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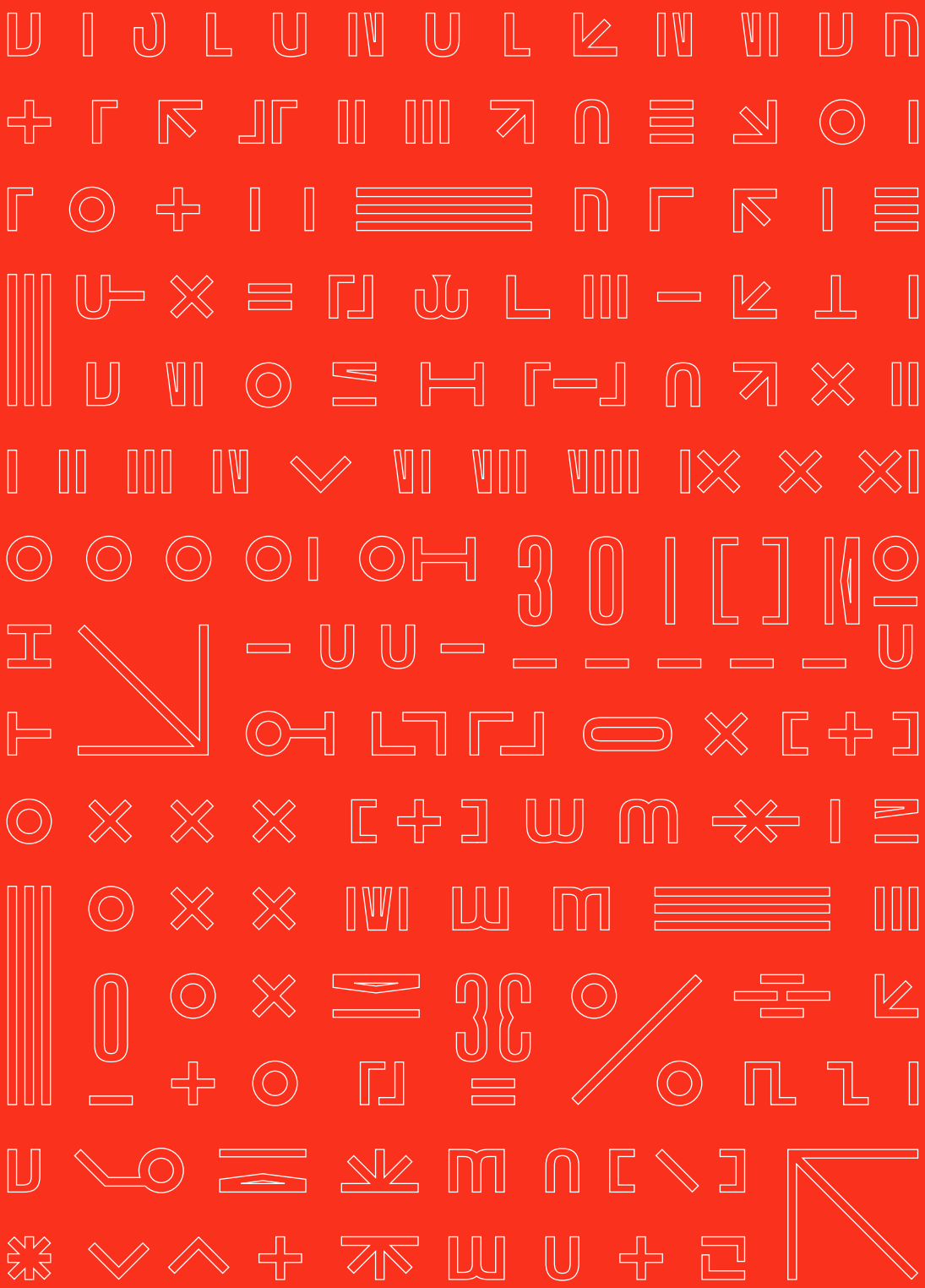

