THE LATE PERIOD OF ANCIENT EGYPT

COLORS USED IN EGYPTIAN ART

COMPiled BY HOWIE BAUM
Late Period / Late Kingdom

(After the Third Intermediate Period, which lasted from the Death of Ramesses XI in 1069 BC until the beginning of the 25th Dynasty -- 21st through 24th dynasties were only regional rulers.)

25th Dynasty -- Kushite (Nubian) Pharaohs -- 712 through 664 BC

26th Dynasty -- Saite period -- initially dominated by and then a subordinate ally of Assyria -- Remembered as the last “truly Egyptian” period -- 664 through 525 BC

27th Dynasty -- Persian period -- 525 through 404 BC -- Persian overlords took Pharaonic titles

28th - 30th Dynasties -- 404 through 343 -- Persians expelled, but always at the gates

2nd Perian Period -- 343 through 332 -- third persian attack captures Egypt again

Alexanded the Great -- 332
LATE PERIOD (664 - 332 BCE)

Dynasty 26 (664 - 525 BCE) - 139 years - 8 Pharaohs

Dynasty 27 (525 - 404 BCE) - 121 years - 11 Pharaohs

Dynasty 28 (404 - 399 BCE) - 5 years - 1 Pharaoh

Dynasty 29 (399 - 380 BCE) - 19 years - 5 Pharaohs

Dynasty 30 (380 - 343 BCE) - 37 years - 3 Pharaohs

Dynasty 31 (343 - 332 BCE) - 11 years - 4 Pharaohs

MACEDONIAN PERIOD (332 - 305 BCE)
Alexander the Great and his successors

PTOLEMAIC DYNASTY (305 - 30 BCE)
Ptolemy I and ending with Cleopatra VII

ROMAN and BYZANTINE EMPIRE
(30 BCE - 642 CE)
The period ended with the conquests of the Persian Empire by **Alexander the Great** and establishment of the Ptolemaic dynasty.

With the Macedonian Greek conquest in the latter half of the 4th century BC, the Golden age of Egypt ended, and the age of Hellenistic Egypt began.

At the end of the Egyptian empire in 323 BCE, Alexander's empire was the largest state of its time, covering approximately 2,007,731 square miles.
Rise and fall of Egyptian fortunes during its ancient periods
Cleopatra VII ruled ancient Egypt as co-regent (first with her father, then with her two younger brothers and finally with her son) for almost three decades.

She was part of a dynasty of Macedonian rulers founded by Ptolemy, who served as general under Alexander the Great during his conquest of Egypt in 332 B.C.

It was not until after her suicide (after Mark Antony was defeated by Octavian, who would later be Emperor Augustus Caesar) that Egypt became a province of the Roman Republic in 30 BCE.
THE BROOKLYN PAPYRUS

It was a major contribution from the Late Period.

It was a medical papyrus with a collection of medical and magical remedies for victims of bites from snakes, scorpions, and spiders, based on their type or the symptoms from the bite.

https://www.youtube.com/watch?v=j8epDGGQhLE go to 2.06
COLORS OF ANCIENT EGYPT
THE MEANING OF COLORS IN ANCIENT EGYPT

The Egyptian word for color – “iwn”, also translates as “disposition”, “character”, “complexion” and “nature”, confirming that color was seen as being intimately linked to the essence of being.

The ancient Egyptian palette was formed around six main color groups: green (wadj); red (desher); blue (irtyu or khesbedj); yellow (khenet or kenit); white (hedj or shesep); and black (kem).

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Some scientists today believe that the color blue couldn’t be seen by the earliest humans.

In fact, at first, it is thought that they could only see black, white, red, and only after some time, yellow and green.

The first society to have a word for the color blue was the Egyptians, the only culture that could produce blue dyes.

From then, it seems that awareness of the color spread throughout the modern world.
Colors of Ancient Egypt
To the Egyptians it was not just the value or scarcity of the materials that mattered (although of course gold and silver were particularly highly prized).

The symbolic meaning of the colors and the beauty of the image are what was important, so they could make beautiful items from them.

Colors were not used randomly but were intended to convey meaning and make an image with greater power.
PIGMENTS

A pigment is a colored material that is completely or nearly insoluble in water.

In contrast, dyes are typically soluble, at least at some stage in their use.

Generally, dyes are often organic compounds whereas pigments are often inorganic compounds.

