

Domestication and context: Studying objectification in print media

This paper investigates into the domestication of communication technology through two cultural discourses, for one that of interior magazines and for two that of technology magazines. During domestication process technological items are objectified by ways in which they are brought to a physical environment and in ways in which they rearrange that environment (cf. Silverstone & al. 1992). The study is inspired by the domestication approach (Silverstone & Hirsch 1992, Silverstone 1994), while its methodological background is mainly based on critical discourse analysis (Fairclough 1995). The data consist of 55 magazine articles including 687 images. The findings indicate that the discourses differ significantly. Thus, home technologies and homes as physical spaces live each on another planet in print media. The differentiation reveals an understanding of communication technologies as non-design. Both types of magazines ignore the issue of making communication technology home at home, an issue addressed to designerly thinking.

Sara Routarinne

School of Design

University of Art and Design Helsinki

sara.routarinne@uiah.fi

INTRODUCTION

Nordic countries among others have witnessed the emergence of a range of technological innovations within the communication field in last decades. Ownership of technological devices in Finnish households is relatively high [1]. Many of these electronic devices are new-comers, and have had little grounding in previous existing practices. In consequence, new ways of doing things have emerged through experiencing with these technologies – for example mobile phones changed the way in which Finns talk to and identify each others in the temporal sequence of a phone call [2]. Earlier callers, even close relatives, were expected to introduce themselves in the beginning of a call [3]; a phone was associated with a household or a company, not a single individual. Mobile phones confused the identification system, and they caused a reorganization of the activity. In other words, artifacts influence interaction by setting up fields within which certain activities become more or less likely or possible [4]. I.e. every new object in a given context changes the way people do things and organize their lives and experiences. Objects within a household constitute an ecology of things, as argued by Csikszentmihalyi and Rochberg-Halton [5] among others [e.g.6; 10].

This article investigates into the ecological slot of information and communication technologies within households as it is conceptualized in print media. These technologies are tricky things because they are both objects and media. As objects they may be purchased both or either for their aesthetics and/or for their functions. As technologies they structure social and communicative behavior within a household. Finally as media they bring in or connect to the world outside. Therefore information and communication technologies (hereafter ICTs) bring about links between private and public culture. [7]

Irrespective of the complexity of ICTs, the paper focuses on the treatment of ICTs as physical objects with spatial existence. In domestic use, its time and space, commodities can turn into objects in living world. The **objectification** of an item is expressed in ways in which it is brought to a physical environment and in ways in which it rearranges that environment. [7; 8] An artifact in an environment makes a claim of a relationship to its surroundings. This article investigates into this spatial existence: how it is culturally constructed in print media such as interior décor magazines and technology magazines. The paper is looking for topical concepts of homes as an environment for domesticating technology. The ICTs considered are both the traditional and the new technologies for broadcasting, for transmitting and producing information and for communicating, i.e. television sets, computer appliances, phones and radios among other things [7].

“Home is the place where you live and feel you belong, usually because that is where your family is”, knows the Collins Cobuild English Language Dictionary [9]. It also states that home is opposite of being out, it is place to feel happy and at ease; finally the dictionary conceptualizes home as a **container in which things can find their place**. Home is not a space but

a place created by practical and emotional commitment [11: 26]. It is realized both in practices and in the spatial organization including artifacts, the latter being considered in this article. As we all know there are things that cannot make home at home. You don't make cars home at home but your home may take a bicycle as a tenant; a bed has every right to be domesticated at home but not in an office. Obviously, the world of artifacts could be classified on the basis of whether an object cannot, it possibly could or ordinarily does find home at home. Artifacts vary in value in the process of turning spaces into meaningful homey places. A decoration magazine opens a window to these categories because it aims at promoting new ideas of living while its designs have to acknowledge the market forces of a consumer audience [12].

Yet another aspect of home is that it is a private place. Theoretically, a household can make its own decisions e.g. whether to house a bicycle. Empirically however, a home does not exist in a vacuum but lies in an intersection of a surrounding community, its history and culture, time and place. It is not only for a household to decide how to construct a home, and individual homes within a cultural frame look more or less the same (i.e. we all have chairs). This becomes evident in breaching the norms: you can decide to live without a couch, but if you have no kitchen table or bed when a health visitor calls for a new born baby, the anomaly of furnishing can lead to an authority intervention. Domestication approach aims at understanding the nature and relationship between private households and public worlds. [7; also 13] Because homes are not only private spaces but ubiquitously cultural constructs [12; 13; 14], it makes sense to look at magazines representing these concepts. The viewpoint is further motivated by the fast growing circulation of the studied magazine types in Finland [15].

The exploration belongs to a series in an ongoing project "Industrial design and domestication of technology" funded by the Academy of Finland. It aims at understanding the life-cycle of designed technological commodities and the process of domesticating them into objects incorporated in social practices.

