

***Stephanie Weber***  
***Mapping the***  
***Body as a Virtual***  
***Landscape:***  
***Tattoos as an***  
***Immersive Medium***  
***with Hypertextual***  
***Somatic***  
***Narratives***

## ***About the author***

---

independent scholar, Vienna, Austria  
[weber.stephanie@protonmail.com](mailto:weber.stephanie@protonmail.com)

## ***Abstract***

---

This paper explores the way in which tattoos and tattooing can be understood so as to rewrite hypertextual narrative structures which turn the body into a virtual space. This involves two accounts of multimodal storytelling – the journal-style novel *The Tattooed Map* by Barbara Hodgson, and the use of the heart symbol in the interactive E-tattoo projects Skintillates and SkinMarks. Tattoos and hypertext will be understood in this context as narrative forms which are not limited to a two-dimensional linear form, but instead open up possibility of cross-medial, intertwined and co-operative writing. These somatic narratives rupture the Self's singularity by forming links with various other elements in the text which they create. This extends the body's capacity. This utopia of an almost incorporeal lived experience rewrites the volatility of the postmodern subject, while the physical inscription of the tattoo simultaneously helps to anchor and built the wearer's identity. This is a dichotomy which will be traced back not only to the history of the sociocultural practice of tattooing, but also briefly linked to hypertext fiction as a genre

## ***Keywords***

---

tattoo, hypertext, tattoo narrative, e-Tattoo, corporeality

## 1 Introduction

The poststructuralist notion that subjects are socially constructed, “suggests a metaphor of architectural construction”, and various forms of “*structural engineering*”, Silvio Gaggi suggests [1]. In the age of technology, this construction and engineering becomes a literal modification of corporeal subjects. The combination of social construction and deconstruction of embodied subjectivity, and the sociocultural phenomenon of body modification.

***In historical terms, tattoos have been used as a means of othering people, as a punitive measure, or as a vantage point for exotic narratives about primitive and uncivilised bodies.***

Tattoos are arguably a visual and spatial art form, which is irrevocably connected to its wearer’s body. While tattoos in their physical form depend on the skin as canvas and anchor, their meaning extends and transcends corporeal boundaries. Even though our bodies are the focal point of our existence, from which we live and share experiences, and which we cannot escape until we die [2, p.233], a new form of E-tattoos originates in human-computer interaction, as well as by certain ways that make use of tattoos as narrative elements in fiction. This can be used to analyse the way in which body modification ruptures the singular, corporeal existence. I argue that this use of tattooing reproduces hypertextual narrative structures by forming links to various other elements that are outside the base text (this is the actual text in the fictional usage of tattoos, as well as a more metaphorical text of personal narrative which tattoos tell). Michel Foucault refers to this as a utopian body – a lived experience unbound to a weakening body: “Untethered, invisible, protected, always transfigured the utopia of an incorporeal body” [2, p. 229]. This becomes accessible via interactive body modification, as well as tattoos as immersive media which turn the body into a virtual landscape.

I look at two accounts of tattoos as a multimodal and immersive medium. First, there is the journal-style novel *The Tattooed Map* by Barbara Hodgson, where the sudden appearance of a tattooed map on the protagonist’s arm is considered part of a spiritual and physical journey. Second, the heart symbol that is used in the interactive tattoo projects SkinMarks and Skintillates. These are not tattoos in the original sense. They instead consist of highly flexible and wearable skin electronics which reproduce the sociocultural implications of the tattoo

culture and the aesthetic design of tattoos. They are synchronised with electronic devices and turn the wearer’s skin into a user control panel.

I also briefly review the role of tattooing in human cultures and the narrative role which tattoos play in terms of identity formation and development. The aim is to link these functions to the spatial and corporeal domain of hypertextual narratives.

