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## ON SOME ASPECTS OF VISUAL (NON-VERBAL-COMMUNICATIVE) SEMIOTICS OF SLEEP SPACE

The article analyzes some aspects of the semiotic (cultural, social, mental) interpretation of visual phenomena associated with the organization of the physical space of sleep.

In terms of the attitude towards sleep, cultures and societies differ primarily in terms of the attitude towards sleep as a necessity (and forced biological need) and as part of hedonistic or inspirational practices. This criterion is substantively defined as somnophobia/somnophilia.

The second criterion for classifying sleep cultures and societies is the chronemic criterion, which substantively coincides with the different structuring of sleep time.

The third classification criterion in relation to sleep is the acceptability or unacceptability of the presence of other people (usually relatives and/or strangers) in the sleep space. According to this criterion, sleep can be organized as individualized, implying a separate sleep space (sleep space), or as communal, implying the joint falling asleep in the sleep space (sleep space) of several people (relatives, close friends or strangers).

It is determined that the space of sleep has a specific system of meanings that refer to cultural meanings, social structures and mental processes/qualities. Cultural meanings, social structures and mental processes (qualities) form a semiotic trinity that is manifested in visual images. The latter can be subject to visual-analytical research and lead researchers to identify certain identities of different subjects.

It is stated that the visual semiosis of the space of sleep allows, firstly, to determine the attitude in culture and society to unconscious (impulsive) phenomena associated with altered states of consciousness, one of which is sleep; secondly, to characterize the relationship between cultural meanings, social groups (communities) and visualized mental characteristics of representatives of these groups; thirdly, to reveal the relationships between the visual-spatial features of the organization of the space of sleep and the inculturation requests of a particular society in the sector of needs for intimacy, trust, acceptance, identity.

**Key words:** nonverbal communications, sleep, space of sleep, culture of sleep, semiotics, visual analytics, meaning.

**Problem statement.** It is logical to begin the study of any subject by outlining its boundaries. The author will try to start with negative definitions

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of the subject (definitions of what the subject of the study is not), in order to then continue with positive definitions (what the subject of the study is). The objectives of this article do not include a study of the physiology or psychology of sleep in a broad sense. Also, there will be no discussion of any narrow cultural and historical aspects of sleep as an established practice of rest/recovery.

The subject of the study will be patterns of sleep organization and its space, including individual objects that organize sleep as projections of cultural, social and mental meanings. Cultural, social and mental meanings associated with patterns of sleep organization, its space and projected onto certain objects will be considered in their visual-analytical (non-verbal-communicative) aspect as a source of cultural, socio- and psychodiagnostic information about the individual and society.

A certain part of the conclusions presented in the article is based on the experience of the author's visual observation, subsequent identification of identities, partly – body images (visual morphotypes) and observed behavior (visual psychoethology). However, the main semantic load of our subject of research will concern unconscious meanings projected onto certain patterns of sleep and its objective environment. These unconscious meanings express, first of all, the relationship between work and rest, activities that are motivated rather by necessity and displeasure, and sleep practices as having a hedonistic meaning.

Analysis of the latest research and publications. Among the sources presented in the article, it is appropriate to divide them into three groups: cultural-anthropological, sociological and neuro-psychological. They reveal three aspects of the semiotics of the sleep space: descriptive-factographic, explanatory-analytical and programming-regulatory [1–10]. The authors of the studies cited below present detailed descriptions of sleep patterns and/ or falling asleep in different cultures, demonstrate the connections between the characteristics of individual groups (students, office workers) and the somnological aspects of their behavior. Neuro-psychological studies show the consequences of sleep dysfunctions, their impact on cognitive processes.

Presentation of the main material. According to the criterion of attitude to sleep, cultures and societies differ, first of all, in the sign of the attitude to sleep as a necessity (and forced biological need) and as part of hedonistic or inspirational practices. This criterion is meaningfully defined as somnophobia/somnophilia. Thus, societies of Western and Northern Europe could be defined as somnophobic, since sleep time in such societies is subject to the logic of labor rationality rather than to hedonistic needs. At the same time, some societies in the South of Europe (e.g. Italy, Spain, Greece) turn out to be somnophilic, since sleep in such societies is embedded in labor rhythms and disciplinary practices.

