

# How Children Find Their Way: Access, Adaptability and Aesthetics in the Organisation and Design of a New Children's Library

**Tonje Vold**

Oslo and Akershus University of Applied Sciences  
P.O. Box 4 St. Olavs plass  
N-0130 OSLO  
Norway  
Tonje.Vold@hioa.no

**Sunniva Evjen**

Oslo and Akershus University of Applied Sciences  
P.O. Box 4 St. Olavs plass  
N-0130 OSLO  
Norway  
Sunniva.Evjen@hioa.no

## ABSTRACT

The organization and presentation of books and media is a central part of accessibility in libraries, and a central part of the libraries' presentation of itself. Traditionally, this is based on specific classification schemes, categorization, and alphabetization, performed by trained librarians. This paper investigates a different approach in a children's library, where the children themselves have decided how books should be organized and displayed within the library, and try to identify what messages about childhood the organization, space and design convey. Our initial research suggests that the library's organization promotes serendipity as guiding principle. Giving control to the users signals a desire to empower children, and creating a sense of ownership. The space itself signals fun, but also a homeliness that support multifaceted use.

## Keywords

User interest categorization, library collections, library design, children's library services, user involvement.

## INTRODUCTION

In Scandinavia, a strong focus is on library services for children and youth, expressed both in reports, such as the Danish Future library services for children (Jessen, 2008), and through innovative library services, like the Swedish TioTretton library, which is exclusively for children between ages 10 and 13.

This year, Norway's first dedicated children's library, Biblo Tøyen, opened in March 2016 in a working class area of Oslo, for children and youth between the ages of 10 and 15. Biblo Tøyen is a targeted youth effort, and part of the city's

{This is the space reserved for copyright notices.}

*ASIST 2016, October 14-18, 2016, Copenhagen, Denmark.*

[Author Retains Copyright. Insert personal or institutional copyright notice here.]

program to revitalise an area that has been struggling with social issues for decades. The city of Oslo's library strategy, "Borgernes bibliotek" or "Citizens' library" (2014), professes the local library as an important agent in the social development of the city's local communities. The library is a branch of Deichman, Oslo's network of public libraries. However, its collection belongs solely to this branch, and its catalogue and lending system is separate from the rest of Deichman.

Biblo Tøyen consists of 600 square meters, 3,000 books and a range of different sections for reading, group work and socialising. A reference group of local children was involved in different stages of the planning process, including making the user interest categories. The shelves are moveable and the children can place and replace the books as they choose. The group emphasised that they wanted a place that belongs to them and which does not involve activities as such. What does this extensive use of user involvement entail in a children's library context?

This paper investigates the collection and spatial design of Biblo Tøyen, in terms of accessibility, adaptability and aesthetics, by combining insights from knowledge organisation and childhood studies.

## PROBLEM STATEMENT

Traditionally, the administration and organisation of libraries relied on set principles of knowledge organisation and retrieval, in order to ease the user's access to collections. The design of Biblo Tøyen, however, abandons many of the rules formerly taken for granted, when adapting to the users. In our paper, we will first explore the ways in which Biblo Tøyen challenges conventional principles of knowledge organisation, and then discuss what messages the aesthetic design of the library conveys about childhood and information.

## RESEARCH DESIGN AND METHODOLOGY

This paper initiates a longitudinal study of the public library at Tøyen in Oslo, and the change process in which it plays a part. In the study, we will explore these changes qualitatively over a four-year period. Our overall goal is to

see the changes in one given public library from the perspectives of its role in community building, current trends in library design and architecture, and the role the library plays in providing its users with information and cultural expressions. The project's empirical data come from four different sources: documents, key players, users and library design. A key dilemma this project will explore is the tensions that exist between a library's defined goals to play a part in the community, while serving as an independent meeting place for the 10–15-year-old age group, and as a key arena for its users to gather insights and pleasure from its collections and its activities.

Initial questions asked include:

- What are the expectations and expected outcome of the library development?
- How does the new library plan to cater “for everyone”?
- What were the challenges faced by the old library?
- What characterises the library space and library usage in this particular community?

This paper presents the outcomes of the first step in this project, where we investigated how the concept of information is played out in the context of the newly established branch targeting users between the ages of 10 and 15. The empirical data comes from central documents, i.e. central strategic documents describing the aims of the public libraries in Oslo in general and for Tøyen library in particular, and design drawings of the new branch, interviews with the director, and observations in the library. Our observations and hypothesis are discussed in dialogue with recent research and theories from library and information science and childhood studies. Before observations of the Biblo Tøyen branch in April 2016, which is the main source of empirical data for this paper, we singled out the following subjects and questions as the most germane:

- The collection and knowledge organisation:

When 10–15 year olds categorise books: How are books displayed? What labels are used? Which titles and genres become prominent/visible? Who selects (selected) the books and how?

