



CONCEPT

- Charapaint is an interactive project in which the color quality and color values of a voice and alphabetic characters are determined and analyzed. Users assign colors to the alphabet according to their own feeling.
- Based on the color assignment, compositions of poems or texts will be generated and displayed.
- Charapaint evaluates the user entries and creates results from the assigned colors, which makes the color quality, tension or composition of each poem or text visible. In that regard, on the one hand, the individual color perception of vocal sounds of the individual user is recorded, on the other hand, the collective color perception of previous users is created in a statistical form.

Charapaint wants to explore which color quality the sound is accompanied by characters and finally by words and sentences.



PHONETICS

In phonetics, the factors and components of linguistic sounds are examined. As part of phonology, phonetics is an independent interdisciplinary field between linguistics, biology, acoustics, neuroscience and medicine. Their subject area is the spoken language in all their realizations.¹

Charapaint is dedicated to the color perception of sounds by sound units. In phonetics, the „sounding“ letters are divided into sound groups based on the articulation point in the mouth:

Vocal sounds are voiced, the articulation of the air flow can go far beyond the mouth.²

Consonant sounds can be generated without the use of the voice (voiceless) or with vocalization (voiced). Consonants are formed by interruption or connection of exhaled air to one of the points of articulation, such as the palates, lips, and teeth, and are filled into occlusions, rubbing, nasal, flowing, and puffing sounds.³

¹ See: [wikipedia.org](https://www.wikipedia.org), Phonetics

² See: [wikipedia.org](https://www.wikipedia.org), Vowel

³ See: [wikipedia.org](https://www.wikipedia.org), Consonant

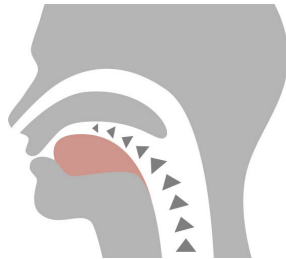


Vowels and consonants in English are:



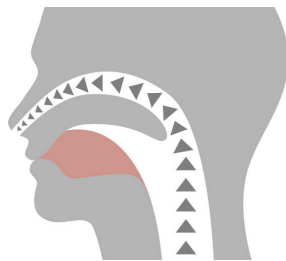
Vowels
Semivowels

A E I O U
W Y



Stops
Affricates
Fricative
Laterals
Retroflex

P B T D K G
C J
F V Q S Z H (SH)
L
R



Nasals

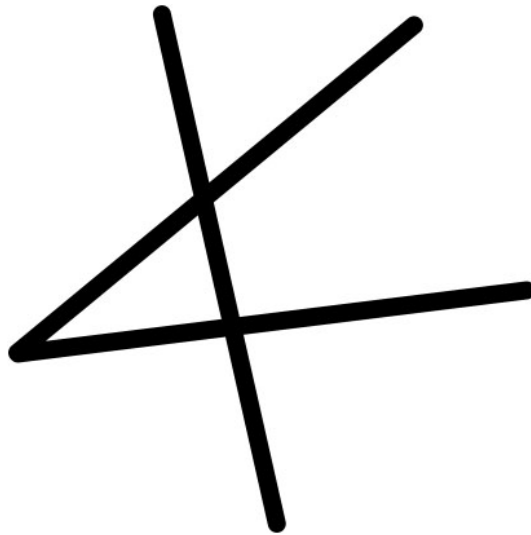
M N

Illustrations: simplified representation (own graphics)



ALPHABET

- Many of today's alphabets are derived from the Phoenician alphabet. The originality of the written representation of language is reflected in the transfer of the figurative in stylized representations of individual letters.
- The letter Aleph (see illustration) is the pictorial implementation of a bull's head, accordingly alef in the Phoenician means ox. From Aleph became the Greek Alpha and the Latin A.⁴



⁴ See: wikipedia.org, Phoenician alphabet



SYN**A**EST**H**ES**I**A

■ Synesthesia is a neurobiological peculiarity in sensory perception. The term derives from the ancient Greek words *syn* (together) and *aisthesis* (feeling). In this fascinating phenomenon of sensory fusion, affected people involuntarily perceive what they hear - such as speech, music or sounds - together with a second sensation. External stimuli are effective in synesthetes through this extraordinary coupling of sensory impressions in multiple areas of the brain simultaneously. For example, they experience the acoustic triggers, which are accompanied by an optical second sensation, as a unit.⁵

■ There are various forms of synesthesia, the so-called „color-hearing“ or „music-color synesthesia“ is one of the most common variants, another is the „grapheme-color synesthesia“, in which synaesthetes see words, letters or numbers in color. It is assumed that neurophysiological basics are formed by certain experiences and that is why individual preferences are developed. In synesthesia research, however, a distinction „...is made between projections and associations. Everyone has associations, one can also learn them very well. Projections are in our opinion anatomically conditioned, there is a hyper connectivity in the brain instead.“⁶