## 2 The role and history of tattooing

The history of tattooing in the Western world is very complex and often misunderstood [3]. Even though “heavily influenced by it” [4], tattoos did not arrive in Europe via voyages of discovery or colonialism. Instead, this has been a common practice across various cultures, societies and times [5]. In historical terms, tattoos have been used as a means of othering people, as a punitive measure, or as a vantage point for exotic narratives about primitive and uncivilised bodies. Later they would be associated with marginalised social groups such as sailors, prisoners or soldiers [3], [6], [7], [8]. Tattoos have never been just a marking, but they are always a “mark of meaning” [9]. Terence Turner argues that bodily adornments such as tattoos are a language through which

the drama of social interaction is articulated, which means that they are one of the best ways of understanding the construction of subjects [10]. Even though modern tattooing has entered the realm of popular culture and fashion, this is still a multi-layered practice which “may be viewed as cultural appropriation and reinterpretation of an historically regulated technology in order for the individual to re-establish control over their body,” as Jill A. Fisher has written [11]. This can be a sign of resistance or affiliation, be dedicated to a beloved person, mark out transitional time or memory, or simply be acquired as a souvenir. It is no surprise that tattoos are often compared to diary entries on the skin of those who bear them, or as a symbol which marks out a new chapter in someone’s life [12]. Even though I have argued that tattoos are first and foremost a visual medium, the fact is that they also have a strong narrative structure. Stories by Vera and Ansgar Nünning, Ernest Keen and Theodore Sarbin tell us that tattoos are symbolised accounts of action with a beginning, a middle and an end. This narrative structure helps us to better understand experiences and to mediate life [13], [14], [15]. The power of tattoos and their role as personal diaries are closely linked to the way in which we make meaning of and come to terms with experiences. As Margo DeMello argued in an earlier paper, tattoos allow us to “write oneself” and to “be read by others” [16]. There is an ongoing academic debate about what constitutes “tattoo narratives.” Are stories created around tattoos for the purpose of justification in terms of questions such as “why did you get the tattoo” or “what does the tattoo represent”, or is it a matter of providing clearer illustration of one’s own life story [17]? These stories vary depending on the audience and the time of narration, thus ensuring that they are as much a work in progress as they are an identity as such [16, p. 152]. Fictionalised accounts about tattooing use a similar principle and serve the purpose of driving the storyline and character development forward, often by giving the tattoo agentive or magical powers. This almost treats tattoos as characters in and of themselves [18].

I argue that the link between tattooing and hypertext [18] is based on the way in which

an inscribed body can be read or deciphered, how its reading and writing can be seen as a collaborative act, how the meaning of the tattoo is rooted deeply within its wearer, and how it links to external elements and experiences and even branches out over the course of time.

### 3 Reading tattoos as hypertext

Hypertext in the original sense of the word is an interactive network of interlinked files or documents which break the mono-linear reading experience with links and jumpable connections among the various elements.

This means that the reader and the author can move through the text as they wish, thus recreating various versions of text depending on the path which they choose to follow [20, p. 5], [21, p. 19, 44]. The textual elements “branch or perform on request” [20, p. 19], as Theodor Nelson has pointed out. The ideal medium for this multilinear performance, he continues, is a computer screen, which he describes as the “strange inversions and foldovers of the rest of the mind and heart” [21, p. 2]. Technologies, according to Nelson, are used to project ideas as “the peculiar origami of the self” [21, p. 2].

I believe that tattooing makes it possible to view the body as a medium for this kind of textual inter- and hyper-connectedness, leaving behind the idea of a purely physical embodiment of the self and essentially creating Foucault’s utopian body.

#### 3.1 Temporal and somatic inversions and foldovers in *The Tattooed Map*

In her discussion about literary hypertext, Astrid Ensslin has argued that the basic function of what later would be become known as hypertext can be traced back to experimental literary genres which employ techniques such as montage, collage, serialisation, intermediality, interactivity or collaborative writing [20, p. 10], [21, p. 44]. The level of the omniscience of readers of “proto-hypertext,” as well as hypertext fiction is not as clear cut as it might appear, according to Alice Bell. Readers can flick back and forth through the pages of a novel [21, p. 3] or can choose to interrupt the

linear reading experience by, e.g., looking of words in dictionaries or researching the historical background of the storyline [24, p. 101], but the fact is that the path of hypertext fiction is often predefined and does not offer unlimited possibilities to discover and create new texts [22, p. 3]. *The Tattooed Map* is an example of classic print media, but it makes use of hypertextual elements in two different ways – the aforementioned methods of montage, collage and collaborative writing, but also and more importantly, letting a tattoo branch into and over the story space, thus creating a multi-layered and multilinear soma text [24].