- Place, activities, information:

What kinds of usage does the spatial design invite? Do the spatial and aesthetic design favour a particular user type? Is it possible to see who is included or excluded in this branch?

## LITERATURE

Kathleen R. T. Imhoff (2012) maintains that to ensure a successful building design, it is essential to incorporate “the

three As” of adaptability, accessibility and aesthetics into children’s library projects (Imhoff, 2012, p. 131).

For a long time, adaptability has been important when designing library space (Beard & Dale, 2010; Sinclair, 2007). For children and youth, there are some extra considerations. As Boon (2003) points out, if the library space is used by both teens and younger children, “it needs to be organised so that all the groups can function well and share it effectively” (p. 151). Ônal (2012) and Lamis and Gubbin (2012) share this notion. How does Biblo Tøyen create adaptable space for those aged 10 to 15?

Accessibility in the library is a key component of modern librarianship when it comes to the library space and the media it contains. However, for shelves to be truly accessible, the collection needs to be organised in a way that is understandable and meaningful to the users (Broughton, 2015). As Broughton explains, two fundamental principles govern classification: grouping and ordering. The former is based on a principle of division where members are grouped together based on a shared trait. The latter, ordering, decides which relationships should exist between groups, and determines the order in which the groups appear. Classification systems, such as the Dewey Decimal Classification (DDC), are the most common way in which to order a non-fiction collection. DDC is widespread and continuously updated, but it is not always translatable into other cultural and linguistic contexts (Kwaśnik & Rubin, 2003; Olson, 2000). Another common way of ordering material is reader interest classification, which is typically used in public libraries for special parts of the collection, for example, travel or cookbooks.

Library classification systems and typifications are commonly made by adults for adults. However, it can be argued that children think and reason differently than adults (Kiel, 1989; Piaget, 1958; Siegler, 1998). Consequently, if children think in a different way than adults, their information needs are different, as is their knowledge organization and information behaviour is different. Beak (2015) summarizes research on children’s knowledge organization. One feature of children’s classification that is different from adults is that they are less able to handle hierarchies. In addition, constructing relationships between concepts can be challenging, as children tend to think more situationally and experientially than conceptually. Quite a few researchers have studied children’s searching behaviour, including Borgman, Hirsh, Walter, and Gallagher (1995), Pejtersen (1997), Large, Beheshti, and Rahman (2002), and Druin (2005). Although children as young as seven can understand logical relationships, and older children can deduce abstract relationships based on hierarchical library schemes, they are unlikely to make use of such schemes and systems for information seeking. What is especially interesting with Pejtersen’s study is that it exemplifies how children classify differently than adults,

and how that should be considered when designing an online catalogue.

Cunningham (2011) explores how children select recreational reading in physical libraries and bookstores. She observes that younger children (preschool and elementary school) are serendipitous in their selection process, while older children are more aware of their own taste and the organisation of the library or bookstore, and become increasingly methodical as they grow. Cunningham also found that the book's cover design is very important, both as a "teaser" and as a reminder of what they have read previously. The social aspect of selecting reading material is also important, and recommendations from parents, siblings, friends, teachers/librarians or others often influence what children will select or seek out. Normally, when visiting a library or a bookstore, the child is with his or her parents or others adults, which influences both the length of the visit and the books or media the child selects. However, Cunningham notes that children do enjoy taking charge of their own reading choices. These findings are especially interesting when we compare her observational context with that at Biblo Tøyen. Our exploration of the knowledge organisation and presentation in this physical library space creates a different context for the users, and can potentially influence their book selection process.

Serendipity, the faculty or phenomenon of finding valuable or agreeable things not sought for (Serendipity, n.d.), is often discussed in an information-seeking context. Foster and Ford (2003, p. 321) note that "serendipity" is something of a paradoxical concept", because of its elusive, unpredictable nature, and because it is both highly valued and difficult to understand and 'use' as a conscious information-seeking strategy – at least at first sight. Cooksey (2004) claims that serendipity is merely the result of people and systems preparing 'behind the scenes' for such discoveries to happen. Librarians, she says, do not make the connections that create serendipity, but certainly help set the scene for others to make such discoveries. Björneborn (2008) explored how components in the physical library space could affect serendipity through an explorative study. User behavior was described as either convergent (goal-oriented) or divergent (explorative), but included cross-over behaviour. The study identified several identifying components of serendipity, including easy access, diversity, multi-reachability, explorability and stopability. Because Biblo Tøyen organises its collection differently than many other libraries, shelving fiction and non-fiction literature together, serendipity is an interesting perspective on the accessibility of the collection. Information seeking might not be the primary concern of this library's users, but they could still end up making unintended discoveries, potentially both valuable and agreeable.

