

# Architecture as Material Discourse: On the spatial formulation of knowledge and ideals in four library extensions

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## **Abstract**

In recent decades libraries have been challenged in many ways, perhaps most pointedly by the digital revolution. This is, however, not the first time – a series of booms in library architecture emerging rather when knowledge ideals are challenged than established allows us to discuss library architecture more clearly as investigations into what knowledge, learning and literature could be rather than as expressions of what knowledge, learning and literature is. These questions are complex and multifaceted and require both careful examination of architectural proposals and works and a step back to analyse the propositions they make through their formulations into architectural form. Utilizing four public library extensions in Sweden, of which three have been built and one has been rebooted, and competition and parallel commission proposals for their making, this article discusses how ideas of libraries, knowledge, and literature emerge through the mediation of programme, collections, activity, and visitors in interaction, related to other aspects of architectural form. Building on a series of empirical findings of correspondences between use patterns of libraries and spatial configuration, the article takes this discussion further into what this means for a discussion of architectural principles, ideals, and propositions.

## **Keywords**

Architecture, Architectural competitions, Library architecture, Space Syntax, Spatial configuration.

## 1. Introduction

In an interview in the Architectural Magazine *RUM* in 2011, Annette Gigon discusses the practice of building as a way to understand the world (Singstedt, 2011). Set in relation to a series of booms in library architecture, when they have appeared and the discussions around their creation, this statement seems to make an important point even if it does not specifically relate to it. It allows us to discuss library architecture more clearly as *investigations into what knowledge, learning and literature could be* rather than as *expressions of what knowledge, learning and literature is*. This also makes it easier to understand, one might argue, how come libraries have often been built not in situations of stability in the views of knowledge (or the degree of literacy; c.f. Markus, 1993; Bennet 1995), but in situations where such is challenged or under radical transformation.

The recent boom in the so-called 'western world', extending back to the 1990s and tapering off somewhat after 2010 with some notable exceptions, has taken place in a situation where not only knowledge is under transformation, but libraries and books as such have been under attack through the advent or in the wake of the 'rise of the network society' (Castells, 1996) and the growing influence of digital media (Gillespie, Boczkowski, & Foot, 2014; Niegaard, 2011; c.f. Bruijnzeels, 2008; van der Velden, 2010). This has in many parts of the world taken the form of a wide range of investments made to build large, central public libraries (c.f. Roth, 2011). While some of these projects have been about radical transformation of the very idea of 'libraries', most have largely operated within a paradigm of large institutional buildings and within the frameworks of alterations of a typology. Internationally we have examples such as the Bibliotheca Alexandrina (Snøhetta, 2002), Sendai Mediatheque (Ito, 2001), Amsterdam Public Library (Jo Coenen & Co, 2004), Seattle Public Library (OMA, 2004), Chilean National Library (A & F Architects, 2009), and the Rolex Learning Center (Saana, 2009), amongst many others. In Scandinavia it includes the Culture House and Li-

brary in Copenhagen (COBE, 2010), Urban Mediaspace in Århus (schmidt hammer lassen, 2014), Halmstad Library (schmidt hammer lassen, 2006), and the City Library in Turku (JKMM, 2007), to name a few. Partially, this is a response to a general perception of an attack on and commercialisation and privatisation of public space (Zukin, 1995; Kärrholm, 2014; van der Werf, 2010) where libraries have been seen as one of few remaining bastions of the unquestionably public. This makes the question of what these libraries do even the more interesting.

The interest here is a set of principal questions studied through a series of specific projects of alteration. This essay will therefore build on the material of four library extensions, three of which have been realized and one that has been put aside for now. In three of these cases thorough empirical analysis of inhabitation patterns has been made, which has partially been presented earlier (Koch, 2004). This material will be used to discuss the relations between architecture and library use as a foundation for a following discussion on architectural principles. It will therefore be as thoroughly presented as reasonable within the bounds of the essay, before the focus turns to two libraries and two proposed extensions of each.

