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The 2001 Face

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FULL FACED

On April 8, 2001 the Mars Global Surveyor (MGS) camera quietly acquired, a long waited high-resolution, "full faced" view of the Face on Mars and they held it back, in secret for over a month. Then without any fan fair or public notice NASA released a grainy, up-side down version of the image on May 24, 2001 (Figure 1). If you were not a regular visitor to the NASA site you would never have known it was released. The MOC image E03-00824 was taken during the early evening with an Emission Angle that is 24° off nadir and an impressive resolution of 1.86 meters per pixel.¹

It is thought that during the time frame that NASA kept the image out of view, it provided them with sufficient time to prepare a carefully orchestrated strategy of ground zero damage control. As a result, a highly negative propaganda campaign was simultaneously released, to diminish any interest in

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*Portions of this report were published in *The Cydonia Codex: Reflections from Mars*, (Berkeley: Frog Lid, 2005), by George J. Haas and William R. Saunders.

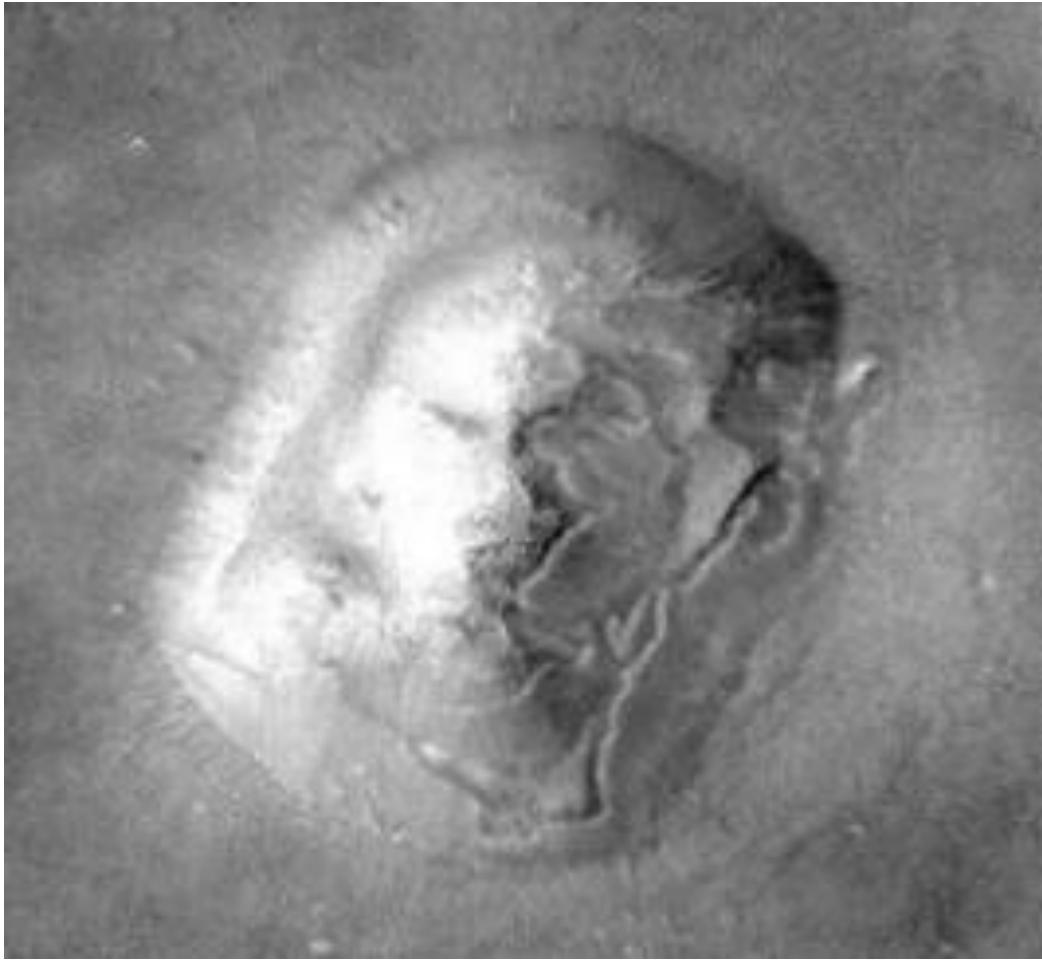


Figure 1 The Cydonia Face. Detail of MOC image E03-00824 (2001). Original inverted presentation.

the new image. The mission's principal investigator, Dr. Michael Malin started it off with a press statement saying;

"the new images show the area to be nothing more than a hill."²

Malin's remarks were soon followed by one of his top scientists, James Garvin, who proclaimed;

"It reminds me most of Middle Butte in the Snake River Plain of Idaho."³

If anyone took the time to do a quick search and take a look at an aerial view of the Middle Butte (Figure 2) you would not have to be a geologist to realize that the Cydonia Face on Mars looks nothing like this eroded butte.



Figure 2 Middle Butte, Idaho. The United States Geological Survey.

At first, it appeared to the scientific community that NASA had finally hit its mark and "scotched this thing for good." Once again the "Face" was declared to be nothing more than "a pile of rocks" and not even close to resembling a human face! When the new MOC image was released, the New York Times came right out of the box with all guns blazing and couldn't wait to report:

*"NASA released a new image [of the "Face on Mars"]
that shows the area in far sharper detail,
but reduces any resemblance to a human face."⁴*

NASA and company were "hell bent" on discrediting any scientific analysis of this image and God forbid that someone in the media had noticed the "feline" appearance of the eastern side of this "eroded butte" before they could divert their attention elsewhere. So, NASA decided, if you can't hide it – invert it. The new full-faced image, with the highest resolution ever achieved, was released up-side down (Figure 1). Sadly, if you visit the Mars View web site the image is still presented up-side down to this day.⁵ Figure 3 provides the MOC image in its corrected orientation with north-up and a version that is rotated 19.5 degrees east, for proper vertical viewing.