DATA

The primary data consist of issues of Finnish interior décor magazines, Avotakka 'Open Fireplace', and technology magazines, MikroBitti 'Micro Bit'. The magazines were chosen, firstly, on the basis of their circulation. They represent print media that achieve the biggest audience in their series. Secondly, a mass market consumer magazine allows for an analysis how an understanding of ICTs and their context is constructed in a given cultural setting [cf. 16; 17; 18]. In the data, the object of investigation is the objectification of ICTs, including television sets, VCRs and DVD-players, computer appliances, user interfaces, phones, faxes, copying machines among others.

Collection of articles on decoration

The data from Avotakka decoration magazine consist of 14 issues from March 2003 to April 2004. Avotakka is a mass market consumer magazine for interior design. It has been published since the late 1960s which makes it the oldest and best survivor in its series. In the beginning of 1990s Avotakka's circulation decreased along with the economic depression, but from the mid 1990s it has increased to the circulation of roughly 100 000 (figure 1) [15]. Circulation figures of Avotakka have more than doubled between the lowest (1994) and studied year 2003. The estimates place the readership of Avotakka at almost 10 percent of the entire population in Finland [19].

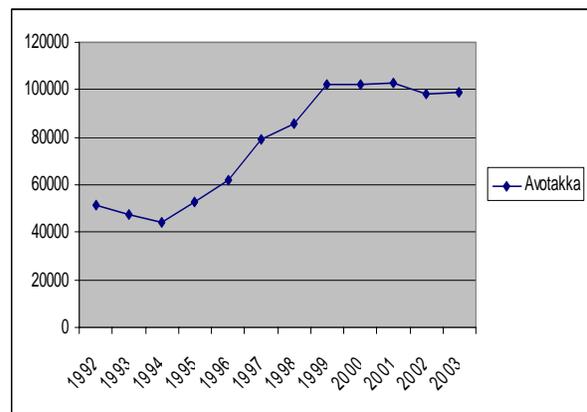


Figure 1. Circulation of Avotakka [15].

At the same time, new titles on interior design have started to publish almost every year; the combined circulation of decorating magazines in 2003 being more than six times the circulation of the early 1990s when Avotakka was the one and only decoration magazine for consumers. (Figure 2. [15], [12])

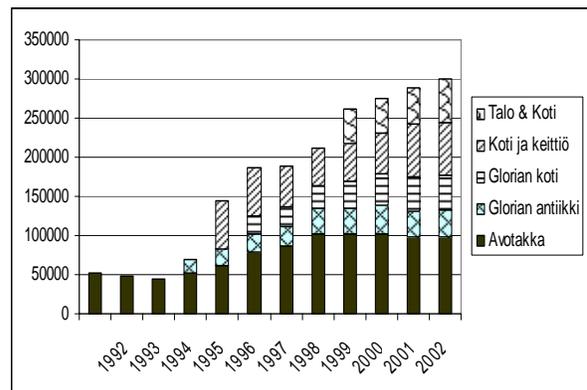


Figure 2. Combined circulation of magazines on decoration divided by the increase of titles Avotakka [15].

The figures suggest that interior décor magazines may take up an important place in consumer culture. In a way they reflect "a contemporary obsession with the materiality of 'home' in the form of privatized lifestyle of the domestic house(hold)" [20]. In the 1960s their raison d'être was seen educational by the publishing community of professionals [12], and according to two Avotakka editors interviewed [21], they still provide a way for aesthetic education and promotion of designed objects.

An issue of Avotakka (AT) consists of edited materials such as editorials, features, departments, columns, marketplaces [12]; in addition to them there are advertisements that are apparently designed to fit into the context. The borders between the edited and advertising materials are vague [16: 35]. In this study, a subset of features will be observed, one that is published under the heading "Beautiful homes".¹ In these articles homes somebody lives in are displayed to the audience. This subset of features was chosen on the basis of the claim that they present real homes, although the notion of a real home is far from straightforward, a point to be dealt with below in section Theoretical framework. The data consist of 26 articles including 266 images.

Technology magazine data

¹ In Finnish "Kauniit kodit"

The domestication of ICTs was the starting point to scrutinize such cultural artifacts as decoration magazines in this study. Since the representations of electronic media turned out problematic in decoration magazines as will be shown in section “Creating premises...” (below), MikroBitti magazine was chosen to challenge them. MikroBitti (MB) is a hobby magazine promoting information and computing technology. It is published since 1984. The concept is very different from that of a decoration magazine, and the materials are used in order to counter and deconstruct what seems natural in a decoration magazine. However, it must be admitted that it does not deliver an ideal collection on ICTs because it is biased toward computer appliances and user interfaces.

The data of MikroBitti consist of 3 issues of the magazine from 2003. In MB materials all articles were included making a collection of 30 features including 421 images, whereas editorials, departments, columns and small news items were excluded. Within its series of magazines MikroBitti is a leader in circulation with an almost tripled increase between 1992- 2003 (Figure 3).

