



# PLEISTOCENE COALITION NEWS

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## - Challenging the tenets of mainstream scientific agendas -



India

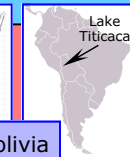
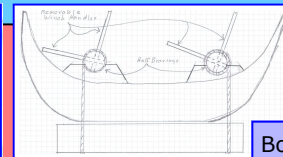


### Welcome to the Pleistocene Coalition

We at the Pleistocene Coalition offer a warm welcome to our new readers and wish everyone a very happy upcoming New Year.

**"If India's oldest rock art is 700,000 years old**  
I think we should expect to see mathematical ideas show up there and possibly earlier than in other regions."

**Raghubir S. Thakur**, MA History, former Consult. Security & Land Mgmt., India, continues his series on mathematics in Delhi rock art. In **Part 2**, evidence includes complex petroglyph arrangements and fractions. See **Thakur p.8**.



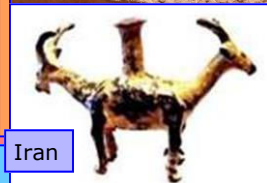
Bolivia

**Discovery of the 12,000-year old megalithic site, Gobekli Tepe**, instantly challenged distinctions anthropology makes between people of various time periods. The PC has maintained there is no evidence for differences between Pleistocene and so-called 'modern' human intelligence. Related to ancient capabilities involving megaliths, experimental archaeologist,

**Thomas A. Gara**, proposes the creators of famed Tiahuanaco and Puma Punku, in Bolivia, would have used an overlooked efficient means of transporting multi-ton stones. See **Gara p.6**.



Utah



Iran



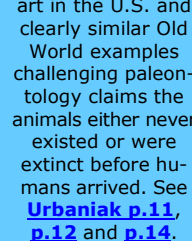
Engineer and rock art researcher, **Ray Urbaniak**, continues to challenge stubborn and defensive mainstream anthropological interpretations of Native American prehistory and the capabilities of ancient American rock artists. In three articles Urbaniak provides perspective regarding rock art in the U.S. and clearly similar Old World examples challenging paleontology claims the animals either never existed or were extinct before humans arrived. See **Urbaniak p.11, p.12 and p.14**.



Utah



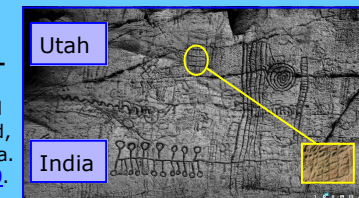
Iran



**Dr. Virginia Steen-McIntyre PhD**, co-founder of the Pleistocene Coalition suffered two debilitating strokes the past few years. Readers all over the globe continue in concern and hope for Virginia's recovery. Meanwhile, we have been providing reprints of her always illuminating PCN articles. See **p.5**.

### Petroglyphic encyclopedias

New and Old World, Utah, India. See **p.10**.



Utah

India



Netherlands

**"Technology can, neither in living nor in extinct man, be used to classify groups or measure intelligence!"**

In **Part 5** of the 'How our ancestors lived' series, Dutch stone tool production expert, **Jan Willem van der Drift** continues to challenge anthropology's longtime axiomatic tenet that 'primitive tools' = 'primitive man.' He capably builds the case that differences in tool types and techniques are matters of environmental circumstances. See **Van der Drift p.2**.



Spain

Rock art & fossils SAME REGION

PCN #s 61-67 provided the first installments of a 1998-published thesis called **The Impact of Fossils** (its distinctive title has since been copied by geology, biology and paleontology authors). It proposes that observing and collecting fossils in Paleolithic-Neolithic-Bronze ages may have periodically influenced the development of rock art. The installments were necessary due to the paper's censorship by *Current Anthropology* and *RAR* and competitive editors and reviewers with well-known conflicts of interest. **Part 7** picks one mysterious group of Paleolithic-Bronze Age rock art and compares it with fossils on rock surfaces in the very same regions. See **Feliks p.16**.

## How our ancestors lived, *Part 5* **Mode-III: travelling light**

By Jan Willem van der Drift, Stone tool production expert and early man theorist

**"Technology cannot be used to**



**classify groups or measure intelligence whether in living or in extinct man."**

**"The technological stages are man's response to stage-specific challenges!"**

### Technological stages

In the colonial era, scientists classified ethnic groups on the basis of their technology.

For not making trains, planes, or producing such as grand architecture Africans, for instance, were classified as a lower race even though Congolese—who dressed and acted like whites—could in the 1950s get a legal status as 'évolués.'

This arrogant method was also used to classify 'extinct' humans. In one famous example, Neanderthals were the people who 'prepared cores,' either to make one flake with a special size and shape (e.g., preferential Levallois technique) or to produce more flakes (recurrent Levallois).

Preparing is planning ahead. Bordes claimed this made Neanderthals a human stage that 'planned ahead' and, therefore, 'Middle Paleolithic.' Using handaxes or even tools without standardized forms, on the other hand, turned *Homo erectus* and *Homo habilis* into 'Lower Paleolithic' species.

Here's the problem; technology reflects only a *small part* of our capabilities and what makes us human. If early hominids had not planned ahead mankind would not have survived.

So, technology cannot be used to classify groups or measure intelligence whether in living or in extinct man. Mankind may have evolved in some way, but the theory that technological stages were evolutionary stages is a delusion. Technological stages are man's response to stage-specific challenges! (Fig. 1).

[Part 2](#) of this series explained that Mode-I humans flaked on the ground (OBF) because they used rounded cobbles; this made it impossible to make handaxes. Around 1.75 Ma droughts forced man to carry large OBFs; freehand resharpening these OBFs inevitably led to LFB-handaxes (Mode-II, see [Part 3](#)). To learn what caused Mode-III, you must first know when and why the Levallois technology (commonly associated with Neanderthals) began.

### Earliest Levallois

It is very difficult to turn the tough andesite-cobbles from the Vaal river (South-Africa) into large OBFs. This made LFB-handaxe makers one million years ago short on OBFs; they had to use complete cobbles as blanks. But the thick cobbles produced thick forms, which were not very efficient as cutting-tools. They were therefore instead used as cores: each handaxe-like core (p. 59 in my book, [The Paleolithic, How and Why](#)) produced one large thin flake. These flakes were used for cutting, or as blanks for handaxes. This is called Victoria-West technique.

Shaping cores to produce predetermined flakes is, by definition, preferential Levallois. But Bordes refused to accept that *Homo erectus* (a.k.a. *Homo ergaster*) used Levallois, because this debunked his 'stages' theory! So he

claimed Victoria-West was merely 'proto-Levallois'. Nobody dared to go against



**Fig. 1.** Mode-III humans lived in-between shelters (see [Part 1](#) on the significance of shelters [PCN #64, May-June 2019]). They carried bags with their belongings and raw materials to make large handaxes such as seen at **Left** (Upper-Acheulean c. 200,000 BP). However, dryer climates forced them to travel farther and therefore, lighter. So from MIS 6 onward, everyone made smaller tools, e.g., **Right** (KMG c 50,000 BP).

Bordes and his claim seemed to make sense; for why would *Homo erectus* continue to make handaxes if he had the brains to make Levallois tools? The answer is that *complexity is not always better*; survival is about efficiency and large handaxes remained the most efficient butchering tools! So any *Homo erectus* in his right mind would only use Levallois technique when the raw materials left him no other choice. As with the cobbles along the Vaal.

If *erectus* ran out of OBFs in a place with only tennis-ball-sized blocks he then

> [Cont. on page 3](#)



## Mode-III: travelling light (cont.)

**"Bordes refused to accept that *Homo erectus* (a.k.a. *Homo ergaster*) used Levallois technique because this debunked his 'stages' theory!"**

**"The drawn example is 1.3 million years old (Peninj-ST, Tanzania). This is recurrent Levallois, so Levallois technique irrefutably existed a million years before the Middle Paleolithic!"**

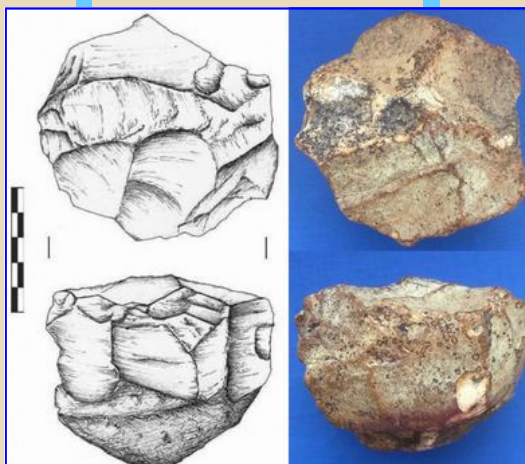
worked those blocks with his basic technique: freehand flaking in alternating directions. This inevitably led to cores like those in **Fig. 2**; the drawn example is 1.3 million years old (Peninj-ST, Tanzania). This is recurrent Levallois, so Levallois technique irrefutably existed a million years before the Middle Paleolithic! Similar cores were i.e. used 1.2 Ma in Olduvai-BK, 0.9 Ma in the Cueva Negro (Rio Quipar, Spain); and the artifact photos in **Fig. 2** illustrate that Neanderthals were still using the same technique in now Atapuerca, Spain, 70–50,000 years ago.

