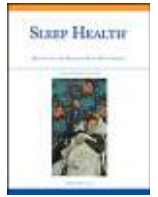


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Editorial

A depiction of a dream



Over time, artists from Pablo Picasso to Henri Matisse have drawn inspiration from sleep, not just because it is a vital human function, but also due to its complexity. Artists have explored sleep through different lenses, whether it be mythology, religion, rest, innocence, dreams, danger, or even death.¹ Paintings on sleep can even reveal underlying problems related to the subject's sleep cycle and the societal issues at their root.

In *Dream*, a sleeping woman rests peacefully, a white pillow and blanket framing her delicate face (see [Fig. 1](#)). Flowers enveloping her surroundings lead us to believe she is dreaming. Yaroslava Tichshenko painted *Dream* in 2019 and was interviewed to discuss this work.

The process behind *dream* and the science behind sleep

Tichshenko explained that the model for the painting was her friend, Anya. She revealed they had several modeling sessions, and it took them a long time to decide what pose she should do for the portrait, and even changed the location and background several times. Eventually, they both became tired. Anya laid down to rest with her phone and, a moment later, completely closed her eyes and fell asleep. Tichshenko chose to depict this exact moment because it was “a scene absolutely from life.” Tichshenko also revealed that her posing sessions were always in the daytime, but indoors, as can be seen by the artificial harsh light reflected on the model's face in *Dream*.

Since Tichshenko's model, Anya, was asleep for “several hours,” we can assume she entered rapid eye movement (REM) sleep and was not moving because her muscles were paralyzed. Tichshenko did not specify exactly how long Anya was asleep or if she woke up during this time. However, if she was napping for several hours, this could be a sign that she was sleep-deprived.² If Anya was able to fall asleep easily during a daytime shoot and sleep for several hours, this could be a clear indication of sleep deprivation during the previous nights.

Additionally, there is a cell phone visible in the bottom left corner of the painting (see [Fig. 2](#)). Tichshenko had mentioned that Anya was on her phone before falling asleep. A significant percentage of the population sleep with their cell phones on and are awakened by calls.³ Anya's cell phone is clearly an essential gadget for her everyday life, and it is likely that she, too, uses her phone right before going to bed at night. Using electronic devices right before bedtime may interfere with sleep by suppressing melatonin production and causing a sleep phase delay, which may lead to sleep deprivation.⁴ Modern electronic devices and screens often emit blue light (ie, short-wavelength enriched light). This type of light has been shown to reduce or delay the natural production of melatonin in the evening and suppress sleepiness.⁵

Tichshenko also acknowledged this modern-day issue, saying that “the phone is a common problem of sleeplessness at night and vice versa - daytime sleep. The phone is pictured as a hint of modern reality, which accompanies us inseparably in sleep and wakefulness.” If Anya utilized her device and exposed herself to this blue light before going to sleep at night, it is very possible that she took longer to fall asleep. This would have reduced the amount of sleep time at night, leading to sleep deprivation and accumulated sleep pressure during the day. This would make it easier for her to fall asleep and take long naps, as exemplified in this situation.

The background of *Dream* can also tell us crucial information about the model's possible sleep deprivation. Behind the subject, there is a floral background of blue and red tones. Tichshenko revealed that “the floral background symbolizes the dreams that the girl is currently dreaming about. They are like realistic signs that can be seen and touched, unlike real dreams.” Dreaming often occurs during REM sleep. During naps, especially long ones, REM sleep may occur.⁶ We cannot say for certain if Anya was dreaming during her nap, but the subject in the painting was, as depicted by the background imagery. Although a nap of 30–90 minutes can have positive brain benefits, “anything longer than an hour and a half may create problems with cognition, the ability to think and form memories.”⁷

Tichshenko's state of mind when painting *Dream*

Artists often tend to reflect their inner troubles and thoughts onto their artworks. However, this was not the case with *Dream*: “This portrait was painted in a state of appeasement. Painting *Dream* gave me a feeling of peace and tranquility,” Tichshenko explained. Additionally, when asked if she herself was sleep deprived when painting *Dream*, she revealed she was nothing of the sort: “No, I very rarely have sleep problems, mostly related to dissatisfaction in painting, when something does not work out or I cannot find solutions for some work - but everything was great with *Dream*.”

Conclusion

Although Tichshenko might not have intentionally painted sleep deprivation in *Dream*, the concept is clearly present in her artwork. Throughout time, art has transformed as society evolved, often mirroring the state of society. Tichshenko's *Dream* could be interpreted as depicting a society addicted to technology to the point that it disturbs our vital everyday functions (like sleep) and leads to a decline in long-term health. Artists play an indispensable role in exposing faults in our society, yet simultaneously leave their language up for interpretation.