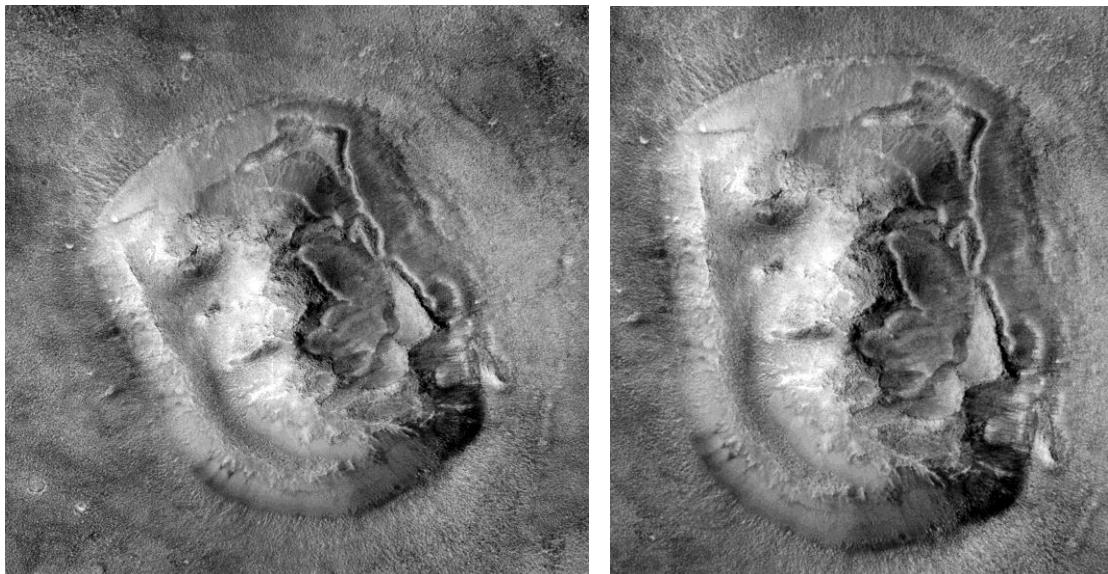


Figure 3 The Cydonia Face. Detail of MOC image E03-00824 (2001).

Left: Corrected orientation with tonal contrast by the author

Right: Rotated 19.5 degrees to the east.

As soon the new 2001 image was released Richard C. Hoagland posted an article on his *Enterprise Mission* web site celebrating his earlier prediction of a two-faced, humanoid-feline visage;

"the new Face image... now reveals a striking feline visage ... when compared to the more familiar "hominid" (western) side first sent to Earth by the 1976 Viking Mission over a quarter of a century ago." ⁶

Many advocates of the Cydonia Face attempted to follow Hoagland's split faced model, and mirror the two sides of the new 2001 image. However, many of their attempts were either too wide or too narrow. Many researchers, who had mirrored the humanoid and feline sides, totally disregard any sense of a central axis, causing narrow and distorted faces.⁷ After viewing the new image, long-time Mars researcher and member of the Society for Planetary SETI Research, Ananda Sirisena reported in his paper, *Yes – There is a Face on Mars – But is it Artificial?* his observations on mirroring;

*"Clearly, deciding where exactly the center line of the image lies has a bearing on how the two halves appear when mirrored. Moving the center line some pixels to the east or west does not substantially alter the views when the two halves are mirrored."*⁸

With that said, it should be noted that because the Cydonia Face is a three dimensional work of art, the curvature of its sculpted, bifurcated features follows an undulating topography. Thereby, due to the fact that this is an overhead shot that is almost 25° off nadir,⁹ the relative perspective of each side of its visage is either too wide or foreshortened, which is the result of its features being slightly off its central axis. The demarcation line that runs down the center of the face, from the far eastern point of its Tri-Leaf emblem and ends at the lower platform just to the west of the rectangular vertical bar, is slightly off center, which is due to the cameras low angle.

Finding the exact demarcation line is crucial in preserving the intended bifurcated visage, because if you miss it by a few pixels you could distort important facial details and deform the smaller decorative adornments. Figure 4 provides the location of the proposed demarcation.

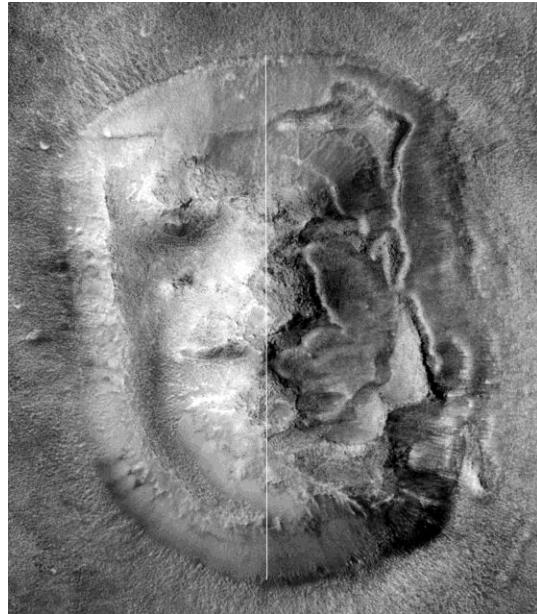


Figure 4 The Cydonia Face. Detail of MOC image E03-00824 (2001). Demarcation line added by the author.

IT'S STILL TWO FACED

Despite all the shenanigans with NASA holding back the image and then releasing it up-side down and everyone searching for the "golden" demarcation line, the Cydonia Face is still a two-faced work of art. In his paper examining the 2001 MOC image of the Cydonia Face, Sirisena also acknowledges a possible split faced model;

"If both images are split down the middle and mirrored, the western half shows a resemblance to a hominid/simian face portrayal. The eastern half mirrored shows a feline/bird appearance. The reason for the test by this writer is to remain open to the suggestion made by Richard Hoagland many years ago that the Face on Mars represented a dichotomy – a "man/lion" or "hominid/feline" fused into a single image, not unlike terrestrial artwork of many centuries ago." ¹⁰

Figure 5 shows the duplicated¹¹ images of the western Humanoid side and the eastern Feline side. When the Humanoid side is duplicated it completes a central Tri-leaf emblem within its headdress. The face has an almond-shaped eye and a teardrop feature on its cheek. Set between its eyes there is a small portrait of a jaguar head. Its nose and mouth are obscured by a large Nose Ornament that extends down to its chin. The Feline side has a pair of blunt deer horns within its headdress and an eye form shaped like a serpent head. It has a broad muzzle and a mouth with a flailing tongue. It also has a zig-zag shaped mane that transforms into an opened winged owl.