The second criterion for classifying sleep cultures and societies is the chronemic criterion, which substantially coincides with the different structuring of sleep time. Thus, Steger and Brant [8, p. 15–65] classified «sleep cultures» according to the chronemic criterion, identifying three basic types.

The first type is the so-called monophasic sleep culture. This type of sleep culture allows sleep based on the division of the time of eight-hour sleep and wakefulness associated with work activity. At the same time, sleep during the daytime in such cultures is either unacceptable or unacceptable at all. Societies with a monophasic sleep culture include the United States and a number of northern European societies of the liberal-capitalist or communist-socialist type. They have in common industrial discipline and the cult of labor with the corresponding Protestant ethic. Stereotypes about the relationship between a small (insufficient) amount of sleep and masculinity may correspond to a monophasic sleep culture. Such stereotypes include a cluster of judgments about the fact that real men, as a rule, withstand extremely intense loads and a force regime in everyday life, do not care, unlike women, about their health, can afford not to complain about lack of sleep and "not ask for mercy" in terms of any reduction in dynamic load.

R. Meadows et al., referring to Appleyard and other researchers, notes that "popular culture appears to equate being male with a lack of regard for sleep. For example, the New Statesman suggests that 'there is a macho culture of sleeplessness – sleep is for wimps who can't take the pace. The tough and the motivated like to brag about how little sleep they need' [5, p. 696–710].

The authors of the article cite examples of sleepless masculinity from US popular culture, which, however, does not exclude corresponding cultural precedents of Asian origin. Thus, in Japanese culture, value-oriented on Shintoism and the samurai ethics of the superman, the phenomenon of inemuri is widespread, combining chronic lack of sleep and a force regime, on the one hand, and the habit of impulsive falling asleep in public places, on the other. This will be discussed in more detail below.

Accompanying the single-phase culture in modern conditions is daytime restorative sleep, which is used by various business structures in different formats [1]. Companies can organize special sleep rooms, sleep capsules, Zen rooms (examples are Google, Facebook, Uber, Zappos, Potato, Forza, RentoMojo). All of them are offered as compensation for the lack of sleep of office staff. At the same time, in China, with its hyper-intensive industrialization and urban boom, employers are organizing bedrooms in the workplace, motivating staff not only to take daytime restorative naps but also to sleep at work [7].

The second type is the so-called biphasic sleep culture, in which sleep is structured into two parts: a long nighttime sleep and a short daytime sleep. Steger and Brant note the prevalence of this sleep culture in Spain and China due to the presence of siesta (an afternoon nap of varying length).

R. Remayo and other researchers [6, p. 39–44] draw attention to the shift of siesta from societies in southern Europe to the north and the United

States, as well as to Africa. However, this also applies to representatives of ethnic minority diasporas living in the United States. Thus, according to the empirical data presented in the article, even in populations traditionally considered siesta cultures, such as Italy and Greece, not everyone sleeps every day. In Sao Paulo, 25.4% of respondents take a nap during the day, while in Mexico, 79% of respondents take a nap weekly (at least once a week). In a sample of young people in the USA, a weekly daytime nap was recorded in 76%, in Guatemala – 52%, in Nigeria – 80%. In a sample of US respondents aged 50-60 years, 55% take a daytime nap weekly. The authors of the article, however, note a tendency to reduce the duration of siesta under the influence of industrialization in societies that were previously associated with the siesta culture and were traditionally considered «siestar» (Greece, Italy, Mexico).

The third type is the so-called polyphasic sleep culture. In the conditions of this sleep culture, people can have both the opportunity for a standardized night's sleep and spontaneous daytime sleep. From the point of view of the author of this article, the polyphasic sleep culture can also include those communities in which cases of an altered state of consciousness resembling sleep are observed, in particular – hallucinations, fantasizing, etc.

The described phenomena can occur in everyday life both one by one and in accompaniment to other sleep-like practices. Thus, a sleep-like practice is sleep during fear (todoet poeles), which is widespread in Indonesia and allows one to overcome the experience of fear and anxiety by immersing oneself in a meditative state. This is confirmed by studies of the influence of sleep on the perception of fear. In particular, in the article by K. Hauner et al. [3, p. 1553–1555] they were able to prove the possibility of weakening the phobic component of memories using sleep-like tactics. A group of 15 participants were shown photographs of men. Each exposure was accompanied by electric shocks of low voltage and recurring odors (at the participants entered a state of sleep. During sleep, the researchers odorized the air with the corresponding odor, while measuring skin conductivity. Skin conductance as an indicator of emotional arousal during sleep with accompanying odoration increased in the participants of the experiment.