From another perspective, research about childhood and daily life spaces explores the access children have to public spaces and how they adapt them to their own needs. What

role does library design play in motivating children to use the library space and library material? To understand children's use of library space, we need to understand the children's social practices, their daily life contexts (their family and local communities) and the ways adults, and in particular, the professionals construct their visions and versions of childhood. In this context, we limit ourselves to investigating how the library communicates its message of information and childhood from its spatial organisation, and with reference to the cooperation between the library and the target group in designing the new space.

The Swedish project, *Förskolan i omvandling och en ny barndom* (Preschool in change and a new childhood), has made significant contributions to theorising and analysing interactions between children, culture and designed and not designed places. The Danish report on children's future library service (Jessen, 2008) used the following concepts to describe the library's function: a place to learn, a place to stay and a place to create (*lærested, værested og værksted*) (Rasmussen & Jochumsen, 2010, p. 215). Increasingly, libraries legitimise themselves in terms of being community meeting-places and maker-spaces. For Rydsjö, Hultgren and Limberg (2010), these functions correspond in particular to a view of children as the learning child and the acting child, and, importantly also presumes a reflecting and acting librarian.

The children's library is a place shared by children, parents and staff. Of course, this may present conflicting ideas of what the library is: somewhere where the family can supply themselves with books, an institution serving the community, a place to read and play, etc. For each of the groups, a certain role is in play; parents and children need to learn the rules of the library, while the staff will form the library in accordance with their own perceptions of their professions. The library is often one of a few places where children separate from their parents and where they need to trust professionals who are strangers to them. Moreover, this is a place where children interact with known and unknown other children. Norms about accepted behaviour within this space is under negotiation: where one group sees chaos, another will see order; where one group tends to feel at home, another may experience exclusion.

The studies discussed above show how children's input and observed behaviour help adapt digital systems to their needs, thus enhancing accessibility. However, they say very little about accessibility in the physical library space – and nothing about the aesthetic design – whereas we believe the aesthetics are an integral part of any decision made concerning a given library space and its elements, and plays a crucial role in how users relate to the library, although the topic is not made explicit.

## FINDINGS

### Collection and organization

The collection consists of 3,000 books, put together as a special collection by a group of librarians from the public libraries in Oslo. Thirty-two shelves hang from the ceiling on wires, which can and shall rotate. The staff use a handheld scanner to search and find content on each shelf, and they may use the data program to indicate where the book is at any given point. This information is registered on each book. The users have an electronic ID card where loans are registered, as well as the time they spend in the library. This creates statistics on which groups of children use the library most, at what time they prefer to be there, etc. The users are free to stack the book they have read on whatever shelf they find convenient.

At Biblo Tøyen, staff cooperated with a class of 13-year-olds at one of the local schools in order to find their own way to organise the books. In all, the library displays 32 shelves, each presented with a sign indicating the theme and genre one can find there. In addition, the group was asked to recommend books to “someone who didn’t know why it should be read”.

When we documented the organisation of the books shortly after the library’s official opening, the collection was organised into 20 traditional and non-traditional categories. Ten categories are common topic categories, such as sports, animals, food, or genre-based, including fantasy, romance, thrillers or murder and mystery (indicating crime). The other 10 are less common, and perhaps more ambiguous: fun and nonsense, super hits, just like that, forbidden for adults, dramarama, will change your life, gives you goosebumps, do something, short and sweet, and Biblo special. Fifteen of the 32 shelves are dedicated to the traditional categories or genres.

Of course, one may categorise “fun and nonsense” under the label “humour”, and “gives you goosebumps” under “thrillers”. Since the users are responsible for putting the books back on the shelves, they can put them where they think the titles belong; for instance, the book about the Swedish football player Zlatan may end up categorised in “sports”, “super hits”, “just like that” or, why not, “gives you goosebumps”! One of the most interesting categories is the “Biblo special”, where there is no obvious pattern between the titles placed on the shelves. Here, we find books for adults and youth, bestsellers and less known titles, cartoons and novels, crime fiction and romance. The sign nevertheless signals that this shelf is particular to the Biblo, and we interpreted the shelf as a recommendation service, highlighting certain titles as the best in their genre. The way this shelf, at least at the moment we observed it, is situated in a corner with deep chairs, supports this interpretation as it signals a good read.

The system in which the collection is registered and described is also something different. Instead of using the Deichmanske library system, Biblo Tøyen has its own,

“homemade” system, designed and built by computer-savvy teens, who constructed it for free in their spare time. The library manager describes it as a basic system, but with the features necessary for Biblo Tøyen.