Figure 5 The Humanoid and Feline sides of the Cydonia Face. Detail of MOC image E03-00824 (2001). Left: Humanoid side (duplicated). Right: Feline side (duplicated).

HUMANOID SIDE

In examining the duplicated Humanoid side of the Cydonia Face, notice the odd serpentine "check mark" feature at the center of the forehead. When duplicated along its central demarcation it transforms into a tri-leaf emblem

(Figure 6). This is the same diagnostic tri-leaf emblem that was first observed in the 1998 MOC image SP1-22003¹² and directed my original symbolic investigation into Mesoamerican iconography. It was utilized as a symbol of kingship among the Olmec and Maya¹³ (See: 1998 TCIFJ Vol1.No3).

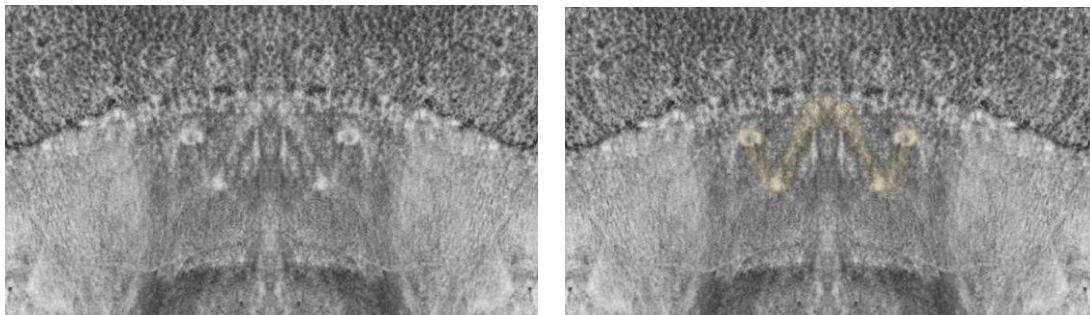


Figure 6 Tri-Leaf Crown Emblem (duplicated). Detail of MOC image E03-00824 (2001).
Left: Detail. Right: Color wash.

Looking again at the overall rectangular shape of the platform on which the Cydonia Face sits, notice it creates a flanged headdress that frames the western side (Figure 5). This is similar to flanged headdress produced by, the Maya, Olmec and Aztec (See: 1998 TCIFJ Vol1.No3).

Moving down to the eye feature on the Humanoid side, it has a distinct almond shape (Figure 7). The almond-shape of the eye was first observed a year earlier in the 2000 MOC image M1600184,¹⁴ which only captured a narrow slice of the western side of the Cydonia Face that included the eye.¹⁵

The pronounced orbit of the eyeball has a structural anatomy that adheres to the proper proportions of a human eye. The eye appears as a sphere set within the socket of the skull and it protrudes slightly from the plane of the face. A pupil is suggested by the slight bulge of the land mass at the center of the eye form. Notice the projecting edge of the "brow," the almond-shaped eye socket and lid creases that meet at the medial canthus forming a ridge. The eye form is supported by upper and lower lids that are created by

ridge lines. The linear form of the upper lid protrudes further than the lower lid. This MOC image documents that the western eye has a real anatomical structure as opposed to a chance projection.

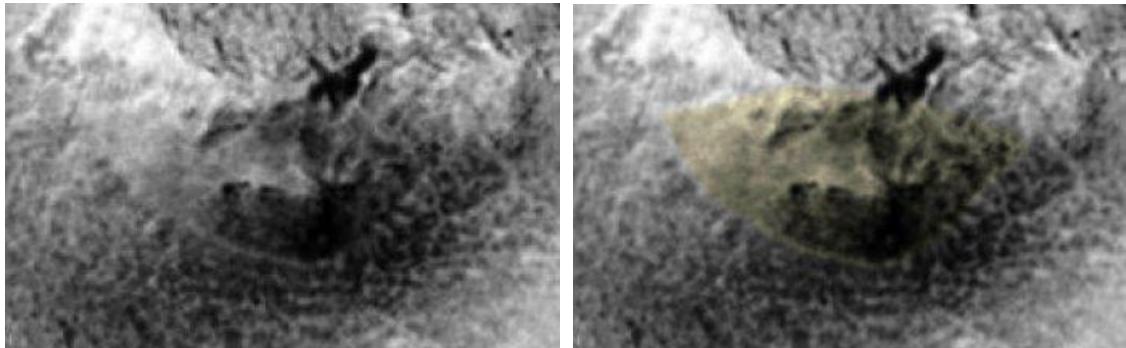


Figure 7 Humanoid Eye (Almond-shaped Eye). Detail of MOC image E03-00824 (2001).
Left: Detail. Right: Color wash.

As discussed in my examination of the 1998 image of the Cydonia Face, the anatomy of the eye feature on the Humanoid side is quite comparable to a human eye (See: 1998 TCIFJ Vol1.No3). Its sculpted appearance is supported by the basic guidelines provided by the sculptor Jay Arrera, on how to sculpt a human eye. He demonstrates that it is the three-dimensional effects of "light and shadow" that creates a "believable" eye.¹⁶

The humanoid eye feature also has a decorative eyebrow that takes on the form of an undulating creature that resembles a Mesoamerican creature known as a Deer Serpent (Figure 8).

Many of the New World cultures envisioned a creature that conflated the physical attributes of a male, horned deer with the body of a serpent. Amazingly, one of the earliest examples of this mythological creature is depicted as a human eye with an eyebrow that takes on the form of a horned deer with a serpent's body (See: 1998 TCIFJ Vol1.No3).