After the participants of the experiment woke up and the corresponding measurements of skin conductance (indicators of arousal) were taken, the researchers noted a decrease in the fear response. At the same time, an inversely proportional relationship was observed between the duration of sleep and the severity of fear reactions. The longer the participants of the experiment slept, the less they experienced fear reactions (the lower their level of arousal and, accordingly, the lower the level of skin sensitivity).

Although she cautions that this technique is not yet ready for clinical use, if other scientists repeat and study this process more deeply, it could one day be added to exposure therapy, which is the most effective method of treating phobias and is also used to treat post-traumatic stress disorder.

Exposure involves gradually involving people in the experiences they fear while awake until they learn not to react too violently.

The third classification criterion in relation to sleep is the acceptability or unacceptability of the presence of other people (usually relatives and/ or strangers) in the sleep space. According to this criterion, sleep can be organized as individualized, implying a separate sleep space (sleep space), or as communal, implying joint falling asleep in the sleep space (sleep space) of several people (relatives, close friends or strangers).

As the key reasons for joint falling asleep, various authors cite several groups of reasons, ranging from a decrease in the frequency of awakening during sleep in the community of others to social belonging and identity. The last group of reasons is obvious not only in the context of scientific (empirical) validation, but also common sense. It is unlikely that someone would agree to coexist in the sleep space with a person or a group of people with whom the relationship is hostile.

A number of authors [10, p. 124–135] emphasize identity and belonging in communal sleep. Co-sleeping in this logic not only reflects the identitarian aspects of the interaction of co-sleepers, but also creates a positive social-programming basis for identification and increasing the level of trust. In addition, it helps to overcome distress and alleviate the symptoms of a number of physical illnesses in children.

As noted by Wortman and Brown with reference to other colleagues, «The effects of social relations on affective-cognitive processes regulating arousal further suggest that the quality of these relations may moderate the impact of co-sleeping on sleep quality. On the one hand, secure or affectionate relations may conduce to positive impact of co-sleeping, while hostile or alienated relations with co-sleepers may exacerbate sleep difficulties. Furthermore, cosleeping has been associated with parental attempts to address child psychological distress or physical illness» [10, p. 124–135].

R. Lilly in his study on the anthropology of sleep [4] notes differences in both bedtime rituals and the organization of the sleep space. Normalized nighttime sleep, more typical for some European and American societies, is not a universal phenomenon. Nor are specific rituals and accompanying physical sleep environments (separate bedroom, bed, nightlight, pajamas, etc.) a universal phenomenon.

The individualized sleep of children typical of the European model is also unlikely to be considered an average practice, as well as the implementation of sleep in private spaces. On the other hand, the state of half-sleep, insufficient sleep is also not assessed by the author as a cultural norm and average-typical for most societies.

A number of facts about sleep organization cited by the researcher are presented in the publication descriptively, but not explanatory-analytically. The second aspect seems to the author of this article no less important. The importance concerns not only macrocultural factors influencing the sleep

space, but also the understanding of the importance of latent relationships that exist between its (sleep) physical, mental, social and cultural components.

«In Japan, for example,» the author writes, «children often sleep with other family members until they become teenagers. Children and parents sleep on futons, the edges of which almost touch. Children sleep between their parents, symbolizing their position as a river between two banks, as closely connected to their mother and father, as flowing water to the earth it has dug» [4].

The use of a futon (floor mattress) is explained not so much by factors of social solidarity and cultural non-separation of children in relation to their parents, but by ecosystem influences on living space. The latter in Japan is subject to significant risks of destruction associated with tsunamis, hurricanes, earthquakes. Climatic and seismic uncertainty, as well as the limited physical space as an objective factor, have a greater feedback effect on Japanese culture than Japanese culture can have on the physical environment.

The possibility of a mobile and compact organization of the sleeping space, its dynamic folding/unfolding corresponds not only to its lesser significance in comparison with the space of wakefulness. We are talking, among other things, about the erasure of the boundaries between sleep and wakefulness in the social space. In particular, the Japanese practice inemuri—sleeping in public spaces, which is considered to be quite consistent with the Japanese reputation as chronic workaholics.

