



TECHNISCHE UNIVERSITÄT  
CHEMNITZ

## Multimodal Artefact Analysis in Ancient Studies

Investigating the intersemiotic relations between pictorial and verbal communication in ancient Egypt, the Near East and beyond

23.–26.03.2021, LMU München (online conference)

# Cultural Semiotics and Meaning Attribution to Artefacts

**Martin Siefkes**  
**TU Chemnitz**



## Overview

1. Roland Posner's semiotic theory of culture
2. Codes, texts and artefacts in cultural semiotics
3. Social culture, material culture, mental culture
4. Artefact semantics: how things acquire meanings

# Semiotics of culture / Kultursemiotik

- Semiotic approaches to culture arguably begin with **Ernst Cassirer's** *Philosophie der symbolischen Formen* (1923–29). These symbolic forms are **language, myth** and **religion, art, and science**.
- Each of these symbolic forms allows us to experience the world in a specific way and are non-reductive (they cannot be fully explained in terms of another symbolic form).
- **Juri Lotman** developed the concept of **semiosphere**. It considers cultures as an ecosystem of sets of (more or less co-extensive) signs and codes interacting with each other: When one or more languages, architectural systems, moral codes and law systems, pictorial traditions, number systems, etc. are (very roughly) co-extensive, they form a culture. Importantly, the concept of semiosphere includes the material aspects of cultures.

## Culture as **semiosphere**

- **Juri Lotman** (who co-founded the Tartu-Moscow semiotic school in the 1960s) describes cultures as the “semiosphere”, which he defines in relation to the terms “biosphere”, the sphere of all living things, and “noosphere” (a concept established by Vladimir Vernadsky and Teilhard de Chardin that describes the “sphere of reason” created through human activity).
- The notion of noosphere (or noösphere) is not suited as the basis for a theory of culture. It is logocentric, focusing too much on reason and argument, and on language, downplaying other sign types such as images, and sign content such as emotions.
- The semiosphere does not have these weaknesses. It considers cultures as an ecosystem of sets of (more or less co-extensive) signs and codes interacting with each other: When one or more languages, architectural systems, aesthetic ideals, moral codes and law systems, pictorial traditions, number systems, musical notation and harmonic systems etc. are (very roughly) co-extensive, they form a culture.
- Importantly, the concept of semiosphere includes the material aspects of cultures: artefacts and even objects adapted from nature (shells, precious metals, animal parts), as long as they have functions (of any kind) in a culture.
- This also allows the description of cultural change as code change (e.g. through contact with other cultures, or through internal processes of development).

## The **codes** of a culture

- **Code:** A code consists of (1) a set of signs and (2) a set of rules for their combination. These rules allow to distinguish well-formed **syntagms**. Importantly, the signs in a code (while distinguishable) are not independent. Rather, a code consists of an expression layer and a content (semantic) layer which structure each other (Hjelmslev).
- *Note: It is often claimed incorrectly that semiotics defines codes as a set of separate signs, each a fixed relation between one expression and one meaning. This is actually a much older idea dating back at least to Aristoteles (“aliquid stat pro aliquo”). Saussure and Hjelmslev stressed the fact that the expression and semantic layer of a code (or sign system) structure each other: e.g. the semantics of a word like “beautiful” is partly created in distinction from other words such as “lovely”, “handsome”, “attractive” etc. which structure a semantic domain).*
- Building on Lotman, Posner describes a culture as a set of largely (but not entirely) co-extensive codes. Notably, this definition also works for subcultures which are often defined by language, fashion, music or literary, and behavioural codes.

## Artefacts and texts

- **Artefact:** According to Roland Posner, everything that is the result of an intentional action is an artefact (even if it is not intended itself). A trail or rubbish heap would therefore count as an artefact. He calls artefacts with a specific function in a culture **tools**.
- **Text:** A text is an artefact that not only has a function in a culture, but is also a sign that carries an encoded meaning.