### Mode-III stage

But if large handaxes were the best 'butcher-knives', then why did mankind switch to Levallois about 300,000 years ago? Not just Neanderthals (Middle Paleolithic) did this, but early-sapiens in Africa (Middle Stone Age) and the Denisovans in Asia did the same. This was evidently not a racial but a world-wide phenomenon, Mode-III must therefore have been man's response to a world-wide problem.

The Mode-III time-span is characterized by frequent cool-dry phases. These droughts reduced the growth of plants, this forced herbivore herds to migrate over greater distances. Our ancestors depended on the herds for their calories (see *Part 1*), so they also had to walk farther and faster. The energy cost of carrying materials for large handaxes

now outweighed the benefit of their cutting efficiency, so 'butcher-knives' were



**Fig. 2:** Flaking alternately in horizontal and vertical direction, turns blocks into cores that produce a series of standardized flakes. This is recurrent Levallois. Drawing from R. Mora et al: The archeology of the Peninj 'ST complex' (Lake Natron Tanzania). Treballs d'Arqueologia 2003.

replaced by lightweight 'penknives.' Many 'penknives' were made with labor-



**Fig. 3:** Measured per kilogram, flat recurrent Levallois cores (**center and right**, Mousterian) produce more centimeters of cutting edges than thicker recurrent Levallois cores (**left**, upper-Acheulean). Some corresponding flake-tools are also shown (on one thick core, and top right).

intensive Levallois techniques because the need to travel light compelled toolmakers to make the most centimeters of cutting edges out of each kilogram carried stone.

### Upper-Acheulean

Mode-III groups at Orgnac-3 (Ardèche, France) already stopped making handaxes about

280,000 years ago. Instead, they butchered with small flakes. These flakes were struck from recurrent cores, that were far flatter than those at Peninj. Old theories attributed this difference to evolving skills, but it's simply due to the raw materials. *Homo erectus* at Peninj ended up with thick cores because he used blocks. Whilst the abundance of flint in the Ardèche, allowed toolmakers to select the lightest and therefore flattest pieces.

Choosing flat materials to travel light, led to flat 'single-face' recurrent cores (see the right-hand row in **Fig. 3**).

Mode-III groups in England and the west of France still used thicker cores and large (on average over 10 cm) handaxes. This upper-Acheulean (= epi-Acheulean) toolkit seems 'less evolved' than the early-Mousterian at Orgnac-3, but it's actually 'more luxurious.' Because more rain fell in the zone close to the ocean, hunters could still catch enough herbivores within one river-system. So they walked shorter distances and could therefore still afford large handaxes. There are similar differences in the African Middle Stone Age; the Lupemban tradition could afford large bifacial

> [Cont. on page 4](#)

## Mode-III: travelling light (cont.)

**"Bordes refused to accept that**

points (**Fig. 4**) whilst groups in dry areas had to use small flake tools.

[Part 4](#) explained that the Mode-II Acheulean failed to cross the North-Sea lowlands, because parents



**Fig. 4:** Large Lupemban bifaces (Congo 300-100 ka, Africa Museum Belgium).

**Homo erectus (a.k.a. Homo ergaster) used Levallois, because this debunked**

living in lowlands lacked the raw materials to teach their children how to make classic handaxes. But the upper-Acheulean (despite being less mobile than groups in the Ardèche) traveled further



**Fig. 5:** Most KMG handaxes have a wedge-shaped cross-section. They are bifacial backed knives. The cutting sides are turned to the left; Netherlands.

**his stages-theory!"**

and faster than Mode-II. Mode-III hunters walked from England to the Netherlands within one lifetime, so their descendants

along the Meuse, Rhine and Elbe did make handaxes.

### Classic Mousterian

The last Saale glacial (MIS 6, 180-130 ka) was extremely dry, so all Neanderthals walked enormous distances. This harsh life led to the classic Neanderthal anatomy, and it ended the era of the large handaxes. Small lightweight tools became the norm: the average Mousterian handaxe only measured 7 cm. Reducing the tool-size gave rise to a greater diversity; Bordes recognized five toolkit varieties within the Dordogne alone! He interpreted these as his five classic Mousterian cultures; this would be the earliest 'cultural differentiation'. But tools are not cultures, the need to travel light made the actual cultural-behavior almost completely immaterial (see [Part 1](#)). Moreover the Dordogne is too small to harbor five cultures (Lewis Binford estimated it could only support one hunter-gatherer family for ten years).

The five toolkits may instead be the result of special activities. We can i.e. expect denticulates in sites where plants and small preys were processed, knives in butchering sites and scrapers where hides were cleaned. Jürgen Richter showed that in Bavaria, sites with only standard Mousterian tools and sites that also have bifacial backed knives are seasonal variations of the same MMO-tradition.

The toolkit also depended on the availability of raw materials. During warm-wet phases this was lower (see [Part 4](#)) and there were more plants and small preys; both increased the percentage of denticulates. Flat symmetrical handaxes on the other hand, require the very best materials. So making thousands of symmetrical MTA handaxes required an endless supply of quality flints. This restricted the MTA-tradition to the French-English flint-area.

Quality materials like radiolarite linked the Szeletian leaf-points to northern Hungary and adjacent areas. As in any lowland, quality materials were rare on the northern steppe (reaching from the North-Sea lowlands across Germany and Polen into Russia), so the Keilmesser Gruppen (KMG or Pradnick-Groups) could not pull their noses up at small asymmetrical blanks. The KMG therefor made far more asymmetrical bifaces (**Fig. 5**) than symmetrical bifaces.

For further reading see my book: [The Paleolithic how and why](#) (PDF, 121 MB):

JAN WILLEM VAN DER DRIFT, a veterinarian in the Netherlands by trade, is a colleague of the late Chris Hardaker, archaeologist and founding member of the Pleistocene Coalition. He is a Dutch lithics expert in stone tool production with over 40 years field experience. Van der Drift is a prolific author in both English and Dutch publishing in such as *Notae Praehistoricae*, *Archeologie*, *APAN/Extern* (publication of Aktieve Praktijk Archeologie Nederland), etc. He is also a producer of educational films demonstrating bipolar techniques of stone tool production and its association with various human cultures of all periods beginning with the Paleolithic. Van der Drift's work is also referenced in Paul Douglas Campbell's book, *The Universal Tool Kit* (2013), a highly-rated overview of stone tool production techniques. Van der Drift is presently Chairman of APAN or Active Practitioners of Archaeology in the Netherlands (Aktieve Praktijk Archeologie Nederland). The organization was started due to the cumulative knowledge and field experience of its members consistently observing inaccurate interpretations of physical evidence regarding the nature of early humans by the mainstream archaeology community. The group was given extra motivation along these lines by Chris Hardaker who, in correspondence with van der Drift related the treatment of Calico Early Man Site in California (excavated by famed anthropologist Dr. Louis Leakey) by the mainstream archaeological establishment. Van der Drift lives in the small town of Cadier en Keer in the province of Limburg, Netherlands.

Website: <http://apanarcho.nl>



Revisiting PCN #4, March-April 2010

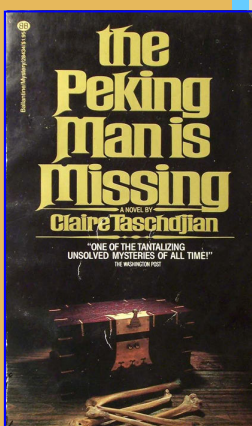
## Peking man And a small branch of that long-cold trail leads to—Evergreen, Colorado!?

By Virginia Steen-McIntyre, PhD  
Volcanic ash specialist

**"For a short while, our**



**local nursing home in Evergreen housed a very frail,**



**Fig. 1.** *The Peking Man is Missing* by Claire Taschdjian.

**elderly woman, then in her last illness. Her name was Claire Taschdjian."**

**In the January-February issue of this newsletter [PCN #3, 2010],** Ishtar made casual mention of Peking Man, "another story covered in murkiness and unexplained lacunae" (page 5).

That brought back memories!

