# Technology and Language in Tattoos

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## Abstract

This study identifies graphic features of words that are used in tattoos. Our interest in this type of name tattoos is based on the fact that words have a great significance in a person's life. The article presents the history of the origin of tattoos from ancient times, the geography of tattoos, and also describes in detail the methods of ancient tattooing techniques. It moves on to the main task of analyzing the relationship between fonts and meanings. For this, the tattoos were divided according to their meanings into the categories "emotions", "principles of life", and "positions", and divided also according to the fonts used – "handwritten", "book", and "decorative". The article concludes that handwritten fonts are most often used in tattoos with romantic and family themes from the "emotions" category, conveying the feelings and attitude of the owner towards other people. Book fonts predominantly express the principles of life and motivations of the owners – thereby, they make a significant contribution to the "principles" category. And finally, decorative fonts are chosen for tattoos that are supposed to challenge social stereotypes, mostly from the "positions" category.

**Keywords:** Body art; Body modification; Tattooing; Ink; Word; Tattoo technology; Tattoo

# Технологии и язык в татуировках

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**Аннотация**

Данное исследование определяет графические особенности слов, которые используются в татуировках. Выбор для изучения татуировок с вербальным содержимым продиктован тем, что слова имеют большое значение в жизни человека. В статье представлена история происхождения татуировок с древнейших времен, география татуировок, а также подробно описаны приемы древних техник. Главной задачей исследования является анализ взаимосвязи между шрифтами и значениями. Для этого татуировки были разделены по значению на категории "эмоции", "принципы жизни" и "позиции", а также по используемым шрифтам – "рукописные", "книжные" и "декоративные". В статье делается вывод о том, что рукописные шрифты чаще всего используются в татуировках на романтическую и семейную тематику (категория "эмоции"), передающие чувства и отношение владельца к другим людям. Книжные шрифты преимущественно выражают принципы жизни и мотивацию владельцев – тем самым вносят значительный вклад в категорию "принципы". И, наконец, для татуировок категории "позиция", которые бросают вызов социальным стереотипам выбираются чаще других декоративные шрифты.

**Ключевые слова:** Боди-арт; Модификация тела; Татуировка; Слово; Технология татуировки

## INTRODUCTION

A tattooed body is always a body that tells something about the identity of the one who bears the tattoos. The tattooed body is authentic, as authentic as the personality. Body decoration is one of the oldest manifestations of human creativity. The history of tattoos begins with the Paleolithic era. According to indirect written evidence, such ornaments were used 60 thousand years ago. The actual confirmation is the ornaments on the skin of mummies, which are about 6 thousand years old. The frozen body found in the Alps ("Ötzi the Iceman"), has 57 tattoos and this person lived approximately 3200 BC (Levin, 2008; Pesapane, 2014).

Over the centuries, the technology of tattooing has changed and improved, and it is now possible to transfer finer lines and more complex images. Tattoos had different meanings in different eras and in different countries, they were a sign of inclusion and exclusion, evocation and decoration (Kloß, 2019). Today, decorative tattoos are one of the strongest manifestations of a person's personality. As noted by Arp (2012), tattoos express thoughts, beliefs, experiences, emotions and past personality. Tattoos today can be drawings of any complexity in different techniques. However, the focus of this study is not images but words that people place on their bodies. Tattooing in the modern world is, first of all, a statement. The fact that people use such an extraordinary way to express themselves means that other ways of making statements do not seem sufficient to them.

## TATTOO TECHNOLOGY

Needles and pigment reservoirs, which could be used to create tattoos, have been found since the upper Paleolithic period dating from 38,000 to 10,000 BCE (Bernstein, 2006).

The first tattoos in the history of the Indian tribes of Polynesia were made with soot, which was driven under the skin with a special hammer and a sharp stick with shark teeth. The main purpose of the drawings was to distinguish and indicate their status. Special clay stamps were used to create the drawing. There are three main techniques of tattooing. The simplest and therefore most ancient is the scratching of a drawing on the body. The pattern can be preserved by the scars of lingering wounds. This scarring is called scarification, and it is common among people with dark skin tones. Tattooing dark skin is pointless, the drawing will not be visible.

Another technique involves the use of a needle and thread. A black-colored (usually soot-colored) thread from an animal's tendon was stretched with a needle under the skin, and so the pattern was created. This technique was used in North-Eastern Siberia and by the Eskimos of North America. The third technique is the most widespread – pricking the drawing with needles. Metal needles, fish bones, pieces of sharp animal bones, chips of hardwood, fragments of shells were used. The dotted

organization of the drawing allowed for creating a tattoo of any complexity. In some cultures, different pigments were used, and the result was a multi-color drawing.

Further changes in tattoo technology were not very noticeable up until the end of the 19th century. Though the pigments that were utilized changed, the tattoo artist pierced the skin manually. Of course, the choice of dyes is significant since it is their ingredients that can cause allergic reactions and serious harm to health. In order to create blue colors mercury sulphide or cadmium selenide are needed; yellow colors may contain cadmium; for green colors chromium oxide is used (Elsner, 2020: Farley et. al., 2019).

A recipe for tattoo ink can be traced to the ancient Roman physician Aetius (527-565) containing pine bark, corroded bronze, vinegar, vitriol, leaf juice and insect eggs but more frequently used was a mixture of soot, charcoal and natural ingredients (Berchon, 1869).