A. Joy notes in this regard that "many contributing factors come together to create an environment in which inemuri fits in comfortably. One is that the Japanese are simply hardworking people. Unlike Europe and America, working overtime is part of the work culture in Japan, and most office workers pull ten hours or more each day. Suddenly, a quick nap on the bench or on the train home is much more inviting. The second most common situation in which inemuri is present is in the nightlife districts of Shinjuku and Shibuya in the early morning hours.

The Japanese rely heavily on their public transit system. After a night of drinking, it's common to see men sprawled out on steps, public benches or even the floor, sleeping while they wait for the trains to start running again" [2]. Futon (a type of mattress) helps to be closer to the grounding zone. In the everyday understanding of the Japanese, this is about closeness to nature, but in the scientific interpretation – about closeness to instincts, and therefore about the expressed instinctiveness of the Japanese as an ethnic group.

This interpretation is based on the topological model of the psyche in psychoanalysis, which includes three levels: censorship, consciousness and the unconscious (body/instincts). The level of the unconscious corresponds to the closest to the body and the most voluminous generator of instincts and drives. At the same time, the obvious underestimation of the importance of sleep is not just an indicator of self-neglect and suppression of individuality, but also a defiant, rather than humble, attitude to death.

The latter circumstance not only corresponds to minimalism in the aspect of perception of personal space, but also personal time, including the time of old age and old age. The prevalence of employment among the elderly in Japan as a cultural fact demonstrates part of their military identity, which is expressed in resistance to death and the preservation of activity and wakefulness, vitality even in circumstances of apparent weakening of the body.

In this regard, it is worth noting the clear connection between sleep censorship in Japanese culture and the habituation of chronic sleep deprivation in the workplace. According to Supartini et al. [9], sleep deprivation and related phenomena were found to be a factor in the high frequency of depressive symptoms among first-year university students. At the same time, depressive and suicidal symptoms increased with later bedtimes, longer latency to fall asleep, and poor sleep quality (suicidal thoughts were significantly associated only with poor sleep quality... regardless of depressive symptoms).

The scarcity of energy resources, on the one hand, and the general blurring of the boundaries between public and private, on the other, create a supply of communal sleep items in Japanese culture. Such an item is the kotatsu – a table with a futon, under which a miniature heater is located. The device not only saves energy, but also organizes family time together

"In Italy," the researcher writes further, "children are encouraged to participate in family evening activities and often fall asleep in the company of adults. Italian children often sleep in the same bed or room with their parents, and some commentators suggest that this model is associated with a strong emphasis on family solidarity" [2].

Sleep patterns are also associated with the use of specific natural and cultural tools that are semiotically significant for understanding intercultural differences. Thus, in Northern European countries, infants' sleep in the open cold at subzero temperatures serves as an immune-strengthening tool.

In addition to medical reasons, such sleep patterns also have cultural foundations. In particular, this refers to the rationality developed in Northern European societies and the phlegmatic temperament that accompanies it. The enculturation of both rationality and phlegmatic temperament can occur, among other things, through the body's habituation to hypothermia. This is due to the fact that cultural, social, mental and organismic processes can be isofunctional, and therefore the initialization of some processes leads, according to the principle of recursion, to the initialization of others.

Some particular features of the organization of the sleep space are significant for non-verbal-communicative diagnostics of sleep. We are talking about the use or non-use of individual sleep objects

The use of certain sleep objects also characterizes cultural, social and mental attitudes. Here are some illustrative examples. Some people consistently prefer to sleep on flat pillows or do without pillows at all, while others prefer high pillows. Some sleepers prefer soft, others – hard bases

of the sleep space (here we mean mattresses or bedding). On the other hand, differences can also concern coverings and insulation (blankets or pajamas), as well as the height/lowness of the bed (sofa), including hanging sleeping places (e.g. hammocks).

The differences between high and low pillows semiotically correspond to different characteristics of the verticalization/horizontalization of the sleeping position. With high pillows, keeping the body and head in a vertical position mentally corresponds more to (semi)wakefulness than to stable sleep, and therefore more to shallow, short-term or another variant of censored sleep. Falling asleep in a semi-sitting position hardly corresponds to the complete relaxation of the body possible with normal horizontalization.