The story tells us about Lydia, a protagonist who travels with her friend Chris to Morocco. She wakes up one morning with strange patterns on her hand which begin to grow and cover more and more of her skin. Lydia initially thought that these were insect bites or a rash, but it turns out that the patterns form a map.

## ***The tattooed map enables a journey through time and space in the story while it acts as a hypertext by tattoos branching out.***

Even more mysterious than this is the fact that no one else seems to be able to see the map. “I can’t believe that C hasn’t said anything about the first design. Is it not visible? Is it only visible to me? Am I crazy? This is my problem, my secret, and it has nothing to do with anyone else but me” [25]. Lydia uses a journal to keep track of her travel preparations, writing down flight numbers and hotel and street names, as well as to collect memorabilia such as small pieces of paper or photographs that she finds in books or on the street. This becomes an account of her struggle to understand the changes that have taken place in her body. Lydia meets Layesh at a café. He is a handsome and seemingly sophisticated young man, and he is not only able to see the map, but also shows a similar pattern that is tattooed on his own skin. Layesh explains that this has been a part of his spiritual and physical pilgrimage. As the map expands, Lydia becomes more and more restless. She cannot figure out where the map will take her.

She dreams that the map is rubbed off and that her skin is removed like a garment which she immediately slips on because it provides her with a sense of security. This is where the journal entries stop. In an informative hypertext, a clear structure and reading experience is desired, but hypertext fiction does not necessarily share this approach, and hyperlinks are not always suggestive in terms of where they will lead. Readers, therefore, are not always able to take an informed decision about what kind of text they want and whether they want to continue reading.

The agency of the reader which many first-wave theorists of hypertext fiction granted them is overturned and highlights the manipulative and disorienting capacities of hypertextual narratives. As such, hypertext has the potential to cause estrangement and displacement [22, pp. 12-15], rewriting the instability of the postmodern subject and postmodern

hyperspace in which “the subject cannot orient itself” [23, p. 100]. The struggle of the hypertext consumer to understand the narrative as a whole and the “inability of the subject to construct a conceptual map of the whole that would make effective action possible” [23, p. 105] becomes a literal struggle for Christ in the second part of *The Tattooed Map*.

In this part of the novel, Chris continues to write in Lydia’s journal, noting that she has disappeared and that he cannot make sense of her own entries. Still, he will try to use her notes to find her. The numerous photographs that she took of her hand particularly baffle him. Even though Lydia took the photos to document the growth of the map, he still cannot see it. Chris goes to the library and tries to read the same books as Lydia did in preparation for their journey. He comes across Layesh’s account of his pilgrimage and the sudden appearance of a tattooed map on his

hand. Equipped with this new knowledge, Chris is finally able to see the tattoo on the photographs. When he returns to Morocco to continue his search, he realises that Lydia has left time and space altogether. Any traces of their previous visit have been erased, and Chris finds her name in the guest register from 1943 – the year in which Layesh disappeared. The next morning, Chris wakes up with the same markings on his hand as those of Lydia, and the story begins anew. The tattooed map, he notes happily, will be his “passport back to Lydia” [25].

The tattooed map enables a journey through time and space in the story while it acts as a hypertext by tattoos branching out. Without the tattoo as a narrative element, this would not be possible in ordinary print texts. “It is the hypertext author’s responsibility to design a textual space, a ‘story space’ that contains the virtual totality of all potential realisations which his or her fiction can take,” Ensslin has argued [20, p. 13]. In *The Tattooed Map*, the body itself becomes a story space. The tattoo establishes a spatial link, but it also removes Lydia from space and time altogether. It creates a jumpable interconnection which would not have been possible without it. Hodgson needs no footnotes or parallel texts for her novel to tell its story, and it does not rely on the reader actively seeking out a non-linear reading experience. Instead, the tattoo takes on this role as an inter- and hypertextual element. At the same time, there are questions about the role of the body as an anchor for corporeal existence. While Lydia’s hand and arm become enlarged in her perception because of the sudden transformation [26], the map that is inscribed on her body helps her to transcend her temporal and physical existence into an almost virtual reality.