### Place, Activities, Information

Inside the library, it is quite dark. The 600-square meter room only has windows by the entrance, which is beneath another building, obstructing sunlight into the library. The walls are decorated in an oil-colour palette: grey, purple, blue, and brown are the dominant colours.

Redesign marks the interior. Old furniture, floorboards, cars and ski gondolas have a new purpose in the library. When you enter, what first attracts your attention is the workshop car in the centre. There is a small platform to the right of the entrance with chairs, one barbershop chair and the head of an antelope. You have to remove your shoes as you come in, and the coatrack is a giant wooden moose. Graffiti walls showing leopards and elves surround a stage made of old gym floors. A lorry transformed into a kitchen doubles as a reading or homework area. Cave-like structures appear along the side of one wall, decorated in purple and blue, creating hideaways for reading. Between these nests and the kitchen bus is a small hallway with deformed mirrors on both sides – the selfie corridor. A London phone booth marks the passage between the library space and the staff offices. At first sight, one could perhaps think one was entering a technical museum or an activity space of some kind. The library manager says that the space is a work in progress. “We do not know how it will work”, he says, and explains that they will remove anything not used to create space for other elements.

The books are not the most prominent when you enter this library space. The bookshelves stand alongside the walls under signs marked with categories. None of the shelves are full; they are spacious and leave room for cover displays. Traditional expositions of books, tables with new titles, etc., are not dominant. Instead, one notices that there are books and journals seemingly placed at random on sofas and chairs. Studying the topics on the shelves, categories indicating mystery/fantasy/crime comprise seven of the 32 shelves. Apart from that, no one genre or topic dominates.

Titles for adults are, for the large part, missing, although certain books are crossovers, such as Tolkien’s *Lord of the Rings* or Saint-Exupéry’s *Le petit prince*, and there is the occasional exception, like *Munch* by Steffen Kverneland, a cartoon biography for adults. The library manager emphasises that the collection will grow, perhaps with a 1,000 more titles in the coming year. They want a collection that is in use, and will develop tools so users can easily recommend titles to each other on the smart boards.

Papers and notes may use color figures, which are included in the page limit; the figures must be usable when printed in black and white, but you can take advantage of the fact that

many readers will be accessing and reading your paper on the screen.

## DISCUSSION

How can we understand the philosophy and purposes of this library from how it presents itself, which is by the visual aspects of its informational and spatial design? What can we learn from the library's strategies, and does the layout implicitly target a specific kind of user?

In libraries, collections are traditionally organised alphabetically (fiction), or by classification systems (non-fiction) on the shelves. There are and have been exceptions, not least in children's departments, where user-interest categorisation is quite common. There are also many examples of users invited to give input into categorisation or the creation of digital systems, as Pejtersen (1997) describes. However, giving users *carte blanche* to organise the books on the shelves is something rather unique to Biblo Tøyen. This challenges the expertise of the librarians and, hence, how libraries usually work. As this library is one of a kind, has no librarians working there, and it is not part of the common inter-lending system of the Oslo public libraries, it is presently an arena for experimentation, and testing and trying is the *modus operandi*.

Whereas it is the organisation and order of the bookshelves in traditional libraries that make them serve as a point of dissemination, at Biblo Tøyen, the function of the shelves is based on serendipity – and not serendipity as facilitated by librarians, but serendipity based on chance and the influence of library patrons. The fact that users can place and replace books based on their taste, logic or mood, creates a sense of unpredictability that libraries do not usually have – nor encourage. In addition, the employees at Biblo Tøyen place reading material on chairs and sofas, with the intention that users will think it was randomly put there or forgotten by someone, and will pick it up despite the fact that they didn't search for it. That this disorder does not turn into complete chaos is due to the employees who, using handheld scanners, easily retrieve the books on any shelf by radio frequency identification (RFID) in a collection of limited size.

The rotating shelf system also provides serendipity, making the users look at the collection from a slightly different angle each time they visit. In view of what Broughton (2015) says about the principle of open access – that in order to be accessible, the organisation of the collection has to be meaningful to the user – this poses a potential challenge. Although input from potential users forms the basis for the categorisation, it is perhaps mostly designed for those not looking for a particular title.