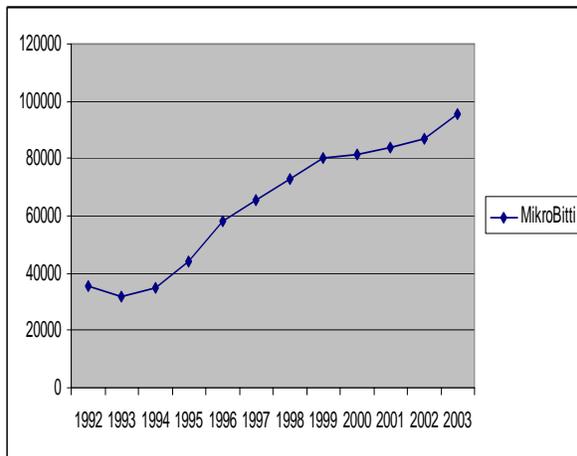


Figure 3. Circulation of MikroBitti 1992-2003 [15].

An increase in the number of titles evidenced in the field of decoration magazines has not taken place in the field of technology magazines. Moreover, even if the circulation figures of Avotakka and MikroBitti are quite similar, close to 100 000 in 2003, MikroBitti loses for Avotakka in reader estimates with its 324 000 estimated readers against Avotakka’s 555 000 [19]. The difference in reader estimates is probably due to the 80 % male dominance in the readership of MikroBitti, a problem the magazine has been unable to solve [22].

THEORETICAL FRAMEWORK

The enterprise adopted here is eclectic with its objectives on exploring into the cultural realizations of home ICTs. It is inspired by the domestication approach [7; 8; 11]; whereas critical discourse analysis provides for central methodological tools [16; 23-26].

Domestication approach, as articulated by Silverstone et al. [7], emphasizes the importance of materiality to a social theory. Even if it has been much ignored, social life is both constructed and conducted with, and in contact with, material objects, i.e. varieties of artifacts facilitate sociability. This is a view different from the theories that emphasize symbolic values of artifacts. Another aspect of importance is the procession character in domestication which is described with metaphors such as CAREER or BIOGRAPHY. The approach lifts focus from

production and marketing of commodities to the use and practices later in the life-cycle of a given object.

Silverstone et al. [7; 8] describe objectification as one of four facets in a domestication process, the remaining phases being appropriation, incorporation and conversion. The term objectification refers to the ways in which the environment is constructed. The artifacts participate in constructing spatial differentiation in terms of privacy, age and gender which in turn affects the geography of a home [7: 22-23], where any novel artifact affects the ecological system of practices [5; 6].

The idea of windowing culture and domestication through popular magazines is not original but a tested approach [12], [16-18]. Yet the critical issue is how the relationship between the world people live in and the world represented in a medium is interpreted. In this paper, it is not claimed that the view produced in magazine articles would relate in a consistent way to reality [23; 24]. Rather, the question of reality is reduced [27] to a question of selectivity [16]. A magazine article then, is treated as a semi permeable surface: some characteristics of a ‘reality’ filter into it and are displayed on the public surface of an article while others remain unveiled behind it [17; 28].

In this study the surface displayed in the magazines is seen at least twofold: for one the magazines reflect the circumstances in which they are produced as for two they project a possible reality by means of formulation. E.g. when Avotakka started to publish in late 1960s, its concept was upper class, and it did not sell. In the early 1970s, the concept was redesigned to reflect middle class standards. In consequence, it found a growing audience. [12] In the production of articles the reflecting/projecting surface creates a tension: every article is based on a recognizable formula but presents it as a new challenge with a new solution [16].

The projecting character of print media representations may have an effect on the notion of a home and the ways in which a home can domesticate artifacts. The claim is based on the fact that media naturalize rapidly the discourse they produce [23; 24]. In the context of present study this means that angles in which ICTs are visualized, described and spoken of have become natural in the magazines and for the readers – as if that is how the land lies. Naturalization process after the fact makes the audience blind for choices but gives it the lens through which reality is categorized. Yet, the final composition of a magazine article always results from narrowing down from a menu of innumerable alternatives. The enterprise known as critical discourse analysis is a tool to dig into the natural, to deconstruct it and to challenge it. [16; 20-25]. It originates in functional linguistics and extends to semiotic resources beyond language [26].

The analysis makes observations on the macrostructure of the features, i.e. the overall structure or logic that makes a text a coherent, understandable unit [29]. In this overall structure one of the components is the organization of visual and textual modes. By looking at the interrelations of the literal and visual means, the selective nature of the studied media can be deconstructed and their respective choices described.