### 3.2 Interactive e-tattoos, symbolic hearts and non-linear embodied experience

Thus far I have mostly discussed tattoos in terms of their narrative quality and their sociocultural marker of meaning. Tattoos can also, however, be seen as a fashion statement or a cool accessory. The medial use of tattoos highlights the other important role in today’s

society even if they do often do not consist of actual and more or less permanent dermal inscriptions and can more accurately be compared to temporary decal-style tattoos. They combine layers of art with technological layers and thus combine advances in human-computer interaction with the allure of the culture of tattoos. Instead of marketing and selling medical products to deal with ill bodies, they are transferred into the domain of fashion and lifestyle. The interactive designs by SkinMarks and Skintillates that are discussed in this paper even though the examples that are discussed here do not belong to the domain of medical E-tattooing especially highlight the way in which the traditional meaning of tattoos is rewritten and reflected in interactive E-tattoos while simultaneously highlighting the volatility of the body’s barriers as they interlink internal and external elements even more obviously than is the case with the tattoo in *The Tattooed Map*.

SkinMarks and Skintillates are wearable on-body devices which turn the user’s skin into an interface for data transmission. The data range from personal to functional, and the level of connectivity from establishing a user-device communications circuit involves interpersonal connections established via the devices that are linked to each person’s individual tattoos. SkinMarks use bodily landmarks such as birthmarks or osseous structures such as knuckles for the application of ultra-thin electrodes which are disguised as tattoos. The use of these landmarks as points of reference for data transmission and control buttons is that each user would be familiar with the unique cartography of his or her skin. This meant that the application could be used without having to look at it consciously. The connected device almost merges with the body, turning skin into what developers call “precisely localised input and output” [27, p. 1]. SkinMarks can be applied on various bodily landmarks, and they also come in a variety of designs. For the purposes of this analysis of a body as a virtual and hypertextual landscape, I wish to focus on one of the SkinMarks designs in particular. This is part of a secondary project which the developers call “HeartMarks” [27, p. 6]. These stand out from other interactive tattoos in that they operate even more openly through the

symbolic and narrative significance of tattoos and the tattoo culture. A heart-shaped E-tattoo is applied directly on a birthmark and synched to a smartphone. This is a speed dial button which links two people by notifying them of each other's availability. If pressed, it can turn into a phone call. Instead of focusing on the mere usability and convenience of turning a birthmark into an E-tattoo, an additional visual cue is introduced via the symbol of the heart. The tattoos branches out, crossing the physical border of the wearer's body, but it simultaneously links him or her to devices, as well as establishes a link between two users so as to bridge the spatial distance between them.

test stage, the mimicked heartbeat during the use in the future would connect two people via their own heartbeats [28, p. 858]. The idea of memorial tattooing of heartbeats has been popular for years, and the aim is to seemingly bring the tattoo into life. Two bodies merge symbolically by making it seem that the wearer no longer operates with a single heartbeat. At the same time, the connection to a beloved person no longer depends on that person's physical presence. Instead it is experienced through the simulacrum of the very symbol of life itself – a healthy heartbeats. In *the Tattooed Map*, Chris questions Lydia's disappearance and her unusual journal entries, but he never

## ***Skintillates combines layers of art with layers of technology so as to enable an even stronger level of personalisation in these E-tattoos.***

The narration of HeartMarks is hypertextual and somatic, and even though the process relies on technology, it gains deeper meaning through the symbolic use of the "tattooed" heart.