One may ask whether any library would emphasise serendipity in the same way for adults or for other kinds of collections, other than one that consists of children's literature and mainly fiction; and, if not, why don't the counter arguments apply here. The library design seems to

underline the idea that an element of surprise in the layout enhances recreational reading. However, children reading fiction may also have their favourite authors, genres or themes that they may want to know where to find. Looking all over the place for a given title may also be frustrating for children, and might even make them more dependent on help from working adults to find the books they want. As children grow, they do become more methodical, and the element of surprise might become less important/interesting/intriguing. The sole reliance on serendipity as a guiding principle for discovery clearly caters for the undecided user, more than those entering the library with a precise information need. The library's ambition to cater for all may be somewhat reduced in order to cater for this particular user. It clearly contradicts Cooksey's (2004) view that serendipity is the result of librarians as facilitators, and a well-built system 'behind the scenes'. Still, the interior of Biblo Tøyen contains several of the components Björneborn (2008) identified as important for serendipity to occur, like diversity, explorability, and stopability.

However, one may consider the children's freedom to organise the collection as an aspect of improving the previous information order of previous loaners or staff. Children may also become more conscious about what they have just read: Is this particular book best described as a romance, a cartoon, or something forbidden to adults? In part, one can also regard the freedom to organise as part of a recommendation system between the children themselves. Even more evident is the message about empowerment, letting go of parental, adult and the librarian's control.

As Cunningham (2011) found, children are much more serendipitous in their book selection process than adults, so serendipity as a governing principle for 'bookshelf dissemination' does make sense in this user segment.

Traffic objects, graffiti, steel and dark colours – do these aesthetic design choices imply that the library addresses boys rather than girls? Taking into consideration that this age group has passed the 'pink phase' of girls' lives, we think not. The dominant colours in use vary from dark grey to purple, to blue and orange, and transcend the stereotypical gendered outlook. The library does not signal which gender group should use the various activity spaces. The kitchen is in a transformed lorry and the workshop in a very sweet-looking, orange bus. Rather, the palette, the graffiti, the traffic-objects and phone booth mirror the urban setting outside of the library. The library presents itself as a fun, children-friendly version of the at times rather hostile outside milieu.

The unusual categories written on the shelves signal how children have been involved in the planning of the library space. Using categories made by potential users, and letting the children themselves decide where the books belong, sends a clear message that this library is not just designed for, but by its users. Whether or not the users consider this

in their daily use of the library, we do not know, but it has the potential of creating a sense of ownership and belonging. A bottom-up approach to children's libraries is not new, but it continues a postmodern tradition of empowering children, abandoning traditional rules and norms, and saying there is no one right answer.

From a social point of view, involving children in planning and in programming the use of the library is a form of community engagement, as the targeted children come from the schools in the area, and are the ones the library intends serving. By taking its user group seriously and keeping all other adults out, the library posits itself as a place where professional adults and local children own the library together. Ayub Khan (2009) presents the stages of involvement in planning and designing a new library in his model of community involvement. Khan distinguishes between consultation and involvement, where the first signifies a one-time activity, and the second is an ongoing commitment. He "shows the ways in which community engagement works as a continuum through the building's inception and whole life, and provides examples of ways in which this is achieved" (Khan, 2009, p. 78). In the model, 'providing information' signifies the weakest degree of involvement of the local community and 'community' the strongest degree. The informing stage, 'providing information', is exemplified through activities such as publicity to promote the new library, while 'community' indicates 'empowerment', such as when the community "takes the lead in planning and delivering the new service" (Khan, 2009, p. 79). The stages between these two are gathering information, interaction, and engaging empowerment. If we place Biblo Tøyen in this continuum, as it stands today, we can describe the level of involvement as between the two last stages. Partly, the involvement can be characterised as 'engaging empowerment', where examples of such practices include "formal arrangements – user groups actively involved in library development" (Khan, 2009, p. 79), and partly 'community', as users have taken the lead concerning the construction of the database now in use and have a strong hand in organising the material.

In its efforts to engage empowerment, Biblo Tøyen is somewhat similar to the famous Dutch Library of 100 Talents. This library's philosophy finds its roots in the Reggio vision and in Howard Gardner's theories of the eight forms of intelligence (Bertrams & Mosch, 2012). Loris Meguzzi worked with children and parents to describe the 100 languages of children as constitutive of the ways children express themselves. (Bertrams & Mosch, 2012). Gardner's theories were crucial inspiration for the Library of 100 Talents (Bertrams & Mosch, 2012, pp. 122–124). Gardner's eight forms of intelligence include linguistic, logical-mathematical, musical, bodily-kinaesthetic, naturalist, spatial, interpersonal, and intrapersonal intelligence (2012, pp. 122–124). Conventionally, a library may be associated with stimulating the linguistic

intelligence of the child, but Biblo Tøyen clearly stimulates the development of many of the other facets, too, when engaging their users in making crafts, performing music on a stage, talking to each other privately, and organising the material. At Biblo Tøyen, the children also contributed to determining the design, although not to the same degree as in Holland.