DECONSTRUCTING MAGAZINE ARTICLES

Most of the images in magazine articles are naturalistic, i.e. they represent objects readers can identify on the basis of their experience with “real” world. But as Kress and van Leeuwen [25] emphasize visual communication is always codified, and the code is dependent on cultural meaning making. It looks natural only because and if we are familiar with the code. The critical way of seeing requires looking at the dimensions of depicting such as whether the pictures are naturalistic or

seemingly manipulated, detailed or schematized, drawings, graphics, graphs, charts, boxes, whether the pictures are colored or colorless, continuing or fragmenting, what is the text/image relation. Basically, the toolbox can be simple and yet help to understand the design of a discourse.

Creating premises for the eye and for entertaining guests

A Beautiful home feature in Avotakka always opens with two full pages and a big image running over them. In terms of space, image overruns written text, although the text heading is often printed on the picture [16]. Text as part of the image is further emphasized by coloring letters to match the visual. The weight of the image is on the left page. Thus, the layout construes it as the background against which the written text is to be interpreted [25].

The majority of pictures are continuous in a decoration article. They convey a living space with its artifacts from a wide angle. This facilitates a narrative reading where the readers' eyes can follow paths in space; make a journey from one room in the focus to the verge of a next one through a door opening – a metaphor for future possibilities and a way of teasing readers' appetite (Picture 1).



Picture 1. Home of fulfilled wishes (AT 3/2003).

Sometimes the journey is stopped in front of a detail: an “artistic” composition of vases, statues or fruit (Picture 2). Pictures of living room cover 27 % of all images, kitchens and dining spaces (21%) follow them, bedrooms hold a significant position with 15 % of instantiations. In the architecture of the depicted homes, the living, dining and cooking premises may merge into each others and the images depict chairs and sofa suites that are especially suitable for face-to-face interaction. In conclusion, the articles display the rooms where guests are most likely to be welcomed to share a social event with the inhabitants. A Finnish home in 2003-2004 Avotakka is a place for sociability [cf. 30: 108-109]. Even if the modern home is not strictly divided into public, private and housekeeping zones [31], the living room is the place where guests are most likely entertained.

On the written plane, the article is a narrative of how the home was eventually found, possibly renovated and always decorated into the present composition [16]. User experience is transmitted by quoting the inhabitants, more likely the woman in the case of a heterosexual couple. Other typical categories of inhabitants are single designers or other professionals in an aesthetic branch and single parents. In the user experience as in the decoration narrative in general the point is in an interpretation of the aesthetic constellation.

- I am fond of contrasts. I wanted white furniture against dark wooden floor, wood, steel and brain (AT 4/2004)²

The quoted user experience exemplifies yet another typical feature in the interior décor magazines: the centrality of contrast in the composition of a home. It may be realized in contrasting surfaces, materials, texture, form or colour, but not in contrasting tidiness and messiness. The dark, steely and hard surfaces of ICTs are ignored as possible contrasts to light colors and soft cushions. Meaning and value are construed through naming the aesthetic intentions creating an atmosphere. The narrative recounts the effort put on the realization of these intentions. This in turn creates yet another contrast: the tidy rooms in the pictures seem to claim no further effort.



Picture 2. An artistic detail in a home. Avotakka 11/2003. In the text the designer of glasses, Kaj Franck, is mentioned, although the Kartio-glasses are a design icon recognizable to the mass consumer in Finland.

Contact information regarding the shops where you can find objects and materials visible in the displayed homes is attached.³ These textual choices make the border between advertisements and features fuzzy [16], but they also weaken the intrusion to an individual, lived and experienced private home. The written text of articles usually does not tell how the homes are lived: closest to the practices of living the text comes when it mentions that the family likes to invite friends over to cook and enjoy meals together.

In many respects the representations resemble my own notion of a possible Finnish or European home. They seem natural until they are submitted to a critical view to deconstruct them. The homes bathe in light even if it's winter and the polar circle lives in a constant night⁴, the rooms are tidy as if nobody ever did anything there; which may be true, since the spaces most of the time lack inhabitants. Most striking, however, is the marginal position of ICTs, both in images and in writing. The discourse is clearly selective [16].

² - Minua viehättävät kontrastit. Halusin tummaa puulattiaa vasten valkoisia kalusteita, puuta, terästä ja punoksia. AT 4/2004

³ The readers complain if this information is missing. [21]

⁴ Anna Valtonen, personal communication.

In the total of 266 images there are only 24 images with an electric medium. Most likely it is audio playback equipment, secondly it may be a video playback set or a television set. The small number of television sets is significant since according to statistics 96 % of Finnish households own at least one [1]. Secondly, Sarantola-Weiss [12] has described how the appearance of a television set changed spatial organization along with the notion of living room cf. [18]. It was a technology that promoted the breakthrough of a sofa suite. A sofa suite is depicted in living rooms as an essential feature of them in the present data while TV sets are not. Thirdly, the findings counter a common belief that decoration magazines include pictures with fancy home theatres, a concept born in the 1950s in the United States [18] but strictly rejected as a moral issue in Finnish discourse [32]. Moreover, you can infer an effort on trying to hide the TV set [cf. 32]. The probable placement of a TV set may be detected if the images are compared to a floor layout often provided. Even in pictures where the TV sets or music appliances are visible they are not in the focal part of the picture but hidden in book shelves or cupboards. Technologies such as line telephones, mobile phones and personal computers are even more infrequent in the features, yet another odd fact against the statistics [1]. There are only one or two tokens of each in the data. The domestication of ICTs seems to be equated with methods of hiding it [cf. 32].