⁵ See: Jiménez, Fanny, „Gehirn von Synästheten lässt Forscher staunen“, on 01.05.2011 in welt.de

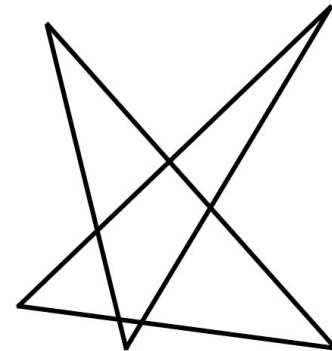
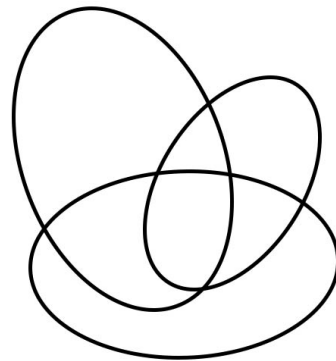
⁶ See: Gerstmeyer, M. „Ich sehe das Jahr als eine Bohne - Was ist mit mir los?“, on 26.02.2018 in welt.de



ASSOCIATION

One of the first persons to deal empirically with the relationship between sound and form in the context of language was the psychologist Wolfgang Köhler. In 1929 he developed an experiment to demonstrate this connection. He drew two abstract shapes, one round and soft, the other pointed and angular, and asked the subjects to associate these forms with the invented words Maluma and Takete. In almost all cases, subjects assigned Maluma to the round shape and Takete to the pointed shape. From this experiment Köhler concluded that a fundamental sound-shape association is inherent in nearly all people.⁹

SOUND SHAPE



⁹ See: wikipedia.org, Wolfgang Köhler



DADA ■ During the detachment from traditional art forms - in the visual and performing arts, as well as in music and literature - Dadaism has played an important role in the early 20th centuries. Dada was created during the First World War. A handful of exiled artists stranded in Zurich and turned against militarism, patriotism and propaganda with provocative and satirical actions. The artistic protest movement also questioned the entire understanding of art as well as all ideologies. At the same time, intellectuals and recognized artists of the established art movement understood war as a process of natural renewal. Most of them glorified the war, whether because of the desire for profound change or even the view that war was the „only hygiene in the world.“¹⁰

Hans Arp, painter and co-founder of Dada wrote: „While in the distance the thunder of the guns rolled, we sang, we painted, we glued, we wrote with all our might. We sought an elemental art that would heal man from the madness of time and a new order that would create the balance between heaven and hell.“¹¹

But the Dadaists did not just want to provoke, they also sought to expand the senses through art and to re-synthesize the mind:

¹⁰ Filippo Tommaso Marinetti, Manifesto of Futurism, see wikiquote.org, Filippo Tommaso Marinetti

¹¹ Hans Arp, Die Geburt des Dada. Dichtung und Chronik der Gründer, Zürich, 1957



„We demand the expansion and conquest of all our senses; (...) Our task is to work in the sense of a universal commitment to the physical and physiological problems of nature and man. We will have to start our work where modern science ceases, because it is in-objective and only pursues the system of exploitability and continually takes positions that belong to a „finished“ civilization form. Our sensory-physiological and form-functional-physical orientation gives us - in contrast to the previous techniques and arts - the insight that no field of work and no area of experience exists for its own sake. There is an analytic procedure in the subconscious about the organ defects and functional inhibitions of human psychophysis; This approach needs to be made aware and give a approximation to increasing somatic functionality.“¹²

Raoul Hausmann and Viking Eggeling, 1923
Zweite präsentistische Deklaration. Gerichtet an die internationalen Konstruktivisten.

¹² Raoul Hausmann und Viking Eggeling, Manifeste und Proklamationen der europäischen Avantgarde (1909–1938), Stuttgart und Weimar, 1995, S. 300



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■ The radical break with conventions is reflected especially in Dadaist
■ sound poetry, which is characterized by „sense openness“ and liberation
■ of any binding of regulatory systems and the total renunciation of language as a linguistic signifier. „In the general sense of the word, we are considered poets because, above all, we are attacking language, the worst of all conventions.“¹³

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Based on the aspects listed, Charapaint examines the collective color perception of vocal sounds and letters. The fusion of the elements color, sound and letter in Charapaint is illustrated in the following example, with the sound poem „Ursonate“ by Kurt Schwitters.¹⁴

¹³ André Breton, DADA PARIS, Manifeste, Aktionen, Turbulenzen, 1989, S. 26

¹⁴ Ursonate, part D, Kurt Schwitters, 1923 - 1932, published in merzmail.net