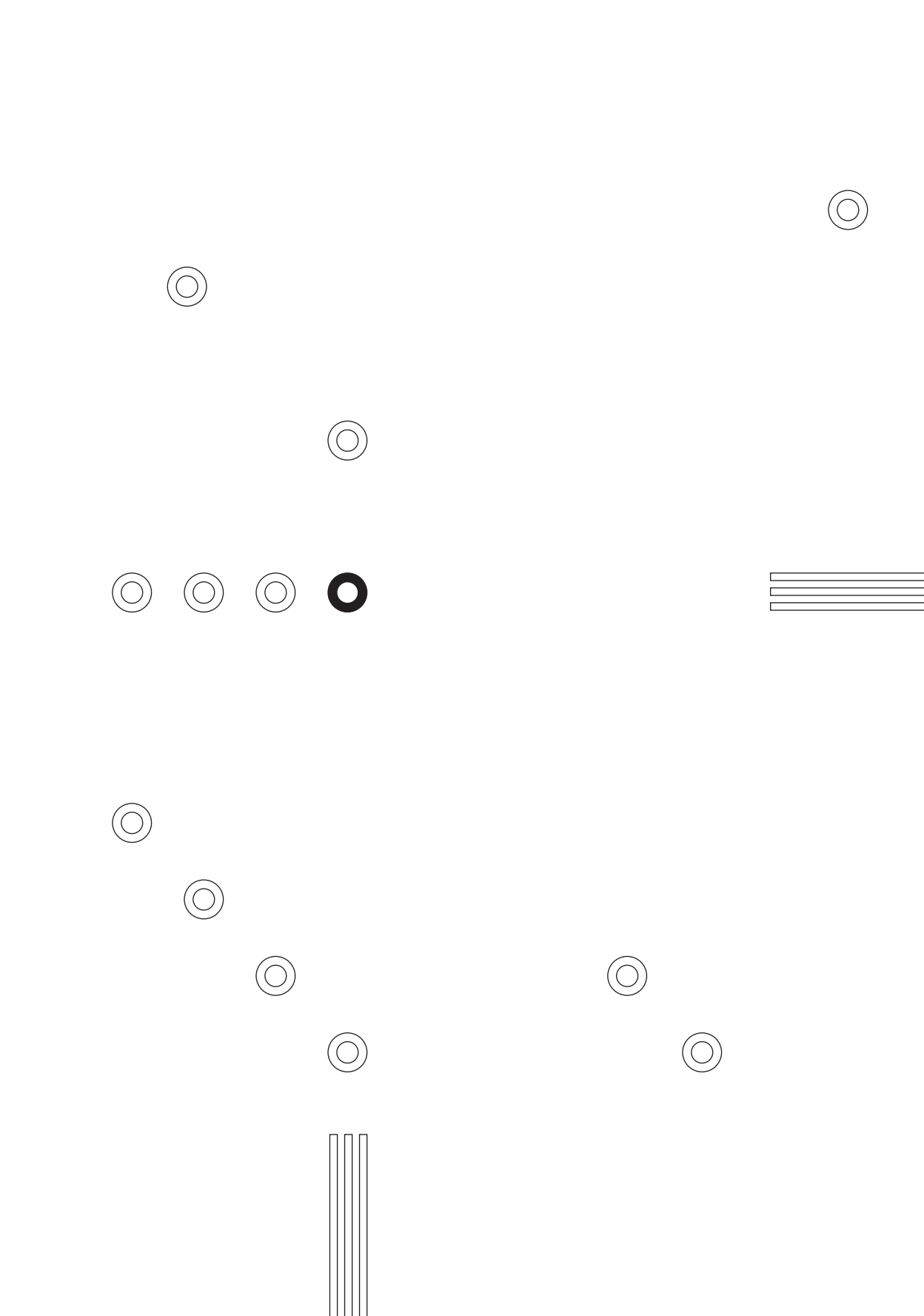

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DISEGNO_VI/02_S/D: SIGN AND DESIGN

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TEMPLATES OF AGENCY:
OBJECTS OF A SOCIAL DESIGN PROGRAM FOR DISADVANTAGED GIRLS

Janka Csernák

ABSTRACT

Compared to the aesthetic- and market-oriented mindset associated with mainstream design approaches, social design is traditionally considered to be a field that focuses more strongly on the human perspective and community-specific insight (Kimbell 2011; Manzini 2015). It is also a field that pays particular attention to the cultural and anthropological specificities of communities and takes these specificities into account throughout its processes of research and design. This paper presents a social design project, FRUSKA, and examines it from a semiotic and educational point of view. FRUSKA is a design program for disadvantaged girls aged 10–18, aiming at skill building, raising self-awareness and building agency, in order to advance the participants' life prospects. In an attempt to understand the community better, several objects were designed by the author and her students, based on preliminary research and inquiries conducted with the target group. Building on the premises of social semiotics (Hodge and Kress 1988; van Leeuwen 2005), these objects were specifically designed for the participants to build and customise during co-creation workshops: the participants could disassemble and personalise these objects in a way that is closer to their own aesthetics, filling them up with meaning as a means to practice agency. The design process, its application during workshops and the feedback from participants are analysed through the lens of intersectional theory (Crenshaw 1989), in order to understand the effects of differences in class, age, ethnicity and identity. The author concludes by discussing whether design can be meaningfully used as a language through co-creation.

#social design, #co-design, #social semiotics, #disadvantaged youth, #intersectional theory

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INTRODUCTION

The field of social design focuses on understanding complex phenomena in a holistic way, and thus, draws inspiration from neighbouring scientific fields as well, like social sciences, psychology, ecology, or philosophy. Social semiotics strives to be a critical, self-reflexive theory that investigates the dynamics of social meaning-making practices in specific social and cultural circumstances with the aim of explaining the processes of meaning-making (Thibault 1991, 6–7). From a design perspective, it is a field that enquires into different representation typologies and the relation between things and interpretations people have about them, which can be multiple and different as people read and comprehend designed objects in different ways (Grilo 2017). If we presume that semiotics can provide tools for designers to understand and shape said interpretations (Grilo 2017), this connection can also be observed between social semiotics and social design. Van Leeuwen's definition of social semiotics highlights key similarities with the methodological approach of social design: "the 'social' in 'social semiotics' […] can only come into its own when social semiotics fully engages with social theory. This kind of interdisciplinarity is an absolutely essential feature of social semiotics." (2005, 14) According to Van Leeuwen, social semiotics can be characterised as shifting the focus from the "sign" to the way people use semiotic "resources" both to produce communicative artefacts and events and to interpret them in the context of specific social situations and practices. Van Leeuwen argues that semiotic resources are not restricted to speech, writing and images, which expands the possibilities for the articulation of different social and cultural meanings. In the case described below, material artefacts can also constitute a semiotic resource, where it becomes possible to describe its semiotic potential as its potential for making meaning—on the one hand, meaning-making *about* the maker, and on the other hand, and more importantly, by the maker of a marginalised position, whose voice is rarely heard.

This study analyses the products of a series of workshops created specifically to address the empowerment of disadvantaged girl groups. These workshops were designed and conducted on the basis of intersectional feminist theory (Crenshaw 1989) and social and participatory design methods, and they aimed at empowerment of the participants through

agency-building, self-reflection practices, problem-solving, designing, and building, all based on systematic self-evaluation and self-assessment. The design process embedded in the program features a collection of template-based objects in the form of blueprints. The customised design process that girl participants go through provides them with the opportunity of meaning-making through their own cultural and personal experiences, by manifesting their knowledge of the world through creating objects. The relatively simple structure of the objects allows for ergonomic and stylistic modifications according to the participants' preferences, and they can be further personalised with colour and decoration.

This study presents a variety of the objects created during a series of FRUSKA workshops, and the objects are analysed through the lens of social semiotics in order to identify collective and individual patterns of meaning-making and embodied knowledge.

THE TARGET GROUP[1]

[1] *This section and the following one ("The User Group of the FRUSKA Method") are partially taken from* FRUSKA Handbook / FRUSKA Kézikönyv *by Janka Csernák, Rita Szerencsés, Lili Horváth, and Fanni Dés (Csernák et al. 2023).*

It seems more important than ever to address the increasingly pressing issue of intersecting inequities underprivileged girls face. While the developing world has been a central focus of worldwide development work carried out by global initiatives, the gender gap has not been closed despite earlier incentives (United Nations 2011, 2015).

Unpacking the distinctions by which we define groups as underprivileged, it is both important to look at the global context and see local and cultural specificities too. In the global context, the following factors play a key role: living in low-income households, ill-equipped housing conditions, employment activity of the household, education level of household members as well as cultural factors like ethnicity, race, or caste. Based on information about basic needs collected from fifteen low-income countries, the World Bank defines the extremely poor as those living on less than $1.90 a day. However, because more people today live in poverty in middle income countries than in low-income countries, higher poverty lines are used.

In a more local context, especially in Central-Eastern Europe, besides the difficult socioeconomic settings of an individual, one cannot overlook the historically ingrained bias against ethnicities.

When looking at the current socioeconomic circumstances in Hungary, the global economic crisis of 2008 had effects on Hungarian society earlier than in other countries (usually between 2009 and 2012) and therefore increased the extent of income poverty as well as income inequalities and severe material deprivation (Siposné Nándori 2020). According to data, housing inequalities, ethnic origin, and having a large family are usually closely related, creating overlapping disadvantages. Furthermore, the Roma population, which makes up about 6–7% of the total Hungarian population, is considered the most exposed to poverty.