The marginal position of TV sets is repeated in the writing: one of the strategies is grammatical embedding. In the invented clauses “TV set rules the living room” or “TV set widens the living room space to the global village” cf. [18] the phrase *TV set* is in an agentive i.e. actor position. In the decoration magazines, however, a TV set or a computer appliance is not given a position as a central constituent in an active process. Instead they are hidden in the clausal structure; in grammatical terms they may be embedded under a head as modifiers: “*Makuuhuoneeseen mahtuu myös pieni televisionurkka*” ‘The bedroom takes a tiny TV corner’ / ‘The bedroom accommodates a tiny TV corner’. In the example, the bedroom is the theme of the sentence. It is conceptualized as a container for a corner modified by TV. Its importance in the spatial organization is downgraded by the modifier *pieni* ‘tiny’. It remains fuzzy though whether there actually is a TV set in the room. Finally, phones, mobiles or laptops do not gain a mention. In conclusion, the decoration magazine depicts homes as a technology free zone – a notion hitting back to a member’s experiences of the information society within which these magazines are produced.

The repetitive nature of the format constructs the reportable, i.e. what is worth of reporting [33] in the genre of an interior décor feature. It is the visual pleasure. By contrast, the recounted user experience is not so much an issue of physical comfort, the easiness of conducting everyday life, ergonomics of housekeeping, watching television or playing computer games.

Keeping distinctions, comparing specimen

The technology magazine *MikroBitti* opens an article most often with two full pages as does the decoration magazine. Otherwise, they are opposed to each other in many respects.



Picture 3. Putting displays in test. *MikroBitti* 8/2003.

First of all, a category boundary between text and image holds; letters do not usually merge into naturalistic (photo) images or the other way around. Especially photo images are kept in strict rectangles. The rectangular character of images gains further emphasis in charts and tables, a category of images not existing in decoration magazines. The rectangles draw on rhetoric of the mechanical, technological order, of the world of human construction [16, 25]. The size of images is smaller, but the number of them is greater than in decoration magazines. The text precedes the visual which marks it as the starting point of a feature.

In *MikroBitti* features the images focus on appliances, user interfaces and screen displays in close-ups. Even if diagrams, maps and charts are associated with objective, dispassionate knowledge, ostensibly free of emotive involvement and subjectivity as suggested by Kress and van Leeuwen [25], a set of frontal close-ups involves a reader as if engaged with the interfaces. Close-ups are central in technology magazines, and a recurrent pattern in depicting technologies is a product portrayal (42 % of all images). A variety of close-ups empowers the appliances focusing from above [25]. This is usual in test features – a feature type crystallizing techno rhetoric.



Picture 4. Revealing inner structures. *MikroBitti* 8/2003.

All in all, a prototypical image in a technology magazine is discontinuous. The close-ups do not offer a spatial existence for the objects they depict. In relation to domestication this means that they do not reflect nor project a context for use. However, context is given in 8.6 % of cases, but it is more

likely to be an office or a technology exposition context than a domestic one. A private home as a context is seen in 1 % of the images. 6 % depict a person, most likely a male one. However, even if the gadgets are not placed in a context, a context may be constructed into them. In screen displays contexts such as adventurous landscapes and human beings, also females may be shown. The tradition invites a reading where the world and life is reached through a communicative box [7; 11; 18].

MikroBitti constructs a (male) reader position that of an anatomist. The constructed gaze is that of natural sciences: paradigmatic, fragmenting, unveiling. The observer compares specimen (picture 3), cuts them in pieces, penetrates to the inner structures (picture 4), turns their back in front of the observers gaze, studies the wires and cables as veins (picture 5).



Picture 5. Physical examination of an intra-house PNA-appliance. (MB 8/2003).

In writing the point is on measuring the efficacy and performance of the appliances in focus. In addition size is relevant in terms of bits of memory or inches of displays but not in terms of finding place for appliances in physical space. However, home is mentioned. It may be grammatically embedded in a way similar to that exemplified in case of the TV corner in the example above: the reported appliances are ‘home PCs’, or the point of view is that of a ‘home user’. Domestic realities are admitted through taking the economical resources into account. The articles evaluate performance and capacity in relation to the possible needs of the home user on a budget. The discourse is communicated as a friend-to-friend where “we”, the editors, have been running tests on behalf of the user. In an article on building home PCs for special interests garage is mentioned as the place where a garage band rehearses and records its production cf. [31]. Usually the text is not suggesting an intrusion of appliances into the more central areas of a household. In the next example physical context of use is excluded in the descriptions of use, where an appliance is in topical position. The user or the environment where the use takes place is not mentioned.