For a short while, our local nursing home in Evergreen housed a very frail, elderly woman, then in her last illness. Her name was Claire Taschdjian, and she was the young assistant who hurriedly packed up the Peking "man" fossils for shipment (in a redwood box, she assured me) as the Japanese marched into the city so long ago. Claire was Austrian by birth and passport, and she did not spend the war years in the local internment camp. (She later married one of the professors from the institute as the war ended; hence the Armenian surname.)

Claire used some of her real-life experiences as background for a paperback thriller, *The Peking Man is Missing*, 1977, Ballantine Books (**Fig. 1**). She was also interviewed by staff from the Denver Museum of Nature & Science. The interview is stored in their Image Archives collection, catalog number TAPE 98-027, shot March 5, 1998. Contact Kris Haglund, Archivist <khaglund@dmns.org> for more information.

And Claire gave me a memento: a small plaster cast of "Nellie" that she received,

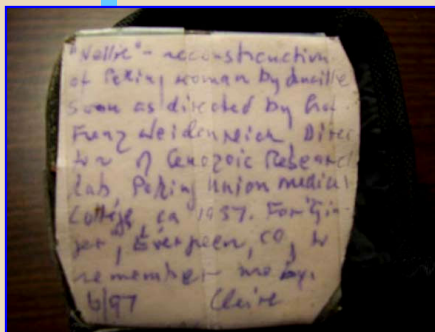
I believe, from the Japanese while they were in control of the institute (**Fig. 2**). A handwritten note attached to the base reads:

"'Nellie'—reconstruction of Peking woman by Lucille Soon as directed by Prof. Franz Weidenreich, Director of Cenozoic Research Lab, Peking Union Medical College, ca. 1937. For

story of suppression—now well-known in the science community—was first brought to public attention in Michael Cremo's and Richard Thompson's classic tome, *Forbidden Archeology*, which was followed by a central appearance in the NBC special,



**Fig. 2.** Small plaster cast of "Nellie" or "Peking Woman," a gift to Virginia Steen-McIntyre from Claire Taschdjian—last person to see the famed Peking Man fossils before they were lost during World War II.



**Fig. 3.** Handwritten note on base of Peking Woman plaster cast.

"Nellie"—reconstruction of Peking woman by Lucille Soon as directed by Prof. Franz Weidenreich, Director of Cenozoic Research Lab, Peking Union Medical College, ca. 1937. For Ginger, Evergreen, CO, to remember me by.

6/97 Claire

Ginger, Evergreen CO, to remember me by. 6/97 [6/98] Claire" (**Fig. 3**).

Talk about a close brush with fame!

VIRGINIA STEEN-McINTYRE, PhD, is a volcanic ash specialist; founding member of the Pleistocene Coalition; and copy editor, author, and scientific consultant for *Pleistocene Coalition News*. She began her lifelong association with the Hueyatlaco early man site in Mexico in 1966. Her

*Mysterious Origins of Man* in 1996, hosted by Charleton Heston. The program was aired twice on NBC with mainstream scientists attempting to block it.

All of Virginia's articles in *PCN* can be accessed directly at the following link:

[http://www.pleistocenecoalition.com/#virginia\\_steen\\_mcintyre](http://www.pleistocenecoalition.com/#virginia_steen_mcintyre)

# Considering marine transport of large andesite monoliths across Lake Titicaca (amended from 2015 post)

By Thomas A. Gara, Experimental archaeology,  
Schongauer Institute, Munich, Germany

**"This procedure would re-**



**duce the effective transport weight of the ande-**



**Fig. 1.** Location of Lake Titicaca at the western edge of Bolivia and eastern edge of southern Peru in South America.

**site block by 42% and also the size of the vessel required to transport the block."**

## Introduction

In 2002, archeologists Paul Harmon and Dr. Alexei Vranich, PhD, of the University of California at Berkeley transported an 8-ton monolith across Lake Titicaca in South America—see location in **Fig. 1**—on a totora reed boat (*Experimental Archaeology*, July 8, 2002). In this article—amended from the original I posted online in 2015—I propose an alternative method to that used by Harmon and Vranich, one that can theoretically carry much heavier loads.

**Fig. 2** shows an example of what a large boat made from totora reeds looks like. Totora reeds are abundant and useful building materials that grow around the edges of Lake Titicaca.

Javier F. Escalante Moscoso in his 4th Edition 2013 book, *Arquitectura Prehispanica en los Andes bolivianos* [*Prehispanic Architecture in the Bolivian Andes*], devoted several pages to the problem of moving 10 (ten) 140-mt blocks of stone across Lake Titicaca from the mountain *Khapia*—a possible extinct volcano—to the lakeside pueblo of Iwawe. Iwawe is a modern rural community on the lake's south shore about 23km from the famous site of Tiwanaku (Tiahuanaco).

[To give a better sense of just how heavy these blocks of stone would actually be, 1 mt (metric ton) is equal to 1,000 kilograms or 2,205 lbs (pounds). A 140-mt stone, therefore, would weigh just under 309,000 pounds. In U.S. tons as opposed to metric



**Fig. 2.** A totora reed boat on Lake Titicaca, situated between Bolivia and Peru. Lake Titicaca is the highest-altitude body of water large enough for commercial watercraft. It is often called the 'highest lake in the world' and is the largest lake in South America.

that equals about 154 tons. To make 154 tons easier to grasp it is several tons above the weight of six fully-loaded Greyhound buses.]

In both cases mentioned above, the monolith was mounted *on top* of a totora reed boat or wooden barge for transport.

## Three problems using this method for heavier stones

**1. It would require very large vessels** that could displace the *total weight* of the monolith as well as that of the vessel itself and the crew. A small monolith (e.g., the Harmon/Vranich monolith) only required the displacement of 8+ cubic meters of (fresh) water. Building a totora reed boat with a 140mt capacity (140 cubic meters+ of water displacement) would be a prohibitively immense project.

**2. Mounting heavy stones on the vessel decks** per both Harmon and Vranich's and Escalante's method,

would be quite difficult and likely very dangerous.

**3. The vessels would be unstable** and subject to floundering or rolling over in rough seas with such heavy cargos balanced on deck above the water line.

My solution mitigates or eliminates the above concerns; and I suggest that the master builders who created the Tiwanaku and Puma Punku complexes would have used the following method:

## Proposed solution

As anyone who has swam in a pool, lake or ocean can attest, when in the water, our bodies feel almost *weightless*. And as we exit the water the full weight of our bodies becomes apparent. This is because fresh water, such as that of Lake Titicaca, weighs 1mt per cubic meter and our bodies, being mostly water, weigh only slightly more (per cubic meter). When in the water, the water displaces our body's weight an

> [Cont. on page 7](#)



## Marine transport of andesite monoliths...Titicaca (cont.)

### "The cargo would act



almost 1:1 ratio and, so, we feel weightless.

The same principal applies to transporting heavy objects by way of marine vessels. Think of mega oil tankers, for instance.

### Two pertinent facts

1. Andesite weighs 2.3 mt per cubic meter.
2. Water weighs 1mt per cubic meter.



### Cargo weight minimization

If a 2.3mt block of andesite is submerged into fresh water the residual weight (required displacement) will be reduced to 1.3mt as the block displaces 1mt of water. This procedure would reduce the effective transport weight of the andesite block by 42% and significantly lower the size of the vessel required to transport the block. See our preliminary tests in **Fig. 3**.



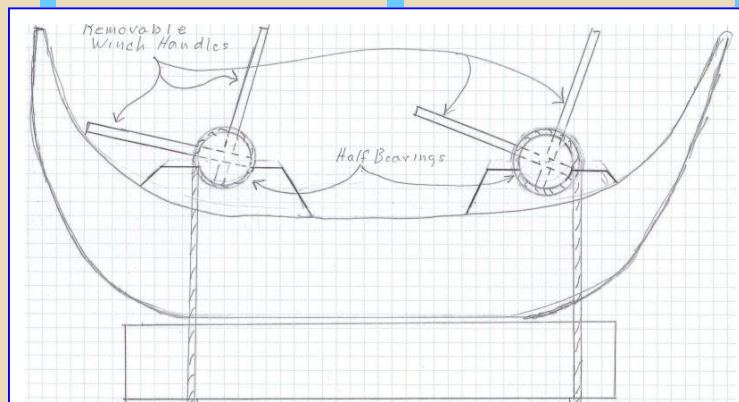
**Fig. 3.** Preliminary tests of the submerged-load transport proposal. Photos: Thomas A. Gara.

**like the ballast of a modern sailing ship."**

then 'winched upward.' See **Fig. 4**. Once secure, the vessel as a barge could have been easily towed by a flotilla of smaller totora boats to its destination.

### Vessel stability

The cargo would act like the ballast of a modern sailing ship.