Levis in Philadelphia was the first American to advocate and practise tattooing with colors. In Utrecht, Archer was the first to make an exhaustive and valuable study in 1874 of various colored pigments, carrying his research in three directions: the fixity of colors, modifications occurring in the corneal tissue and the disposition of dispersed pigment particles. Different colors derive their color from quite different substances. For example, yellow can be produced by azo dyes or cadmium sulphide, and white by lead carbonate, zinc oxide or titanium dioxide. These recipes were invented in the late 19th century, and not all of them were safe for the human body: In fact, cadmium can harm the central nervous system, kidneys, and liver. Historically, the formulation of tattoo inks was seen as an art rather than a science with inks being purchased on the reputation of those creating them (Bahrawy et al., 2015; Ziegler, 1922).
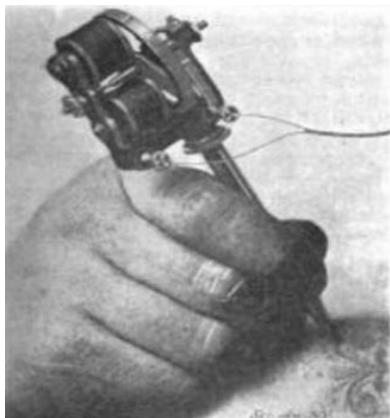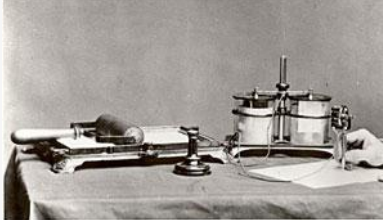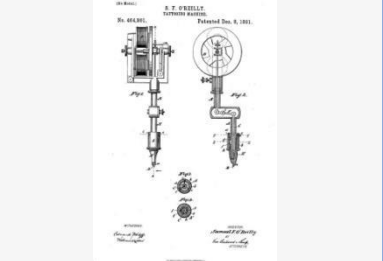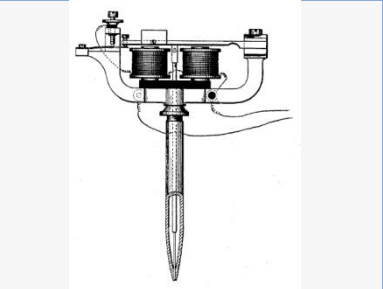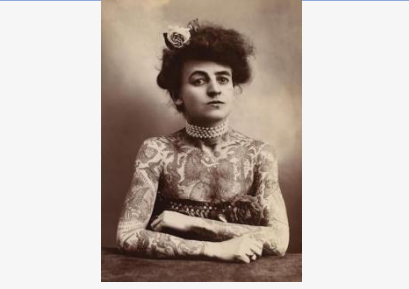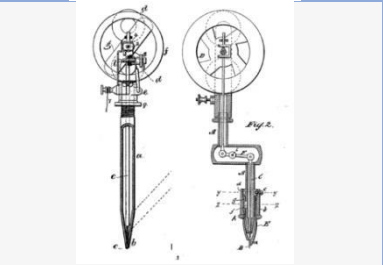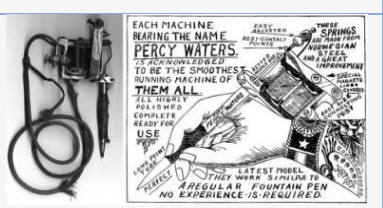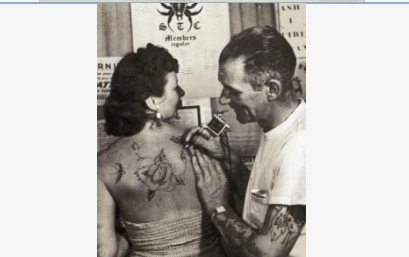


**Figure 1.** Electric tattoo machine

Technological progress that changed the tattoo process occurred at the end of the 19th century. Thomas Edison invented in 1876 the electric "pneumatic stencil" pen that made it possible to create a stencil by perforating paper with a needle. This was in 1891 used by Samuel O'Reilly to create an electric tattoo machine (Figure 1). The new machine, equipped with several needles and a paint tank, made several punctures per second. Over the next years, a lot of improvements and customization for different requests followed. So, Alfred Charles Sauce added two coils to the pneumatic stencil pen and changed the needle drive and ink supply (Parry, 2006). Tattoo machines made it possible to create painterly pictures in the skin, and the popularity of decorative tattoos grew.

**Table 2.** History of tattoo technology

| 1876 | Thomas Edison's electric pen | | |
|------|------------------------------|---|---|
| 1891 | Samuel O'Reilly's electric tattoo machine | | |
| 1899 | Alfred Charles' machine | | |
| 1902 | Getchell's tattoo machine | | |
| 1929 | Percy Waters' tattoo machine | | |
| 1979 | Carol Nightingale's tattoo machine | | |

Although it is still possible today to find masters who use manual needles rather than electric devices, most often two main types of machines are used for tattoos: 1) popular for over a century are induction (coil tattoo) machines, based on electromagnets ("coils") which set the movement of the striker to which the needle is attached, and 2) rotary machines which became widespread in the 2010s, where an eccentric disc with mismatched axes of rotation – an invention by Manfred Kohrs (Fuest, 2008)) – converts motor movement to needle movement.