“Computers are used for playing, listening music and watching movies. Leading thus a quite danger free life.” (MB 8/2003).⁵

⁵ ”Tietokoneilla pelataan, kuunnellaan musiikkia ja katsellaan elokuvia. Vietetään siis melko vaarattonta elämää.” (MB 8/2003.)

RESULTS

Home is a container in which things can find their place. Thereby a space may be turned into a meaningful place. However, all artifacts are not likely to be accepted in a composition of a home. In the ecology of home artifacts can be used as a means for creating privacy, age and gender.

Quite recently, I happened to get hold on “Scéner ur ett äktenskap” (*Scenes from a Marriage*) by Ingmar Bergman. The TV series dates back to the 1970s. In the very first act the main characters, husband and wife, are interviewed by a women’s magazine on the secrets of their well organized happiness. The couple sits on a sofa in a spotless living room. As the journalist turns to delicate matters the husband suddenly remembers a phone call he has to make. The wife leaves the room to check how the kids are doing in the kitchen. While left alone in the tidy living room the journalist takes an advantage and noses into the home. She opens a door, and in a quick cut Bergman focuses into a disorganized bedroom: bed not made, books and magazines in blocks, pairless shoes and dirty laundry on the floor (if I recall it correctly). The organization of the scenes invites an interpretation where the tidy living room represents a façade, the family in connection to the public sphere, while the messy bedroom refers to the private side. Through the contrast Bergman communicates the difference between the well organized public image and the private anxieties of the couple – the theme of the work of art.

In Avotakka emphasis is put on living rooms and dining spaces, where sofa suites and the organization of chairs around a dining table invite for face-to-face interaction. In the writing this interpretation is further emphasized in telling that the inhabitants like to invite friends over for a dinner. [cf. 30] It is usually not told what the inhabitants do when no guests are present, nor do the pictures suggest any other activities. Indeed, the tidy spaces could be analyzed as ideal for relaxation, and that may be one of the ways in which the readers may interpret them. However, it is not told that the inhabitants like to relax on the sofa. The written narrative does not suggest domestic activities after refurbishing. Moreover, the articles are most likely to depict surfaces clean from hints to any domestic interests. A book in reading is not left on a table, there are no spots due to preparing dinner, televisions, computers, phones and other ICTs are kept from sight if possible. As soon as this observation is made, it becomes evident that the vision of homes is not that of a lived place but a scene to a public display. Even if the more intimate rooms are displayed any hints of intimate activities are hidden. In that vision a conservative view on design is reinforced by paying attention to design icons. Industrial design such as information and communication technologies is not included in that view.

A “Beautiful home” feature in Avotakka claims to display real homes somebody lives in. However, the point of the story is not in living but in refurbishing. In that story, communication technologies usually do not figure.

As to the age and gender differentiation, the decoration features form a bias. At the first sight the features do not show a clear age differentiation. The Beautiful Homes (features) consist of family houses and urban apartments, homes for the elderly as well as studios for young adults. Yet, taking a fresh and more critical look at the features reveals that children, especially school children and teenagers are underrepresented [cf. 16]. The gender bias in Beautiful Homes is feminine. It is not so much visible in the choice and style of displayed homes but in the construction of focus. The features focus on furniture, sculpture and works of art, on the narratives attached to and on the history of things displayed. These make a

collection of things that are typically meaningful for women and elderly people [5].

Technology magazine *MikroBitti* on the other hand concentrates on personal computers, computer games, appliances and user interfaces. The reported appliances and applications are clearly introduced from the perspective of a domestic user instead of a business user. The focus is on technologies relevant for enthusiasts but not for professionals. In the writing, professional terms are explicated and many of the articles report human interest issues in the field of computation. In this sense they appear educational. Domestic environment is mentioned occasionally but in an embedded fashion that marginalizes it. It is fair to conclude that the technology magazines do not contribute to the domestication of technology in terms of objectification.

Nevertheless, another facet of domestication, conversion, is present in close-ups where the appliances are shown to connect with the outer world. Moreover domestication is present in incorporation: the reader is shown and told how to interact with the appliances and how to connect varying gadgets with each others. Showing the anatomy of machinery also encourages the reader to create a physical relation to the machines. The interactive and dynamic strategy to attach to artefacts may be typical for men and younger generations [5].

The technology features ignore the private sphere in the sense of domesticity. Yet another sort of privacy is constructed between the reader and the pictures of appliances by giving a feel of real user interfaces in close-ups. The features reinforce masculinity in relation to the ICTs: the majority of persons depicted with the appliances are male.