Pigments of prehistoric and historic value include ochre, charcoal, and lapis lazuli.
Beautiful painted items from Egypt that are thousands of years old and still have bright colors on them.
The Temple of Karnak

The Temple of Karnak was Egypt's largest temple, built mainly to honor Amun-Re, the sun god. Karnak was one of Egypt's major religious centers for centuries. Over the years, pharaohs added to the temple's many buildings. This illustration shows how Karnak's great hall might have looked during an ancient festival.

- Karnak's interior columns and walls were painted brilliant colors.
- High windows let light and air into the temple.
- Massive columns, some more than 100 feet high, supported the temple's high roof.
- In the annual Opet festival, priests carried statues of the gods and sacred boats from the temple to the Nile River.
- Only the pharaoh and priests were allowed inside the temple, which was considered the home of the gods.
SOURCES OF MINERALS AND MATERIALS IN ANCIENT EGYPT, FOR MAKING JEWELRY AND ART ITEMS
THE 6 MAIN COLORS FOR ARTISTS TO USE WHICH WERE MADE FROM NATURAL MINERALS THAT WERE GROUND UP
A 3,400-YEAR-OLD PAINT PALETTE

This ancient Egyptian painter's palette is estimated to be around 3,400 years old and from the Amenhotep III era. It's made out of a single piece of ivory and is so well preserved that you can still see paint pigments in each of the six wells.

Each well would have contained a different color, most likely:

- **BLUE**
- **GREEN**
- **YELLOW**
- **RED**
- **BLACK**
- **BROWN**
The Ivory Palette of Merytaten

This painter’s palette was found in the treasury of the tomb of King Tutankhamen, between the paws of the jackal mounted on a shrine. This palette is thought to have been a gift from Princess Merytaten to Tutankhamen. Its six paint cavities still held pigments of the traditional color palette of ancient Egypt, and would have been used with animal hair or reed brushes to create paintings on plaster or textile surfaces.
Ancient Egyptians painted with brushes, just like we do now.

Their brushes were made out of bundles of plant materials like grasses and reeds, using a string to bind brush materials together.
<table>
<thead>
<tr>
<th>Pigment</th>
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<tbody>
<tr>
<td>Azurite</td>
<td>Bone black</td>
<td>Cadmium yellow/red</td>
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<td>Carbon black</td>
<td>Carmine</td>
<td>Cerulean Blue</td>
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<td>Cobalt violet</td>
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<td>Lead-tin yellow</td>
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<td>Madder</td>
<td>Malachite</td>
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<tr>
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<td>Orpiment</td>
<td>Prussian blue</td>
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<tr>
<td>Realgar</td>
<td>Red lead</td>
<td>Red ochre</td>
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<td>Smalt</td>
<td>Titanium white</td>
<td>Ultramarine</td>
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<td>Umber</td>
<td>Van Dyke brown</td>
<td>Verdigris</td>
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<tr>
<td>Vermilion</td>
<td>Viridian</td>
<td>Yellow ochre</td>
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<td>Zinc white</td>
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**TOTAL LIST OF PIGMENTS**
6 MAIN EGYPTIAN COLORS

The colors used in Ancient Egypt were primarily a 6-color palette using:

Red
Yellow
Blue
Green
White
Black

There wasn’t much color mixing for their artwork because certain pigments reacted chemically with one another, which caused unfavorable results.
AN ARTIST’S PALLETTE FROM ANCIENT EGYPT
COLOR PAIRS

Colors were often paired.

**Silver and gold** were considered complementary colors, that is they formed a duality of opposites just like the sun and moon.

**Red complemented white** (think of the double crown Ancient Egypt)

**Green and black** represented different aspects of the process of regeneration.

Where a procession of figures is depicted, the skin tones alternate between light and dark ochre.
Black (Ancient Egyptian name "kem") was the color of the life-giving silt left by the Nile river yearly flooding.

It symbolized fertility, new life and a new beginning. It was also the color of Osiris ('the black one')

White (Ancient Egyptian name "hedj") was the color of purity, sacredness, cleanliness and simplicity.

Tools, sacred objects and even priest's sandals were white for this reason.

Sacred animals were also depicted as white. Clothing, which was often just undyed linen, was usually depicted as white.
CARBON BLACK:

It was used as a pigment since very earliest times, in oil and watercolor art works.

It is made by heating wood, or other plant material, with a very restricted air supply.

Sticks of charcoal have been used for sketching by artists of all periods, and traces of their work may be found on the ground layer of paintings.

The 2 main types:

Vine black was traditionally produced by charring desiccated grape vines and stems.

Lamp black was traditionally produced by collecting soot, also known as lampblack, from oil lamps.
SHORT HISTORY OF WHITE PIGMENTS

Lime powder and gesso were the first whites available in prehistoric times.