Skintillates takes this visual and symbolic approach toward linking people across temporal and spatial distances even further. The developers look into specific day-to-day use of their interactive tattoos, but they have also explored possibilities that are merely decorative in terms of designing "private wearable displays for intimate bio-data" [28]. Skintillates combines layers of art with layers of technology so as to enable an even stronger level of personalisation in these E-tattoos. This ranges from combining the designs with LEDs to only using the technology layer to turn existing permanent tattoos into interactive ones [28, p. 858]. One of these multi-layer designs consists of two interlinking heart-shaped Skintillates which are placed on the wearer's ribcage. Instead of monitoring the heart rate for medical purposes, this is meant to synch up with commercially available ECG devices. LEDs in the technological layer are programmed to light up at certain levels of ECT by mimicking two heartbeats. While these were programmed with the use of available test ECGs during the

doubts her actual existence. Even though there are no remaining traces of her in the world which she and Chris shared, her life has left behind traces which he can follow. This means that he has a deeper belief that she is still alive somewhere even though he himself cannot ensure her wellbeing. The tattoo is not just a symbolised account or memorial marker to remember her. Chris views it as a "passport" or travel document to meet her again. He might not know where this will take him, just like a reader of a hypertext novel who does not know where a non-informative hyperlink will take him, and this does establish a physical, yet virtual and jumpable connection. The pulse of the tattooed electronic heartbeat in Skintillates and SkinMarks is, similarly, paradoxically both physical and virtual. These E-tattoos are not proper tattoos in the original sense of the word, and they currently still rely on underlying technologies that are often hidden as much as possible. This refers to electrodes, wires and a power supply, which means that the symbolic and communicative role of tattooing is in the foreground. Perhaps it does not even matter that they cannot speak or act independently (yet), because they still offer ways of experiencing a connection between individuals across time, space and physical barriers.

## 4 Conclusion

E-tattoos and the tattoo in *The Tattooed Map* combine visual, symbolic and textual elements to create hypertextual bodies. In the original sense of tattooing, the body becomes semiotised, because it bears signs which tell the personal stories of those who wear them. In examples that are discussed in this paper, bodies become connected to virtual spaces, and the singularity and corporeal existence of the self breaks open. “My body, in fact, is always elsewhere,” as Foucault has put it. “It is tied to all the elsewheres of the world, and to tell the truth, it is elsewhere than in the world, because it is around it that things are arranged” [2, p.

233]. The disorientation which the postmodern subject experiences when placed into a work that is organised around simulacra and with no real centre or ground for the subject to refer to is, on the one hand, emphasised in hypertextual narratives [23, pp. 220-221], while also being counteracted through body modification where the subject tries to write itself and to reclaim embodied experience. Hypertextual somatic narratives in which tattoos function as hyperlinks that branch inside and outside of the embodied text further rewrite the idea of a utopian body by creating virtual landscapes that are inhabited by almost virtual, partly incorporeal subjects.