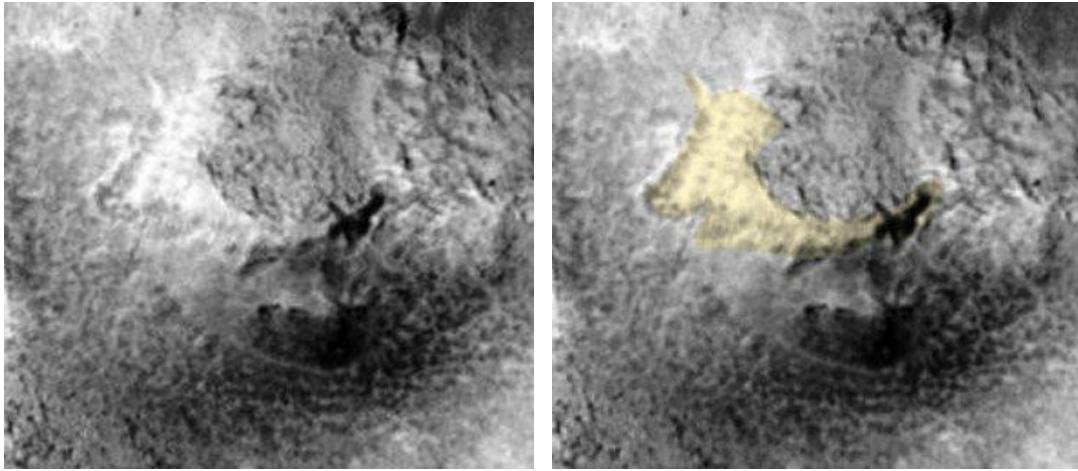


Figure 8 Humanoid Eye with Deer Serpent Eyebrow. Detail of MOC image E03-00824 (2001).
Left: Detail. Right Color wash.

With the clear, higher resolution of the 2001 MOC image a small "cut in half" portrait of a jaguar head was revealed between the eyes of the Humanoid and Felines sides of the Cydonia Face (Figure 9). When duplicated, it has a rounded head with pelt marks and horizontal, cupped ears that are darkened around the edge. The feline head has two large eyes and a dark nose and furry jowls. When compared to a contemporary Mexican mask of a jaguar the facial similarities are quite remarkable (Figure 10).

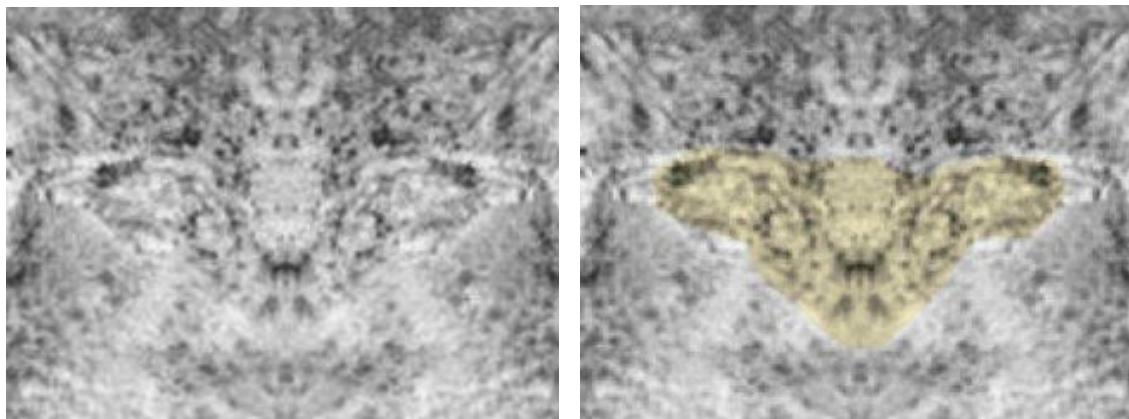


Figure 9 Jaguar mask (duplicated). Detail of MOC image E03-00824 (2001).
Left: Detail. Right: Color wash.



Figure 10 Jaguar Mask. (Contemporary Mexican mask)

Ever since its discovery, going back to the early Viking images, researchers have questioned the absence of a definitive nose formation. Hoagland first thought that the nose was damaged sometime in the past, possibly by meteor impact.¹⁸ The nose is actually obscured by a large nose ornament that hovers over the nose and extends down over the mouth (Figure 11).

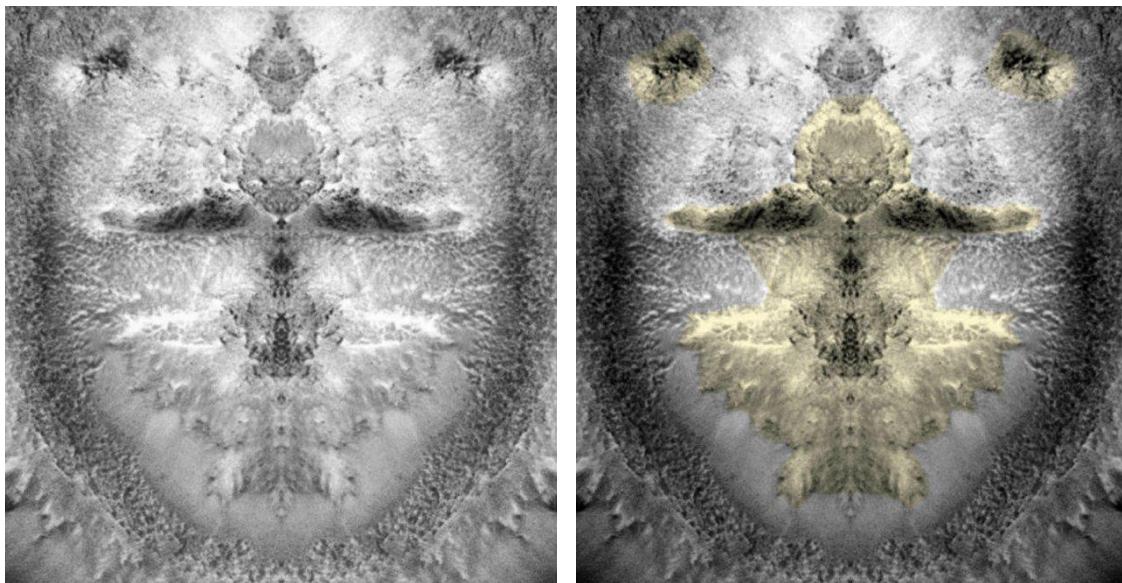


Figure 11 Nose and Cheek Ornament (duplicated). Detail of MOC image E03-00824 (2001). Left: Detail. Right: Color wash.

The elaborate nose ornament on the Cydonia Face appears to be comprised of a figurative body with an insectoid, demon-like head. This is the same feature that appeared to be a tooth in the earlier 1998 MOC image (See: 1998 TCIFJ Vol1.No3). The head is attached to a short, upper torso with two outstretched, arms or wings that end with a hand with finger-like tips. The lower torso has a flaming, jagged shield-like form that covers the Humanoid's mouth and chin.