**Fig. 4.** Proposed 'under boat' method for reducing weight by 42% in the transporting of multi-ton monoliths across Lake Titicaca, in ancient times. Drawing by Thomas A. Gara, Schongauer Institute, Munich, Germany, 2015.

The heavy weight under the hull would have kept the ship upright even in high seas and winds.

### Conclusion

Suspending the heavy load under the vessels resolves all three of our concerns:

- 1.) vessel size requirement,
- 2.) vessel loading, and
- 3.) vessel stability.

Finally, the experimental test I described in **Fig. 3** produced much confidence in the technique. It was done in the Bahamas. There we suspended a small 'monolith' under a Zodiac dinghy and transported it from the beach to the mothership across miles of rough open sea without incident.

THOMAS A. GARA is an experimental archaeologist and author with a broad entrepreneurial and research background. He is also a filmmaker and seasoned global traveler with a passion for South American archaeological research. He has a BA in International Business and Entrepreneurship from California State University, Monterey Bay (full-time student 1993-97). His diverse professional background includes being a free-

lance filmmaker and photographer in the San Francisco Bay area, CA, and Boston, MA (1968-1979). He was Film Direc-

tor, Producer and Screenwriter for the Environmental Protection Agency's Public Service Announcement, *Are you ready?* (1978-1979). He was also Director, Producer, Screenwriter and Editor for the documentary film, *Jackie's Trip* (1969-1971). 1980-1993, Gara owned and operated L'Image Professional Photographic Laboratory, an internationally respected photo finishing lab in the San Francisco Bay area with a staff of 10 expert photo finishers servicing Fortune 500 brands including Apple, Macys, HP and IBM. Gara is a member of several archaeological organizations such as the European Association of Archaeologists (EAA) and Universidad Nacional de San Antonio Abad del Cusco. Other involvements in the field include the International and Interdisciplinary 'Yaya-Mama' Project in Bolivia and Peru, and the Center of Investigations ARCHAEOCUZCO, and being a guest speaker at the 2017 Simposio Internacional Estudios Andinos y Amazónicos (International Symposium on Andean and Amazonian Studies). He is also Director of the Schongauer Institute focusing on pre-history analytics which he established in 2013. He has prior lived in San Francisco, Rio de Janeiro, and Miami. Gara presently lives in Munich, Germany.

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# Mathematical rock art in old world India In special context to Jawaharlal Nehru University campus, Part 2: *Game boards and beyond*

By Raghubir S. Thakur MA (History),  
rock art researcher and preservationist

**"If India's  
oldest rock art**



**is 700,000  
years old I  
think we  
should expect**



**Fig. 1.** The Aravallis mountain range, Delhi region northern India, where over decades time I have documented many previously unrecorded rock art sites.

**to see mathe-  
matical ideas  
show up  
there and  
possibly ear-  
lier than in  
other re-  
gions."**

## Introduction

### In Part 1 of this series

(PCN #67, Sept-Oct 2020) I provided much evidence (and only a portion of what I have) for 'repeated' cup-mark patterns and complex variations in the rock art of Jawaharlal Nehru University campus, a 1.6 sq. mi region in Delhi, India. See map location in **Fig. 1**.

I showed how these arrangements—especially rows of cup-marks in 'pairs of 5'—were quite unlike the jumbled groupings of cup-marks that are so ubiquitous around the world (including in other parts of India) and proposed that the repeated arrangements show much more than just 'patterns of behavior' as one expert describes cup-marks (or cupules) in general, but real 'mathematics' and possibly a very ancient kind.

Note that the oldest cup-marks in India, i.e., at Bhimbetka, are accepted as extremely old dating at c. 290–700,000 years—and for what has been called an artistic arrangement including a single engraved line.

This is a problem because the popular belief the majority of rock art researchers cling to is that early people were not as smart as us. Because of this, they believe ahead that ancient cup-marks could not be as organized as the evidence I have presented. This is not a good scientific attitude because they are trying to get the evidence to align with their theory—instead of the other way around. I believe researchers like that resist the evidence because they are



**Fig. 2.** Sample rock art panel within the JNU region showing geometric patterns far more complex than the 'pairs of 5' I showed in *Part 1*. At right is the photo in negative to help bring out some of the detail. Photo: Raghubir S. Thakur.

convinced the oldest art would be 'simple' and lack organization. But if India's oldest rock art is 700,000 years old I think we should expect to see mathematical ideas show up there and possibly earlier than in other regions.

## Dating

The above describes a bias I believe would influence the integrity of the dating of the JNU evidence were it to be done by those holding to such ideas. I further believe, if they have problems with the cup-mark evidence I described in *Part 1*, they would be even more resistant to the evidence I have documented that goes far past the cup-marks to even more complex arrangements.

In this article, I show some of this evidence I discovered and documented in the 1.6 sq. mi JNU campus showing clear mathematical inclinations (e.g., **Figs. 2–3**).

## Game boards

One initial idea (of many), and also of some of my colleagues during our brainstorming session (*Part 1*), was that such arrangements might represent 'game boards.' Well, whether yes or no, the conclusion this would bring is still very compelling because there is a well-known association between board games and mathematics. (Other rock art interpreted as game boards has been found in Pune, India.)

Whoever created the pattern in Fig. 2 and Fig. 3 would certainly have had a great sense of mathematics. Perhaps unsurprisingly, like its pivotal contributions

to modern mathematics (the 'decimal' and 'zero' as noted in *Part 1*), India also introduced the world's most famous board game—Chess.

> [Cont. on page 9](#)



**Fig. 3.** Petroglyph from Fig. 2 rotated to emphasize its symmetry. One initial idea my colleagues and I considered (see *Part 1*) was that arrangements like this might represent 'game boards.' Whether yes or no, there is a well-documented association between board games and mathematics. Whoever created this would certainly have had a sense of mathematics. It is perhaps not surprising that India also invented the most famous board game—Chess. Photo: Raghubir S. Thakur.



## Mathematical rock art in old world India (cont.)



### Squares, fractions, and counting

"When a young child plays a number-based board game, something exciting can happen. ...She can develop an intuitive appreciation for 'how much' different numbers represent. A feeling for numbers gets encoded in the brain."

—Gwen Dewar, Ph.D., Anthropologist, University of Michigan. 'Can a preschool board game boost math skills?' parentingscience.com



Dr. Dewar further explains that children who play board games have 'better math skills.' So, it seems to me it doesn't matter if we consider the petroglyph patterns in the rock art of JNU complex (e.g., **Fig. 4**) as signs of pure math or as game boards. Either interpretation points to math capabilities.

Dr. Dewar also states that the more board games a child mentioned in an interview that they played the better their performance in four areas of mathematics:

- 1.) Numeral identification
- 2.) Counting
- 3.) Number line estimation (e.g., marking the location of a number on a line), and...
- 4.) Numerical magnitude comparison (where a child is asked to choose the greater of two numbers).

While there are many potential mathematical uses for the petroglyphs in **Fig. 4**, here, I just show how they might be used for fractions.

### Cup-mark, square and circle fractions

**Fig. 5** shows confirmation of a particular

system of counting in fives as it is portrayed both in rows of 5 cupules (as detailed in *Part 1*) and rows of fractional 5's in squares.

If the panel winds up dating very old it would support the idea our ancient Indian ancestors were very similar to us living today. Bias against such evidence, because it contradicts what is anticipated or because of an unwillingness to accept that ancient people—even Paleolithic—could have been mathematically inclined is why I believe it is crucial to have reputable scientists—i.e. objective and honest—and without a horse in the race, date the JNU petroglyphs.

**Fig. 6, Left** shows a JNU petroglyph circle divided into 4ths. **Fig. 6, Right** shows a Neanderthal-collected nummulite fossil dated 100,000 years old with a perpendicular line artificially drawn to augment a natural line creating the very same symbol as seen at the figure's left.

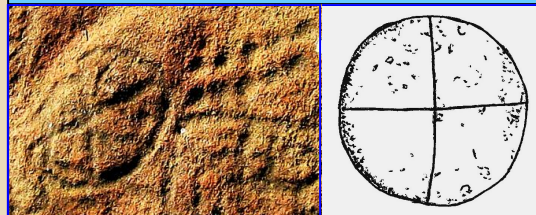
Whatever the age of the many JNU panels, they clearly show that ancient people must have taken their games or mathematics very seriously as such petroglyphs would have taken a great many hours to hammer out. In other words, the commitment level was very high. It is part of why I believe this rock art deserves much closer attention.

Next issue I will compare the more complex JNU figures.

CAPT. RAGHUBIR S. THAKUR, MA History (recently deceased) was an ex-Army officer (Gazetted) with his last role being Consult. for Sec. and Land Mgmt. for the Archae. Surv. of India under the Ministry of Culture and Tour-



**Fig. 5.** JNU panel showing complex geometric patterns associated with each other. Notice especially the 'pair of 5' cup-marks at left associated with the fractional rows of 5 in the square next to it. Photo: Raghubir S. Thakur.