The level of education and employment are both very low, leading to severe poverty in these groups (Siposné Nándori 2020). A survey conducted in 2012 revealed that while 12% of the total Hungarian population lives below 60% of the median equivalised income, the rate among the Roma population is 76% (Gábos, Szivós and Tátrai 2013).

According to a 2015 study on Hungary, deprivation can be further broken down into three indicators: the proportion of people living in relative income poverty, the proportion of people living in severe material deprivation, and the proportion of people living in a very low job-intensity household (employment poverty). The groups defined by relevant indicators overlap, amounting to 1.9 % of the total population of Hungary. Additionally, poverty and social exclusion further threaten the following groups: children under eighteen, single-parent households, the low-educated, unemployed, or Roma people (in which case the above risk is three times the average) (Központi Statisztikai Hivatal 2015).

With the transition to a market economy, the length of childcare benefits has increased while the number of childcare institutions has decreased. This has led to women being increasingly forced to take care of their children, elderly relatives, and relatives living with disabilities in the household. Which has in turn resulted in the feminisation of poverty as a dominant phenomenon in the country (Einhorn 1993, Gregor and Kováts 2019). Considering additional, gender-based inequalities, Romani women are the region's most vulnerable, facing constant, multiple discrimination based on race, class, and gender (Schultz 2012). Furthermore, (mostly Roma) girls are not only marginalised within the category of children as females but also within the category of women as minors. (Taefi 2009). Addressing poverty as a gendered problem helps us further understand the obstacles underprivileged females face. The two strongest barriers are the duty of childcare (which falls disproportionately on mothers instead of fathers) and the impediment they experience in the job market (Czibere 2012).

In low-income, vulnerable communities, the lack of perspective and job prospects can have debilitating effects on youth groups. Girls are often the most vulnerable in this sense, as early (childhood) marriage, a domestic career and the role of the caregiver is the only visible option for them. It is especially true in more traditional or ethnic communities, since the family serves as both the sole economic and social support system for individuals.

This set of circumstances often results in not only early childbearing and leaving the education system too early, but several other psychological factors that further hold back individuals from breaking out of their barriers. The lack of support in the education system (especially in rural segregated schools) further deepens the abandonment young girls might experience and these difficulties might result in a lack of motivation, goal setting, confidence, and agency.

In many cases, these interconnected phenomena contribute to a conflict between the world of the family (which considers a girl an adult from early adolescence) and the world of school, which still treats them as children in need of discipline. Therefore, in the following methodology, the age of adolescence is taken as ten to eighteen, but for more accurate methodical choices and appropriate tools, it is further broken down into two categories (ten to thirteen and fourteen to eighteen), when referring to assessment tools.

THE USER GROUP OF THE FRUSKA METHOD

The FRUSKA method book aims to find and identify patterns of diverse challenges underprivileged adolescent girls face, the psychological effects these challenges cause, and to link them to effective creative tools. The method aims to define creative and design-based practices that enhance the life experience of underprivileged girls through gaining skills such as self-confidence, problem-solving, and a sense of agency. As such, it is a useful tool for practitioners, community-leaders or educators to enrich the developmental work with the target group of disadvantaged girls aged ten to eighteen. The method and workbook can be applied in scenarios when the developmental work carried out with the target group calls for out-of-the box or creative tools, as both the age specificities of adolescent girls and their position in educational or non-educational settings can prove challenging. In order to address girls in a meaningful way, it can be helpful to apply participatory, customisable activities such as the ones proposed below.

The adolescent phase in the psychosocial theory of development is concerned with identity formation versus role diffusion (Erikson 1968), as well as agency manifestation. Considering adolescents' construction of identity—which underprivileged youths often miss out on—as part of an ongoing formation of relationships, institutions, culture, and family rather than seeing them as passive reactors to a static system produces accurate and detailed observations (Cooper 1999).

Moreover, it helps to overcome the misconception of seeing educational difficulties of low-income or minority students as a result of "cultural mismatch," and to recognise how institutions might lack the knowledge to guide them, if they still choose to continue with their academic advancement beyond the compulsory age (Havas and Liskó 2005, 94–95). In addition, it is important to mention that according to surveys, traumatic experiences within the family appear more frequently than in other secure social settings (loss of family members, separation, loss of employment, housing crises, and violence, etc.).

Previous studies indicate that adolescents of low socio-economic status report lower self-esteem in comparison to their peers of higher socio-economic status (Veselska et al. 2009). Addressing and improving

low self-esteem is a key factor in working with at-risk adolescent girls as low self-esteem is widely documented as a correlative factor in depression and anxiety (Veselska et al. 2009), lower health-related quality of life (Mikkelsen et al. 2020), criminal behaviour, drug and alcohol abuse, and teen pregnancy (Hartz and Thick 2005). Confidence and satisfaction with oneself (self-esteem) can be influenced by peer and parental relationships, different intellectual and physical abilities, appearance, competence, as well as identification with a reference group (either positively or negatively) (Ibid., 71).

These factors impact girls more significantly than boys, especially through adolescence, as gender-role expectations impose limits at a higher scale on females. Previous studies show that self-efficacy and self-esteem might act as a buffer for negative psychosocial factors in adolescents (Mikkelsen et al. 2020). Promotion of self-efficacy might contribute to reducing emotional symptoms among all socioeconomic groups and thus to reducing social inequalities in emotional symptoms (Meilstrup et al. 2016). Increasing self-awareness helps girls identify personal preferences, values, and life purpose and create a realistic appreciation of personal strengths and weaknesses, therefore setting more realistic goals.

METHODOLOGY

We can state that underprivileged girls are a particularly vulnerable social group both economically and ecologically, resulting in the lack of tools for exerting control over their future. The FRUSKA methodology proposed by the author aims to consciously counterbalance this, and instead ensure freedom of expression to participants while maintaining a safe space for sharing difficult life experiences, granting them "partnership and active participation" (Froese and Kóczé 2012).