The spatial design of Biblo Tøyen clearly underlines its function as an arena that develops the child's intelligence in all its complexity. Shelves with wheels enable serendipity as described above. Furthermore, from a professional perspective, it is a useful way to offer new activities within the same space and limit space in new ways (Imhoff, 2012; Lamis & Gubbin, 2012; Ónal, 2012). Summarising the lessons from building a teen's library in Jacksonville, Lamis and Gubbin (2012) say: "Be mobile – be flexible. (. . .) If we were to reconfigure the space today, we would put as much as we could on wheels to make it mobile and flexible" (Lamis & Gubbin, 2012, p. 90). Also, Imhoff (2012) underlines this aspect, saying "adaptability and flexibility in children's space is increasingly important when planning a new library building or remodeling an old one" (Imhoff, 2012, p. 132). She recommends shelves on wheels, moving glass doors, and multi-purpose shelves and boxes at an appropriate height to make the space usable in various ways.

Furthermore, the flexible structures mimic how playing children construct their own spaces, allowing them to adapt the space provided by adults and institutions to their own social needs and their own sizes. Childhood studies show how children create their own places through the use of their everyday arenas and by limiting their space (Halldén, 2010). When children make their own spaces, it is often part of their social life and friendship culture. It gives children freedom to appear as they have defined what may happen there, and enables them to form their own culture. The cave-like spaces in Biblo, in particular, mirror the smaller spaces, or 'nests', that children often make and which have important functions as places to share with other children (Halldén, 2010, 203). The caves are ready-made nests, which may be valuable for the youngest users. They also facilitate the preferable teen position, the group laying on a comfortable couch, and therefore present themselves to the users as welcoming and already-adapted spaces. The gondola wagons are closable, and although the children are visible through the glass windows, they afford them privacy in the middle of a public space. The room, thereby, offers many options for the user to be social-yet-private, in a group or all alone, and to choose whether or not they wish to have their voices heard. Finding reading material on the sofas and chairs, apart from supplying the child with books, gives the child the impression that this space is for recreation and relaxation, and creates a homey atmosphere.

By providing a number of possible ways to organise reading material and space within the same library room,

Biblo Tøyen may stimulate children's musical, bodily-kinaesthetic, spatial, interpersonal and intrapersonal intelligences. The flexible structures at Biblo Tøyen testify to updated and conscious planners who think ahead about practical solutions for the use of library space. More than this, it signals a library that is not set once for all, where children have the freedom to draw their own borders, to withdraw from or expose themselves to others, to relax, work and play in a number of ways.

## CONCLUSION

Returning to our problem statement, what messages, then, does the aesthetic design of Biblo Tøyen convey about childhood and information?

By creating a library space that signals fun, interaction and concentration, and highlights urban factors, the library seems to present itself to its users in this particular community as a sanctuary for learning and playing, and a home a few steps from home. The strongest impressions of childhood that come from reading the library space is conceiving it as associated with play, joy and freedom. This is, perhaps, at first glance not so radical. Already in the 1960s, the Scandinavian countries acknowledged children's culture (the culture children make themselves) as important for cultural politics, and in the Nordic conference, "Barn och kultur" (Children and Culture), in 1969, children's culture was recognised as a goal in itself, not a tool for education (Tveit, 2015, pp. 44–45). However, currently organised activities increasingly occupy children's leisure time (Frønes, 2011). In Norway, children start school a year earlier than the previous generation, and school starters should already know the alphabet when they begin. Increasingly, schools are measuring pupils' results in detail, and more children are coming to healthcare facilities with stress-related illnesses (Dommerud, 2008). In addition, we are witnessing an increase of depression in the young population (Folkehelseinstituttet, 2014). In this context, the library stands as an alternative vision of childhood where children's freedom is celebrated. Furthermore, a report by Medietilsynet shows that 45% of the 12- to 14-year-old respondents and 50% of the 15- and 16-year-old respondents said they would like to use more time reading books and magazines (Medietilsynet, 2014). The same report indicates that the youth think they spend too little time meeting their friends in person, and too much time on the Internet. With this information, the library may want to consider downplaying the planned, adult-initiated activities in the library to secure the vision of childhood as presented at its opening, and continue to provide children with a meeting place and reading material. On the other hand, organised after school activities are not free for all, and the degree to which children's time is organised reflects their parents' income. While a good proportion of the children in this particular neighbourhood take part in such activities, many do not have this option. The fact that the library organises events and makes available spaces for organised activities may also be valuable. To check the reference

group's report on their needs against the opinions of other children in the area is important.