“Texts are always a result of intentional behavior, even if not all of their characteristics need to be intended” (Posner 2004: 68).  
*A meaningful layout of a settlement would be a text in this sense, but arbitrary traces of human habitation will often not be, even if they indicate the technology and growth pattern of the settlement to the archaeologist. These are **indexical signs**.*

Posner, Roland (2004), Basic Tasks of Cultural Semiotics. In: Gloria Withalm & Josef Wallmannsberger (eds.), *Signs of Power – Power of Signs. Essays in Honor of Jeff Bernard*. Vienna: INST, p. 56-89.

## Different aspects of the term “medium”

- For Posner, the term “medium” actually refers to a number of different factors which characterise a sign process (= semiosis).
- « The term “medium” is used to designate a constellation of factors which remains the same over a wide range of sign processes. One can therefore say that two sign processes belong to the same medium when, in their reception, they either rely on the same sensory apparatus (for example, the ear), or utilize the same contact matter (physical channel; e.g., air), or operate with similarly functioning instruments (technical channel; e.g., the telephone), or occur in the same type of social institution (for example, in a fire department precinct), or serve the same purpose (such as calling for help), or use the same code (for instance the English language). In order to distinguish between these types of conditions, one speaks of a biological, physical, technological, sociological, functional, or code-related media concept’ (Posner 2004: 60f).»
- Each medium determines the types of messages which can be transmitted in it.

## Artefacts as indexical and coded signs

- For Posner, not every sign has a coded meaning (which makes it a **symbol**). Sometimes, we interpret historical artefacts as signs due to context factors, e.g. their position in combination with certain features (cf. the talk of Beate Pongratz-Leisten). In this case, the artefact is an **indexical sign** (an **index**).
- For example, if an archaeologist digs up a water well, she may interpret this as a sign of a permanent settlement at this site. The water well was not intended as a sign; there was no sender or code involved. The design of the well may point towards a certain historical period or culture..
- If the archaeologist finds a jug next to the water well with a specific **decorative pattern**, this may have been intended as a sign (for example for the owner's wealth or status). Again, today it may be interpreted differently, e.g. as being produced during a specific period. Intended and received meaning (**interpretant**) of the sign are different.

## Ceremonial functions

- If the decoration was used to distinguish jugs with different content (e.g. milk jugs vs. water jug), then it may become a coded sign (a **symbol**) for that content.
- In the case of **ceremonial swords**, the decoration becomes so prominent that the sword becomes impractical as a weapon. If decoration impedes function, this is also an **indexical sign** that it is intended for a ceremonial function.



- Posner calls artefacts with a coded meaning the “texts” of a culture. A ceremonial sword may be a text; the Bible, Goethe’s “Faust” or the German “Grundgesetz” are further examples.

**Fig. 1:** Reichsschwert des Heiligen Deutschen Reiches ((Imperial Sword of the Holy Roman Empire), Kunsthistorisches Museum Wien. It may have been produced for the inauguration of Otto IV in 1189.  
[https://www.europeana.eu/de/item/15502/SK\\_WS\\_XIII\\_17](https://www.europeana.eu/de/item/15502/SK_WS_XIII_17), CC BY-NC-SA.

## Ceremonial functions

- The ceremonial sword still has the functional elements of a real weapon, for example the **crossbar** (the bar between the blade and the hilt) whose function is to protect the hand.
- The intended functions are not expressed by its design, but by its **decoration**. By keeping its elements, it still **symbolizes** its traditional function as a weapon.
- Through the extensive decoration, it **symbolizes** power and the legitimisation of the king (through images of previous kings back to Charlemagne on the scabbard).



The sword was intended for either being carried in front of the king (blade tip pointing upwards), or being lowered (blade pointing downwards), e.g. when someone was knighted.