The workshop program aims to find and identify patterns of diverse challenges underprivileged adolescent girls face, and the psychological effects these challenges cause, in order to link them to effective creative tools. The method aims to define creative and design-based practices that enhance the life experience of the target group by helping them gain skills such as self-confidence and problem-solving, and a sense of agency. The methodology is based on the parallelism between simple maker assignments and self-knowledge tools, rooted in social design, participatory action research (Aziz, Shams, and Khan 2011), feminist group advocacy (hooks 1994) and art therapy (Hartz and Thick 2005). Based on widely used social design methods, a participatory, co-creation-based approach (Kimbell and Julier 2012; Manzini 2015; Kimbell 2020) is applied in order to support the participants in practicing autonomy during sessions. The small group format and elements of shaping the group dynamic as a safe space (i.e., establishing

common rules in the beginning, valuing all opinions, providing space for all expressions, and maintaining respect for each other) are based on the theory of bell hooks (1984) regarding educational settings targeting underprivileged females. Hartz and Thick (2005) suggest that art therapy and psychotherapy tools in artistic activities result in increased self-worth, connectedness and motivation in participants.

The questionnaires for measuring the effectiveness of the FRUSKA method were based on a questionnaire designed by Hartz and Thick (2005), which aimed at measuring changes in self-esteem as a Self-Perception Profile. Similar to the data presented by Hartz and Thick (2005), FRUSKA participants reported increased feelings of mastery, connection, and self-approval. Comparing the seven-step questionnaires administered pre- and post-workshops, most participants showed an increase in global self-worth, based on notions such as perception of peer acceptance, freedom of self-expression, feeling of competence and goal-orientedness and positive feelings associated with the act of creation[2]. Baer's observations (1998) on gender differences in creativity show that middle school girls' motivation and creativity are lowered by the expectation of evaluation and rewards, therefore no metrics were used during reflections and only self-evaluation was applied. While the recorded answers showed a pattern of general improvement in self-image and competence, several answers indicated the development of more realistic goal setting and more accurate judgment of the creative process. Even though numerical data collection is still ongoing in order to arrive at a wider pattern and more nuanced conclusion as a longitudinal study, and therefore it is not shared in detail here, one significant result of the data collection process is the expertise the participants gained in self-evaluation itself, as it is a rather underdeveloped skillset of the target group despite its significant role in a balanced self-image.

The evidence for the parallelism between maker assignments and self-knowledge tools is supported by numerous studies conducted on STEM- and STEAM-based education and maker initiatives, where participants had self-assessed as more confident and empowered as a result of participation (Clapp and Jimenez 2016). Unfortunately, disadvantaged youth, especially girls, are not the basic target audience of such programs, which made it even more urgent for the current methodology to focus on these groups. Even though a majority of humanitarian creative tools are based on collaborative work processes (i.e., The HCD Toolkit by IDEO 2009; DIY Toolkit by NESTA 2014), they do not necessarily focus on the intersectional interpretation of inequalities they aim to address. Such collaborative practices are typically based on an egalitarian and democratic setup, where the designer only acts as a facilitator. In the case of the specific target group FRUSKA addresses, it has proven difficult for the author to embody the facilitator mindset for two reasons: firstly, the target group is not used to non-frontal

[2] *Sharing the numerical data results of the ongoing data collection is beyond the scope of the current article, as it focuses on the semiotic aspect and general patterns of attitude change in participants.*

educational settings (i.e. a student-centred, cooperative learning environment) and expressing their needs and opinions during creative workflows; and secondly, as elaborated upon earlier, the majority of participants have experienced multiple layers of disenfranchisement through their life and their girlhood presents a necessity for the creation of a safe space in order to encourage expression and creativity.

According to Christian Voigt, Elisabeth Unterfrauner and Ronald Stelzer, the maker movement already has a strong political agenda that aims at bridging the gap between a few producing and many consuming stakeholders, helping consumers to gain access to production. Frugal innovations and a circular economy mindset are concepts for empowering those with less "fabrication power" and makerspaces are important venues for the creation of opportunities as they enable low-cost entrepreneurship, but their exclusionist and western-centric nature often shuts out the very groups who would benefit from these opportunities (Voigt, Unterfrauner, and Stelzer 2017). The methodology described here does not aim directly at empowering participants in a capitalist, market-based sense, but rather helps them gain access to deeper self-knowledge and identify their inherited or gained barriers through design tools, which can result in improved prospects. Numerous studies and practice-based research confirm the positive long-term effect of the use of creative methodologies among underprivileged youth, especially girls (Dietrich, Trischler, Schuster, and Rundle-Thiele 2017; Tan and Barton 2018; Pilloton and Bingaman-Burt 2020; Hughes 2020), acknowledging that building or making things "is a way […] to have a voice, to exercise power, to be a free and independent woman, and to play an active role in the physical world." (Pilloton and Bingaman-Burt 2020, 15) Shaping this space that surrounds participants (by participants and peer mentors themselves or by the mediation of facilitators) does emphasise the parallelism with shaping the narrative of the social space that they inhibit as a catalyst for change (Pilloton and Bingaman-Burt2020, 11), and during FRUSKA workshops and talks the participants were actively encouraged to challenge not just the templates and language around making that are given to them, but to question the larger, societal context as well.

Besides supporting girls on a creative learning journey, a wider goal of FRUSKA workshops is to help participants discover interests and skills they might not acquire otherwise or get access to, grow their personal and professional network, widen their vocabulary (emphasising the power of language and competent use of accurate terminology), and to facilitate their geographical and social mobility by participating in a knowledge transfer as mentors. Furthermore, developing psychological, coping and communication skills can support girls in other areas of life and strengthen their resilience and agency. All these skills and gains contribute to a wider sense of empowerment of participants. According to some feminist advocacy groups, empowerment is a loosely defined,

"fuzzy" word that cannot be clearly articulated, let alone measured (Kabeer 1999). In order to gain some clarity on what empowerment might be and how to achieve it, it is necessary to think about power in terms of the ability to make choices: to be disempowered, therefore, implies being denied choice. As Kabeer remarks, "[empowerment] is inescapably bound up with the condition of disempowerment and refers to the processes by which those who have been denied the ability to make choices acquire such an ability." (Kabeer 1999, 437) Consequently, empowerment entails a change in power dynamics: an expansion in people's ability to make strategic first- and second-order life choices in a context where this ability was previously denied to them. However, it is important to look at possible inequalities in people's capacity to make choices (derived partly from their social status) rather than at differences in the choices they make (Kabeer 1999, 439). This decision-making process is modelled and exercised during FRUSKA workshops, specifically keeping the perspective of the individual participants in sight, and thus creating a realistic set of expectations that one can work towards.

There are no available studies known to the author on a comparative analysis of a wide range of international creative initiatives and the long-term effects of maker practices on underprivileged girls. However, comparative studies on participatory processes (Hussain 2010; Whittle 2014; Shepers et al. 2018) mostly from the field of digital design point towards the participants' development of self-esteem, learning-by-doing, and broadening their horizons, which can contribute to their empowerment. Furthermore, studies focusing on gender differences in maker practices (Vossoughi, Hopper, and Escudé 2016; Eckhardt et al. 2021) point out that dedicated attention to educational injustices is crucial to developing a pedagogical sensitivity within making environments, and broadening the definition of making could further contribute to overcoming gendered stereotypes within society and to create a more diverse environment in the maker community.