Despite their slower speed of operation rotary machines are popular because they are light, make less noise and do not vibrate. Pneumatic tattoo machines are far less common (inventor Carson Hill in 2000), although they provide quality and ease of operation while being the most painless. There are special machines for drawing special types of lines, for example, the Liner tattoo machine for bright dominant lines or the Shader tattoo machine with low saturation to create a shaded surface (Alayon, 2007).

New technologies not only change the appearance of tattoos, they introduce trajectories of development that come with a redefinition of their purpose (Neef, 2006). New tattoos (NT) turn the skin into a source of dynamic and reversible lettering, possibly responding to fine-grained organic variations of the skin (Bitarello et al., 2011).

## METHODOLOGY

We analyzed the tattoos of 488 people – of these 158 were known through personal contact, the remaining 330 persons found on various social media sites (mostly Instagram). All statistics are based on the tattoos featured in social networks, namely live accounts and personal dating interviews. Clinton Sanders (2009) indicates that the tattoo subculture is being brought into the mainstream via social media. Margo DeMello (2000) sees social media as a way for tattoo lovers to build community. Force Ryan (2020) shows the special place that Instagram occupies in tattoo culture. We found the 330 publications of tattoos based on words posted on personal accounts in social networks. Of these, 24% of the tattoos were created by men, 76% by women. Next, we interviewed 158 University students who have tattoos containing the words. The survey was anonymous, all participants agreed to participate and gave permission for the publication of the photos in this study. All tattoos in the study are presented anonymously and without specifying their affiliation.

## DISCUSSION

### Analysis of fonts used in tattoos

When a person is going to place a word or words on his or her body, then its meaning comes first, but one should not lose sight of the visual representation of the word, which can affect the perception of the written word. Psychologists have studied

the influence of typefaces on humans since the 1920s (Poffenberger & Franken, 1923) when the development of typographic technologies made it possible to diversify printing. However, reliable information about the psychological aspects of typefaces practically does not exist (Brumberger, 2003, p. 206). Only occasionally, authors have attributed certain typefaces to such qualities as "serious yet friendly" (Kostelnick & Roberts, 1998) or "very urban, with a touch of the theatrical" (Shushan & Wright, 1994).

If one of the main selection criteria for typographic options is ease of reading (Dyson & Suen, 2016), then, in the case of logo fonts, emotional perception comes to the fore (Doyle & Bottomley, 2006; Grohmann et al., 2013). On the one hand, some fonts have a long history and are associated with a particular culture. On the other hand, the art movements of the twentieth century such as the Bauhaus school of design (Germany) and VKHUTEMAS (Russia) proved that expressiveness is achieved through the dictate of the form of artistic expression by its purpose and essence (Kinross, 1992).



**Figure 2.** Example of a handwritten font

The perception of a letter tattoo is influenced by both the artistic expressiveness of the font and its size. These two parameters are interrelated and also depend on the place of the body where the inscription is placed. This does not mean, however, that longer text takes up more space on the body. On the contrary, some owners find it interesting to produce the text in the smallest technically possible font. What matters here is whether a person makes a tattoo first of all for him- or herself to see, whereby only persons close to the owner can see it in rare situations. Alternatively, one can place a word or messages so that "everyone can see" it. Especially in the latter case the font size will be significant

The digital fonts that exist today are extremely diverse. Some tattoo owners strive for rare "unique" fonts, others use standard well-read fonts, while yet others use fonts whose expressive power gives the word a special emotionality. In some cases, the word can dictate the font, so the inscription COVID-19 would be ridiculous if it were made in intricate italics with swirls.

The font is an important part of any design, its tone of voice and mood. Correctly selected fonts create a sense of style, completeness, and quality. With good fonts, any design looks more thoughtful, and the information becomes relevant.

While studying the fonts used in tattoos, we concluded that they can be divided into three large categories: handwritten fonts, book fonts, and decorative fonts. This is due to the fact that visually for a person who does not study fonts from a professional point of view, there is not much difference between antique and grotesque, but there are

obvious differences between a font that looks like human handwriting and one that one sees every day in books and other printed publications. Let's look at these groups in more detail. All examples of tattoos will be introduced here by writing the name of the described font in that font.

The first group is *handwritten font* (Figure 2). This is the largest group, which was used in 59.6% of the total number of tattoos we studied. The *Handwritten fonts* imitates the handwriting of a person, when creating a tattoo sketch, one can also make it look like the client's handwriting. Thus, after applying the tattoo, it seems that the owner wrote it on



**Figure 3.** Example of a book font

his or her own body. Handwritten fonts are mostly imitation, have their own rules and standardization, but people perceive them as fonts that better convey their feelings, more personal and varied. In some cases real handwriting is used when preparing a sketch. For example, one of the tattoos we studied was invented and written for the owner by her mother as a family joke. In this case, the tattoo becomes unique. Another one imitates a childish shaky handwriting: "Mom, what if I don't want to be a good girl?", implying the inner child's appeal to an adult.