One side of the crossbar has the following inscription, which is readable when the sword faces upwards:

CHRISTVS · VINCIT · CHRISTVS · REIGNAT · CHRISTVS ·  
INPERAT

(Christ conquers, Christ reigns, Christ commands:  
beginning of the Laudes Regiæ hymn)

The other side shows a shorter inscription which faces downwards:

CHRISTVS : VINCIT : CHRISTVS : REINAT

The orientation of the two inscriptions makes them **indexical signs** of the two actual functions of the sword. They also (unintentionally) indicate the provenance of the writer by using Medieval Latin adapted to French pronunciation (“reignat” or “reinat”).

*Source: <https://de.wikipedia.org/wiki/Reichsschwert> [21-03-2021].*

**Fig. 2:** The Imperial Sword depicted from both sides (on the left and right side), with another ceremonial sword shown in the middle. Coloured copperplate engraving, Johann Adam Delsenbach, 1751. © Public domain.

## Finally ... **culture** !

- Building on definitions from anthropology and archaeology, Roland Posner (2004: 64) goes on to define a semiotic theory that distinguishes three areas of culture:  
**Social culture, material culture, and mental culture.**
- « The subject area of social anthropology is **social culture**, i.e., *society*. Each society consists of institutions and the rituals performed by them. Examples include religious institutions, such as a Christian church and the rituals of the church service. (Posner 2004: 65).»

Posner, Roland (2004), Basic Tasks of Cultural Semiotics. In: Gloria Withalm & Josef Wallmannsberger (eds.), *Signs of Power – Power of Signs. Essays in Honor of Jeff Bernard*. Vienna: INST, p. 56-89.

## Or wait ... **three of them ?!**

- « The subject area of material anthropology is the **material culture** of a society, i.e., its civilization. The civilization of a society consists of artifacts and the skills of producing and using them. Examples of artifacts used in religious institutions are crosses, hosts, rosaries, hymnals, and bibles. (Posner 2004: 65).»
- « The subject area of cultural anthropology is the **mental culture** of a society, insofar as it is manifested in its civilization, i.e., its mentality. The mentality of a society consists of mentifacts (that is, the ideas and values) and the conventions governing their use and expression [...]. Examples of religious mentifacts are the Catholic saints and their emblems, the classification of sins with the corresponding terminology (“mortal sin”, “venial sin”, etc.), and the gestural codes of priests.»

## Social culture: sign users and institutions

- The “social culture” is formed by groups of individuals who are regularly connected by sign processes. Posner proposes to call such groups “**institutions**”. They are characterized by
  1. regular sign processes within themselves (often following hierarchies or other patterns),
  2. specific signs they use (names, abbreviations, letterheads, symbols, brands, logos, representative buildings or artefacts, mascots ...),
  3. the ability of (some or all) members to speak for the whole institution.
- This semiotic definition of “institution” is not limited to state institutions. It includes companies and corporations, clubs and associations, musical groups, sports teams, and even criminal organisations. However, it does not include families or groups of friends.

## Material culture: artefacts and texts

- The totality of a society's artefacts, including the skills of producing and using them, forms its **material culture**. This includes texts, which are artefacts with a coded meaning.
- The traffic signs or road markings of a street are texts, but the tarmac or guard railings, even though they may help drivers (as indexical signs) to orient themselves on the road, are not. Texts are a part of material culture. They can be **reproduced**, creating more **tokens** of the **type** (e.g. printings of the Lutheran Bible). A reproduction changes the material properties, but leaves the coded properties unchanged.
- A consequence of this definition is the role of uncoded signs, e.g. images. Most images, videos etc. do not (primarily) consist of culturally shared (= conventional) meanings. However, a film or video becomes a text of culture if it acquires cultural meanings beyond what can be directly perceived (which is exactly what a person from a different culture could perceive without prior knowledge).