CONCLUSION

When we visit private homes we register an ecology of personal possessions. It displays who the inhabitants are and where are their interests and how they relate to the wider cultural context and varieties of subculture. I have a friend who did not have a sofa while living in the eye of a major renovation in an old manor. Even in the middle of the project she and her husband liked to invite guests and visitors they could host in their functional kitchen. The husband being an architect and the wife being an academic, they did not feel a strong pressure on displaying normal middle class standards. Their disposition included that they felt comfortable with encouraging visitors to sit on their bed in a bedroom. However, they grew to understand the cultural importance of a couch through the uneasiness their visitors felt. They ended up in giving endless accounts for the cultural anomaly of couchlessness to ease their squirming guests. Nowadays they have a living room with a sofa suite. The narrative exemplifies how a realization of a private space is always accountable for a cultural understanding of that category of place.

The objective of this article was to window the ways in which a set of magazines on decoration and technology manifests choices in placing home technologies in homes. The focus was in the macrostructures of features written by the editors. The investigation conducted here reveals that ICTs as objects and homes as physical spaces live each on another planet in the print media. The findings indicate that technology magazines on one hand acknowledge machinery but virtually no context for use; interior design magazines on the other hand put effort in representing decorations and living styles in ways which are virtually technology free. These deeply differentiated schemes fragment today's living world. They create a mismatch that is bound to lead to a conflict on domestic level.

In section Theoretical framework I suggested a reduction of reality in favour of selectivity. The findings indicate indeed strong selectivity in ways in which homes and ICTs are

represented. It takes a while and requires an analytical lens before the marginal existence of technologies in the naturalistic pictures of homes becomes visible in the decoration magazines. Similarly an analytical lens is required to see behind the textual choices that construct the format of representing technologies in technology periodicals. The home of home technologies is marginal.

The findings may be considered odd because there is nothing inherent in these technologies why they should not be part of the constellation of a home. Quite the contrary, these technologies are designed and merchandised for domestic use. During the last decades many ICTs have been domesticated, and they belong to the inventory of normal household belongings. While conducting this exploration I myself have grown sensitive to my own inherent cultural reading of materiality in homes: e.g. even if I don't consciously map objects when visiting a home, I recognize if I don't see any signs of a TV set, a computer or other 'normal' home ICTs. In these homes the missing ICTs are significantly missing, and they lead me to interpretations connected to alternative values that could account for the facts. Still, reading decoration magazines as a layman I never really paid attention to the fact that they do not display ICTs. This is to say, that magazines produce an idealized view of homes and ICTs as a discourse where certain selectivity is part of the genre [16, 26]. Therefore any research into domestication through public magazines should articulate the tension between public privacy as different from lived privacy behind the closed door of a private home [cf. 14].

All in all, the investigation reveals clearly that both technology and decoration magazine turn their back to the spatial existence of information and communication technologies. This is a question I will address to future design thinking. In my understanding the division is due to the complexity of ICTs as both objects and media. As such moral issues are involved in their domestication. At this point I like to think that ICTs are not part of an ideal home in a decoration magazine because they are capable to connect to the outside world. Moreover, having separate computers and TV sets for all family members fragments family sociability [cf. 20]. The *Avotakka* editors explain that the audience wants to see the home as a closed and save haven [21]. One of my own undertakings, being a linguist trained in interaction analysis, will be going to the households and making video recordings of the ways in which people incorporate the "nonexistent" appliances into their social practices of producing homes. There the questions of how to express an aesthetic identity or style and the needs to bring in technologies are met in negotiations and in chain reactions caused by the new appliances not fitting in with the existing furniture [10; 34]. In a lived household the inhabitants has to make choices that sometimes are as crucial as to whether to refurbish a room or to purchase a new technological gadget [35].