The discussion is deeply informed by the work of Thomas A. Markus (1993) and Sophia Psarra (2009) and their analysis of public and cultural buildings over time as well as Julienne Hanson's (1998) extensive work on analysis of buildings. It is also heavily indebted to John Peponis' (2005) notion of proposals and propositions in architecture, and his and others' work on the formulation of architectural meaning (Peponis, Conroy Dalton, Wineman, & Dalton, 2003) and subsequent work on configurational meaning (Peponis, Bafna, Dahabreh, & Dogan, 2015). In addition, considerable work on libraries through history by e.g. Battles (2003), Lerner (2009) and Dahlkild (2011) have been pivotal to allow a broadened perspective on what a library is, has been, and could be.

### 1.1. A (very brief) historical point

To understand the situation library

architecture is wrestling with there are key historical aspects to take into account that do not always come to surface in the debate, partially belonging to a typological process that embeds (perceived) history and future into the understanding of any type at any point in time (Steadman, 2014; Koch, 2014; c.f. Rossi, 1982), and partially in a 'silent-but-present' history of libraries informing expectations, values, and choices in their making. The type discussed in this essay – the public library in concurrent, European-American society – is by and large a modern product (Markus, 1993; Dahlkild, 2011). However, this type explicitly as well as implicitly carries a lot of its precursors in its underlying conceptual definitions conditioning how it is or can be treated. The type as it is perceived today also casts a shadow back in history affecting our interpretation of the role of libraries historically as well as extends itself into the future.

Amongst the historical roots worth reminding of, one seems to be found in the etymological roots of the term. Both the English *library* and the Swedish *bibliotek* here comes from the root 'book' (Latin 'liber' and Greek 'biblion', both translating to 'book'). While etymology should be handled carefully in relation to the development of building types (c.f. Forty, 2000), it is worth to consider how the concept is specifically tied to books and the handling or collections of them rather than buildings or practices of reading or learning. This suggests that the challenges to books raised on occasion goes right to the very core, origins and purpose of the type as such.

In practice, the origins seem to be intertwined with various forms of archives. There is an important origin in the storage of texts – be it legal documents as in Egypt, written versions of oral traditions as in Ancient Greece, or tenants of philosophy as in China (Lerner, 2009). As many of these documents existed in only one copy, the earliest libraries often served a double role as archive and library: *preserving texts in archives* was a central part of the emergence of libraries. Preservation brought with it the formation of a place where one could find informa-

tion, which led many of the earliest libraries to take on a mediating function as well as becoming sites of material production where texts were copied for further propagation. While the degree of publicness have varied, the artefact holding a text, its materiality, storage, arrangement and subsequent use thus is arguably integrated in the very foundation of the library as a type and concept. One can of course argue, as is done in some contemporary discussions about libraries, that the importance of the book is a practical result of the types of media available within which to store and reproduce the content (c.f. van der Velden, 2010; Bruijnzeels, 2008), but this rather reflects a contemporary and not entirely unchallenged view of what a book 'is' that does not easily translate back to how it has been considered throughout history. It is in this situation important to not project concurrent view of technologies back onto earlier periods and cultures and their treatment of material (c.f. Lievrouw, 2014).

The contemporary *public* library, as emerging largely in the 19<sup>th</sup> century, has several roots, including traditions such as monastic libraries and personal collections in Europe as well as the Islamic *dar-al'ilm* (Lerner, 2009, p. 55-66). Already from the beginning they held an educational and enlightening purpose, perhaps most clearly similar to the *dar-al'ilm*, where learned librarians were to mediate knowledge and literature to a wider populace. This educational purpose also formulates one of many clear links to the university libraries, where the university library of Göttingen is often referred to as a key behind their transformation from storages to hearts of knowledge, largely attributed to the main librarian Christian Gottlob Heyne in the 18<sup>th</sup> century (Lerner, 2009, p. 112-119).