## Mental culture: codes and conventions

- Posner assumes that the codes and conventions of a society form its “mental culture”. These **codes** include language, culinary codes, dressing codes, road signage, architectural codes, iconography, religious rites, rules for daily social behaviour, and many more.
- A convention which is not a code can be understood as an “S-code” (structural code) in the sense of **Umberto Eco**. (These are combination rules without a clear-cut meaning, such as the order of courses during meals, or rules for combining certain items of clothing and/or colours, and not others.)
- The theory leaves the status of **shared knowledge** in a **culture** somewhat unclear. Knowledge is (for the most part) neither organised in codes, nor in specific texts; it could rather be understood as a set of propositions.
- Arguably, knowledge could be subsumed under “mental culture”.

# Part II:

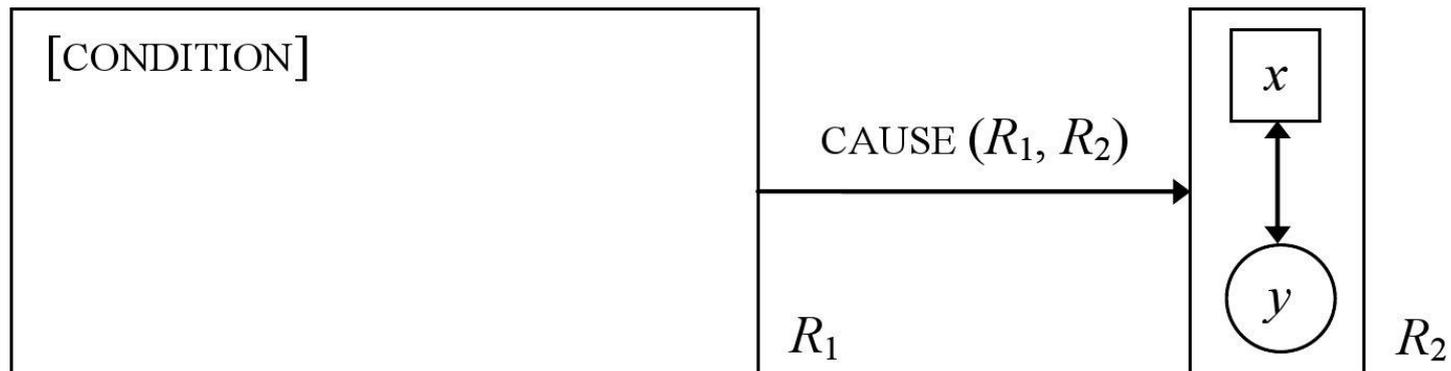
## How daily artefacts get meanings

## Artefact semantics

- Posner defines **tools** as artefacts designed for a specific function:
  - « Tools are normally produced to serve a particular function (their standard use), and the producer ensures recognition of the tools by **encoding** their intended function into them. [...] In this way, the form of the knife (grip with a blade) signifies its cutting function, the form of the pump (grip with a piston) signifies its pumping function, and so forth. **Tools, therefore, are artifacts which have a function in a culture and carry a coded message – and are thus texts.**» (Posner 2004: 69 f.)
- However, showing its function cannot be the only meaning of an artefact. During a research visit at the IUAV Venice, an arts and design university (2011 – 2013), I investigated different **principles of artefact semantics**.
- The resulting approach to artefact semantics focuses on daily artefacts (clothing, furniture etc.).

# Representing principles of artefact semantics

- A “principle of artefact semantics” describes how (certain types of) artefacts acquire, under a certain condition, a certain (type of) meaning.
- On the left side, a condition is formulated which involves an artefact  $x$ , meaning  $y$ , and other elements. (This condition is related to the Peircean notion of *interpretant*: the principle which connects *representamen* and *object*.)
- This causes the creation of a sign, which is shown on the right side: the artefact  $x$  acquires the meaning  $y$ .



# Principle 1: Activation of a semantic frame

- Artefacts can get meaning through their activation of a semantic frame
- For example, a jacket can be designed in such a way that it (through certain design features) activates the frame “**sailing**”.
- Various elements from this frame (‘sports’, ‘freedom’, ‘outdoor person’, ‘athletic’, ‘fun’ etc.) can become meanings associated with the jacket.