The latter becomes possible with flat and low pillows rather than with high ones. At the same time, pillows of considerable volume as part of home interior (in Ukraine such super-voluminous pillows can be seen in rural homes) can, by dividing the sleeping space and increasing the height of the sleeping place, perform protective and social-compensatory functions. The content of the latter is indirectly related to the low-status of the peasantry as a social group in post-Soviet societies.

The use of coverings and insulation is related not only to formal temperature and thermo-regulatory needs, but also to mental defenses – isolation/buffering, which can be accompanied by various phobias (manifestations of fear/shame, anxiety) of cultural and social origin. Censoring the need for recreation and a number of autoerotic (sexual) needs satisfied during sleep also marks the cultural and social pressure accompanying relaxation.

And, it is clear that the greater or lesser presence of this pressure can acquire a visual arrangement both in the form of body insulation (pyjamas and blankets) and lighting fixtures in the sleep space. The same interpretation applies to economic reasons (e.g., saving on heating), since the latter also concern the censorship of sleep in some societies (Germany, Great Britain, a number of northern European countries). There, in particular, this also concerns the use of insulation in the form of additional blankets and pajamas, but with some differences in the sphere of socio-cultural regulation of instincts.

**Conclusions.** The sleep space has a specific system of meanings that refer to cultural meanings, social structures and mental processes/qualities. Cultural meanings, social structures and mental processes (qualities) form a semiotic trinity that manifests itself in visual images. The latter can be subject to visual-analytical research and lead researchers to identify certain identities of various subjects.

Visual semiosis of the dream space allows, firstly, to determine the attitude in culture and society to unconscious (impulsive) phenomena associated with altered states of consciousness, one of which is sleep; secondly, to characterize the relationship between cultural meanings, social groups (communities) and visualized mental characteristics of

representatives of these groups; thirdly, to reveal the relationships between the visual-spatial features of the organization of the dream space and the enculturation demands of a particular society in the sector of needs of intimacy, trust, acceptance, identity.

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## Романенко Ю. В. Про деякі аспекти візуальної (невербально-комунікативної) семіотики простору сну

У статті аналізуються деякі аспекти семіотичної (культурної, соціальної, ментальної) інтерпретації візуальних явищ, пов'язаних з організацією фізичного простору сну.

Серед джерел, представлених у статті, доречно поділити їх на три групи: культурно-антропологічні, соціологічні та нейропсихологічні.

3 точки зору ставлення до сну, культури та суспільства відрізняються насамперед ставленням до сну як до необхідності (і вимушеної біологічної потреби) та як частини гедоністичних або натхненних практик. Цей критерій змістовно визначається як сомнофобія/сомнофілія.

Другим критерієм класифікації культур та суспільств сну є хронемічний критерій, який змістовно збігається з різною структурою часу сну.

Третім критерієм класифікації стосовно сну є прийнятність або неприйнятність присутності інших людей (зазвичай родичів та/або незнайомців) у просторі сну. Згідно з цим критерієм, сон може бути організований як індивідуалізований, що передбачає окремий простір для сну (спальний простір), або як комунальний, що передбачає спільне засинання у просторі для сну (спальний простір) кількох людей (родичів, близьких друзів або незнайомців).

Визначено, що простір сну має специфічну систему значень, що відносяться до культурних значень, соціальних структур та психічних процесів/якостей. Культурні значення, соціальні структури та психічні процеси (якості) утворюють семіотичну трійцю, яка проявляється у візуальних образах. Останні можуть бути предметом візуально-аналітичного дослідження та спонукати дослідників до виявлення певних ідентичностей різних суб'єктів.

Зазначається, що візуальний семіозис простору сну дозволяє, по-перше, визначити ставлення в культурі та суспільстві до несвідомих (імпульсивних) явищ, пов'язаних зі зміненими станами свідомості, одним з яких є сон; по-друге, охарактеризувати взаємозв'язок між культурними значеннями, соціальними групами (спільнотами) та візуалізованими психічними характеристиками представників цих груп; по-третє, виявити взаємозв'язки між візуально-просторовими особливостями організації простору сну та інкультураційними запитами конкретного суспільства в секторі потреб в близькості, довірі, прийнятті, ідентичності.

**Ключові слова:** невербальні комунікації, сон, простір сну, культура сну, семіотика, візуальна аналітика, значення.