Participants in the case elaborated below were students from a Tanoda program in Budapest (an after-school community program, as previously mentioned), aged thirteen to fourteen, based in a district with complex social problems and increasing gentrification. Even though the participants described here are from an urban background and their network and infrastructure access is considerably wider, we can still observe similar patterns regarding lack of trust towards education and a lack of perspective and motivation, as well as a deficit of agency and empowerment. The deficiency of tools for visual and tactile expression and creative processes is also an experience that is shared among rural segregated schools and inner-city schools with a diverse studentship. While elaborating on the specifics of Tanoda programs in Hungary would go beyond the scope of the current study, it is worth mentioning that the Tanoda network plays an important part in working toward closing

the gap between Roma and non-Roma students and their educational prospects. A program based on one-on-one tutoring, extracurricular activities and strong interpersonal bonds helps the participants raise their motivation and dedication to education; however, there are limitations to the effectiveness of such programs without strong support and encouragement from the participants' families. As in several cases of minority-focused developmental programs, the Tanoda aims at compensating disadvantages and ultimately pushing participants towards independence while teaching them the necessary skills.

FIGURE 1. *Objects created during the 2022 spring FRUSKA workshops. Photo: Noémi Szécsi*

ANALYSIS OF THE DESIGN PROCESS

Designed objects can be observed on three levels through the lens of semiotics: on the pragmatic, the semantic and the syntactic level (Morris 1938). The pragmatic level enquires into *why* the object exists, the semantic level explores *what* kind of subjective attitudes people have towards it, and the syntactic level investigates *how* it was made. In the case analysed below, the participants were co-designing a structurally preconceived template, accordingly, in the analysis the author only focuses on the additional design features created by the participants. The reliance on templates is necessitated by the short timeframe of the conducted workshops and the specificities of the target group (i.e., the lack of confidence in visual expression, the intimidating aspect of a detailed design process and the need for a unified design journey that grants a certain amount of freedom to participants and to the community as well). The current investigation does not address co-design processes that are applied from scratch. From a (design) semiotics point of view, the latter case would raise fascinating questions about authorship and the manifestation of agency for non-professional designers, but that inquiry is beyond the scope of the current study.

The objects created throughout the series of workshops are statements by the participants, and thus, can be read through the lens of social semiotics. As mentioned above, in this specific context, the author stresses the importance of meaning-making *by* the participants, and therefore focuses on this aspect of semiotics and semantics. The template-based objects (in the case analysed here, a stool) are designed in order to create a blank canvas for the participants, as well as to overcome several technological and creative barriers. Rather than granting them a fully detailed design education course, the program focuses on taking smaller steps and aims at a success-oriented, affirmative process. The collection of objects designed specifically for the program include a mobile paper structure (reflecting on the interpersonal relationships of the participants), a small standing mirror featuring a pin board, a lightbox object (that can be customised with participants' personal features), a swinging stool (that can be personalised and equipped with additional storage), and a ladder shelf (which is designed to refer to the vanity desk as a prefiguration, but instead of featuring a mirror for beautification, it offers personal storage as an identity-building act). During the workshop series presented here, the stool was chosen from the above collection as the one item reflecting the group's needs in the most meaningful way. These needs were defined and articulated by the participants during the third workshop session in a spatial visualisation and mapping exercise, focusing on their immediate home environments and their positives and pain points. The stool was chosen based on the shared demand of this given group for personal placemaking within the home and shared domestic spaces (literally "a seat at the table," as one participant put it). In the case of other workshops, lightbox objects and storage shelves were also created based on the questions raised in those specific scenarios, bringing similar results in self-evaluation, which could indicate that the subjects of workshops show a lesser significance than the process of creation itself, but might be important for keeping up the motivation in participants through its relevance in their lives. In the context of the research, several design blueprints were created, such as storage items, chandeliers or an outdoor throwing game, but they have not been applied in the context of a FRUSKA workshop so far due to the lack of an appropriate age group or circumstances, but each of these blueprints represents a different complexity, functional specificity, or level of affordance for individual customisation.

Affordances, as Gibson defines them (1979), stem directly from observable properties of objects (or other phenomena). In the given female-centred context, these observable qualities of objects can differ from the ones registered in a different context: a "female gaze" on the environment and its furnishings is inherently different from the "male gaze" (i.e., a gaze with a western-centric, white, patriarchal set of values). The question of whether the objects described below fit into a design

canon (corresponding to a certain aesthetic or market position) can uncover the presence of othering and reinforcing existing stereotypes (Kóczé and Sardelic 2016). Contemporary western societies still produce a textual and discursive canon that determines the performance of Roma women, who are still considered a threat in most European societies (Kóczé and Sardelic 2016; Jovanović 2014; Matkowska 2021). As Kóczé and Sardelic state, "In some respects, the discourse on the Roma woman as unpredictable, transgressive and dangerous, or even as [an] evil witch, reflects on her perceived transcendent power over men." (Kóczé and Sardelic 2016) This stereotypical narrative also reflects the discourse that attempts to justify the delegitimisation and marginalisation of Roma women in their everyday lives. If we consider participants as actors or "bodies in space" (Hodge and Kress 1988, 52), their everyday life and acts should be considered as a baseline for the participatory design process in order to truly reflect on their actual needs. Consequently, several affordances can be observed in the given case. The template of the stool was selected based on a placemaking act, stemming from the participants' need to have dedicated, flexible spatial features in their crowded, loud, cohabited domestic spaces. The template offers the opportunity of a swinging motion that can be considered radical for an act of a Roma teenage girl. The stool offers the chance to create a swinging motion, but only one participant felt curious and playful enough to apply a rounded shape to the legs of the object (most of the participants declined this option due to the extra work it meant during fabrication and possibly due to the feeling of uncertainty it brought to the object's usage.) This playfulness is a significant element of the template design that addresses adolescence as the ambivalence and transition between childhood and adulthood. Since the target group is traditionally considered to display early maturation in their womanhood due to social expectations to perform adult behaviour and labour at home (Durst 2001), the chance to still embody the girl child without adult expectations is a significant act of rebellion.