## Frame ‘sailing’

*Roles:* captain/coxswain, sailor, guests, ...

*Personality attributes for roles:* outdoor person, wealthy, athletic, fun-loving, ...

*Action types:* sailing, relaxing, ...

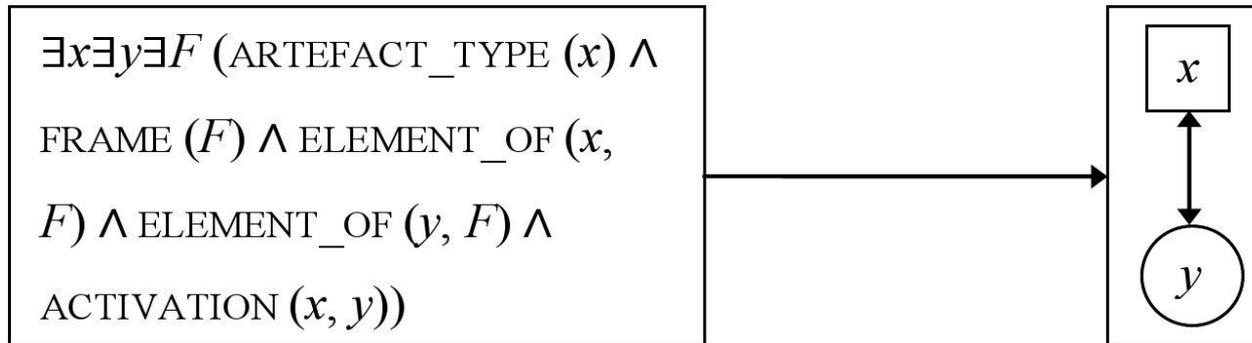
*Artefacts:* sailboat, equipment, special clothing (appropriate for conditions), ...

*Conditions:* sea, strong winds, quickly changing weather, ...

*Feelings:* freedom, experience of nature, seeing places, adventure, fun, ...



**Fig. 3:** A sailing jacket can evoke other elements of the frame 'sailing', e.g. 'outdoor person', 'freedom', and 'fun'.



Definitions:  $\text{ARTEFACT\_TYPE}(x) =_{\text{df}}$  'x is an artefact type',  $\text{FRAME}(F) =_{\text{df}}$  'F is a frame',  $\text{ELEMENT\_OF}(x, F) =_{\text{df}}$  'x is an element of F',  $\text{ACTIVATION}(x, y) =_{\text{df}}$  'cognitive use of x activates y'.

Example:  $x =$  'sailing jacket',  $F =$  'sailing',  $y_1 =$  'outdoor person',  $y_2 =$  'athletic lifestyle',  $y_3 =$  'sea',  $y_4 =$  'relaxation',  $y_4 =$  'freedom',  $y_5 =$  'fun'.