The second group, the second most popular – book font (Figure 3). It was used for 27% of the total number of fonts and includes several types of standard fonts.

First of all, there are varieties of antiqua, a font characterized by the presence of serifs on the letters. The old-style antique, which made up 1.2% of the tattoos in this group, was used only a few times in the ones we studied and conveyed instructions: "be kind", "be human." The transitional antique for writing numbers and a few phrases was used for 6.7% of tattoos, especially for writing numbers and several well-known expressions such as "right here, right now" and "Explore." New-style antiques accounted for 7.9% of the total. It is difficult to systematize the cases in which it was used, since it corresponds to a diversity of inscriptions: "Miguel," "thoughts are material," "Balance." Bar antique was used for 14.6% of the tattoos with book fonts we studied and was used most often in combination with drawings: "COVID-19," "Take care of yourself," "oltre" (which translates as "out").
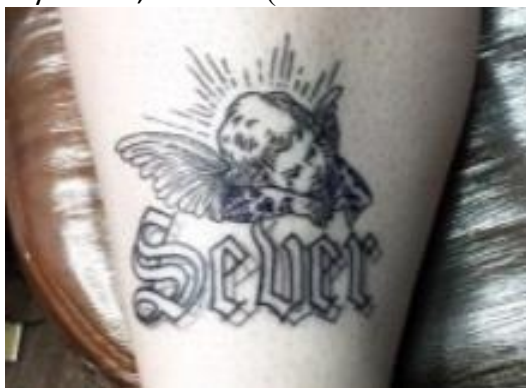


**Figure 4.** Example of a decorative font

Also included in the book fonts are four types of grotesque fonts, which do not use serifs. Old grotesques accounted for 10.1% and were used in laconic tattoos: " nightmare," "grounded," "sorry". In 5.6% of tattoos new grotesques were presented, which are written quotes in Portuguese: "Bem me quero" ("well, I want"), "Feita de sói e mar" ("Made of sun and sea"). Humanistic grotesques make up 19.1%, they were found in tattoos with the texts

"Future," "I can do anything," "pride and joy." Geometric grotesques were the most popular: they were used in 34.8% of the examples in this category. In tattoos ("5DMC," "Go hard, go home"), they were combined with lines and other simple geometric shapes.

As mentioned earlier, these fonts are perceived by humans as mechanically printed. They also do not look like the expression of a person's thoughts and are often used for quoting – songs, phrases, poems or just generally accepted ideas.

The last group is decorative fonts, which make up 10.6% of the total number (Figure 4). In this category, we have divided Gothic decorative fonts and display typefaces, since they assume a complex pattern connected with letters. It can be drawings, lines complementing the letters, attempts to make the letters look three-dimensional (Figure 4) with the help of shadows and colors. Most often, the decorations in these fonts are thematically associated with the context of the written text – the Wild West, the world of Tolkien, and so on. The Gothic decorative font is most often used for expressions in Latin (for example "Aut vincere, aut mori" – "Victory or death") since it originated in the 12th century and can thus be associated with the even older, "dead" language Latin. This font was used in 74.2% of cases. Display typefaces were used in 25.8% of the examples and were also supplemented with drawings, conveying certain messages to people around them: "Breath in – breath out", "Spread love".

Most often, such fonts are copyrighted, so each tattoo artist has their own style and can use such fonts repeatedly – this makes the question of the uniqueness of tattoos in this category controversial. Decorative fonts are creative, eye-catching tattoos, sometimes the words in them are difficult to make out.

### Analysis of words and meanings in tattoos

Most tattoos are short, consisting of several or even of just one word. They need to maximize meaning in the small space set aside for the tattoo. One short word can be written large enough and read well. The longer the text, the smaller the font size will be, the text will be hard to read even at close range. Long text for tattoos is usually superfluous, nevertheless an interesting example of a very long text is the recipe: " 'kartofelny': – boil a thick puree with butter and an egg; add flour, make cakes, – scroll the boiled meat in a meat grinder + two boiled eggs + spices, – fry in a pan: finely chopped onions + sauces + a mixture of meat and eggs, – make pies from tortillas and the resulting filling; fry from 2 sides. " Of course, the owner of the tattoo did this not because he lacked a notebook for writing down recipes, but in honor of the love for grandmother and her pies.

Very often, a word or sentence serves as a kind of encrypted sign referring to certain life events. Some "password words" are more common than others but the sample of the study suggests a great deal of variety. Even the strongest and most common words are not repeated so often: the words "love" (2,9% of usage), "life"

(1,22% of usage) and "never" (1,16% of usage). The word "love" can be mentioned in the context of love for yourself, for the environment, or for other people – "love yourself," "love is," etc. Some tattoos, as in the example on the left, where "amore" translates to English as "love", contain only this word, obviously hinting at the importance of this emotion in the life of the person who made it.

The category "principles" (of life) has a more unambiguous interpretation and is associated with people's views on their lives and behavior. Given that tattoos are often associated with important events that people want to capture on the skin, tattoos can reflect the views and principles of their owners, as well as the lessons that they might learn from what happened. In addition, the word "life" often appears in well-known cultural expressions, for example, "La vita e bella," which means "life is beautiful. "

The word "never" is associated with the promises that people make to themselves and others. These promises are then transferred to the skin to be a reminder for life: for example, "never say never" or "never give up."