The entire nose ornament may represent a transformational creature combining a human figure with a butterfly or moth. Figure 12 offers two examples of ornaments featuring winged creatures. The first is an open winged bird with a pair of serpent heads above it. The bird and serpent heads denote symbols of opposition, where the bird occupies the sky and the serpent the ground. The second example is a moth with human attributes produced by the Moche Indians. Notice its figurative shape has a head with two goggle eyes and a curling antenna. It has a torso attached to a pair of out stretched wings that end with a hand form with finger-like tips. Its tail is triangular and has a long extended streamer. The overall design of the mouth-man highly resembles the Nose Ornament observed on the Humanoid



Figure 12 Nose Ornament

Left: Bird with serpent heads, gold (Costa Rica)

Right: Moth-man, gold (Moche)

side of the Cydonia Face. Considering that moths and butterflies are symbols of transformation, could its moth-shape be a symbolic reference to a human-feline transformation?

Just above the elaborate Nose Ornament is a small mound that Hoagland referred to as the "teardrop" feature, which he thought was a remnant from a hypothetical meteor impact that destroyed the nose and as a result a small portion of it settled on the cheek, creating a teardrop feature¹⁹ (Figure 11).

Hoagland later suggested the "teardrop" feature was an intentional part of the facial design and it has a precise alignment with the "City Square," located in the western region of the Cydonia Complex.²⁰ I agree its placement is intentional however, I believe it may have been designed as a cheek ornament, much like the bulbous dots seen on the cheeks of Mesoamerican Lords and gods (Figure 13). These dots on the cheek were seen as symbols of royalty.²¹



Figure 13 Cheek Ornaments.

Left: Moon Goddess mask (Aztec).

Center: Young Lord mask (Chontal)

Right: Ajaw glyph (Maya).

FELINE SIDE

Moving now over to the eastern, Feline side of the Cydonia Face, notice the blunted, crowned headdress at the top of the head. Seen here in great detail, is a pair of knobby forms that take on the shape of two blunted, deer antlers (Figure 14).

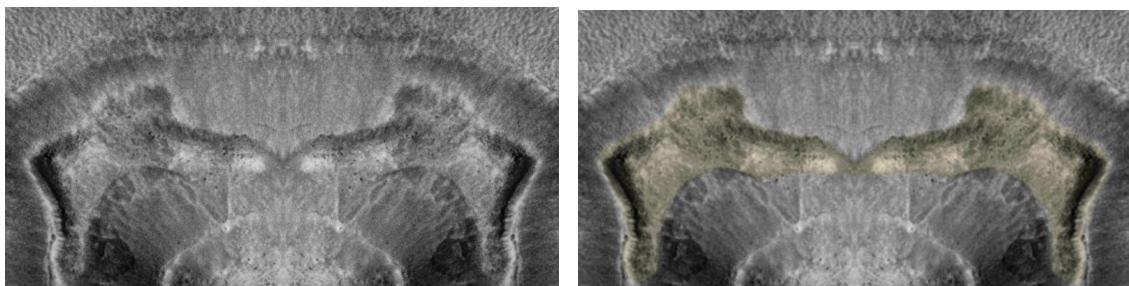


Figure 14 Blunted Deer Antler Headdress, Feline Side (duplicated). Detail of MOC image E03-00824 (2001). Left: Detail. Right: Color wash.

The Maya were great hunters and deer were a mainstay, therefore deer imagery has held a sacred place in their iconography and motifs signifying the primordial hunt. To emphasize this relationship figure 15 provided two examples of pre-Columbian masks that are adorned with a set of blunted deer antlers. The blunt antler symbolizes the deer's loss of virility and strength. It acts as a trophy head, displaying the hunter's dominance over its emasculated prey.²² A similar display of the felines dominance over its prey may be encoded within the blunted horn headdress seen on the feline side of the Cydonia Face in figure 15.

Focusing in on the center of the blunted deer antler headdress on the duplicated Feline side of the Cydonia Face, notice the indented, V-shaped

cleft (Figure 14). This is another common motif seen on many representations of Olmec Were Jaguars (Figure 16).



Figure 15 Masks with blunt deer antler headdress

Left: Deer Dancer Mask (Mezcala). Right: Jaguar transformational mask (Maya)

The Olmec Were Jaguar is connected to the Maya rain and maize god, and the V-shaped cleft is a reference to a split in the earth where the first corn sprout sprang.²³ It is amazing to see that just as the Humanoid side has a tri-leaf emblem of a corn sprout on its forehead (Figure 6) the feline side has the original cleft from which it sprang.



Figure 16 Were Jaguar with V-shaped cleft.

Left: La Venta, Mexico. Center: San Lorenzo, Mexico (Detail). Right: Veracruz, Mexico

I will now examine the squinting, rectangular-shaped eye form on the eastern, Feline side of the Cydonia Face (Figure 17). This squinting eye form was also examined by an astronomer and former orbital imaging specialist for the US Naval Observatory, Dr. Tom Van Flandern. Supporting a symmetrical humanoid visage, he published a paper titled: *Preliminary analysis of 2001 April 8 Cydonia Face image*, in his Meta Research Bulletin. He proposed that a hypothetical meteor impact event hit the mouth area and caused a "melt flow" that partially cover the mouth and eye, therefore explaining the asymmetrical appearance of the humanoid visage.²⁴

Taking a closer look, the narrow, rectangular eastern eye form its contours takes on the shape of a serpent head (Figure 17). Notice the profiled head of a serpent with a large snout and partially opened mouth with a flailing tongue. There is also a small eye form located on the upper western side of the head.