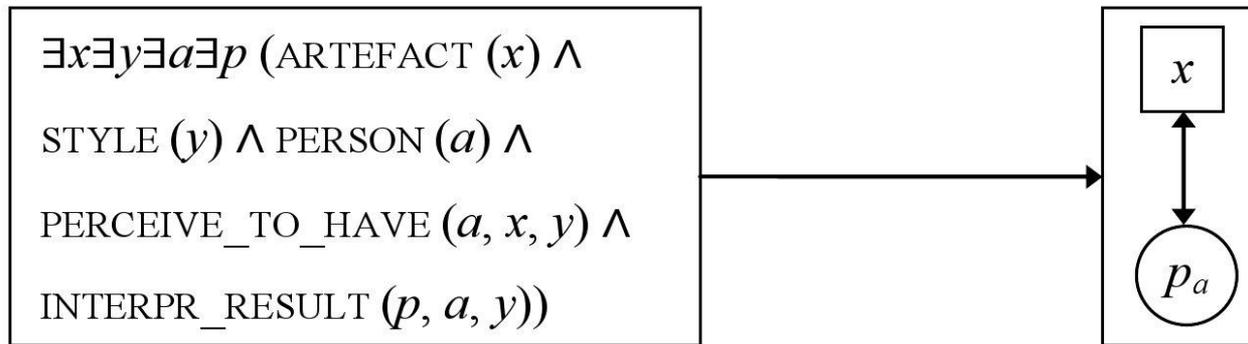
## Principle 2: Style

- Styles contain information and can therefore convey meaning(s) to artefacts (Siefkes 2012b, 2012c).
- Stylistic interpretations can uncover these meanings. They anchor artefacts in their time and production context, artistic schools, creative techniques, and aesthetic concepts that influenced their design.
- A style such as “art nouveau” connects different kinds of artefacts (such as buildings, furniture, crockery etc.).
- Styles can also help to unify the different modes of a multimodal artefact (e.g. for a film or music video: the style of the moving images, speech, music, lighting etc.; cf. Siefkes 2018).

Siefkes, Martin (2012b): Style. A New Semiotic View on an Old Problem. *Kodikas/Code. Ars Semeiotica* 34, 1-2: 15-25.  
Siefkes, Martin (2012c): *Stil als Zeichenprozess. Wie Variation bei Verhalten, Artefakten und Texten Information erzeugt*. Würzburg: Königshausen & Neumann. (= Berlin, Technische Universität, Diss., 2010)  
Siefkes, Martin (2018), Intermodal contrast in film: Looking for the aesthetics of intermodal relations, in: Frida Forsgren & Elise Seip Tønnessen (eds.), *Multimodality and aesthetics*. London: Routledge, 326-339



**Fig. 4:** A lamp in “art deco” style can be connected with meanings such as ‘made between 1925 and 1935’, ‘made by Muller frères’, and ‘quite expensive today’.



Definitions:  $\text{ARTEFACT}(x) =_{\text{df}} 'x \text{ is an artefact}'$ ,  $\text{STYLE}(y) =_{\text{df}} 'y \text{ is a style}'$ ,  $\text{PERSON}(a) =_{\text{df}} 'a \text{ is a person}'$ ,  $\text{PERCEIVE\_TO\_HAVE}(a, x, y) =_{\text{df}} 'a \text{ perceives } x \text{ to have } y'$ ,  $\text{INTERPR\_RESULT}(p, a, y) =_{\text{df}} 'p \text{ is a result of an interpretation of } y \text{ by } a'$ .

Example:  $x = \text{'chandelier}$ ,  $y = \text{'art deco; finely crafted'}$ ,  $p_1 = \text{'made between 1925 and 1935'}$ ,  $p_2 = \text{'possibly by one of the famous manufacturers [e.g. Muller frères, Daum, Degue]'}$ ,  $y_3 = \text{'quite expensive today'}$ ,  $p_4 = \text{'will probably go up in value in the next decades'}$ ,  $p_5 = \text{'glass is probably pressed glass'}$ .

## Principle 3: Iconic associations (through form or other properties)

- Artefacts can have iconic properties and resemble other objects in certain respects
- Iconic properties can be designed intentionally or can occur by mistake



**Fig. 5:** The Philips roller radio, an iconic sign for 'motorcycle' that evokes metaphorical meanings as 'use on the road', 'loud', and 'fun'.

Krippendorff, Klaus (2006), *The Semantic Turn. A New Foundation for Design*. Boca Raton: Taylor & Francis.

## Principle 4: Personal experiences

- Artefacts get meanings through our personal experiences with them
  - Meanings are derived from memories, but also indirectly from emotions and associations connected with these memories
- 
- At first glance, this has nothing to do with culture. However, artefacts can acquire meanings through 'collective memories', when many people make the same experiences with them
  - For example, the Volkswagen "Bulli" bus became the 'hippie-mobile' in the 1960s and 1970s.

**Fig. 6:** An old armchair can be connected with the memory 'conversations with my late grandfather', and associations like 'childhood', 'secureness', and 'loss'.