Figure 1. *Dream*, 2019, Yaroslava Tichshenko. Oil on cardboard. Credit for the journal cover image and the image above: Courtesy of Yaroslava Tichshenko.

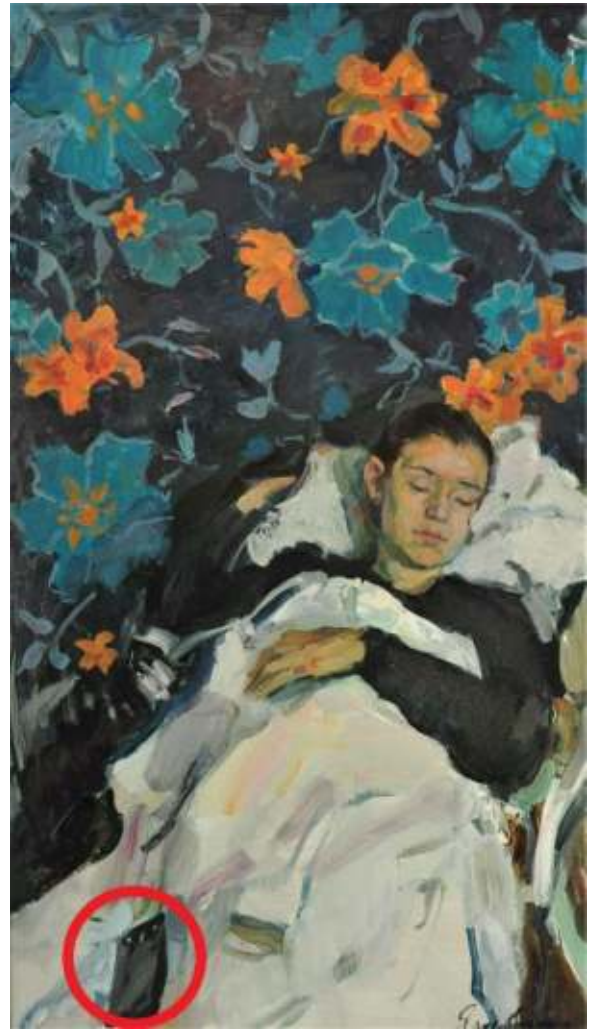


Figure 2. Phone next to artist's model Anya.

To some, *Dream* can communicate a sense of tranquility, transmitting the beauty of one of our evolutionary functions, sleep. On the other hand, we could also perceive the same artwork as a red alert, understanding the masked sleep deprivation in the subject, and thus exposing the negative connotations technology is bringing to humanity's overall well-being. Whatever the case, art will always transmit messages that resonate most with the viewer, and sleep will continue to be an indispensable function in our everyday life.

Declaration of conflict of interest

The authors have declared they have no conflicts of interest.

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References

1. Kryger, M "Sleep in Art: How Artists Portrayed Sleep and Dreams in the Last 7000 Years". Independently Published, 2019.
2. Davis, JL "America, it's time for your nap." *WebMD*, Available at: <https://www.webmd.com/sleep-disorders/features/america-its-time-for-your-nap>. 2004.
3. Gradisar M, Wolfson AR, Harvey AG, Hale L, Rosenberg R, Czeisler CA. The sleep and technology use of Americans: findings from the National Sleep Foundation's 2011 Sleep in America poll. *J Clin Sleep Med*. 2013;9(12):1291–1299. Published 2013 Dec 15.
4. Wams EJ, Woelders T, Marring I, et al. linking light exposure and subsequent sleep: a field polysomnography study in humans. *Sleep*. 2017;40(12):zsx165. <https://doi.org/10.1093/sleep/zsx165>.
5. Figueiro MG, Wood B, Plitnick B, Rea MS. The impact of light from computer monitors on melatonin levels in college students. *Neuro Endocrinol Lett*. 2011;32(2):158–163.
6. Vgontzas AN, Pejovic S, Zoumakis E, et al. Daytime napping after a night of sleep loss decreases sleepiness, improves performance, and causes beneficial changes in cortisol and interleukin-6 secretion. *Am J Physiol Endocrinol Metab*. 2007;292(1):E253–E261. <https://doi.org/10.1152/ajpendo.00651.2005>.
7. Li, J, Cacchione P, Hodgson N, et al. "Afternoon Napping and Cognition in Chinese Older Adults: Findings from the China Health and Retirement Longitudinal Study Baseline Assessment." American Geriatrics Society, John Wiley & Sons, Ltd, 2016. Available at: <https://agsjournals.onlinelibrary.wiley.com/doi/10.1111/jgs.14368>. 2016.