

# Lustrous Surfaces: Easy On The Eyes, Easy On the Nervous System



*Irina Matuzava - Photo:  
The Observatory*

04-13-2025 ~ *The attraction to luster is rooted in our evolutionary history and has persisted among prehistoric artifacts, ancient civilizations, and consumer culture.*

Our ancestors' ability to recognize water sources was crucial to their survival. As a result, the attraction to lustrous materials is deeply rooted in our evolutionary history and is evident among prehistoric artifacts, ancient civilizations, and modern consumer culture.

During the Pliocene Epoch, early hominins likely traveled between semi-permanent rain pools, restricting their movement to warmer and wetter regions. During the Late Pleistocene, [humid forests declined and grassland-savanna habitats expanded](#). [1] Thus, the ability to detect water sources became extremely important. In the dry savanna conditions of East Africa, early humans relied on small lakes and rain pools to survive seasonal droughts, and many fossil hominid remains have been found near ancient lakeshores, supporting the idea that access to water played a key role in early human migration. The [savanna hypothesis](#) suggests that the expansion of African grasslands led directly to the divergence of hominins from apes and the [emergence of the genus \*Homo\*](#). [2]

Natural selection likely chose individuals who could recognize water and wet

surfaces, and, according to evolutionary anthropologist Dean Falk's [radiator theory](#), the success of finding drinking water daily to prevent dehydration and conserve energy played a substantial role in shaping hominin evolution. [3]

Water still significantly impacts our neurological system, influencing physiological and psychological well-being. Psychology professor Richard Coss and his former student, Craig Keller, conducted a [pair of studies](#) published in the Journal of Environmental Psychology in 2022 showing that "[gazing at bodies of water can help lower your heart rate, blood pressure, and increase feelings of relaxation.](#)"[4]

The first of Coss and Keller's studies showed that viewing a swimming pool lowers heart rate and blood pressure versus looking at a street sign and a tree in a parking lot.

The second study measured heart rate and blood pressure when viewing six sites with different amounts of visible water. Viewing water compared to the adjacent ground produced effects consistent with a relaxation response or a decrease in heart rate and blood pressure. Moreover, the studies found that looking at wider portions of water produced higher states of relaxation than narrow portions of water, suggesting that abundant amounts of water have a greater potential to limit dehydration. Clear water also produced a higher state of relaxation than murky water, which may be linked to the health of the water, as clear water is less likely to contain harmful bacteria and [produce an unfavorable future state](#), such as illness.[5]

Meanwhile, a [2010 study](#) by Richard Coss investigated the connection between glossy surfaces and their association with water or wetness. Coss designed an experiment using four different papers with varying surface finishes: matte watercolor paper, glossy silk-screen paper, gritty sandpaper, and sparkly glitter paper designed to be reminiscent of an ocean surface. The study's participants were asked to examine the surfaces using a questionnaire to assess their wet and dry connotations as well as their overall attitude toward each paper type.

The results demonstrated that glossy surfaces appear significantly wetter than sparkling surfaces, and both the glossy and sparkling surfaces were perceived as wetter than the matte and sandy finishes. The participants' assessment of the sparkling surface, having been rated lower on the wetness scale than the glossy silk-screen surface, suggests that sparkle does not consistently indicate the

presence of moisture.[6]

This discrepancy may stem from the historical uncertainty of sparkling surfaces as an indicator of water since sparkly surfaces can be found in both pools of water and dry materials, such as quartz crystals and other rocky formations. Sparkly surfaces, while being visually stimulating, do not reliably indicate wetness unless they are accompanied by a glossy visual texture. The study's findings reinforce the point that glossy surfaces convey strong optical information about moisture.

Some researchers have previously assumed that children's aesthetic preferences were highly influenced by media consumption created by adults, along with innate and learned preferences. However, other research has found that many of these preferences, especially regarding [human](#) and [animal faces](#), may develop in early infancy.[7] Researchers Katrien Meert, Mario Pandelaere, and Vanessa M. Patrick conducted a [series of experiments](#)—published in the Journal of Consumer Psychology in 2014—to expand upon this innate quality of having certain aesthetic preferences and establish that there is an inherent preference for glossy surfaces among humans.

Their first experiment demonstrated the preference for glossiness among both adults and children. Leaflets were given to participants, half printed on glossy paper and the other half on matte or non-glossy paper. The participants were asked to arrange the leaflets according to their preference, and the results showed a statistically significant preference for glossy leaflets over non-glossy ones. The latter half of the first experiment investigated the preference for glossiness in young children, using pictures of Santa Claus, half of which were glossy and the other half non-glossy. The children also significantly preferred glossy pictures over non-glossy pictures.

The second experiment tested whether the preference for glossiness was related to the content of the images presented on glossy paper. A random combination of four landscapes was provided to the participants, half printed on glossy paper and the other half on non-glossy paper. This was done to evaluate either the image's content, the type of paper, or both. The type of paper influenced the responses of all respondents, and glossy images obtained a higher "liking" score. When the type of paper changed, all participants changed their preferences to the image on glossy paper, regardless of the participants' previous choices and the depicted landscapes.[8]The two experiments show that liking glossiness manifests before

exposure to contemporary cultural stereotypes.