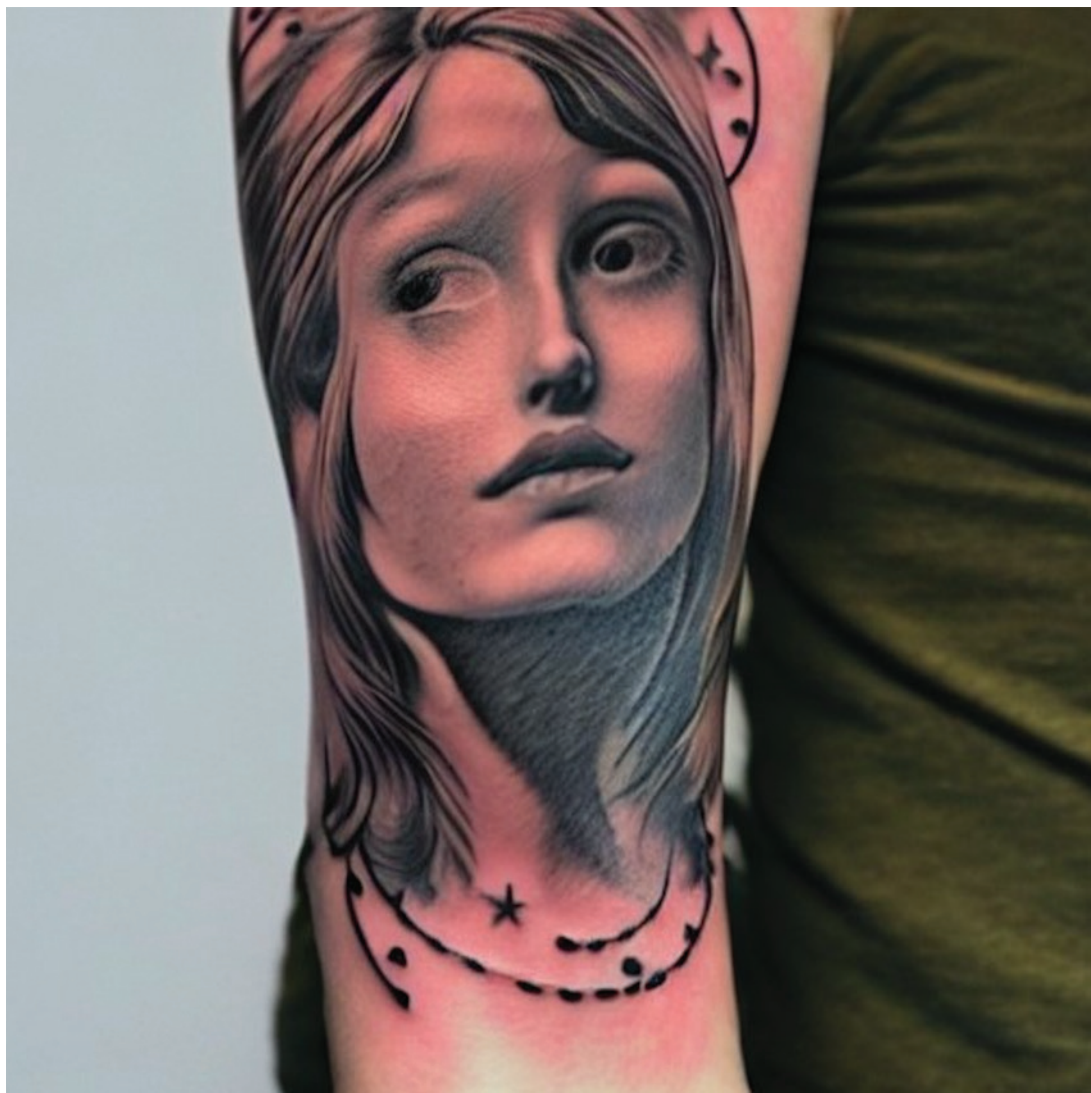
...

## References

- [1] S. Gaggi, *From Text to Hypertext: Decentering the Subject in Fiction, Film, the Visual Arts, and Electronic Media*. Philadelphia: University of Pennsylvania Press, 1998.
- [2] M. Foucault, *Utopian Body. Sensorium. Embodied experience. Technology and Contemporary Art*. Cambridge, Massachusetts, London: The MIT Press, pp. 229–233, 2006.
- [3] S. Benson, *Inscriptions of the Self: Reflections on Tattooing and Piercing in Contemporary Euro-America. Written on the Body. The Tattoo in European and American History*. London: Reaction Books, pp. 234–254, 2000.
- [4] J. Caplan, *Introduction. Written on the Body. The Tattoo in European and American History*. London: Reaction Books, pp. 11–23, 2000.
- [5] S. T. KloE, *Indelible Ink, Tattoo Histories. Transcultural Perspectives on the Narratives, Practices and Representations of Tattooing*. New York, London: Routledge, pp. 2–20, 2020.
- [6] J. Caplan, *National Tattooing, Traditions of Tattooing in Nineteenth Century Europe. Written on the Body. The Tattoo in European and American History*. London: Reaction Books, pp. 156–173, 2000.
- [7] I. Eberhard, “„Das Blaue Weib‘ Und Andere Zirkusfrauen. Theoretische Aspekte Von Tätowierungen Unter Besonderer Berücksichtigung Von „Tätowierten Damen‘ in Zirkus Und Schaubuden Untersucht Am Beispiel Der Sammlung Walther Schönfeldd.” *„Mitteilungen Der Anthropologischen Gesellschaft in Wien”, in: Anthropologische Gesellschaft Wien, Mitteilungen der Anthropologischen Gesellschaft Wien. Festschrift für Karl Rudolf Wemhart. Verlag Ferdinand Berger & Sohne, Horn, Wien, pp. 305–328, 2011.*
- [8] A. Govenar, *The Changing Image of Tattooing in American Culture. Written on the Body. The Tattoo in European and American History*. London: Reaction Books, pp. 212–233, 2000.
- [9] R. Brooks, *Body work*. Cambridge: Harvard University Press, Massachusetts, p. 54, 1993.
- [10] T. Turner, *The Social Skin*. HAU: Journal of Ethnographic Theory 2(2), pp. 86–504, 2012.