The size and weight of the object afford easy transitions of function and spatial-territorial usage; it can be used individually or in a community. The way that the sitting surface transforms into a canvas for the self-expression of participants is radical in itself, bordering on minimalist maximalist design principles, a folk tradition and a contemporary manifestation of popular culture and personal accounts of social life. The presence of Roma girls and women, and traditional Roma images in public space have continuously challenged the concept of "respectability," as described above (Skeggs 2001, 17). Respectability is a central mechanism through which the concept of class has emerged and functioned as a gatekeeping mechanism ever since (Skeggs 2001, 2). The dilemma of whether it is possible for underprivileged female maker groups to attain respectability (and thus validation and canon-

isation) is present in the art and design world as well. There is strong policing in ideology and in the construction of gender expressions as well. According to Hodge and Kress, "gender messages can be installed by rules of etiquette […] The rule of verbal language is important but ancillary to the physical. Styles of dress, appearance and behaviour are overt enough to be strictly policed so that the ideological meanings they carry can be obligatory and ubiquitous." (Hodge and Kress 1988, 64)

During the workshops, participants demonstrated a certain amount of initiative and susceptibility to novelty, but understandably, they were also hesitant to make too many alterations to the given template. Despite being encouraged to feel free to change the shape of the stool radically, they tended to take small steps and gravitate towards rounding out edges and designing cut-out shapes instead of redrawing the entire structure. According to participants' oral feedback provided during the positional dialogues and feedback sessions, this was a conscious decision stemming from their social position where conditioning leads them to adapt and linger. The cut-out shapes used for gripping the stool were a significant territory of meaning-making for participants, as they were not only asked to draw these shapes, but cut them out with a handsaw as well, which requires serious dedication to their decisions of design. One participant cut out a heart-shape and the other three cut out rectangles, even though a simple round hole would have been the simplest solution.

Participants reported that these shapes represented important cultural symbols (heart) and shapes they are comfortable with, signifying the house or home (square). These symbols are both strongly connected to traditional female roles and representation, and can be interpreted in terms of Roma girls' life goals. As mentioned above, love, marriage and sexuality play a key part in the target groups' life narrative, as one of the most important opportunities for self-actualisation and creating "symbolic capital" (Durst 2001; Kovai 2018).

The colours used throughout the objects are red, green and yellow, which are often used in Roma pictorial tradition and clothing. The relatively small amount of data produced by the co-creation activity does not establish the causal connection between Roma traditions and the participants' design choices, but it is interesting to note that during the workshops, the girls talked about the specificities of their families and their own personal clothing and how different traditional wear is from their or their peers' clothing. Using traditional visual elements such as heart-shapes or floral ornaments as semiotic tools can be seen as a primal decorative tendency of adolescent's visual expression. On the other hand, the use of strong contrasts and geometric symbols instead of figures (animal or human) can rather be the result of a decorative, but visually not highly skilled education received in the common education system (Hortoványi 2018).

Another noteworthy feature displayed by one of the objects is the appearance of text. Van Leeuwen categorises this type of text usage as integration, when text and picture occupy the same space—"either the text is integrated in (for example, superimposed on) the pictorial space, or the picture in the textual space." (Van Leeuwen 2005, 14) In this specific case, one participant wrote her initials and the word "slave girl" on the sitting surface of the stool. This text, while poetically and politically very strong, is a direct reference to a Hungarian pop song from 2004 by L.L. Junior, a popular ragga/hip-hop musician of Roma origin. The citation of this particular song underlines very traditional gender roles and the structure of a heavily patriarchal family, while also suggesting the possibility of free will of the woman represented in the song. Additionally, it references the strong cultural significance of music in Roma traditions, a "racialisation" of musical traditions (Piotrowska 2013). Survey data show that in Eastern Europe, majority group members typically regard Roma musicality as a distinctive and positive attribute, and music tends to be an area of pride and positive representation among Roma youth (Kende, Hadarics, and Lášticová 2017). During workshop sessions, participants shared segments of their daily life as well as love life, and suggested similar tendencies as those described in the cited song. Therefore, the shapes and colouration used on the stool are further enriched with meanings from a culturally very significant musical inspiration. When reading the layered meaning behind this specific pop culture reference, we might consider it a metaphor for the participant's existential position. Hodge and Kress suggest that terms of speech are often called metaphors, "but what they express is a basic equation between the ordering of bodies and physical space and the relationships between persons and social space." (Hodge and Kress, 52) It is important to point out that creating simple pieces of furniture or homeware objects does not grant participants the skills for mastery in woodworking, nor is the program focused on technological achievement or professional design skills. Instead, the process and the objects created within reflect on the Beuysian potential of social transformation, focusing a creative practice "not on the static object with realised goals, but rather on actions and demonstrations that showed a readiness and adaptability to change." (Jordan 2013, 148) This means that the participants' creation and customisation of the objects manufactured during the process is an act of place-making and meaning-making, through which participants can experience what it means to plan, manifest and follow through with their intentions in a relatively structured way that grants them freedom of expression. Moreover, participants have gained skills that they can employ in other contexts as well: manual skills, technological skills, fine motoric skills, and appropriate language (of technology and of self-reflection), which can help them inhabit the world with more self-confidence.

CONCLUSION

Disenfranchised or marginalised groups can experience difficulties of proper representation, meaning making, or being recognised as bearers of knowledge. Social design has the ability to provide tools for these groups to shift said narratives and power dynamics, and gaining skills and building channels of communication through adequate creative processes can provide tools for growing agency.

Social semiotics is a field that highlights the importance of signifiers which are not restricted to speech, writing, and images, and which, by widening the media of expression, allows the articulation of different social and cultural meanings that might be more adequate to certain social groups whose voice is rarely heard.

The FRUSKA methodology presented in this essay attempts to provide tools for disadvantaged girl groups aged ten to eighteen for practicing and growing their agency through participatory, co-creation workshops based on social design principles (Kimbell 2011). The current study does not focus on the impact measurement aspect of the proposed methodology and therefore the effects of the workshop series are not presented here, and the effectiveness of the workshop's activities needs to be measured on an ongoing basis in the context of a longitudinal study. However, an outline of positive changes that were measured during participation is provided and a rather significant outcome is discussed, which is the meaning-making processes participants are engaged in. Through the participants' meaning making and their opportunity to practice control over their narratives, noteworthy observations can be made from a social semiotics angle. The design choices participants have made regarding the template objects are a direct blueprint of how they intended to shape their narrative and how they gained the tools to do so. Objects created during FRUSKA workshops were analysed through the lens of social semiotics considering gender and power relations, affordances (spatial and functional as well), textual elements and their additional layers, shapes and colours as tools for meaning making, as well as the general significance of decision-making through a design and manufacturing process.

The complex analysis of the FRUSKA workshop program, regarding both a methodological perspective and impact, requires a longitudinal study and analysis, which goes beyond the scope of current study, and is elaborated elsewhere. However, from a methodological perspective, social semiotics can be a valuable source of new approaches within design in general and particularly in social design, especially during participatory initiatives, as the viewpoints it provides are interdisciplinary and fully engage with different cultural meanings rather than a mainstream narrative.

