dedicated to the study of the universe, both physical and within Man’s mind and belief system. The god Amun-Re, the creator god from the primordial waters, is painted blue. Pharaohs associated with him were shown with blue faces (Stratos 2001, 4). The gods usually had hair of lapis lazuli, and “the rising sun was sometimes called the ‘child of lapis lazuli’” (Redford 2001, s.v. “color symbolism”). In ancient Egyptian belief, the god Horus destroyed all evil and was depicted as a hawk with a blue torso (Douma 2001). This is further demonstration of blue’s association with calmer, more serene times. Blue, along with yellow, was a divine color and was used in the headdresses of kings.

As evidenced by the analyses, the colors red and blue have received the most attention in studies. This is possibly due to the fact that they are on the opposite ends of the visible color spectrum and cause opposite reactions in many living things. It is also clear that life requires the full spectrum of colors in order to achieve balance and full functionality. The ancient Egyptians must have felt that need, and they left behind mammoth amounts of work for their descendants. It is the good fortune of the student of ancient Egypt that much of that work has survived.

The clichés associated with colors—seeing red, being green with envy, being yellow-bellied, looking blue—haven’t come along by happenstance. They are products of a shared reality that has stretched across chronological and cultural boundaries to deeply instill in all

of mankind a common system of color analysis. The study of color and Man's connection to it is fascinating and is rendered all the more so when held against the backdrop of ancient Egyptian art. Perhaps it is the inherent anthropologist within all of us that is comforted and excited by the concept that something as mundane and benign as color can be shared with people from thousands of years ago. It is the majesty of Man to be able to pass along something of himself to the next generation. It is his triumph to hold that line and look back to see how far it goes.

BIBLIOGRAPHY

- Ott, John N. 1973. *Health and Light*. Atlanta: Ariel Press.
- Hornung, Erik. 1990. *The Valley of the Kings: Horizon of Eternity*. New York: Timken Publishers.
- Graham, Helen. 1998. *Discover Color Therapy*. Berkeley, Cal.: Ulysses Press.
- David, Rosalie. 1998. *Handbook to Life in Ancient Egypt*. New York: Facts on File, Inc.
- Douma, Michael, ed. 2001. "Intro to the Blues." *Pigments Through the Ages*. Institute for Dynamic Educational Advancement. <http://webexhibits.org/pigments/indiv/color/blues.html>. (Accessed 19 April 2006.)
- Redford, Donald G., ed. 2001. *The Oxford Encyclopedia of Ancient Egypt*. New York: Oxford University Press, USA.
- Stratos, Anita. 2001. "Breaking the Color Code." *Tour Egypt Monthly* 2, no. 6.

ENDNOTES

1. The author has made use of the data from Dr. John Ott (1973) on the reactions of the plants and rodents to red and blue light; on the other data about the effect each color has on the human body; and on commonly accepted anthropological evidence about Man's evolution to arrive at logical conclusions regarding each color's placement in the development of Man. The reasoned inferences are those of the author and are not, as such, spelled out in the references.
2. In *Discover Color Therapy*, Helen Graham (1998) touches on the work of Theo Gimbel, who suggested the correlation. Gimbel started the Hygeia Studios and College of Color Therapy in Britain and was interested in the link between color and behavioral/physical imbalances.
3. Please reference Graham (1998) for further references to the work of other scientists throughout history and a more thorough discussion of the physical and psychological effects of color.
4. Please see note 1.

ESS member Heather Van Benthem is a first-time contributor to The Ostrakon. She lives in Longmont with her husband and is currently doing research on infertility and the Catholic Church.