- [11] A. J. Fisher, *Tattooing the Body. Marking Culture. Body and Society* 8 (4), pp. 91–107, 2002.
- [12] M. Kosut, *Tattoo Narratives: The intersection of the body, self-identity and society*. *Visual Sociology*, 15(1), pp. 79–100, 2000.
- [13] V. Niinning and A. Niinning, *Produktive Grenzüberschreitungen: Transgenerische, intermediale und interdisziplinäre Ansätze in der Erzähltheorie. Erzähltheorie transgenerisch, intermediale, interdisziplinär*. WVT Wissenschaftsverlag Trier, Trier, pp. 1–22, 2002.
- [14] E. Keen, *Paranoia and Cataclysmic Narratives. Narrative Psychology. The Stories Nature of Human Conduct*. New York: Praeger, pp.174–190, 1986.
- [15] T. R. Sarbin, *The Narrative as a Root Metaphor for Psychology. Narrative Psychology. The Stories Nature of Human Conduct*. New York: Praeger, pp. 3–21, 1986.
- [16] M. DeMello, *Bodies of inscription*. Durham, N.C.: Duke University Press, 2000.
- [17] A. Oksanen and J. Turtiainen, *A Life Told in Ink: Tattoo Narratives and the Problem of the Self in Late Modern Society*. 13(2), pp. 111–130, 2005.
- [18] S. Weber, *So Much Magic on Your Flesh: The Marking of Selves in the TV Series Salem. Tattoo Histories. Transcultural Perspectives on the Narratives, Practices, and Representations of Tattooing*. New York, London: Routledge, pp. 118–135, 2020.
- [19] J. Martell and E. Larsen, *Tattooed Bodies: Theorizing Body Inscription Across Disciplines and Cultures, Branch out, Perform, Interlink. Reading Tattoos as Soma-Hypertexts in Shelley Jackson's SKIN and Skin Motion's Soundwave Tattoos*, New York: Palgrave Macmillan, 2022.
- [20] A. Ensslin, *Canonizing Hypertext: Explorations and Constructions*. New York: Continuum, 2007.
- [21] T. Nelson, *Computer Lib/Dream Machine*. Chicago: Hugo's Book Service, 1974.
- [22] A. Bell, *The Possible Worlds of Hypertext Fiction*. New York: Palgrave Macmillan, 2010.
- [23] S. Gaggi, *From Text To Hypertext*. University of Pennsylvania Press, pp. 100–105, 1998.
- [24] E. Bell, *Somatexts at the Disney Shop. Constructing the Pentimentos of Women's Animated Bodies. From Mouse to Mermaid: The Politics of Film, Gender, and Culture*. Bloomington, Indianapolis: Indiana University Press, pp. 51–57, 1995.
- [25] B. Hodgson, *The Tattooed Map*. San Francisco: Chronicle Books, 1995.
- [26] E. Grosz, *Volatile Bodies. Towards a Corporeal Feminism* Indiana University Press. Indianapolis: Bloomington, p. 79, 1994.
- [27] M. Weigel et al., “Enabling Interactions on Body Landmarks Using Conformal Skin Electronics,” in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, 2017.
- [28] J. Lo et al., “Skintillates: Designing and Creating Epidermal Interactions,” in *DIS '16: Proceedings of the 2016 ACM Conference on Designing Interactive Systems*. Brisbane, pp. 853–864, 2016....



Autors | **Darba nosaukums**