REFERENCES

Aziz, Ayesha, Meenaz Shams, and Kausar S. Khan. 2011. "Participatory Action Research as the Approach for Women's Empowerment." *Action Research* 9 (3): 303–23.

Baer, John. 1998. "Gender Differences in the Effects of Extrinsic Motivation on Creativity." *Journal of Creative Behavior* 32 (1): 18–37. https://doi.org/10.1002/j.2162-6057.1998.tb00804.x

Clapp, Edward P., and Raquel L. Jimenez. 2016. "Implementing STEAM in Maker-Centered Learning." *Psychology of Aesthetics, Creativity, and the Arts* 10 (4): 481–91.

Cooper, Catherine R. 1999. "Multiple Selves, Multiple Worlds: Cultural Perspectives on Individuality and Connectedness in Adolescent Development." In *Cultural Processes in Child Development*, edited by Ann S. Masten, 25–27. Mahwah: Lawrence Erlbaum Associates Publishers.

Crenshaw, Kimberlé. 1989. "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Policies." *University of Chicago Legal Forum* 1 (8): 139–67.

Csernák, Janka, Rita Szerencsés, Lili Horváth, and Fanni Dés. 2023. *FRUSKA Handbook / FRUSKA Kézikönyv*, Budapest: MOME. https://api.mome.hu/uploads/MOME_IC_FRUSKA_Handbook_HU_91cc970a53.pdf

Czibere, Ibolya. 2012. *Nők mélyszegénységben. Személyes életvilágok és cselekvési perspektívák a mélyszegénységben élő nők mindennapjaiban*. Budapest: L'Harmattan.

Dietrich, Timo, Jakob Trischler, Lisa Schuster, and Sharyn Rundle-Thiele. 2017. "Co-designing Services with Vulnerable Consumers." *Journal of Service Theory and Practice* 27 (3): 663–88. https://doi.org/10.1108/JSTP-02-2016-0036

Durst, Judit. 2001. "»Nekem ez az élet, a gyerekek«: Gyermekvállalási szokások változása egy kisfalusi cigány közösségben." *Századvég* 22: 72–92.

Eckhardt, Jennifer, Christoph Kaletka, Bastian Pelka, Elisabeth Unterfrauner, Christian Voigt, and Marthe Zirngiebl. 2021. "Gender in the Making: An Empirical Approach to Understand Gender Relations in the Maker Movement." *International Journal of Human-Computer Studies* 145: 102548. https://doi.org/10.1016/j.ijhcs.2020.102548

Einhorn, Barbara. 1993. *Cinderella Goes to Market: Citizenship, Gender and Women's Movements in East Central Europe*. London: Verso.

Erikson, Erik H. 1968. *Identity: Youth and Crisis*. New York: W.W. Norton.

Gábos, András, Péter Szivós, and Annamária Tátrai. 2013. "Szegénység és társadalmi kirekesztés Magyarországon, 2000–2012." In *Egyenlőtlenség és polarizálódás a magyar társadalomban*. TÁRKI Monitor Jelentések 2012, edited by Péter Szivós and István György Tóth, 37-60. Budapest: TÁRKI. http://www.tarki.hu/hu/research/hm/monitor2012_teljes.pdf

Gibson, James J. 1979. "The Theory of Affordances." In James J. Gibson. *The Ecological Approach to Visual Perception*, 119–37. Boulder: Taylor & Francis.

Gregor, Anikó, and Eszter Kováts. 2019. "Work–Life: Balance? Tensions between Care and Paid Work in the Lives of Hungarian Women. *Social Science Review*, Special Issue in English, 7: 91–115. https://doi.org/10.18030/socio.hu.2019en.91

Grilo, André. 2017. "Why Semiotics Matters in Product Design." *Medium* (blog). July 3. https://andregrilo.medium.com/why-semiotics-matters-in-product-design-43ec49d11d04

Hartz, Liz, and Lynette Thick. 2005. "Art Therapy Strategies to Raise Self-Esteem in Female Juvenile Offenders: a Comparison of Art Psychotherapy and Art as Therapy Approaches." *Art Therapy Journal of the American Art Therapy Association* 22 (2): 70–80.

Havas, Gábor, and Ilona Liskó. 2005. *Szegregáció a roma tanulók általános iskolai oktatásában. Kutatás Közben 266.* Budapest: Oktatáskutató Intézet.

Hodge, Bob, and Gunther R. Kress. 1988. *Social Semiotics*. Cambridge: Polity.

hooks, bell. 1984. *Feminist Theory: From Margin to Center.* Boston: South End.

hooks, bell. 1994. "Feminizmus mint transzformációs politika." In *Férfiuralom: Írások nőkről, férfiakról, feminizmusról*, edited by Miklós Hadas, 98–105. Budapest: Replika Kör.

Hortoványi, Judit. 2018. "Cigány/roma és nem roma kamaszok 5-szimbólum rajzfeladatának összehasonlító elemzése." PhD dissertation, ELTE. https://edit.elte.hu/xmlui/bitstream/handle/10831/40650/Hortovanyi_Judit_disszertacio.pdf

Hughes, Katie. 2020. *Girls Who Build: Inspiring Curiosity and Confidence to Make Anything Possible.* New York: Black Dog & Leventhal.

Hussain, Sofia. 2010. "Empowering Marginalised Children in Developing Countries through Participatory Design Processes." *CoDesign* 6 (2): 99–117. https://doi.org/10.1080/15710882.2010.499467

IDEO. 2015. The Field Guide to Human-Centered Design. https://design-kit-production.s3.us-west-1.amazonaws.com/Field_Guides/Field+Guide+to+Human-Centered+Design_IDEOorg_English.pdf

Jordan, Cara. 2013. "The Evolution of Social Sculpture in the United States: Joseph Beuys and the Work of Suzanne Lacy and Rick Lowe." *Public Art Dialogue* 3 (2): 144–67. https://doi.org/10.1080/21502552.2013.818430

Jovanović, Jelena. 2014. "Romani Women's Identities Real and Imagined. Media Discourse Analysis of "I'm a European Roma Woman" campaign." Master's thesis. Central European University. https://eige.europa.eu/docs/84_HU.pdf

Junior, L.L. 2004. "Rabszolgalány." Track 3 on *Az én világom*. Skyforce. https://open.spotify.com/track/6z31fzgwnCH0g9t35EA6RL?si=dac990f5f9654dz

Kabeer, Naila. 1999. "Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment." *Development and Change* 30 (3): 435–64. Oxford: Blackwell.