However, the contemporary public library as a type should also be set in relation to a growing production of printed material, an increasing level of literacy, and an increasing amount of time available for especially the bourgeoisie but also the general urban population. This led to concerns for providing quality literature to the masses, but also for control of what was read,

and that the read material was appropriate for the various audiences who were reading it (Battles, 2003; Markus, 1993; Bennet, 1995). The public library, thereby, also incorporated a quality control aspect into itself, and formed a part in a societal power struggle over taste, knowledge, literature and 'spare time'. In this development they are, therefore, also distinctly responses to a changing urban environment as well as a changing idea of society and the function-types required to uphold it.

In such a historical view, a transition from more concretely collections of books to centres of learning and knowledge for and of the public therefore can be said to have begun long before any digital era challenging the role of the printed material; the very notion of this being a linear progress can be questioned. This must reasonably be considered as part of the problematic that is being revisited repeatedly, once again recently. There is, simply, more in the function-type 'library' that is being challenged than the form of the media at any turn, and perhaps especially with the digital revolution.

## 2. The empirical material: Two plus two times two

The empirical material behind the discussion of this essay is, as noted, four public libraries and their planned or built extensions. These are the Malmö City Library (John Smedberg 1946, Henning Larsen 1997; Figure 1), the Växjö City Library (Erik Uluots 1965, schmidt hammer lassen 2003; Figure 2), the Stockholm City Library (Gunnar Asplund 1928; Figure 3), and Gothenburg City Library (Rune Lund 1967, Erséus Architects 2011; Figure 4). All are studied through interviews, on-site visits, and studies of plans and literature, and the first three extensively through on-site observations. In the latter two cases, alternative proposals for extensions have been studied. For Malmö and Växjö the observation data concerns the library *with extension*, and for Stockholm the library *without extension*.

The reason to focus on extensions is twofold: on the one hand, extensions form a common practice in the latest boom, and on the other hand, extensions, specifically, raise interest-



**Figure 1.** Malmö City Library with extension, view from the nearby park towards the main entrance. Original to the left in the image. Photograph: Press Image/Malmö City Library/Niclas Blomgren.



**Figure 2.** Växjö City Library. Photograph of exterior with the original in front. Press Image/Växjö City Library.

ing architectural questions in having to negotiate between earlier and concurrent ideas. This forces choices and interpretations of what the 'previous' was, what respect for and preservation of it is, and how far and in what ways architectural transformations can take place. Analysis of competition proposals have been used in similar ways before (e.g. Schmeideknecht, 2012; Rustad, 2010), and there is an extensive discourse showing how proposals and judgements are often highly informative of architectural views through quality judgements and motivations of both architects and jury (c.f. Rönn, Kazemian, & Andersson, 2010). Naturally, competition briefs and conditions heavily influence the proposals,



**Figure 3.** Stockholm City Library, photograph from the park next to it. Photograph: Pressbild/Stockholms Stadsbibliotek/Olle Nordgren.





**Figure 4.** Gothenburg City Library, exterior from Götaplatsen. Photograph: Håkan Grissler.

but this will here be given less attention in favour of focusing on the results as material discourse.

As the cases of this essay are Swedish, it is of interest to note that public libraries in Sweden are bound by a specific law, '*bibliotekslagen*', according to which the main purpose of public libraries is to – in line with the development of a democratic society – contribute to the distribution of knowledge and the free formation of opinions (Swedish Government, 2013). In addition to this aim, the law also states that libraries are to promote the position of literature and interest in education ('*bildning*'), enlightenment, research, and cultural activities in general. Earlier iterations of the law more clearly pointed to mediation of state and municipal information, which is more or less completely integrated in the identity of the public libraries today. During the 'million programme' in the 20<sup>th</sup> century especially, but also before and after, public libraries were considered an integral part of any development. This has left a clear presence and expectation on libraries embedded in Swedish society.