But the spread of words' variety and usability is visibly huge, so all tattoos were divided into 3 main groups to make consideration and processing simpler: emotions, principles (of life) and positions (figure 5).
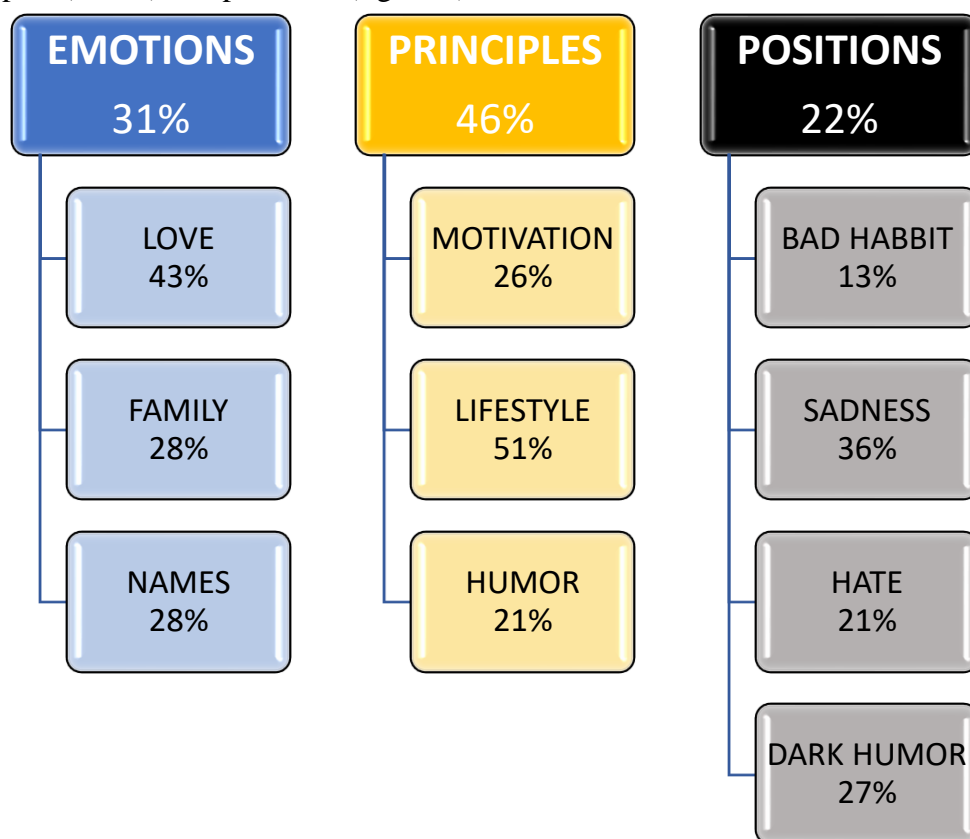


**Figure 5.** Percentage distribution by concept categories

In the first group, which includes our feelings towards other people, art and beautifulness, and even ourselves, there are 103 phrases in total. This is 31% of the total number of tattoos we considered. To sum up the received information, the group was separated. In conclusion, there are these subgroups: love, family, names (Table 2).

**Table 2.** Statistics by category "Emotions"

| Emotions | | 31 % | |
|---|---|---|---|
| № | Category | Percentages | Examples |
| 1.1 | Love | 44% | <br>"Love" |
| 1.2 | Family | 28% | <br>"When I stop breathing, my children's hearts will continue to beat" |
| 1.3 | Names | 28% | <br>"Helen" |

Mass culture used to define the word "love" as a romantic emotion or relationship, and because of our esteem of romance this topic in the current subgroup is the most used; 58% tattoos from the "love" subcategory are describing this kind of love.

However, some people prefer to use for their tattoos phraseological units and well-established expressions which are usually exchanged between lovers: "Ángel mío, estate conmigo, tú ve delante de mí y yo te seguiré" ("My angel, you go ahead, and I will follow you") – a well-known Spanish aphorism. Other expressions of love are "Forever yours," as well as confessions ("You electrify my life") and nicknames typical for people in relationships ("Baby").

Second in terms of popularity is love as a feeling in general, and it accounts for 29%. Almost all of these instances include exactly the word "love" or modifications of it to show appreciation of this emotion or the significance of love.



**Figure 6.** Example for the "Love" category with text "Love"

In such tattoos, there is rarely a context that hints at which of the meanings of the word "love" is used. The owners of such tattoos consider love as an important part of their lives and want to preserve it. "Just love," hearts or just the word "love" – such tattoos are concise and at the same time quite clearly reflect the position of the person (Figure 6).

There are also tattoos that combine the words "love" and "hate" as two strong emotions, often echoing each other in literature and cinema.

Two least used topics are friendship and self-love. They contain 13% on the whole.