The longstanding affinity for gloss and luster is showcased well by the [Aurignacian culture](#), which is marked by a greater diversification within toolmaking and artistic innovation. This culture spread from the Atlantic Coast to the Iranian Plateau and Western Eurasia and spanned from 43,000 to 30,000 years ago, during which *Homo sapiens* produced objects of artistic representation.

Luster is a common shared quality of the raw materials chosen by the Aurignacian to make personal ornaments.[9] Such materials included ivory, soapstone, talc, chlorite, mother of pearl, amber, and even polished tooth enamel from [adult human teeth](#). Ivory is lustrous when manipulated through polishing and was often found during this period, especially in the form of [basket-shaped beads](#). Soapstone had no technological purpose and was not found anywhere before the Aurignacian culture, yet it was sourced from the faraway Pyrenees Mountains, presumably for its surface and visual appeal. Talc and chlorite have a soapy texture when polished, mother of pearl is shiny and iridescent, and the Aurignacian produced some of the oldest known [amber pendants](#).

[According to Randall White](#), early humans manipulated materials to create objects for visual pleasure, a phenomenon exemplified by the members of the Aurignacian culture who actively sought out and crafted objects with a lustrous sheen. Another example comes from the Blombos Cave in South Africa, which dates from 82,000 to 75,000 years ago. People here produced evidence regarding the preference for glossy textures even before the Aurignacian culture. An [analysis of 28 bone tools](#) from the cave identified three carefully polished points. The high polish gives a distinctive appearance to these artifacts, but the high shine has no apparent function and was likely done to give the points “[added value](#).”[10]

In southwest France, excavations across multiple archaeological sites have uncovered polished, spherical gravels dating to the Upper Gravettian and Solutrean periods. These gravels have garnered interest because of their lustrous appearance and, in some instances, deliberate placement. The 2023 journal article “[Multiproxy Analysis of Upper Paleolithic Lustrous Gravels Supports Their Anthropogenic Use](#)” studied key sites such as Fourneau du Diable, Casserole, Pech de la Boissière, Laugerie Haute, and the [Landry site](#), which was excavated in 2011.

Detailed analysis of these gravels confirms that their polished surfaces were intentional modifications. Experimental replication of the polishing process was done by tumbling gravels with animal skins or leather, ocher, and fat. In contrast, abrasion against silt from the Landy site did not produce the same results and ruled out environmental causes of weathering. Furthermore, the uniform amount or degree of shine on each archaeological gravel supported the hypothesis that they were deliberately selected, manipulated, and curated over time.

The high concentration of lustrous gravels in areas associated with domestic activities suggests that their placement was purposeful and meaningful within prehistoric communities. The deliberate selection and modification of these gravels indicate that during the Upper Paleolithic, humans actively pursued and valued lustrous surfaces. These findings align with the broader evidence of prehistoric humans' appreciation of shiny surfaces.[11]

Throughout history, many ancient civilizations flourished on riverbanks and in river valleys, such as the Sumerians and the Indus Valley Civilization—reliable access to fresh water supported agriculture, trade, and large population growth. The evolutionary preference for both water and glossy surfaces remains evident in modern human behavior, as many modern cities are situated near water, and the pursuit of shine persists.

People are consistently drawn to landscapes featuring water in both reality and paintings. [Children prefer paintings depicting water](#) as a central element even at a young age, according to a study published in the *Journal of Environmental Psychology* in 1983.[12] Real estate trends also reflect this bias, as homes with aquatic views, whether lakes, rivers, or oceans, are significantly more desirable and often valued at higher prices. A [pair of studies](#) published in 2010 investigating preferences in both natural and built environments showcased a strong preference for places incorporating aquatic features and a stronger willingness to book a hotel room with water views.[13] Individuals also tend to associate water with [positive memories](#), linking it to childhood experiences such as swimming and playing near streams.[14]

Author Wallace J. Nichols explores water as a “therapeutic landscape” in his book, [Blue Mind](#), which analyzes studies that suggest being near water can have powerful effects on the human psyche.[15] The book provides evidence that water generates a meditative state more powerful than hypnosis techniques and makes

us healthier, happier, and more creative.

The association between glossiness and luxury is prevalent in modern marketing strategies. [Research by Rui \(Juliet\) Zhu and Joan Meyers-Levy](#) explores how display surfaces influence the perceptions of products from the consumers' perspective. They demonstrated that the material beneath a product can alter how trendy, natural, or modern it appears. These results suggest that the glossiness of a store display, when comparing shiny glass versus wood, has a positive impact on the products displayed on it and increases the connotation of modernity.[16]

Understanding the evolutionary basis of the preference for symmetry, gloss, and luster can allow designers and mental health professionals to create environments that align with our deeply rooted preferences. As neuroscience continues to [emerge in the design landscape](#), designers can use scientific advancements to create better designs that consider their impact and potential benefits on human emotions and psychology.

### Notes

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