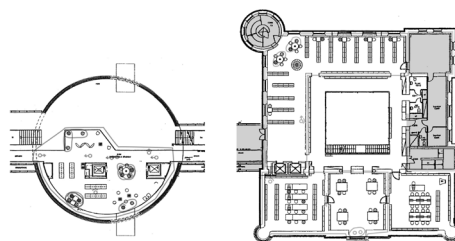
### 2.1. Patterns of appropriation and spatial configuration

Of particular interest for this discussion is the dual of symbolic values and public appropriation of the libraries in question, always ever in connection to one another. What I here mean by 'appropriation' is how the libraries come

to be used and inhabited by visitors but also how the arrangement of literature and reading places as well as other functions are negotiated, which interacts with volumetric, organisational, and aesthetic qualities of the library in the forming of an identity as a meaningful whole (Markus, 1993) – or a 'public identity' if one chooses to paraphrase Zukin (1995).

It is therefore of note here that first, there is a high and significant correspondence between several patterns of inhabitation and the spatial configuration of the libraries analysed through means as developed from the principles set out by Hillier and Hanson (1984). Central to this is the understanding of spatial configuration defined as relations taking into account other relations (Hillier, 1996), which has been developed to be analysed through models that allow to mathematise these aspects of material arrangements of boundaries and spaces as graphs. The libraries have been analysed in a range of different ways and with a range of different resolutions; more specifically both as convex and axial systems (Hillier & Hanson, 1984) and as isovist fields (VGA) (Turner & Penn, 1999; Turner, 2001). The results have been carefully compared to various observed patterns of user behaviour (Figure 5), both through visual comparison and interpretation and statistical correlation studies. Most distinctly clear for the patterns of collective rates of movement, this is further traceable in other activities such as the differentiated practices of reading (c.f. Verschaffel, 2010) (Table 1).

Of importance for the coming discussion on how principles and propositions are formulated in architectural



**Figure 5.** Snapshot observations, City Library of Malmö. Examples of observations. To the left a balcony in the centre of floor two, to the right the top floor of the original. Both interaction between people and percentage of seats filled is noticeably higher in the left. Each observed person forms a small circle grey, each larger grey circle symbolises interaction.

**Table 1.** Relations between spatial configuration and occupancy patterns. Only occupancy where relations have been found, have been included in the table. It should be noted that due to limits of programmatic distribution and furnishing, some of the found correspondences are additionally conditioned by e.g. availability of (type of) seats. Since furthermore distinctions between e.g. types of reading are highly interpretative, these have not been mathematically correlated as this risk giving a false impression of precision.

Type of inhabitation	Type of observation	Analytic method	Result
Movement Flows	Counted as passing by pre-defined observation gates	Statistical Correlation (gate counts vs. integration)	Strong correlation to global integration with exterior system included
Reading	Occupancy of seats	Statistical correlation, occupancy per seat (snapshot data vs. integration)	Average correlation to global integration
Studying	Reading with notebooks and/or pen and paper	Quantitative count, number of sitting per seat; qualitative interpretation of type of reading; individual trails	Corresponds to being close-to integration and multiple seats; largely unrelated to literature
Focused studies	Reading focused for longer time period, often with headphones or similar	Quantitative count, number of sitting per seat; qualitative interpretation of type of reading; individual trails	Tends to correspond to low integration, and limited views or low integration and few seats (one to two per table)
Reading novels	Observed relaxed reading	Qualitative estimation; qualitative interpretation of type of reading;	Tends to correspond to closeness to social interaction or spatial segregation
Group work	Observed interaction around books or other media	Quantitative count, share of available tables	Corresponds to close-to integration with limited number of seats; somewhat related to literature
Meeting	Observed waiting until other person arrives	Qualitative estimation of share of waiters; qualitative judgement of behaviour	Corresponds to a combination of integration and control
Social Interaction	Observed relaxed interaction	Qualitative estimation	Corresponds to distance from studying, relates to high integration
Arrangement of literature	Observed location of books and other media	Analysis of spatial distributions of literature compared to bookcases, intervisibility and spatial articulations	Follows primarily clearly articulated spaces or volumes; with less spatial articulation, bookcases gain increased importance for category differentiation