**Fig. 6. Left:** Detail from **Fig. 5** showing one of the 'pairs of 5' groups associated with an internationally-recognized symbol—a circle divided into fourths (4ths). Photo: Raghubir S. Thakur. **Right:** Neanderthal-collected nummulite fossil deliberately divided into fourths 70–100,000 years ago (contributed by PCN Editor, J. Feliks).

ism, Govt. of India. His responsibilities included protecting Nat. Gov.-listed Heritage properties including World Heritage monuments. The Security Cell was formulated and created by Thakur's persuasion of every Director General of the ASI for over 19 years. Over the years, Thakur gained a broad knowledge of rock art sites in the region being first to discover and document rock art in Delhi. Thakur participated in 10 intl. archae. and envir. conferences (1990–2012) presenting papers in India, Sweden, and Japan. He was Organizing Sec. of the Asian Conference on Air Pollution (1999). Thakur's most recent presentation was at the Joint Ann. Conf. of IAS, ISPQS, and IHCS (2015). Among others, Thakur is associated with the discovery of an Upper Paleolithic site near Ellora Caves (1992), megalithic menhirs Western Rajasthan (1997), cup-marks Sirola Dongari/Chhattisgarh (2007), and nearly 100 cup-mark/petroglyph sites Delhi-Aravalli mountain range (2013–15).

**Direct links** to all of Thakur's PCN articles can be found at [http://pleistocenecoalition.com/#rock\\_art\\_in\\_delhi\\_india](http://pleistocenecoalition.com/#rock_art_in_delhi_india)

**Fig. 4.** Some complex petroglyph squares in JNU campus basic fraction divisions from top down: Whole and possibly 4ths, 8ths+, 9ths, 4ths & 16ths, 25ths (x2), and many divisions. Photos: Raghubir S. Thakur.



## Member news and other info

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### Ancient American and Indian petroglyphic encyclopedias

Archaeologist **Mark Willis'** [interactive 3D rendering](#) of **Ray Urbaniak's** 30' up [rock art panel](#) discovery in Utah (**Fig. 1**) continues to impress *PCN* readers. The panel contains so much information of so many different kinds it could be described as an ancient *encyclopedia*. It includes not only various animal depictions but many unidentified, abstract, or mathematical symbols or representations (including musical, or to be more precise, 'rhythmic') as covered in earlier issues of *PCN*.

Urbaniak's panel also resembles complex rock art panels on the opposite side of the world in Delhi, that Indian rock art researcher and preservationist, **Raghubir S. Thakur**, discovered and has documented in *PCN* over the years—e.g., **Fig. 1 Inset** and **Fig. 2**—including his recent series ([see p. 8](#)). Like Urbaniak's glyphs, Thakur's glyphs are not mere scribbling or haphazard creations involuntarily provoked by a sort of 'automatic writing' as though the artists had no idea what they were doing (an underlying tenet of entoptics advocates suppressing conflicting evidence for several decades). Instead, these unidentified geomet-

ric or abstract images were, obviously, well thought out

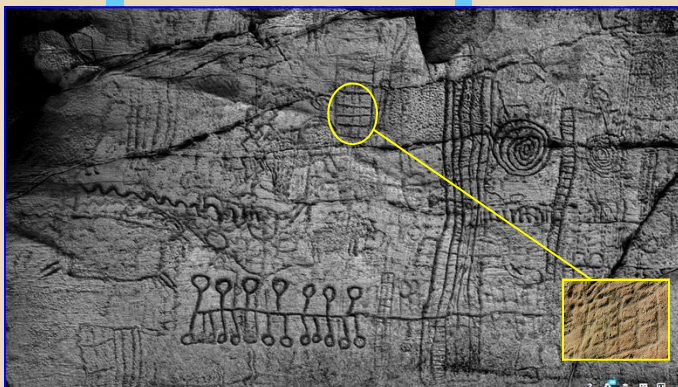
### Red-dot black-negative hand stencil, Arizona

In an article called [A possible Pleistocene age pictograph site in the Arizona Strip](#) (*PCN*#66, July-Aug 2020) Ray Urbaniak describes his discovery of two black negative hand stencils at a pictograph rock art site near his home on Memorial Day, 2020

(**Fig. 3**). In a note from Ray in September he added:

"[I] recently noticed... there is a red dot next to the black negative hand stencil. It doesn't prove anything, but the red dot and black negative hand stencils

are often found together in France and Spain."



**Fig. 1.** Archaeologist Mark Willis' [interactive 3D rendering](#) of Ray Urbaniak's 30'-up Utah discovery. **Inset:** Compare Delhi glyph RS Thakur [this issue](#).



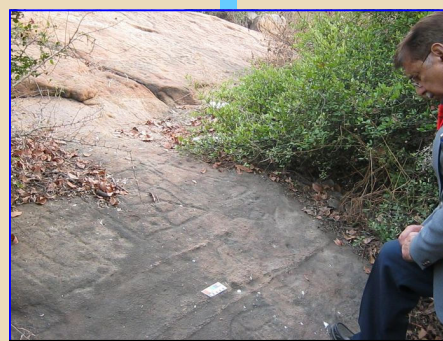
[Link to PCN #67](#)



[Link to PCN #66](#)

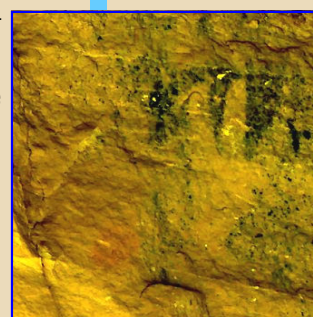


[Link to PCN #65](#)



**Fig. 2.** Paleontologist, Dr. Gyani Lal Badam (one of several rock art experts involved), studying animal figures on the largest Delhi panel identified and documented by Captain [Raghubir S. Thakur](#). Abstract figures can faintly be seen in the areas above. Photo; RS Thakur.

representations that could include whole ideas, mnemonic devices or histories (discussed by *PCN* authors) or, like in Thakur's series, interpreted in mathematical or other symbolic terms. Their significance may remain elusive for some time to come. -jf



**Fig. 3.** Negative black hand stencil discovered by Ray Urbaniak in the Arizona Strip, May 31, 2020. It shows what may be a deliberately-painted red dot to its left. If so, it is a combination Ray points out is common in the hand stencils of France and Spain.



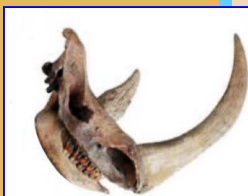
# Possible woolly rhinoceros pictograph

By Ray Urbaniak Engineer,  
rock art researcher and preservationist

**"One photo,  
which she**



**described as  
a 'bison,'  
caught my  
attention**



**Fig. 3.** Fossil skull of a woolly rhinoceros. Wikimedia Commons.

**right away."**



**Fig. 4.** 17,000-year old pictograph from Lascaux Cave, France, showing a woolly rhinoceros with an exaggerated horn. Wikimedia Commons.

**Jennifer Hatcher** is a high stamina Grand Canyon, Arizona, rock art photographer whose pictures of rarely-depicted animals I have featured in two earlier articles: [Rock art rebels—breaking with tradition](#) (PCN #57, Jan-Feb 2019) with what resembled a saiga antelope, and [Rarely-depicted Ice Age animals in U.S. cave art](#) (PCN #59, May-June 2019) with what resembled a peccary. Jennifer recently sent me a couple of new photos also taken in the Grand Canyon.

One photo, which she described as a 'bison,' caught my attention right away. However, it didn't strike me as a bison but I wasn't sure what else it could be until I noticed what appeared to be a small horn near the middle of what is the presumed 'head.' I then thought it looked strikingly like a woolly rhinoceros—an extinct animal known for one long horn at the snout and a smaller horn further back (**Fig. 1**).

**Fig. 2** shows an artist's depiction of a woolly rhinoceros in life. **Fig. 3** is the fossil skull of a woolly rhinoceros showing very clearly how the front horn, usually curved way back is accompanied by a smaller horn behind it.

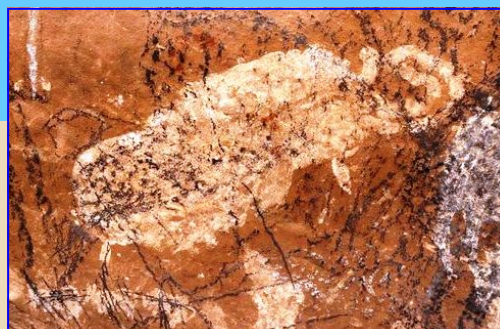
**Fig. 4** shows an unquestioned woolly rhinoceros pictograph from Lascaux Cave, France, with an exaggeratingly curved horn resembling the new photo.