## Principle 5: Allusions to well-known texts

- Cultures are a web of artefacts and representations that are interconnected
- Artefacts can acquire meanings through their use in well-known texts
- The book “Venus im Pelz” (1870) by Leopold von Sacher-Masoch established a masochist (more precisely: female dominance) connotation for fur clothing which persists in today’s BDSM community



**Fig. 7:** A fur coat could be used as a fetish object associated with female dominance in BDSM circles. © Marco Verch, CC-BY 2.0.

<https://foto.wuestenigel.com/pelzmantel/>

## Principle 6: Connections to social groups/organizations

- Artefacts can be seen as connected with certain social groups, professions, institutions, and lifestyles
- Traditionally, professions were connected with specific items of clothing (e.g. the ceremonial robes and wigs worn by judges at court in Commonwealth countries)
- Today, subcultures may have specific clothing connected with them, such as the “hoodie”

**Fig. 8:** A hoodie sweater can be connected with the meaning ‘hip hop subculture’.



## Principle 7: Meanings created in specific contexts

- Artefacts can acquire additional meanings due to their role in specific contexts. Specific knowledge of the rules in this context is needed to decode these meanings.
- For collectors of items (e.g. records or fan memorabilia), highly specific meanings will often influence the price.



**Fig. 9:** A specific CD of a classical music recording can be connected with the meaning ‘sold-out pressing of rare pirate recording’.

## Conclusion

- These seven principles are not an exhaustive list. They are intended to show that artefacts acquire meanings in different, but not random, ways.
- Most attention has been paid to artefact meanings derived from their function, or purely conventional.
- Artefacts often become **indexical signs** (indices) when we interpret them in a specific context. Indexical meanings can become conventionalised (making them **symbols** in a culture). A **bottle of champagne** is a symbol of luxury in Western culture (even though there are more expensive drinks).
- The **semantics of daily artefacts** (such as tools, furniture etc.) interacts with many other aspects of a culture.

## Bibliography

- Herder, Johann Gottfried (1784–91), *Ideen zur Philosophie der Geschichte der Menschheit*. In: Bernhard Suphan (ed.): Herder. Sämtliche Werke. Bd. 13 and 14. Berlin: Weidmann 1887.
- Krippendorff, Klaus (2006), *The Semantic Turn. A New Foundation for Design*. Boca Raton: Taylor & Francis.
- Krippendorff, Klaus & Reinhart Butter (1993), Where Meanings Escape Function. *Design Management Journal*, 4,2: 30-37.
- Posner, Roland (2004), Basic Tasks of Cultural Semiotics. In: Gloria Withalm & Josef Wallmannsberger (eds.), *Signs of Power – Power of Signs. Essays in Honor of Jeff Bernard*. Vienna: INST, p. 56-89.
- Siefkes, Martin (2012a), The semantics of artefacts: How we give meaning to the things we produce and use. *Image – Zeitschrift für interdisziplinäre Bildwissenschaft* 16 (Themenheft Bildtheoretische Ansätze in der Semiotik). <http://www.gib.uni-tuebingen.de/image/ausgaben?function=fnArticle&showArticle=218> [21-03-2021].
- Siefkes, Martin (2012b), Style. A New Semiotic View on an Old Problem. *Kodikas/Code. Ars Semeiotica* 34, 1-2: 15-25.
- Siefkes, Martin (2012c), *Stil als Zeichenprozess. Wie Variation bei Verhalten, Artefakten und Texten Information erzeugt*. Würzburg: Königshausen & Neumann. (= Berlin, Technische Universität, Diss., 2010)
- Siefkes, Martin (2015), How semiotic modes work together in multimodal texts: Defining and representing intermodal relations. *10plus1 – Living Linguistics* 1, 2015: 113-131.
- Siefkes, Martin (2018), Intermodal contrast in film: Looking for the aesthetics of intermodal relations, in: Frida Forsgren & Elise Seip Tønnessen (eds.), *Multimodality and aesthetics*. London: Routledge, 326-339