The design of Biblo Tøyen signals an understanding of information as fluid, democratic and something that comes in many ways. The library presents information as a multifaceted phenomenon, not simply stored in books or computer files, but also as tangible, makeable and doable. The way the library material is organised by children for children, the way the books are displayed, and the constant shifts that may occur, both by those returning and shelving the books, as well as the revolving shelves, send this message. The library promotes a serendipitous approach to retrieval, and hands over the power from the professionals to the children. We recognise that this approach might work best in the confines of recreational reading and at a library with a limited collection. How successful this will be depends partly upon whether or not children will be frustrated or inspired by not finding a given book and finding a book not sought for.

In addition, the messages we read in this library speak about democracy and empowerment: as the library keeps all other age groups out, it gives the space to those between 10 and 15 years old to use it as they please within certain limitations. Having a location to use as they please in an area with limited living space is particularly valuable. Moreover, it comes with rights and responsibilities; the rights include various uses and the responsibility to keep order. In addition to the potential for empowerment which any kind of learning holds, we consider it potentially empowering to experience a clear political prioritisation of this kind as a group, to be involved as a community in planning and maintaining the library, and to own a room of one's own in the middle of a capital city.

The implications of our study are twofold. First, by involving children in the planning of a library branch, one creates room for new discoveries rather than for the conventional order in the libraries. For those responsible, this creates new needs for retrieval systems and an adaptable mindset. Second, in order to cater for children, one needs to take into careful consideration the demographic structures of the context. In a situation where children's leisure time is organised to a high degree, many children will appreciate a place where they can simply be without doing anything particularly in accordance with a librarian's visions. Maintaining contact with the users, and learning what they want and need, will be crucial, in addition to starting a dialogue with non-users in the target group to understand what is hindering their participation.

One solution to cater for all is perhaps impossible to find. However, in conclusion, we suggest that new libraries' spatial designs should leave room for unorganised activities, be accessible, adaptable, and aesthetically appealing, and invite various kinds of activities. Not only so children can find their way, but so they can also lead it.

## ACKNOWLEDGMENTS

We would like to thank the staff and administration at Deichmanske library for letting us explore the library developments at Tøyen. We would also like to thank our colleagues at OAU for their input and feedback.

## REFERENCES

- Beard, J., & Dale, P. (2010). Library design, learning spaces and academic literacy. *New library world*, 111(11/12), 480–492.
- Beak, J. (2015). Ontology of knowledge organization for Children. In: R. Smiraglia and H.Lee (eds), *Ontology for knowledge organization* (pp. 132-159). Würzburg: Ergon Verlag.
- Bertrams, K., & Mosch, M. (2012). “Here you can go everywhere you want, sort of . . .” Building a new children’s library, the Library of 100 Talents. In I. Bon et al. (Eds.). *Designing Library Space for Children* (pp. 118-130). Berlin: Walter de Gruyter GmbH & Co.
- Bjørneborn, L. (2008). Serendipitetsfaktorer og brugeradfærd på det fysiske bibliotek. *Dansk Biblioteksforskning*, 4(2), 41-54
- Black, A., & Rankin, C. (2012). The history of children’s library design: Continuities and discontinuities. *Designing Library Space for Children*, 7–38.
- Boon, L. A. (2003). Designing library space for children and adolescents. In G.B. McCabe & J.R. Kennedy (Eds.). *Planning the Modern Public Library Building*, 151-161.
- Borgman, C. L., Hirsh, S. G., Walter, V. A., & Gallagher, A. L. (1995). Children’s searching behavior on browsing and keyword online catalogs: The Science Library Catalog project. *Journal of the American Society for information Science*, 46(9), 663.
- Broughton, V. (2015). *Essential classification*. London: Facet publishing
- Cooksey, E. B. (2004). Too important to be left to chance—Serendipity and the digital library. *Science & Technology Libraries*, 25(1–2), 23–32.
- Cooper, L. Z. (2002). Methodology for a project examining cognitive categories for library information in young children. *Journal of the American Society for Information Science and Technology*, 53(14), 1223–1231.
- Cunningham, S. J. (2011). Children in the physical collection: Implications for the digital library. *Proceedings of the American Society for Information Science and Technology*, 48(1), 1–10.
- Dommerud, T. (2008, 13th of November). Advarer mot stress blant de yngste. *Dagens medisin*. Retrieved from <http://www.dagensmedisin.no/artikler/2008/11/13/advarer-mot-stress-blant-de-yngste/?x=MjAxNi0wNi0yMyAxMDoINDoyMA>
- Druin, A. (2005). What children can teach us: Developing digital libraries for children with children 1. *The Library*, 75(1).
- Folkehelsinstituttet (2014). Helse hos barn og unge. Helse i ulike befolkningsgrupper. Retrieved from <http://www.fhi.no/nettpub/hin/helse-i-ulike-befolkningsgrupper/helse-hos-barn-og-unge---folkehelse/#utfordringer-og-muligheter-for-forebygging-og-helsefremming>
- Foster, A., & Ford, N. (2003). Serendipity and information seeking: An empirical study. *Journal of Documentation*, 59(3), 321–340.
- Frønes, I. (2011). Moderne Barndom. *Tidsskriftet Norges barnevern*, 2011, 88(02), 111
- Halldén. G. (2010). Förskolan som plats för barn och barnens sätt att göra denna plats til sin. In R. K. Rydsvjö et al. (ed.). *Barnet, platsen, tiden. Teorier och forskning i barnbibliotekets omvärld* (pp 195-212). Stockholm: Regionbibliotek Stockholm
- Imhoff, K. R. T. (2012). Children’s spaces from around the World. In I. Bon et al. (Eds.). *Designing Library Space for Children* (pp. 131–144). Berlin: Walter de Gruyter GmbH & Co.
- Jessen, C. (2008). *Fremtidens biblioteksbetjening af børn*. København: Styrelsen for Bibliotek og Medier. Retrieved from [http://www.bs.dk/publikationer/andre/fremtidens/pdf/fremtidens\\_biblioteksbetjening\\_af\\_boern.pdf](http://www.bs.dk/publikationer/andre/fremtidens/pdf/fremtidens_biblioteksbetjening_af_boern.pdf)
- Keil, F. (1989). *Concepts, kinds, and cognitive development*. Cambridge, MA: MIT Press.
- Khan, A. (2009). *Better by design. An introduction to planning and designing a new library building*. London: Facet Publishing.
- Kwaśnik, B. H., & Rubin, V. L. (2003). Stretching conceptual structures in classifications across languages and cultures. In: *Cataloging & Classification Quarterly*, 37(1-2), 33–47.
- Lamis, A., & Gubbin, B. A. B. (2012). Programme: Jacksonville Public Library children’s and teens’ libraries. In I. Bon et al. (Eds). *Designing Library Space for Children* (pp. 83–94). Berlin: Walter de Gruyter GmbH & Co.
- Large, A., Beheshti, J., & Rahman, T. (2002). Gender differences in collaborative web searching behavior: an elementary school study. In: *Information Processing & Management*, 38(3), 427–443.