design work is that increased detail in the spatial analysis does not by default increase degree of correlation; rather, correlations tend to increase as details are reduced. Depending on analytic model the correlations do not peak at the same level of detail in all libraries, though for an axial analysis the pattern is consistent (Table 2). For an isovist field analysis, the visibility-blocking objects tend to have a higher impact especially for open hall sections of the libraries (Koch, 2005). While further research is needed to confirm its generality, a reasonable interpretation of the result seems to be that the correlation peaks at a certain level of complexity of the system, which is not too detailed

and complicated, yet not too simple so as to not support orientation. Another reasonable interpretation, arguably intertwined with the earlier, is the degree to which the architecture, considered as the building in its own right, articulates spaces on a specific and detailed enough level or not. That is, in systems like Malmö's and Växjö's large halls, additional material structuring through the higher bookcases have a noticeable effect on global movement patterns, whereas in a distinct and clear articulation of a system as in the Stockholm case, global movement seems primarily related to the architectural definition of walls and spaces.

It is worth to note here, that move-

**Table 2.** Correlations (*r*-square values) between global axial line integration and movement flow rates for the libraries. For the axial line correlations specifically, the building articulation provides highest correlation in all cases, whereas VGA analysis gives the highest correlation at an intermediate resolution including vision-blocking objects for Växjö and Malmö (albeit a lower correlation than the axial analysis). Correlations are provided with the entry gate removed from the statistics due to how it alone raises correlations dramatically.

Library	Building Articulation	Visibility limitations	Permeability limitations
Malmö	65,81%	60,76%	49,7%
Stockholm	82,37%	68,22%	63,95%
Växjö	55,76%	52,37%	48,27%

ment specifically correlates with the spatial configuration of the building structure in all cases, also when it peaks for more detailed analysis. The reason to point this out is to stress the importance of the architectural formulation and articulation of spaces and configurations as having significant impact on inhabitance regardless of subsequent furnishing and programming, recursively even more so through how it conditions the same.

In a design process, of course, it does not work in such a single-directional manner and the process is always ever intertwined between program, building layout, interior furnishing, and a range of other concerns and questions (e.g. Koch & Miranda Carranza, 2014; Peponis, et al., 2015; Anderson, 1984) – but at some point the constructed building gain more inertia than other parts. It also points to the importance of overall architectural configuration for subsequent use, especially when we consider questions of programmatic distribution, identity and meaningful appropriation. Rather than more detailed levels of analysis, it is often more explanatory to abstract the analysis further to gain further insight into the patterns of appropriation, such as the volumetric distribution, clustering of spaces to subsystems and the overall configurational logic in relation to the specific configuration as analysed via isovist fields, convex spaces and axial systems. As an example, the grouping of literature into the three volumes of Malmö is a more meaningful way of understanding the distribution of the programme and collections than configurational or metric distances on a furnishing level of detail. This is not to disregard detailed analysis as it can clearly relate to other forms of use, such as the repeatedly found pattern of

‘waiting’ in locations with a combination of high axial or isovist integration and high isovist control value.