The most important contribution to art materials from Greece was lead white, a pigment that would become ubiquitous in Western art.

Modern whites are zinc white and titanium white.

Thanks to its excellent qualities, titanium white has largely replaced lead white in both art and industry.
SHORT HISTORY OF BLACK PIGMENTS

Carbon black was the first black.

This dull black is the easiest to manufacture because it is made of charcoal.

Another black is vine black, which is traditionally made by charring desiccated grape vines and stems, which produce beautiful bluish blacks.

Bone black, made of burnt bones from prehistoric times, is the deepest available black.
BLUE COLORS

Blue was the color of the heavens, the dominion of the gods, as well as the color of water, the yearly inundation and the primeval flood.

Ancient Egyptians favored semi-precious stones such as azurite and lapis lazuli, imported at great cost across the Sinai Desert) for jewelry and inlay.

Their technology was advanced enough to produce the world's first synthetic pigment, known since medieval times as Egyptian blue.

Depending on the degree to which the pigment Egyptian blue was ground, the color could vary from a rich, dark blue (coarse) to a pale, ethereal blue (very fine).
Blue Colors of Ancient Egypt

Egyptian Blue
Egyptian Blue 2
Azurite
Lapis Lazuli
Indigo
AZURITE

It is a mineral used to make beautiful blue colors and was used in Ancient Egypt.

It is composed of mineral basic carbonate of copper, found in many parts of the world in the upper oxidized portions of copper ore deposits.

Azurite mineral is usually associated in nature with malachite, the green basic carbonate of copper that is far more abundant.
LAPIS LAZULI:

Lapis lazuli, also known simply as "lapis," is a blue metamorphic rock that has been used by people as a gemstone, sculpting material, and ornamental material for thousands of years.
INDIGO DYED FABRIC
PRUSSIAN BLUE
EGYPTIAN AMETHYST AMULET OF THE GOD TAUERET

The pregnant hippopotamus goddess standing with her hands cradling her stomach

The details of her facial features are cut in.
Lapis lazuli specimen (rough), Afghanistan

Natural ultramarine

Synthetic ultramarine blue

Synthetic ultramarine violet
NATURAL ULTRAMINE
EGYPTIAN BLUE IS THE FIRST SYNTHETIC PIGMENT INVENTED BY PEOPLE

The ancient Egyptians valued blue very highly and sought to represent it in a variety of forms.

The deepest blue, imitating lapis lazuli, was probably the most sought after.

The symbolism embedded in the blue glazing is associated with the Nile, the sky, or the home of the gods.

They also wanted to imitate the semi-precious stones turquoise and lapis lazuli, which were prized for their rarity and bright blue color.
EGYPTIAN BLUE

The most common blue color that you see in ancient Egyptian paintings is not found in nature.

This pigment, called **Egyptian blue**, was made by mixing different natural ingredients together and heating them to a high temperature.

You can think of it like a math problem: sand + lime + sodium carbonate + copper compound + fire = Egyptian blue.
ANCIENT EGYPTIAN BLUE FAIENCE AMULET OF FALCON GOD HORUS
Green was the color of fresh growth, vegetation, and new life.

The Egyptian word for green malachite represented joy.

Turquoise was a particularly valued green-blue stone from the Sinai, which also represented joy, as well as the color of the sun's rays at dawn.
This Winged Scarab Consists Of Three Pieces:

An Actual Scarab Beetle And Two Separately Made Wings.
EGYPTIAN FAIENCE STATUETTE OF THOTH

TURQUOISE SCARABS
Malachite is a bluish green pigment that can be seen in Egyptian tomb paintings and is used in historical painting until the 18th century.

It is a semi-transparent, large grained color that shows bluish and greenish crystals.
Osiris is painted green.

In ancient Egypt, green represented protection and Osiris was called "the great green."
GREEN EARTH

It is a natural green pigment varying in composition and in shades of color.

It has low hiding power but is unaffected by light or chemicals.

Green earth is a mixture of the hydro-silicate of Iron, Magnesium, Aluminum and Potassium.

It is made by grinding the natural minerals glauconite and celadonite. Indeed, green earth is primarily composed of the minerals celadonite and glauconite which different percentage presence produces colors that vary from cold bluish greens to warmer yellow and olive hues.
YELLOW COLORS

Yellow was the color of women's skin, as well as the skin of people who lived near the Mediterranean - Libyans, Bedouin, Syrians and Hittites.

It was also the color of the sun and, along with gold, could represent perfection.

As with blue and green, the Ancient Egyptians produced a synthetic yellow - lead antimonite.

Realgar, which we consider to be an orange color today, would have been classed as yellow.