The shape of the 'horn' in the Grand Canyon pictograph is very crude. This might be explained as poor execution, a drawing from memory, or a description passed down from Asian immigrants. It might also represent a deformed horn. I have discussed each of these possibilities concerning other unusual rock art depictions in earlier articles, including deformed horns known in pronghorn antelope.

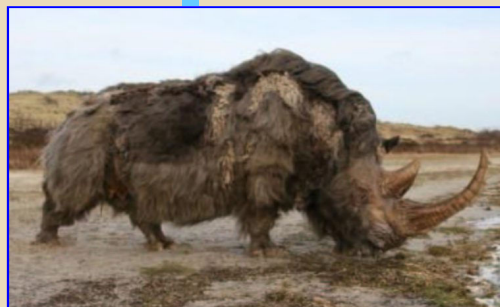
**Fig. 5** is the photo of a rhinoceros with a deformed horn.

While there are certainly other possible explanations, I believe there is a good chance the new image is indeed a pictograph of a woolly rhinoceros, based on the number of other Ice Age animal depictions I have written about from the very same area.

RAY URBANIAK is an engineer by training and profession; how-



**Fig. 1.** Photo of a Grand Canyon pictograph (marked over by some unscrupulous prior observers) by photographer, Jennifer Hatcher; used with permission. While it was described as a bison, I couldn't help but notice what resembled a small horn extending from the 'head' area resembling that of an extinct woolly rhinoceros. Fur might be obscuring view of the legs.



**Fig. 2.** Artist's drawing of a woolly rhinoceros. Wikimedia Commons. Note how the fur nearly obscures view of legs.

ever, he is an artist and passionate amateur archeologist at heart with many years of systematic field research in Native American rock art of the Southwest and other topics. Urbaniak



**Fig. 5.** Photo of a rhinoceros with a deformed horn for comparison with Fig. 1. Wikimedia Commons.

has written over 50 prior articles with original rock art photography for PCN. All of them can be found at the following link:

[http://pleistocenecoalition.com/index.htm#ray\\_urbaniak](http://pleistocenecoalition.com/index.htm#ray_urbaniak)

# When the scientific method becomes unscientific

By Ray Urbaniak Engineer, rock art researcher and preservationist

**"Average readers without the burden of university education would probably perceive instinctively the animal was obviously misidentified."**

**I have been reading *The Cave Beneath the Sea: Paleolithic Images at Cosquer*** by Jean Clottes and Jean



Courtin. The Cosquer Cave art was first discovered in 1991 by Henri Cosquer off the Southern coast of France near Marseilles. It is an excellent book, well written and well documented.

Their analysis, documentation and dating is exceptional!

While reading, I had some reservations regarding their conclusions as to the types of animals represented by the engravings.

These were minor so I ignored them. I didn't necessarily agree, but I could see why they concluded that they were the animals they claimed. That is, until I got to p. 112 and read the following:

"In fact, the Cosquer artists represented the horns in a conventional manner somewhat removed from reality. The horns of the chamois in the cave do grow vertically from the head, but they are too long and the hook at

the end is not as clearly marked as it should be."

They were referring to the engraving in **Fig. 1** which they refer to as a 'chamois' even though they note the horns are 'too long.' **Fig. 2** shows an actual photograph of a chamois.



**Fig. 1.** Painting in Cosquer Cave identified by Jean Clottes and Jean Courtin as a 'chamois' while stating outright the horns are "too long."



**Fig. 2.** Photograph of an actual 'chamois.' Wikimedia Commons.

Average readers without the burden of university education would probably perceive instinctively the animal was obviously misidentified.

I am certain the authors must have had a reason for claiming the engraving was of a chamois. For instance, there may have been bones from an Ice Age chamois found in the area. However, in this case, I think they fell into the same trap I have battled against in SW Utah, namely, that depictions of animals that look different are all referred to as *stylized big horn sheep* vs. the Ice Age animals I believe they more likely represent. I am convinced that many of SW Utah's supposed 'big horned sheep' depictions are actually depictions of Siberian ibex or extinct species of pronghorn antelope.

In the case of the 'chamois' at Cosquer Cave, France, it appears to me much more harmonious with the Arabian or 'white' oryx. Compare the oryx in **Fig. 3** with the so-called 'chamois' in **Fig. 1**. Note especially the length and spread of the horns. With this identification one could not counter-intuitively claim the horns are 'too long' as stated in the Cosquer book. The horns are generally straight on the Arabian or white oryx but they do vary as seen in the figure.

Without adding too many more harmonious identifications one can also see that the Cosquer 'chamois' could as easily represent a Tibetan antelope as seen in **Fig. 4**.

To demonstrate, in part, the flawed presumption there will always be nearby remains of animals depicted in rock art consider the case of *Tetrameryx shuleri* or Shuler's pronghorn. It is an *extinct*



**Fig. 3.** Arabian oryx. Compare with the purported 'chamois' engraving of Cosquer Cave in **Fig. 1**.



**Fig. 4.** Tibetan antelope also more harmonious with the Cosquer animal than the claimed 'chamois.'

pronghorn which lived until 11,000–12,000 years ago. Its existence is based on only scant remains at five sites in Texas—and possibly only three sites since horns were not found at the other two sites! Therefore, the animal could easily have survived longer. This begs the question; how many other varieties existed which haven't been found as fossils and yet can be identified in local rock art?

Said in a different way, some of the antilocaprids (the group including pronghorns) that survived near the end or after the end of the Ice Age may in fact be depicted in rock art despite a complete absence of fossil evidence.

It is likely that these animals aren't supposed to have

> [Cont. on page 13](#)



# When scientific method becomes unscientific (cont.)

**"This begs the ques-**



**Fig. 5.** Modern-day pronghorn with short horns different from long horned extinct forms.

**tion; how many other**



**Fig. 6.** Sable antelope with a mane like a horse.

**varieties existed which haven't been found as fossils and yet can be identified in local rock art?"**

lived in the area of Southern France, but I feel it is possible that they did live in the area of Southern France when the cave art was

made, or the people who depicted them had migrated from regions where these animals were present. It is possible that the bones of these animals have not been discovered because, if any bones have survived, they are all under hundreds of feet of water at this time. The sea level has risen 360-425 feet since the glacial maximum.

It makes some scientific sense to assume that the animals depicted must be the ones that are known to have lived in the area at the time the cave art was made.

However, they could be ignoring the hard evidence right in front of them in the petroglyphs and pictographs themselves! These are likely depictions of animals for which no bones have as yet been found.

If fact, Clottes and Courtin used this same rationalization to refute what they felt was the depiction of a reindeer on p. 118:

"These details are important, for no reindeer has ever been discovered among contemporary fauna in Provence, and its presence in the bestiary of the cave would have posed the question of the origin of the image—either that the reindeer was present despite all the evidence to the contrary in southeastern France, or that the Paleolithic people of Provence depicted an ani-

mal seen one hundred or so miles from there."

I understand though; when they have been under attack by people claiming that the Cosquer cave art is fake, one would obviously be reluctant to make claims that are 'controversial.' If you are protecting your reputation you would go with the least controversial option! Preserving the *status quo* becomes the prime objective. So, is that scientific method?

There are as many as 19 reindeer depictions in the Cantabria district of Spain which is even further south than Cosquer Cave (*Introduction to Paleolithic Cave Paintings in Northern Spain*. C.G. Sainz, R.C. Toca and T. Fukazawa. 2013). Also, on p. 195 they state regarding a particular depiction:

"The broad shape of the antlers seem to suggest this is a fallow deer, although some reticences could be made about this identification, mainly because so far no skeletal remains definitely of this species have been found in Cantabrian Upper Paleolithic sites."

While they expressed some reservations they didn't deny what they were seeing as with the reindeer in Cosquer.

After French archaeologists believing certain Saiga antelope never lived in France, a small amount of bone fragment evidence surfaced to show that the Saiga were indeed in France during the Ice Age. Scientific people sometimes ignore hard evidence in the form of rock art:

"As a result of climatic fluctuations, the plains constituted a corridor for the migration of temperate species to Provence during cold periods ('southern refuge zone')." –E. Crégut-Bonnaure, *et.al.* *New Insights into the LGM and LG in Southern France: The Mustelids, Micromammals and Horses from Coulet des Roches. Quaternary*. 2018, 1, p.19

In conclusion, the image of a supposed 'chamois' from Cosquer Cave might be better described as:

- 1) an oryx
- 2) a Tibetan antelope
- 3) a species/sub-species of extinct animal with no fossil record to date.
- 4) It could be an animal the artist was familiar with in another region—even a far off region—before migrating to the area of Cosquer Cave.
- 5) It could be an extinct species of chamois which, like some extinct species of pronghorn antelope, had longer horns. E.g., the modern pronghorn has short horns as in **Fig. 5** while several extinct forms had long horns
- 6) The animal—as suggested in the depiction—might even have had a horse-like mane like the sable antelope in **Fig. 6**.