Second, it is important to point out that in the empirical studies of the libraries, the found correspondences between appropriation patterns and configurational properties require the analysis to take the exterior into consideration for most studied forms of use. Somewhat counter-intuitively, however, this is not as simple as that as public domains and spaces they form extensions of exterior public space and therefore the spatial system used for the analysis must include the public exterior. Rather, the correlations increase in all studied cases if the specific exterior is disregarded and the configurational formulation of this relation of the library building ‘itself’ is analysed, although the effects on buildings with singular entrances like the analysed libraries are minimal. Technically, this is done through a process of ‘mirroring’ and thereby analysing the configuration as related to itself internally and through the entrances (c.f. Koch, 2013). This suggests that a large portion of the mediation of the library content to the public is defined by the internal configuration rather than the external, which increases the importance of understanding how the libraries ‘themselves’ make this description. While these correlations and observations are not the central discussion of this essay, I believe it is what enables the coming discussion as it means that changing the internal configuration of the libraries will re-describe the relation between program and public no matter what effort is put externally or in the specific new or existing entrance spaces to handle it. The internal configuration is simply a powerful means

through which this is communicated, and it is through the global internal configuration of the public portions that it is at its most powerful.

The point here is to raise the discussion from pragmatics of ‘use-values’, pros and cons of different proposals, to a discussion of the *proposition* made in each specific proposal (Peponis, 2005) of what a library and what knowledge is, operating on an overall global-configurational level through its subsequent mediation of content and programme to visitors, and its relation to people both individual, as relational collectives, and as a general public, through how this comes together as possible meaningful wholes (Markus, 1993). How public is a public library? For whom? What kind of activity is given priority and under what conditions? What is arranged for to be common and shared, and what is arranged for to be a private, or at least personal, concern? And not the least, what is the general ideas of hierarchies and distributedness, and what degrees of differences are introduced or maintained?

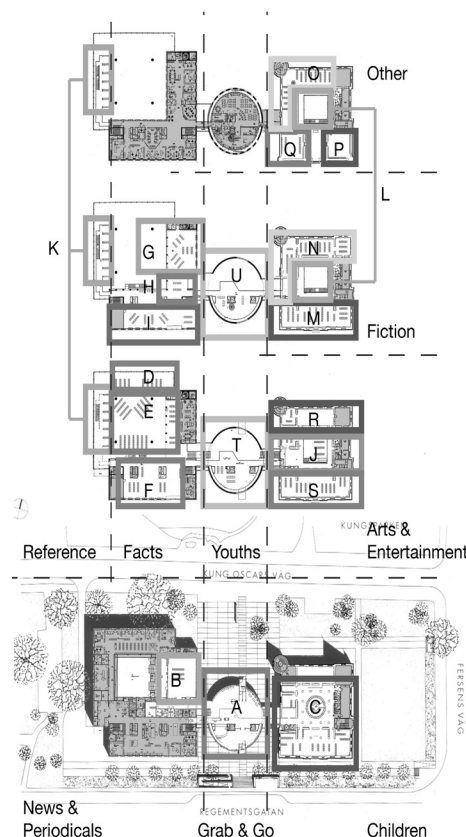
## 2.2. Global configurations and structures of knowledge

Architectural configuration participates in such propositions in more ways, however. For instance, the differentiation between ‘kinds’ of literature is within the bounds of possible configurations emphasised in the current City Library of Stockholm, making the visitor chose branch early on and making it comparatively more difficult to change branch the further into one one has venued. Comparatively, Malmö City Library offers a more flexible situation that does not to the same extent emphasise this differentiation and has a more networked character, but still makes clear differences between what is readily accessible and what is distant in the library in general. Växjö here, partially by means of placing *all* literature comparatively deep into the configuration, makes differences smaller. However, in spite of its circular form, it places an emphasis on two key transitions in the central atrium that operate very similar to the tree structure of Stockholm. In fact, in general Växjö operates in a very tree-like manner

simply due to how the solution emphasises the central walk around the atrium and de-emphasises the peripheral walk along its boundary – which is also observed to affect the movement pattern of visitors by making more common the inner route and less common the outer one even when the second would be the functionally more efficient. This tree-like structure is significantly strengthened as compared to the original library which was organised to perform much more like a grid or a field (c.f. Allen, 1997).