Self-love is expressed on tattoos through appeals not to forget to love and take care of ourselves no less than of the people we love. It is not just about self-esteem but also about satisfaction of physical needs, taking care of yourself, accepting your shortcomings, and so on. Tattoos with those appeals are similar to each other: "Love yourself," "Do not forget to love yourself," this can also include "Believe in yourself" and "Be yourself."
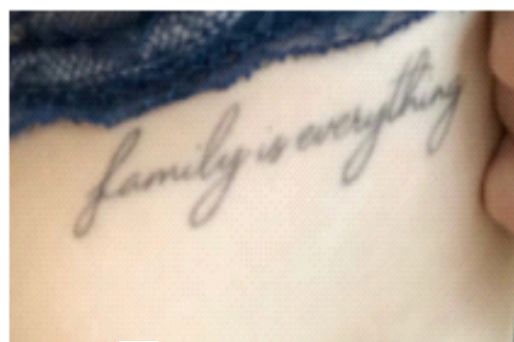


**Figure 7** Example for the "Family" category

The second subcategory, platonic love, is the expression of support through a tattoo such as "I'm for you" or "Stay strong."

Another heart-warming topic is family which amounts to 28% from the "emotions" category. 69% of those tattoos were related to parents with words "Mom and Dad" or contained words about how important parents and family are on the whole for the owner, as in "Family is everything" (Figure 7).

And 3% of these tattoos were related to sisters. We do not know for sure if these refer to actual sisters, since young women sometimes consider themselves sisters. Strong family ties can provoke a person to imprint the names of their parents or their children on their skin for life.

In addition, many have a beloved one's name on their bodies. 28% from the "emotions" category involve names.

These can be presented, for example, as two names in the same ring or eternity circle or decorated by indicating the year of birth or other drawings, but the essence remains the same: to memorialize the name of a dear person. There are even people who create tattoos with the names of their pets.

The second overall category concerns values that matter to life on people's bodies. 47% of the total number belongs to this group, and as in the previous group were structured into subgroups: motivation, lifestyle, humor (Table 3).

**Table 3.** Statistics by category "principles (of life)"

| Principles (of life) | | 46.67% | |
|---|---|---|---|
| № | Category | Percentages | Examples |
| 2.1 | Motivation | 26% |  "Never give up" |
| 2.2 | Lifestyle | 51% |  "Space inside" |

| 2.3 | Humor | 21% |  |
| --- | --- | --- | --- |
| | | | "Go to the south" (but the word "south" is written as it pronouncing to make it similar to the swear word in Russian backwards) |

Firstly, a person's desire to see motivational quotes is definitely huge and strong, because in our research at all this subgroup is second by popularity of using. 69% of phrases and quotes were divided into this theme, and that means the worth and significance of humans staying motivated through their lifetime. An example of the most frequently used motivational phrase "everything is in your hands" (Figure 8).

Many inspiring and motivating phrases have come to modern speech from antiquity, and many tattoo owners choose common expressions in Latin as inscriptions, such as "Per aspera ad astra". ("Through the thorns to the stars"), "Aut vincere aut mori" ("Either victory or death")," "Vivere militare est" (To live is to fight), and so on.



**Figure 8.** Example for the "Motivation" category with text "Everything is in your hands"

In addition, people put tattoos on their skin with author's inscriptions and popular slogans, such as "Never give up, because good things take time," "Follow your heart," "Be kind, be human", "Everything is possible" (figure 9).

Secondly, the subgroup "lifestyle" is the most mentioned, and it includes 52% of tattoos in this category. Here, happiness is the most used theme (73% of phrases).

As with the word "love", the word "happiness" has many meanings and it is used in tattoos as a word that does not need additional explanations, since its particular meaning is a personal matter of the owner.
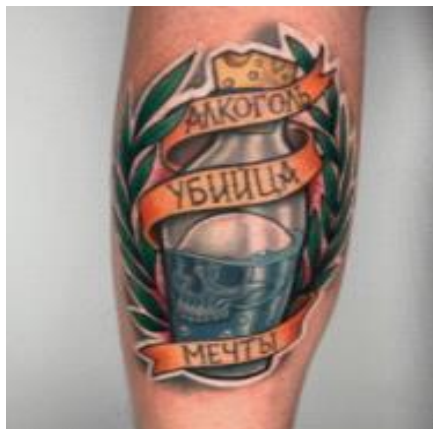


**Figure 9.** Example for the "Lifestyle" category

Religion and lifestyle-preferences are quite on par since 15% of tattoos in this category pertain to the first and 13% to the second.

Putting words of prayers and appeals to God on household items and memorabilia for religious people is a long-standing practice. With the help of a tattoo, a person can also demonstrate their attitude to life (with faith in the Almighty) and at the same time leave parts of prayers on their skin, such as "Save and Preserve".

Tattoos related to preferences are mostly based on hobbies: "My life is music" and "Rock'n'roll", as well as tattoos with images of your favorite basketball teams (for example, the Lakers).



**Figure 10.** Example for the "Bad habits" category

The last of this group's subgroup is humor. This topic is quite small compared to others, because it has only 3% of tattoos in it. This refers to people wanting to cheer themselves up or just having fun doing a tattoo.

Those tattoos are built on self-irony and sarcasm, the ability to laugh at their own characteristics and shortcomings (for example "Do not wait for a miracle, do one yourself", which is a funny pun). The third major group reveals dark themed tattoos, from gloomy thoughts to depressing sides of one's mind. Subgroups (dark humor, hate, sadness, bad habits and curses) include 22% of phrases overall (Table 4).