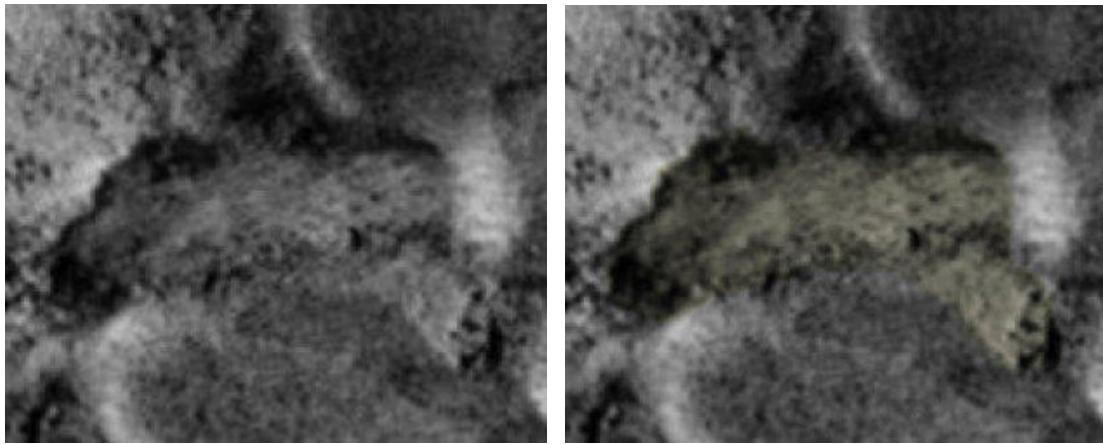


Figure 17 Feline Eye (Serpent Head with Flailing Tongue). Detail of MOC image E03-00824 (2001). Left: Detail. Right: Color wash.

This idea of replacing an eye with a totally foreign object or symbol was a common motif utilized in the design of Mesoamerican portraits and head glyphs. Three examples are offered here in figure 18. The first is a parrot head glyph with an infix sun glyph for an eye. The second is a detail of a small sculpture of a dog showing its head with a foot glyph used for an eye. The last is a monkey head glyph with an infix open mouth glyph used as an eye.



Figure 18 Infixed Eye Glyphs

Left: Parrot Head with sun glyph eye (Maya)

Center: Dog Head with foot glyph eye (Maya)

Right: Monkey Head with mouth glyph eye (Maya)

Just below the muzzle of the Feline side of the Cydonia Face is the mouth feature, which has a small fang and a highly decorative flailing tongue (Figure 19). The tongue is fashioned as an elaborately constructed owl head wearing a crowned headdress. It has two large eye orbits surrounded by feathery contours and a sharp beak that creates a horned owl face. It also wears a decorative collar.

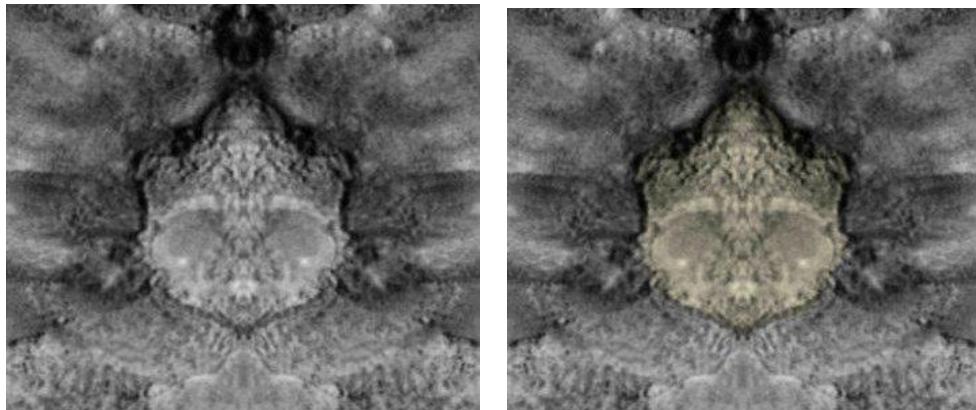


Figure 19 Flailing tongue (duplicated). Detail of MOC image E03-00824 (2001).
Left: Detail. Right: Color wash.

In Mesoamerican cultures the flailing tongue was seen as a reference to bloodletting.²⁵ Lords would run a sting ray spine through their tongue and collect blood droplets in a bowl of paper and set it on fire. The smoke would transform into a vision serpent, which could be interpreted for prophecy.²⁶

Decorative flailing tongues were a common motif throughout Mesoamerican cultures. Here are three examples of ornamental, flailing tongues (Figure 20). The first is a jaguar head glyph with a flailing jeweled tongue. The second is a sculpture of an Aztec lord with a jeweled tongue, while the third example is a detail of the Aztec calendar stone showing the Sun God with a flailing tongue that takes the shape of a jaguar paw.

The Crowned Tongue feature on the Feline side of the Cydonia Face is framed within the zig zag-shaped mane formation. As we all know there are no lions in the Mexican region of North America however, many of these Mesoamerican cultures envisioned a feline creature that they called the bearded jaguar, which has a mane. Figure 20 features two examples of jaguars with beard-like manes.

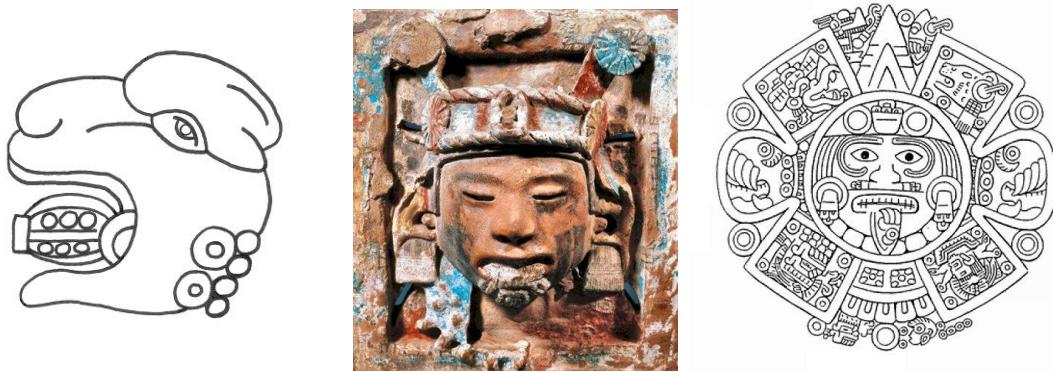


Figure 20 Flailing Tongues.

Left: Jaguar glyph (Maya)

Center: Portrait of a young Lord. (Aztec).