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REFERENCES

1. Ownership of consumer durables. Income and consumption. Statistics Finland.
http://www.stat.fi/tup/suoluk/taskus_tulot.html (3/1/2005)
2. Kopomaa, T. City in your pocket: birth of the mobile information society. Gaudeamus, Helsinki, 2000.
3. Hakulinen, A. The grammar of opening routines. *SKY Journal of linguistics* 6 (1993), 149-170.
4. Jordan, B. & Henderson, A. Interaction analysis. *The journal of learning sciences* 4, 1 (1995), 39-103.
5. Csikszentmihalyi, M. & Rochberg-Halton, E. *The Meaning of Things. Domestic Symbols and the Self*. Cambridge University Press, New York, 1981.
6. Attfield, J. *Wild Things. The Material Culture of Everyday Life*. Berg, Oxford, 2000.
7. Silverstone, R., Hirsch, E. & Morley, D. Information and communication technologies and the moral economy of the household. In R. Silverstone and E. Hirsch (eds) *Consuming Technologies. Media and information in domestic space*, Routledge, London, (1992) 15-31.
8. Silverstone, R. & Haddon, L. Design and the Domestication of Information and Communication Technologies: Technical Change and Everyday Life. In R. Mansell & R. Silverstone (eds) *Communication by Design*. Oxford University Press, (1996) 45-74.
9. Collins Cobuild English Dictionary. London, Collins & Sons, 1987, reprinted 1990.
10. Nieminen-Sundell, R. & M. Pantzar Towards an ecology of goods: Symbiosis and competition between material household commodities. In Ilpo Koskinen, Katja Battarbee & Tuuli Mattelmäki (eds) *Empathic design. User experience in product design* Edita, Finland, (2003) 131-142.
11. Silverstone, R. *Television and everyday life*. Routledge, London, (1999 [1994]), 26, 45.
12. Sarantola-Weiss, M. Sohvaryhmän läpimurto [English summary: The Breakthrough of the sofa suite. How consumer culture appeared in the Finnish living rooms during the 1960s and the 1970s] Finnish Literature Society, Helsinki, 2003.
13. Garvey, P. Organized Disorder: Moving Furniture in Norwegian Homes. In D. Miller (ed) *Home Possessions. Material Culture behind Closed Doors*. Berg, Oxford, (2001), 47-66.
14. Miller, D. Behind Closed Doors. In D. Miller (ed) *Home Possessions. Material Culture behind Closed Doors*. Berg, Oxford, (2001), 1-19.
15. Periodicals 1992-2003. Circulations of last 10 years. Finnish audit bureau of circulations.
<http://www.levikintarkastus.fi/tilastot/Periodicals10years.pdf>
16. Kress, G. and van Leeuwen, T. *Multimodal Discourse. The modes and media of contemporary communication*. Arnold, London, 2001.
17. Jallinoja, R. *Moderni säädyllyisyys. [Modern dignity]* Gaudeamus, Helsinki, 1997.
18. Spigel, L. Installing the television set. In Ben Highmore (ed) *The Everyday Life Reader*. Routledge, London, (2002 [1992]), 325-338.
19. Lukijatedot 2003 [Reader estimates 2003] Finnish audit bureau of circulations. <http://levikintarkastus.fi>
20. Morley, D. What's 'home' got to do with it? Contradictory dynamics in the domestication of technology and the dislocation of domesticity. *European Journal of Cultural Studies* 6, 4 (2003), 435-458
21. An interview with Susanna Salo and Kaija Sarha, 2 editors in Avotakka. Personal communication 11/25/2004.
22. Saarikoski, P. Koneen lumo. *Nykykulttuurin tutkimuskeskuksen julkaisuja* 83. Jyväskylän yliopisto, Jyväskylä, 2004.
23. Fairclough, N. Miten media puhuu Transl. by Virpi Blom & K. Hazard. [Original: *Media Discourse*, London, Arnold 1995], Vastapaino, Tampere. 1997.
24. Fairclough, N. *Critical discourse analysis*. Longman, London, 1995.
25. Kress, G. & T. van Leeuwen *Reading Images. The grammar of visual design*. Routledge, London, 1996.
26. Van Leeuwen, T. *Introducing social semiotics*. London, Routledge, 2005.
27. Heinämaa, S. Ele, tyylä ja sukupuoli. Merleau-Pontyn ja Beauvoirin ruumiinfenomenologia ja sen merkitys sukupuolikosmikselle. Gaudeamus, Helsinki, 1996.
28. Chaney, David *Lifestyles*. Routledge, London, 1996.
29. Tomlin, R. S., L. Forrest, Ming Ming Pu, Myung Hee Kim *Discourse semantics*. In T. van Dijk (ed) *Discourse structures and processes*, 1 (1997), 90.
30. Corrigan, P. *The Sociology of Consumption. An introduction*. Sage, London, 1997.
31. Saarikangas, K. *Asumuksen muodonmuutoksia [English Summary: Transformations of the Dwelling, Gender and the Aesthetics of Cleanliness in Modern Architecture]*. Finnish Literature Society, Helsinki, 2002.
32. Mäkilä, M. Esillä ja piilossa. Radion ja television läsnäolon strategioita 1950- ja 1960-lukujen suomalaistekniikassa. *Tekniikan Waiheita* 4 (2003), 45-56.
33. Sacks, H. Doing being ordinary. In J. M. Atkinson & J. Heritage (eds) *Structures of social action*. Cambridge University Press, Cambridge, (1984), 413-429.
34. Nieminen-Sundell, R. Tietokonepoika – kuinka tuotetaan sukupuolittuneita käyttäjäkoneita ja ihmisiä. In S. Taija & S. Tuuva (eds) *Tietotekniikkasuhteet. Kulttuurinen näkökulma*. Finnish Literature Society, Helsinki, (2003), 41-55.
35. Lehtonen, T.-K. The domestication of new technologies as a set of trials. *Journal of Consumer Culture* 3, 3 (2003), 363-385.