Consider the subgroup "sadness", which is the biggest in this category and which includes 37% of phrases. With the help of the examples below, one can see that this category of tattoos is mainly associated with disappointment in love or in people. In these tattoos, people express their pessimistic views on life and the belief that the world is not as colorful as they see it.

This takes us to the least subscribed theme overall, namely "bad habits" which includes 14% of tattoos in the positions category. Tattoos from this category include negatively colored words (for example, "Alcohol is a dream killer" (Figure 10)), as well as pictures that underpin them. For example, bottles, cigarettes, syringes. This indicates the desire of the owners of such tattoos to oppose public stereotypes that condemn such habits.
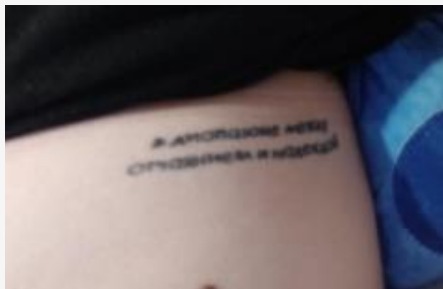


**Figure 11.** Example for the "Hate" category

The "position" category contains 22% of tattoos. Their meaning is not a valid expression of hatred, although some statements may seem to be a manifestation of misanthropy. Most often, tattoos of this category people try to convey their cynical attitude to the world and the people around them. In addition to the example, there are tattoos with the following inscriptions: "I want everyone to get behind everyone", "I hate people" and "Toxic" (Figure 11).

The next category is "Black Humor", in this category we have identified 27% of tattoos. Judging by the results that we received, many tattoos in this category were supplemented with a pattern, which made them more indicative, like the tattoo in the example on the right. There are also inscriptions "Existence is painless if you are dead", "I will grow up – I will die" and so on", "My world of bullshit".

**Table 4.** Statistics by category "Position"

| Position | | 22 % | |
|---|---|---|---|
| № | Category | Percentages | Examples |
| 3.1 | Bad habits | 13% | Alcohol is a dream killer |
| 3.2 | Sadness | 36% | "In the range between happiness and hope" |
| 3.3 | Hate | 21% | "Revenge" |

| 3.4 | Dark | 27% |  "Never trust humans" |
|-----|------|-----|--------|

Another interesting detail is the frequency of the usage of quotes, phrases from books, films, TV-series or even from songs. 46 from all of tattoos are refer to popular quotes, such as "carpe diem", which is about 14,99% of all results

It is interesting to note that the verbal expressions presented on the body are sometimes difficult to interpret, or the meaning implied by the author will not coincide with the most obvious one. The most obvious way to "hide the meaning" is to use little-known languages, which will be for most Russians everything except Russian and English, but it is especially difficult to perceive hieroglyphs as a verbal message. However, artificial languages can also be used, most often from works of fiction (Elvish from Tolkien's books, the language of the Star Wars universe, the Valyrian language created for the Game of Thrones series, etc.). There are several examples of inscriptions in a language that is not at all identifiable, in which case the message is known only to a few initiates. Special terms, jargon, names, or other words that are unknown outside of certain groups may be used. For example, 5RDMS | A is a data server. Sometimes comprehension of the meaning can be hampered by the contradiction between the image and the words, for example, the word "love" is written using the coiling of a snake. In other cases, although the understanding of the inscription is not difficult, the owner of the tattoo implies something not obvious – as in the case of a quote that has a special meaning for those who are familiar with the cited work.

**Table 5.** Variants of "hiding the meaning" in words

| Category | Examples | Meaning |
|----------|----------|---------|
| Unknown language |  | Hidden |

| | | |
|---|---|---|
| Artificial language |  | Owner's name written in Daedric language (the language of Daedra and dunmers first appeared in the game "An Elder Scrolls Legend: Battlespire") |
| Using of non-linguistic sign systems |  | Infinity is not the limit |
| Little known language |  | Samurai |
| Little known words |  | Zugzwang (from German) – "Forcing to move" for example in chess. When the player stands under pressure to act even detrimentally. |

| | | |
|---|---|---|
| Contradiction between verbal and visual language |  | The owner of the tattoo believes that the tattoo demonstrates her hot temper and impulsiveness, combined with reliability |

## CONCLUSION

In this article, we explored the meaning and significance of tattoos on the human body. In a world where writing has existed for more than six thousand years, where we constantly see the words expressed in the text, it is easy to see that not only the meaning of what is written is important, but also the form in which it is conveyed. The meaning of the words on the tattoos and the fonts used in them are inextricably linked, since the choice of font is based on personal preferences and attitude to what will be written. As such, the font is an important technological dimensions of tattooing as a technique of communicating and self-expression.

The language of texts created on one's own body is a special phenomenon. Tattoo creation includes a technical and a creative side. Forced conciseness forces us to achieve maximum verbal and font expressiveness. This does not mean, however, that the inscriptions will be understandable, sometimes the meaning of the embedded message is hidden and accessible only to a certain group.

The implied longevity of tattoos which will accompany persons for a long time – probably all their life – forces them to approach the creation of the inscription thoughtfully and seriously. This study shows the relationship between the meanings of the inscriptions and the writing used, however, there are many other factors that remain to be investigated, for example, the placement of the tattoo, the relationship with the drawings, and so on.