Right: Calendar Stone, detail (Aztec)

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Figure 21 Bearded Jaguars

Left: Aztec reliquary (frontal view). Right: Olmec mask

The zig-zag shape of the mane feature was also noticed by Van Flandern. He identified the zig-zag shape formation as "linear striations" that were caused by the same impact event that affected the shape of the eastern side of the mouth and eye.²⁷ He conveniently explains three unwanted features with one impact.

Digital imaging specialist Dr. Mark Carlotto hypothesized that the shape of the zig-zag shape of the mane feature was the result of the accumulation of sand dunes. In his paper, *Symmetry and Geometry of the Face on Mars Revealed* published in 2001 in the journal *New Frontiers in Science*, he suggested;

*[T]he east side of the Face reveals that it is covered by dunes which have likely formed from sand blown by prevailing westerly winds and deposited on the leeward side. From 3-D perspective views this dune field appears to be covering much of the east side of the landform...*²⁸

Considering the seasonal sand storms that plague Mars there is no evidence of the movement or the accumulation of sand across the Cydonia Face over the past 3 years. Either the sand dunes have been petrified and become permanent rock or it is an intentionally designed feature.

The tongue that emerges out of the mouth on the Feline side of the Cydonia Face appears as a crowned head of a Horned Owl Head. The zig-zag shape of Van Flandern's "linear striations" and Carlotto's permanent "sand dunes" easily transforms into an owl's body with a set of out stretched wings. The lower portion of the mane conforms into a barrel-shaped breast attached to two feathered legs with clawed feet and short tail feathers (Figure 22).

Located within the center of Teotihuacan complex is a large housing compound known as the Tetitla Palace. Its walls are filled with colorful murals of which, many included large portraits of opened winged owls²⁹ (Figure 23).

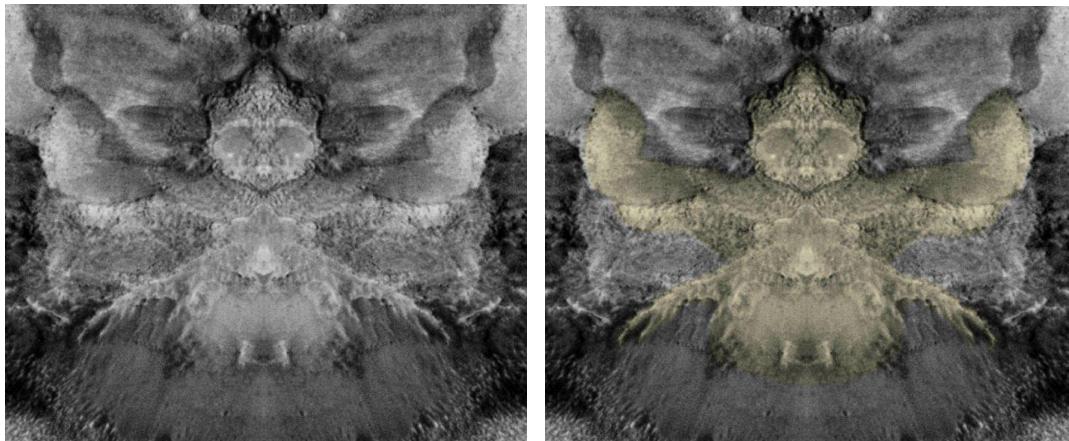


Figure 22 Opened Winged, Crowned Owl (duplicated). Detail of MOC image E03-00824 (2001). Left: Detail. Right: Color wash.



Figure 23 Open Winged Horned Owl. Aztec, Detail of mural at Tetitla Palace, Teotihuacan.

The appearance of this open winged, horned owl can also be compared to the design of nose ornaments (Figure 24). Take a look at this example of an open winged, horned owl set below arching cheek guards that was produced by the Moche Indians of Peru (Figure 24). When hung from the nose, the

owl's head acts as a flailing tongue, while the cheek guards and open wings of the owl mimic the folds seen within the feline's mane.



Figure 24 Open winged horned owl, nose ornament (300 BC). Moche, Peru. Image courtesy the American Museum of Natural History.

At first, this conflated image of the horned owl within the feline's mane may appear to be unrelated to the current motifs and decorative elements found within the humanoid side of the Cydonia Face, such as the tri-leaf emblem and deer effigy, however the jaguar and owl have an enduring relationship that is documented within Maya and Aztec text that illustrate their Creation mythology.

According to Maya and Aztec tradition, when the mythical creature known as Jaguar Sun embarks on his journey down below the horizon into the Underworld he takes on the alternate aspect of the Nighttime Sun.³⁰ Once in the Underworld he joins his avian companion the horned owl at the temple of the Death God (God L). Just such a scene of this mythical reunion is illustrated in the Codex Borgia³¹ (Figure 25). Notice the horned owl and the jaguar

leaving an Underworld Temple as a death skull appears hovering above the jaguar. The death skull has a large knife blade protruding from his mouth, like a tongue.

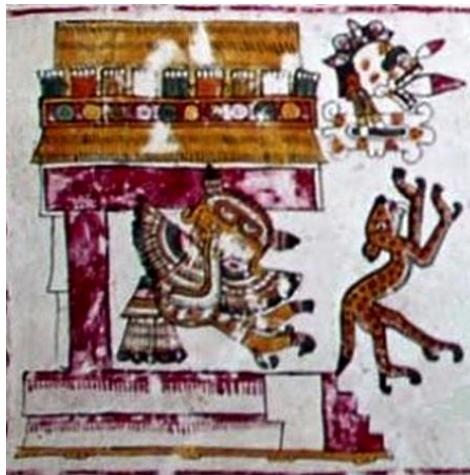


Figure 25 Horned Owl, Jaguar and Death God (with flailing tongue) in the Underworld. Codex Borgia, page 24.

This highly detailed 2001 MOC image revealed numerous Mesoamerican facial ornaments and symbolic motifs within the Cydonia Face that soon after its release Richard C. Hoagland contacted me with an urgent request. He asked me to send him as many examples of Pre-Columbian two-faced and split faced images as I could.³² He posted two examples on his Enterprise Mission web site that evening in support for his two-faced human-feline model for the Cydonia Face.³³

CONCLUSION

As evident in this analysis of the 2001 Mars Global Surveyor image of the Cydonia Face, I have shown overwhelming evidence to support a bifurcated, two-faced model, which exhibits a bifurcated humanoid-feline visage. The opposing camp envisions a single face model, where they imagine a once

symmetrical humanoid face that was damaged on its eastern side by random set of meteor hits sometime in the past. As a result of this targeted damage it created a feline appearance, which can be explained away by a series of unsupported hypothetical events.