- Medietilsynet (2014). Barn og medier. Barn og unges (9-16 år) bruk og opplevelser av medier. Retrieved from [http://www.medietilsynet.no/globalassets/publikasjoner/2015/rapport\\_barnogmedier\\_2014.pdf](http://www.medietilsynet.no/globalassets/publikasjoner/2015/rapport_barnogmedier_2014.pdf)
- Olson, H. A. (2000). Difference, culture and change: The untapped potential of LCSH. *Cataloging & Classification Quarterly*, 29(1-2), 53–71.
- Ônal, I. (2012). Building excellent libraries with and for children. In I. Bon et al. (Eds.). *Designing Library Space for Children* (pp. 65–82). Berlin: Walter de Gruyter GmbH & Co.
- Pejtersen, A. M. (1997). Subject access to Scandinavian fiction literature: Index methods and OPAC development (No. 608). Nordic Council of Ministers.
- Piaget, J. (1958). The growth of logical thinking from childhood to adolescence. *AMC*, 10, 12.
- Rasmussen, C. H. & Jochumsen, H. (2010). Från läsesal til levande bibliotek – barn, ungdomar och biblioteksrummet. In R. K. Rydsjö et al. (Eds.). *Barnet, platsen, tiden. Teorier och forskning i barnbibliotekets omvärld* (pp. 213-240). Stockholm: Regionbibliotek Stockholm
- Rydsjö, K., Hultgren, F., Limberg, L. (2010). Det samtidiga barnbiblioteket – ett bibliotek i barnens tjänst. In R. K. Rydsjö et al. (Eds.). *Barnet, platsen, tiden. Teorier och forskning i barnbibliotekets omvärld* (pp. 271-286). Stockholm: Regionbibliotek Stockholm
- Serendipity. (n.d.). Retrieved April 17, 2016, from <http://www.merriam-webster.com/dictionary/serendipity>
- Siegler, R. (1998). *Children's thinking*. Englewood Cliffs, NJ: Prentice-Hall.
- Sinclair, B. (2007). Commons 2.0: Library spaces designed for collaborative learning. *Educause Quarterly*, 30(4), 4–6.
- Tveit, Å. K. (2015). Barnekulturens veier i politikk, estetikk, forskning og formidling. In H. Ridderstrøm, & T. Vold (Eds.) *Litteratur- og kulturformidling. Nye analyser og perspektiver*. Oslo: Pax, 38–55.