Handwritten fonts were most often used in tattoos from the "emotions" category (54% of the number of tattoos in this group), in the "principles of life" category they were found in 47%, and 46% in the "positions" category.

This can be explained by the fact that the category of "emotions" includes tattoos associated with romantic themes, family love and the names of people dear to the owners. It has already been mentioned that the imitation of handwriting makes these fonts unique. Emotions are very personal, so everything connected with them should stand out and at the same time express sincerity. It also turned out that in this category, by percentage, handwritten font was most often used in the subcategory "family" – 62%. However, according to the absolute number of examples, it was used most often in the subcategory "love".

In general, in the "principles" category, handwriting was also popular, particularly in the "motivation" subgroup, which is similarly personal as emotions. Usually, people project on such tattoos the words that help them not to give up and continue to fight. In such matters, the words of personally connected people play a big role, thus many tattoos of the subcategory "motivation" are written in handwritten font.

In addition to the positive side, the handwritten font can also express the secret fears or tragedies of a person, which are also a personal matter. Therefore, you can see that it is often found in the subcategories "sadness" (56%) and "bad habits" (60%). In the other subcategories of the "positions" group, handwritten font is rare, since it is not associated in the human mind with hatred or black humor.

Book fonts are most often found in the "lifestyle" category – there they make up 30% of tattoos. As it has already been found out, many examples from this group are quotes from books, songs, well-known catch-phrases that we often see in books and as slogans, so they are associated with printed text and standard fonts. In the sub-category "humor," the book font is popular, as it is used in 36% of tattoos in this sub-category. Here, the joke resides not only in the meaning of the tattoo but also in the form of its expression.

In second place for book fonts is the category "positions", in which book fonts accounted for 29%. Most often they are found in the subcategory "black humor" – a lot of tattoos belonging to this group show jokes already invented by someone from the Internet or books, that is, they are quotes or already established constructions, and therefore they are naturally transmitted in standard fonts. It is noticeable that the romance of the handwritten font seems inappropriate when you want to convey someone's words that have been spoken many times by different people, and the decorative font makes it difficult to read the tattoo which would prevent jokes to produce the desired effect.

In the "emotions" category, the book font was used the least often. It was said above that the dissimilarity of the handwritten font to all others – which can make a tattoo special and personal – is fitting for emotions and makes it so popular in this category. Obviously, the book font does not have such characteristics, so tattoo owners are less likely to choose it to express words of love or the names of dear people.

During our research, we found that decorative fonts are mainly used in the "positions" category. These fonts are quite specific and can convey the peculiarities of the thinking of tattoo owners, since their design depends on the skills and imagination of the master, as well as the style of the owner. Decorative fonts are most frequently found in the "hate" subcategory and account for 44% of the samples in this group. The tattoos that we have identified in this category are mostly unusually designed quotes from movies and TV series, as well as author's sketches, in which the use of an accidental or ancient Gothic font allows you to better reveal the meaning of words. Unlike handwritten fonts, decorative fonts are mostly not romantic and seem strange and frightening to some people – they express aggression and are expressive enough to convey hatred and black humor but are not suitable for use in tattoos of the subcategories "sadness" and "bad habits."

Less often decorative fonts were used in the "principles" category: only 23%, with the largest share in the subcategory "lifestyle" (30%). This is twice as much as in the "motivation" subcategory and more than the 18% in the "humor" subcategory, which can be explained by two conclusions from the previously described studies. First, it has already been mentioned that decorative fonts convey the characteristics of tattoo owners. Secondly, in the "lifestyle" group, people try to express their opinions and attitudes to life.

In the "emotions" group, decorative fonts occupy only 20%. Despite the possibility of getting a unique tattoo, decorative fonts do not look gentle and smooth enough to be used often in the subcategories "love" and "family", where they occupy 15% and 21%, respectively. However, they can convey the character of people whose names people want to write on tattoos, so in the "names" subcategory, decorative fonts make up 27%.

Based on all the above, the following conclusions can be drawn.

It is important to approach the creation of a tattoo sketch with special care: choose the right words and choose the design – the font. Since the tattoo carries a lot of meaning and something important for its owner, he will try to convey his attitude to what is written as accurately as he can, which is possible only with the use of the correct font. People who imprint a bitter joke on their bodies about the injustice of life will not use the handwritten style associated with romance and feelings. On the example of tattoos, one can practically investigate how the semantic meaning of fonts is understood.

Handwritten fonts are used by tattoo wearers to express their feelings – love, sadness, longing, friendship. All of this is directed at other people or represents their thinking as it becomes applied to the body. As a result, tattoos that utilize handwritten fonts are often associated with specific loved ones. Book fonts are more like thoughts that can be read in a book or heard in a movie. Words written in book fonts no longer come from specific people, they are left on the body to remember. Such tattoos are created to motivate and remind us of what is most important, and this is not limited to interpersonal concerns regarding someone else. Decorative fonts also do not have a specific audience; however, they are most often used for tattoos which are created to challenge society and stereotypes in general. Their owners will always remember their favorite bad habits or that the world is a cruel place. What they leave on their bodies is rather a reminder to everyone as to who and what kind of person the bearer of these tattoos is. Words written in decorative fonts are always striking, and new acquaintances can immediately understand who they are talking to.

## ACKNOWLEDGEMENT

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