Kende, Anna, and Anikó Illés. 2011. "Hátrányos helyzetű gyerekek jelen- és jövőképe." *Esély* 20 (4): 72–92.

Kende, Anna, Márton Hadarics, and Barbara Lášticová. 2017. "Anti-Roma Attitudes as Expressions of Dominant Social Norms in Eastern Europe." *International Journal of Intercultural Relations* 60: 12–27. https://doi.org/10.1016/j.ijintrel.2017.06.002

Kimbell, Lucy. 2011. "Rethinking Design Thinking: Part I." *Design and Culture* 3 (3): 285–306.

Kimbell, Lucy. 2020. "Double-Loop Social Design: An Introduction to Social Design and Design for Sustainability." University of the Arts London, Social Design Institute. https://www.arts.ac.uk/__data/assets/pdf_file/0028/265672/SDI_KImbell_4.3_tagged.pdf

Kimbell, Lucy, and Joe Julier. 2012. "The Social Design Methods Menu." http://www.lucykimbell.com/stuff/Fieldstudio_SocialDesignMethodsMenu.pdf

Kóczé, Angéla. 2012. "Research Subjects Should be Partners and Active Participants." Interview by Ursula Froese. OSCE (website). September 24. https://www.osce.org/secretariat/104271

Kóczé, Angéla, and Julija Sardelić. 2016. "Contesting Myths and Struggling Realities. Dangerous Women." https://dangerouswomenproject.org/2016/06/05/romani-women/

Kovai, Cecília. 2018. *A cigány–magyar különbségtétel és a rokonság*. Budapest: L'Harmattan.

Központi Statisztikai Hivatal. 2015. "A háztartások életszínvonala." https://www.ksh.hu/docs/hun/xftp/idoszaki/hazteletszinv/hazteletszinv15.pdf

Manzini, Ezio. 2015. *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. Cambridge: The MIT Press.

Matkowska, Justyna. 2021. "Representations of Romani Women in Contemporary Polish and Romani Literature." *Critical Romani Studies* 4 (1): 56–73. https://doi.org/10.29098/crs.v4i1.98

Meilstrup, Charlotte, Lau Caspar Thygesen, Line Nielsen, Vibeke Koushede, Donna Cross, and Bjørn Evald Holstein. 2016. Does Self-Efficacy Mediate the Association Between Socioeconomic Background and Emotional Symptoms among Schoolchildren?. *International Journal of Public Health*, 61 (4): 505–12.

Mikkelsen, Hilde Timenes, Kristin Haraldstad, Sølvi Helseth, Siv Skarstein, Milada Cvancarova Småstuen, and Gudrun Rohde. 2020. "Health-Related Quality of Life Is Strongly Associated with Self-Efficacy, Self-Esteem, Loneliness, and Stress in 14–15-Year-Old Adolescents: A Cross-Sectional Study. *Health and Quality of Life Outcomes*, 18 (1): 1–17.

Morris, Charles W. 1938. *Foundations of the Theory of Signs*. Chicago: University of Chicago Press.

NESTA. 2014. "Development, Impact & You: DIY Toolkit: Practical Tools to Trigger and Support Social Innovation." https://diytoolkit.org/media/DIY-Toolkit-Full-Download-A4-Size.pdf

Pilloton, Emily, and Kate Bingaman-Burt. 2020. *Girls Garage: How to Use Any Tool, Tackle Any Project, and Build the World You Want to See*. San Francisco: Chronicle Books.

Piotrowska, Anna G. 2013. "'Gypsy Music' as Music of the Other in European Culture." *Patterns of Prejudice* 47 (4–5): 395–408. https://doi.org/10.1080/0031322X.2013.846615

Schultz, Debra. 2012. "Translating Intersectionality Theory into Practice: a Tale of Romani-Gadže Feminist Alliance." *Signs* 38 (1): 37–43.

Shusterman, Richard. 2012. "Pragmatism's Embodied Philosophy: From Immediate Experience to Somaesthetics." In *Routledge Handbook of Body Studies*, edited by Bryan S. Turner, 34–48. London: Routledge.

Siposné Nándori, Eszter. 2020. "Novel Solutions in Poverty Alleviation in Hungary, with Special Regard to Regional Differences." *Theory Methodology Practice: Club of Economics in Miskolc*,16 (1): 41–52.

Skeggs, Beverley. 1997. *Formations of Class and Gender: Becoming Respectable*. London: Sage.

Taefi, Nura. 2009. "The Synthesis of Age and Gender: Intersectionality, International Human Rights Law and the Marginalisation of the Girl-Child." *International Journal of Children's Rights* 17: 345–76.

Tan, Edna, and Angela C. Barton. 2018. "Towards Critical Justice: Exploring Intersectionality in Community-based STEM-rich Making with Youth from Non-dominant Communities." *Equity & Excellence in Education* 51 (1): 48–61. https://doi.org/10.1080/10665684.2018.1439786

Thibault, Paul. 1991. *Social Semiotics as Praxis: Text, Social Meaning Making, and Nabokov's Ada*. Minneapolis: University of Minnesota Press.

United Nations. 2011. *Millennium Development Goals Report*. https://www.refworld.org/docid/4e42118b2.html

United Nations. 2015. *Transforming our world: the 2030 Agenda for Sustainable Development*. (General Assemby resolution A/RES/70/1.) https://www.refworld.org/docid/57b6e3e44.html

Van Leeuwen, Theo. 2005. *Introducing Social Semiotics: An Introductory Textbook*. London: Routledge.

Veselska, Zuzana, Andrea Madarasova Geckova, Beata Gajdosova, Olga Orosova, Jitse P. van Dijk, and Sijmen A. Reijneveld. 2010. "Socio-economic differences in self-esteem of adolescents influenced by personality, mental health and social support." *European Journal of Public Health*, 20 (6): 647–52.

Voigt, Christian, Elisabeth Unterfrauner and Ronald Stelzer. 2017. "Diversity in FabLabs: Culture, Role Models and the Gendering of Making." In *Internet Science*, edited by Ioannis Kompatsiaris et al., 52–68. Cham: Springer.

Vossoughi, Shirin, Paula Hooper, and Meg Escudé. 2016. "Making Through the Lens of Culture and Power: Toward Transformative Visions for Educational Equity." *Harvard Educational Review* 86 (2): 206–32. https://doi.org/10.17763/0017-8055.86.2.206

Whittle, Jon. 2014. "How Much Participation is Enough?: A Comparison of Six Participatory Design Projects in Terms of Outcomes." In *PDC '14: Proceedings of the 13th Participatory Design Conference: Research Papers–Volume 1*, 121–30.