See my article, [Earliest maize depicted in southern Utah petroglyph, Part 2: Antiquity-corroborating images](#) (PCN #52, March-April 2018) which includes an extinct long-horned pronghorn antelope, an animal that looks similar to the chamois.

For more PCN images of Ice age animal depictions from SW Utah see my article, [Ice Age animals in Southwest U.S. rock art, part 2](#) (PCN #23, May-June 2013).

RAY URBANIAK is an engineer by training and profession; however, he is an artist and passionate amateur archeologist at heart with many years of systematic field research in Native American rock art of the Southwest and other topics. Urbaniak has written over 50 prior articles with original rock art photography for PCN. All of them can be found at the following link:

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# Surprising affinities between rock art animal images around the world

Ray Urbaniak Engineer, rock art researcher and preservationist

**"Notice the distinctive ridged horns clearly visible in each image whether from Iran or the Americas."**



**I have written about and marveled at the striking similarities**

in rock art around the world. In one example, I compare a rock art site in the U.S. Arizona strip to a site in Australia. ([PCN #58, March-April 2019](#)) featuring unexpectedly similar *composite* images. Some of

the earliest rock art was made with red ochre with its use going back at least 75,000 years.

Petroglyphs and pictographs depict concentric circles and spirals around the globe. They likely have many different meanings in rock art and are influenced by observing spirals and concentric circles in nature on plants, shells and fossils (first submitted by PCN's Editor, John Feliks, in 1995).

Other less substantial and impossible to verify influences include such things as a stone dropped in water as the concentric circles ripple out or the movement of the sun as it appears to spiral

sons, entoptic phenomena, and many other possibilities.

Last summer, I shared the remarkable similarity between a *micro*-petroglyph I discovered in a small crevice in Southern Utah and the petroglyph of an Arabian oryx or *maha* from Saudi Arabia ([Analysis of an intriguing micro-petroglyph in Utah](#), PCN #65, May-June 2020). The style of the two images as well as the similarity of the horns are amazing (**Fig. 1**).

I recently posted on Facebook a petroglyph of a *two-headed sheep or goat* from the Arizona strip not far from my home. An Iranian archaeologist, Dr. Mohamed Naserifard PhD, commented on the picture and included the



**Fig. 1.** Comparing my Utah micro-petroglyph discovery (**Left**) with a Saudi Arabian oryx glyph (**Right**) courtesy of ناصر لادب ع صر ان لا



**Fig. 2. Top:** A two-headed sheep or goat petroglyph I discovered in the Arizona Strip not far from my home (photo: Ray Urbaniak) which I posted on Facebook compared with, **Bottom:** a startlingly identical artifact from ancient Iran posted in response by archaeologist Dr. Mohamed Naserifard, PhD.



**Fig. 3. Left:** Proposed 'Siberian ibex' depiction; ([Oral tradition and beyond](#) PCN #47, May-June 2017); Photo credit: Pictograph on Jones Hole Trail, Dinosaur National Monument website. **Middle:** Detail of apparent ibex in Iranian petroglyph; Photo courtesy of archaeologist, Dr. Mohamed Naserifard, PhD; Shown in negative for clarity; **Right:** Living Siberian ibex. Notice the distinctive ridged horns clearly visible in each image whether from Iran or the Americas.

photo of an ancient artifact from Iran. The similarity between these two, once again, is striking! (**Fig. 2**).

I have further posted ibex rock art photos taken by Dr. Naserifard in Iran and researchers in other parts of Asia as well which are almost identical

similarities. **Fig. 3**, for instance, features a remarkable image from the Dinosaur National Monument website and the Jones Hole Trail that surprisingly drew little attention for its presence in U.S. rock art prior as it is unlike known animals from the region. In my article [Oral tradition and beyond](#) (PCN #47, May-June 2017), I compared the image's unusual horns with those of the Siberian ibex despite its not being known from U.S. fossils. Here, I compare it with another stunning image from Dr. Naserifard showing horns with large transverse ridges along one surface—just as on the pictograph from Utah.

> [Cont. on page 15](#)

upward and downward in the sky, thus marking the sea-

to images I, and on occasion, others have photographed in the U.S. for their unexpected



## Surprising affinities rock art animal images (cont.)

**"Just because we don't find certain animals in Ameri-**

I explore further the problem of animal misidentification or a general refusal to accept pretty logical interpretations of various animals in rock art

many university-trained researchers stuck in dogma they can't imagine questioning—in another article this issue titled: [When the sci-](#)

[entific method becomes unscientific.](#)

Essentially, I suggest that just because we don't find certain animals in American ground doesn't mean early artists couldn't portray them accurately. They could have been portrayed from memory of such animals from areas such as Siberia or from descriptions passed down by oral tradition. As PCN editors explain, rock art depic-

It comes down to a question of do we believe the century-long dogma or do we believe the evidence in the rock art?

There are many more comparisons of identical animals depicted in rock art on opposite sides of the globe that I can bring into play showing that American anthropologists refuse to accept the physical evidence of rock art. On this page are only a few more examples:

**Fig. 4** shows animal depictions from opposite sides of the world so obvious that I believe *no one* could miss that they are depicting the same type of 'ibex' animal.

**Fig. 5** and **Fig. 6** show similar animals depicted even though they are on opposite sides of the globe. Note also the skillful sense of perspective expressed in each portrayal in Fig. 5.

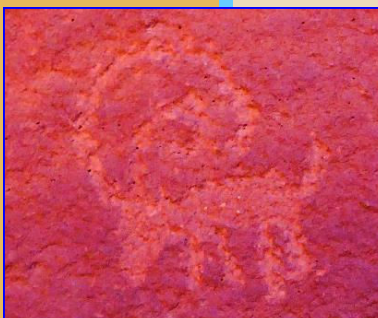
The Ice Age Utah animals like the Asian examples all seem equally executed. I propose that the Utah animals haven't been recognized for what they are because they are not in the 'world-view' of traditionally-trained archaeologists. Even though the Utah Ice Age animals are very clearly represented this world-view causes the traditionally-educated to adhere to old-school dogma no matter what. See my earlier article titled, [Ships not seen and fact-denying dilemmas in Clovis-first and other mainstream beliefs](#) (PCN #65, May-June 2020).

RAY URBANIAK is an engineer by training and profession; however, he is an artist and passionate amateur archeologist at heart with many years of systematic field research in Native American rock art of the Southwest and other topics. Urbaniak has written over 50 prior articles with original rock art photography for PCN. All of them can be found at the following link:

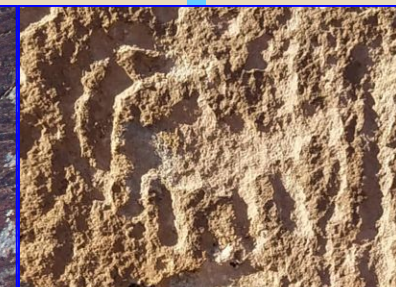
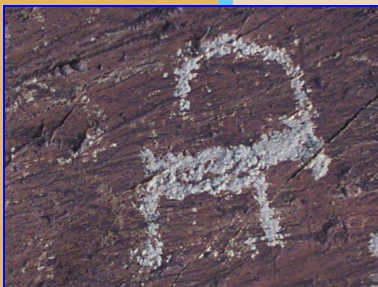
[http://pleistocenecoalition.com/index.htm#ray\\_urbaniak](http://pleistocenecoalition.com/index.htm#ray_urbaniak)



**Fig. 4.** It is hard to imagine anyone could miss the similarity between the 'ibex' rock art from Azerbaijan (east of Armenia and Turkey and north of Iran), **Left**, compared with, **Right**: a so-called 'Big-horned sheep' even though it doesn't look 'anything' like a big-horned sheep (i.e. tightly-curved horns); Utah; R. Urbaniak.



**Fig. 5.** **Left**: SW Utah petroglyph compared with, **Right**: Similar petroglyph from Central Asia. Note that each is drawn with a fair degree of perspective.



**Fig. 6.** **Left**: Ibex rock art, Siberia, compared with, **Right**: Similar ibex depiction in SW Utah; even though it is highly weathered one can still make out the general features of the animal including its long sweeping horns. Photo: Ray Urbaniak.