They want us to believe that just as engineers used precision explosives to create the a portrait of George Washington on Mt Rushmore – a random set of meteor hits altered the eastern side of the Cydonia Face and created the feline visage we see today. I think it is appropriate to follow the philosophy of Ockham's razor, where the simplest explanation, which requires the fewest assumptions, is usually correct.

The images presented here support the simplest explanation, which is a two-faced, human-feline model - where, "what you see is what you get." The Cydonia Face is a two-faced, humanoid/feline visage with decorative adornments and pictographic elements that are consistent with the distinct iconographic motifs shared throughout the cultures of Mesoamerica.

The evidence is clear for everyone to see and examine for themselves. There is no available data set to dispute the existence of the Humanoid and Feline facial features or the embedded pictographic ornamentations observed within the Cydonia Face. This new MOC image shows that Richard C. Hoagland was right all along; the Cydonia Face is a two-faced, humanoid and feline work of art.

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Notes

1. Mars Viewer, MOC E0300824, *Cydonia massif*, Dated April 8, 2001
2. ABC News, *NASA Dispels 'Face on Mars' Belief*, May 24, 2001
3. Kendrick Frazier, *Mars 'Face' Dwindles in New Spacecraft Images*, Skeptical Inquirer, September/October 2001.
4. Associated Press, *New View of Mars*, New York Times, May 25, 2001, A16.
5. Mars Viewer, MOC E0300824, Cydonia massif, Dated April 8, 2001.
Follow link - <http://viewer.mars.asu.edu/viewer/moc#P=E0300824&T=2>
6. Richard C Hoagland and Mike Bara, *Yes Virginia, It really is a "Catbox ... "Or, "Where are we ... now that we have won?!"*, The Enterprise Mission, May 2001.
7. Sahil Raptor, *Mars Face*, zbrushcentral.com, May 8 2001.
8. Ananda Sirisena, *Yes – There is a Face on Mars – But is it Artificial?*, SPSR, Peer Reviewed Journal Publications and Other Article, June 2001.
9. Mars Viewer, MOC E0300824, *Cydonia massif*, Dated April 8, 2001.
10. Ananda Sirisena, *Yes – There is a Face on Mars – But is it Artificial?*, SPSR, Peer Reviewed Journal Publications and Other Article, June 2001.
11. The technique of mirroring half and bifurcated images of figurative and graphic forms is an acceptable research tool utilized among the archaeology community, which they call "duplicating". Unfortunately many critics dismiss this technique and are unaware of the long tradition of composite art produced in Pre-Columbian cultures and have prematurely excluded the

artistic motif of half, bifurcated and polymorphic models from their criteria for establishing artificiality.

12. George J. Haas, *The 1998 Face on Mars*, The Cydonia Institute: Field Journal. Vol. 1 No. 3, June 1998.

13. David Freidel, Linda Schele and Joy Parker, *Maya Cosmos: Three Thousand Years on the Shaman's Path*, (New York: Quill, 1993), 431.

14. Mars Viewer, MOC 1600184, *Massif in Cydonia region*, dated June 3, 2000

15. George J. Haas, *The M16 Face*, The Cydonia Institute: Field Journal, Vol. 4 No. 1, February 2001.

16. Jay Arrera, *Tutorial: Sculpting Eyes*, Sculpture, Tutorials, May 3, 2019.
<https://www.jayarrera.com/blog/2019/05/03/how-to-sculpt-eyes/>

17. Felipe Solis and Ted Leyenaar, *Mexico Journey to the Land of the Gods, Art Treasures from Ancient Mexico*, Lund Humphries, 2002, 259.

18. Richard C. Hoagland, *The Monuments of Mars: A City on the Edge of Forever*, 4th ed. (Berkeley: North Atlantic Books, 1992), 22.

19. Ibid, 22.

20. Ibid, Figure 30.

21. David Stuart, *The Royal Headband: A Pan-Mesoamerican Hieroglyph*, Maya Decipherment, January 26, 2015.

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23. The Olmec Maize God: *The Face of Corn in Formative Mesoamerica*. In Studies in Ancient Mesoamerican Art and Architecture: Selected Works by Karl Andreas Taube, vol. 2, p. 100.

24. Tom Van Flandern, *Preliminary analysis of 2001 April 8 Cydonia Face image*, Meta Research Bulletin, 2001.

25. Linda Schele and David Freidel, *A Forest of Kings: The Untold Story of the Ancient Maya*, (New York: Quill, 1990), 70.

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27. Tom Van Flandern, *Preliminary analysis of 2001 April 8 Cydonia Face image*, Meta Research Bulletin, 2001.

28. Mark Carlotto, *Symmetry and Geometry of the Face on Mars Revealed*, New Frontiers in Science, Vol. 1 No. 1, Fall 2001.

29. There has been some dispute among researchers about what sort of birds are represented on these murals. Both owls and eagles have been suggested, however the round head, paisley eyes and the full plumage suggests an owl rather than an eagle. See Robin Heyworth, *Tetitla: Jaguar Lords, Owl Warriors & the Great Goddess.*, Uncovered History, October 28, 2014 and Jesper Nielsen and Christophe Helmke, *Spearthrower Owl Hill: A Toponym at Atetelco, Teotihuacan*, December 2008, Latin American Antiquity 19(4):459-474.

30. George J. Haas and William R. Saunders, *The Cydonia Codex: Reflections from Mars*, (Berkeley: Frog Lid, 2005), 127.
31. The Codex Borgia is a Mesoamerican manuscript consisting of 39 pages that were written sometime before the Spanish conquest of Mexico. The codex was brought to Europe during the early Spanish Colonial period and rediscovered in 1805 among the effects of Cardinal Stefano Borgia. The Codex Borgia is presently housed in the Apostolic Library located in the Vatican.
32. Personal phone conversation with Richard C. Hoagland, May 25, 2001.
33. Richard C. Hoagland and Mike Bara, *Yes Virginia, It really is a "Catbox ... Or, "Where are we ... now that we have won?!"*, The Enterprise Mission, May 2001.