Gold represented the flesh of the gods and was used for anything which was considered eternal or indestructible.

Ancient Egyptian pigments:

- Yellow - ‘khewet’ (Translit: hnt)
- Lead antimonate
- Orpiment
- Yellow ochre - ‘sety’ (Translit: sty)
- Yellow-red mineral - ‘qenyet’ (Translit: knit)
- Ochre
- Realgar
- Gold - ‘nebw’ (Translit: nbw)
Yellow Ocher is a natural earth pigment which consists of clay colored by iron oxides.

They are among the most used pigments dating back to prehistoric times.

It comes in variety of shades depending on its origin.

Lighter shades of yellow may be burned to make darker shades.

The purest ochers come from France and Cyprus.

Under moderate heat, it produces yellow-red colors. While the stronger the heat, the more rich and immersed the produced color is.
Both the yellow sun and yellow gold shared the qualities of being imperishable, eternal, and indestructible.

The skin and bones of the gods were believed to be made of gold.

In this image of Ra, note the gold skin tone of the god.

Compare this to the musician, who has the classic reddish-brown skin tone of humans.

Choose:

- Cadmium yellow
- Chrome yellow
- Cobalt yellow
- Indian yellow
- Lead tin yellow
- Lemon yellow
- Naples yellow
- Orpiment
- Yellow ochre
SAFFRON

Saffron's intensive yellow color has been prized by ancient cultures for some 4,000 years.

Its color comes from the three stigmas of the crocus flower, which must be plucked and processed within a brief window of opportunity: two to four weeks in the autumn.
RED COLORS

Red was primarily the color of chaos and disorder – the color of the desert - the red land, which was considered the opposite of the fertile black land.

One of the principal red pigments, red ochre, was obtained from the desert.

Red was also the color of destructive fire and fury and was used to represent something dangerous.
The Egyptian word for red is “Desher”.

It is the first color that the human eye can perceive upon birth, next to black and white.

This means that humans have had very strong feelings about the symbolisms of the color red since time immemorial.

In mood color meanings, red has a natural influence over us and our emotions.
RED OCHRE

Late stone age people, and at a later time – Egyptians scraped and ground red ochre, a clay colored by iron oxide (which we now know as rust!) was found.

A natural earth pigment containing iron oxide.

It ranges in color from red to brown to yellow.
Ochre, a natural pigment which comes in shades of yellow, red, orange and brown, is the first pigment used by humans, in the Middle Stone Age of Africa, at least 70,000 years ago.

Ochre is found all over the world and has been used by nearly every prehistoric culture, whether as paint on cave and building walls, staining of pottery or other types of artifacts or part of a burial ritual or body paints.
COCHINEAL BUGS

Cleopatra and her court of Egyptian makeup innovators made her lipstick from a crimson color extracted from female cochineal insects that live on cactuses.

Today the red dye known as carmine or cochineal is still used to color lipstick and makes for beautiful reds in your nail polish.

The dye is also used in rouge, cream, and other cosmetics.

They also discovered a tiny scale insect called Kermes whose body was dried and crushed, resulting in a red tint.
COCHINEAL RED, OR CARMINE,

It was first produced by crushing the bodies of a beetle, by the textile workers of the Paracas culture of highland Peru, at least as long ago as 500 BC.
ALIZARIN CRIMSON

This shade originated from the roots of the madder plant in Egypt and was later called alizarin crimson.

It is a dark, transparent, cool red with a slight tendency towards blue/purple.

Add to other reds to darken or deepen them.

Good for transparent glazing or washes as it will add depth without obscuring any details.
VERMILLION (CINNABAR)

RED LADY TOMB AT PALENQUE

The Maya capital of Palenque included the famous “Red Queen” burial, whose body was coated with cinnabar, accounting for the bright red Vermillion interior of the sarcophagus.

Cinnabar, also known as mercury sulfide, is a highly toxic natural mineral found in igneous deposits all over the world.
CARNELIAN

Carnelian is a brownish-red mineral commonly used as a semi-precious gemstone.

Similar to carnelian is sard, which is generally harder and darker.

Both carnelian and sard are varieties of the silica mineral chalcedony colored by impurities of iron oxide.
Hematite is an important iron ore and an important pigment as well.

Also known as “red ochre”, it has been used in cave paintings, body and face paint throughout the world, paint pigment and modern lipstick.

Red lead is the primary color of red and is derived from the mineral Minium.
Redheads are often stereotyped as having fiery tempers.

The god Seth, associated with destruction, was depicted as having red eyes and hair.
Lazurite is a very expensive type of dark blue/purple mineral.