**can ground doesn't mean early artists couldn't portray them accurately."**

(such as calling every horned animal depicted in Southwest U.S. rock art *stylized versions* of 'big-horned sheep' and their very tightly-curved horns even if the horns are widely curved or even long and straight!) which I believe is a trait of

tions represent *documentary evidence* the animals were here. Due to our long-lasting dogma we've just convinced ourselves that early Americans were not capable of accurately representing the animals they lived with on a daily basis!

# The Impact of Fossils A paper on Paleolithic fossil collecting and its possible influence on early humans, text pp. 120–121

By John Feliks

**"Fig. 5 focuses on [rock art]"**



At the [Permian-age](#) seafloor diorama, Field Museum of Natural History, Chicago. The author's lifelong study of fossils began c. age 8. Photo May 1962 by V. Feliks.

**images which are more complex."**

[Click here](#) for the Introductory article describing the paper's suppression by competitive editors and researchers countered by [quotations from eminent experts](#) in many fields (*PCN* #61, Sept-Oct 2019).

[Click here](#) for Installment 1 (*PCN* #62, Nov-Dec 2019).

[Click here](#) for Installment 2 (*PCN* #63, Jan-Feb 2020).

[Click here](#) for Installment 3 (*PCN* #64, March-April 2020).

[Click here](#) for Installment 4 (*PCN* #65, May-June 2020).

[Click here](#) for Installment 5 (*PCN* #66, July-Aug 2020).

[Click here](#) for Installment 6 (*PCN* #67, Sept-Oct 2020).

## [The Impact of Fossils on the Development of Visual Representation](#)

John Feliks. 1998. *Rock Art Research* 15: 109–134. [Submitted 1995, 1997, 1998. See [PCN #61](#) (Sept-Oct 2019) for the full story of the paper, experts' responses to its suppression, and what this serialized version hopes to fulfill.]

### ABSTRACT

The origins of visual representation have been debated primarily in terms of human activity and psychology. This paper proposes that manmade representation was preceded by a natural, already quite perfected representational system, the products of which were observed and collected by early humans. The author suggests the following new hypotheses:

- 1.) Fossils were a means by which human beings came to understand the concepts of 'imagery' and 'substitution' prior to the creation of manmade images.
- 2.) Humans evolved their own forms of iconic visual representation (especially those in the medium of rock), having first been made aware of various possibilities via fossils.
- 3.) Many unexplained prehistoric artworks may be structurally and proportionally accurate depictions of fossils.

Because fossils are known throughout the world, the hypotheses have cross-cultural validity. Clinical studies offer the potential of analogical testability.

### KEY WORDS

- Iconic recognition
- Depiction
- Prehistoric art
- Rock art sign
- Fossil collecting

*PCN full-text 7th Installment continuing from [Installment 6](#) (after 'Natural images and 'entoptic' images)...*

### PART III

FOSSILS AS REFERENTS FOR AMBIGUOUS PREHISTORIC ICONOGRAPHY

#### The 'fossil depictions theory'

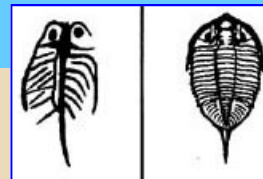
[CONTINUING]

*Complex enigmatic images and trilobites*

[*PCN #68* note from author:

The quoted paragraph below is from the paper's original 1998 publication text on p. 119 which is where Fig. 5 was described. The figure (orig. p. 121) is reproduced on the following page. The blocking of the paper's PDF and similar actions by the editor of *Rock Art Research*—due to being a competitive theorist with major conflicts of interest before anthropology publications were exposed for such and began requiring declarations if conflicts of interest existed—is what necessitated breaking this research paper into so many installments so it could finally be seen digitally after 22 years. That is also why the earlier text needed to be reinserted here. In the next installment the text for Fig. 6 will be better aligned.]:

"Fig. 5 focuses on [rock art] images which are more complex, comparing them with arthropoda (trilobites and related forms). It demonstrates possible variations in depictive styles for one specific invertebrate group. These variations may also reflect noticeable distinctions between subgroups and even genera of the organisms discussed. From the comparisons in Fig. 5, I have selected three of the most complex which I examine in detail proportionally, structurally, geographically, and geologically in Figs. 6 and 7. (Note: The fossil images in this paper have been redrawn by the author from convenient



rather than regionally-specific reference materials. Equivalent counterparts are known from the regions discussed.)"

*Continued in PCN Installment 8\**

**References** for the 1998 paper for this section only follow. This Installment 7 represents pp. 120–121 of the 1998 RAR publication.

\*Installment 8 in the next issue continues under the heading, *Complex enigmatic images and trilobites*, this time selecting three of the images from Fig. 5 and comparing their structures in detail with trilobites known from the very regions in Spain as the rock art.

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> [Cont. on page 17](#)



## The Impact of Fossils (cont.)

**"Fig. 5... demonstrates possible variations in depictive [rock art] styles for one specific invertebrate group."**

**Note:** This installment proved less easy to read isolated from the full paper so the term 'rock art' has been inserted in brackets where it helps hold on to the main idea.

Unexplained and 'schematized' signs created on stone by prehistoric people as far back as 18 000 years ago		Fossil trilobites and crustaceans preserved in stone for up to 550 million years	
<p><b>a</b> 'Dolmenic idol,' Solana del Pino, Ciudad Real, Spain, Neolithic–Bronze Age (after Breuil 1933b: Fig.29)</p> <p><b>b</b> Oval design, Le Tuc D' Audoubert, Ariège, France, c. 14 000 BP. (after Leroi-Gourhan 1967:454)</p> <p><b>c</b> 'Bar motif,' Almaden, Ciudad Real, Spain, Neolithic–Bronze Age (after Breuil 1933a: Pl. VIII)</p> <p><b>d</b> Abstract sign, Le Portel, Ariège, France, c. 18 000 BP. (after Leroi-Gourhan 1967:514)</p> <p><b>e</b> Schematic motif, Alange, Badajoz, Spain, Neolithic–Bronze Age (after Breuil 1933a: Pl. XXXVI)</p> <p><b>f</b> Schematic motif, Sierra de Hornachos, Badajoz, Spain, Neolithic–Bronze Age (after Breuil 1933a: Pl. XXIX)</p> <p><b>g</b> 'Dolmenic idol,' Almaden, Ciudad Real, Spain, Neolithic–Bronze Age (after Breuil 1933a: Pl. VI)</p> <p><b>h</b> Schematic motif, Fuencaliente, Ciudad Real, Spain, Neolithic–Bronze Age (after Breuil 1933b: Pl. XXXVII)</p> <p><b>i</b> Abstract sign, Lascaux, France, Magdalennian (after Leroi-Gourhan 1967:516)</p>			<p><i>Dalmanites</i>, Silurian period, approx. 425 million yrs. old (after Fenton and Fenton 1989:201)</p> <p><i>Pseudodoniscus</i>, Silurian period, approx. 425 million yrs. old (after Fenton and Fenton 1989:224)</p> <p><i>Paradoxides</i>, Cambrian period, approx. 550 million yrs. old (after Levi-Setti 1993:98)</p> <p><i>Albertella</i>, Cambrian period, approx. 550 million yrs. old (after Shimer and Shrock 1944:614)</p> <p><i>Dalmanitina</i>, showing disarticulation, Silurian period, approx. 425 million yrs. old (after Shrock and Twenhofel 1953:603)</p> <p><i>Poliellina</i>, Cambrian period, approx. 550 million yrs. old (after Moore 1955:Fig.164)</p> <p><i>Belinurus</i>, Carboniferous period, approx. 300 million yrs. old (after Moore 1955: Fig.13)</p> <p><i>Dipleura</i>, Devonian period, approx. 375 million yrs. old (after Case 1982:118)</p> <p><i>Paedumias</i>, Cambrian period, approx. 550 million yrs. old (after Fenton and Fenton 1989:197)</p>

**Figure 5.** Enigmatic prehistoric artworks as compared with fossil arthropods (trilobites and related forms).

**Fig. 5.** Enigmatic prehistoric artworks as compared with fossil arthropods (trilobites and related forms).

Shimer, H. W., and R. R. Shrock 1944. *Index Fossils of North America*. John Wiley & Sons, Inc., New York.

Shrock, R. R., and W. H. Twenhofel 1953. *Principles of invertebrate paleontology*, 2nd edition. John Wiley & Sons, Inc., New York.

PCN ADN: Apart from research this paper was informed by 30-years of direct field experience with the trilobite record across the US and Ontario. See photos of 20 genera recovered from rock surfaces and strata in [PDF](#) or [html](#) (zoomable).



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**The Pleistocene Coalition** celebrated its eleven-year anniversary September 26, and the anniversary of *Pleistocene Coalition News*, October 25. *PCN* is now in its twelfth year of challenging mainstream scientific dogma.