It is combined with other minerals to form the complex rock called lapis lazuli which is powdered and purified by mixing with max and lye.

Europeans called the pigment ultramarine which literally means over the sea.

Since the 19th century it has been manufactured artificially.
These are ores that are used for Blue and Silver pigments.
EGYPTIAN JEWELRY

The ancient Egyptians used mineral compounds to add color to their art. As a result, some of the colors are still vibrant and beautiful thousands of years later.

They made jewelery out of amethyst, garnet, jasper, onyx, hematite, turquoise, lapis lazuli, copper, malachite (a form of copper ore), gold, silver, faience and shells.
The main reason for wearing jewelry is because of its aesthetic function.

The Egyptians were quite soberly dressed in white linen fabrics, and jewelry offered a possibility for contrast.

The Egyptian preference was towards the use of bright colors, lustrous stones and precious metals.

Gold was won in large quantities in the eastern desert of Egypt, but also came from Nubia, that was an Egyptian colony for centuries.
The lotus & suns on the bottom edge represent immortality.

The blue lapis lazuli represents the sky & stars

The turquoise is for long life.

The carnelian is for protection.
GOLD, LAPIS-LAZULI, CARNELIAN, AND COLORED GLASS.
The bracelet’s central feature is a gold openwork scarab encrusted with lapis lazuli.

On each side is a narrow, raised band composed of gold, lapis lazuli, turquoise, quartz, and carnelian inlay, bordered on the inner edge with gold granules.
A COLLECTION OF DIFFERENT AMULETS

It has 14 scarabs of steatite, faience, amethyst, rock crystal, lapis lazuli and carnelian

Some have a design on the undersides; together with a red steatite, black steatite and a glass heart amulet

One lapis lazuli and two carnelian djed-pillars

A lapis lazuli four-headed ram

A lapis lazuli lotus-seed pendant

A lapis lazuli ibis-headed Thoth

All mounted together as a necklace in a modern Egyptian revival gold, enamel and gemstone setting
COLLAR OF NEFERUPTAH

This necklace is one of the treasures discovered in the tomb of Princess Neferuptah.

This attractive collar is made of six strings of carnelian and feldspar beads and a row of drop-shaped motifs in the lower edge with 2 gold falcon heads.
Shawabty of Ankh-Hor

Late Period
Dynasty 26
reign of
Psammetichus I-Apriès
664-610 BC
Cleveland Museum of Art

Late Period
26th dynasty

Sitting figure
of the scribe
Petamenhotep
Set of four canopic jars
Late Period
Dynasty 27-30
656-332 B.C.
Limestone
Abusir el-Melek

Wood and bronze ibis
Late Period to Ptolemaic Period, 664-30 B.C., 21 inches long
**Bes Medicine Bottle**

**Late Period**
27th-31st Dynasties, (525-332 BC)
H: 15.2 cm
Iron oxide pigment, Ceramic, Human hair
Rosicrucian Egyptian Museum
San Jose, California

The god Bes was the protector of children. When a child was ill, it was believed that feeding it out of a Bes shaped bottle would cure the illness. If that was not effective, a physician would then be contacted.

**Glass amulets**

Late Period,
Dynasty XXVII-XXX
525-343 BC
Largest 2 3/16 inches long

37 Egyptian glass amuletic inlays, the largest of which is only 2 3/16 inches long

The lot was sold at Christie's in New York in December of 2005 -- selling price was $66,000.
Statuette of Amun

Third Intermediate Period
Dynasty 22, ca. 945–715 BC

Egyptian
Gold
H. 6 7/8 in. (17.5 cm)

Metropolitan Museum
New York
Alabastron - a small type of pottery or glass vessel used in the ancient world for holding oil, especially perfume or massage oils.

They originated around the 11th century BCE in ancient Egypt, as containers carved from alabaster – hence the name, but spread via ancient Greece to other parts of the classical world.
THE PHARAOH’S GRAND PARADE

https://www.youtube.com/watch?v=AkuQV4Bm0eI  4.5 min
BIBLIOGRAPHY

https://www.metmuseum.org/toah/hd/lapd/hd_lapd.htm


colors  http://www.webexhibits.org/pigments/intro/pigments.html

https://news.yale.edu/2014/05/05/digging-color-search-egyptian-blue-ancient-reliefs

https://en.wikipedia.org/wiki/Late_Period_of_ancient_Egypt

https://ancientegyptonline.co.uk/late/

https://www.thecollector.com/late-period-ancient-egypt/


https://www.thoughtco.com/colors-of-ancient-egypt-43718