The distributions of space hence clearly signals ideas of the structure and hierarchies of knowledge in general (e. g. as series, trees, or networks as discussed by Foucault, 1997) as well as the relations between depth and width thereof, in relation to which the distribution *in* space of functions, literature, and activities communicates both internal relations between these, and their relation to the public as well as what constitutes branches, entities, or categories therein. In practice the libraries spatially demonstrate a less clear and rational organisation than is perhaps expected, and one that is logically incoherent as it comes to their classifying operations – which appears to rather provide clarity than confusion for most of the visitors. Spatially measured as being co-located in the same spaces of intervisibility on the scale of architectural articulation of spaces, for instance, Malmö organises its literature into a clear separation between fact and fiction into two buildings, ‘youths’ as a separate group of in-between, arts and music as being as related to fiction as to humanities and social sciences, and a range of other categories. On a finer level, natural sciences and technology are separated, but co-located as compared to humanities and social sciences. Et cetera. (Figure 6) While one should not take these distributions too literally as representations of the ideal organisation of knowledge or literature for either architects or librarians, it can clearly be interpreted from the point of view of an emergent structure thereof based on a negotiation between an overall ideal and specific local choices which responds to values and ideals on an often non-discursive level (c.f. Fou-





**Figure 6.** Malmö City Library, literature structure. Some simplifications have been made for readability. (a) Popular, (b) Newspapers and Magazines, (c) Children, (d) Humanities & History, (e) Social sciences, (f) Jurisprudence, (g) Technology, (h) Sustainability, (i) Natural Sciences, (j) Arts and music, (k) Reference books, (l) Fiction, (m) Thrillers, Detective Novels, etc, (n) Novels in foreign languages, (o) Old novels, (p) Literature by people from Malmö or about the region, (q) Genealogy and microfiche, (r) DVD and CD records, (s) Listening Books and easy reading, (t) Youth books, fact, (u) Youth books, fiction. As can be seen, especially fiction becomes a blended category. Another possible interpretation would have been that the southern length of rooms from the atrium (M, P, Q, S) constitutes 'anomalies' on each floor and that fiction rather consists of L, N and O.

cault, 2003; Markus & Cameron, 2002). In such a process the materiality of architecture and collections forces such choices to be made and to take shape within the spatial organisation through which it operates. It can therefore also be seen as to 'unearth' otherwise non-discursive portions thereof, and subsets of values and priorities that in ideal images can be relegated to hetero-

topias (Foucault, 1997) and therefore be left outside of consideration.

### 2.3. The extensions

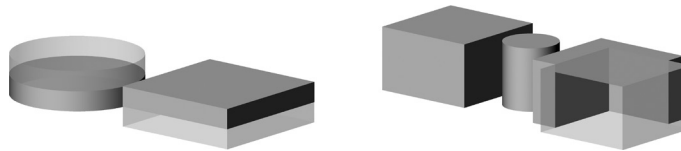
When discussing the extensions, it is important to consider that the libraries in question are historically and culturally significant; Stockholm has international recognition, Växjö was Sweden's first open-hall library, and Gothenburg forms an important piece of Götaplatsen, a square surrounded by several important cultural and social buildings in Gothenburg. The outlier here is Malmö, where the old library was originally not built as a library and arguably had issues in how the library had been integrated into the existing old building before the extension was to be made. Furthermore, two of the built extensions are highly regarded: Malmö was awarded the Kasper Salin prize – the most prestigious architectural reward in Sweden (Hultin, 2001) – and Växjö was a nominee for the same.

If we begin with the extensions less central to the essay – the ones of Malmö and Växjö City Library – it can be noted how they in both cases come in the form of clear geometric formal play (Figure 7). In Växjö an original square volume is paraphrased by a cylindrical volume, where the vertical arrangement of solid mass and transparency is inverted. In Malmö the square, nearly cubical, form of the original building is repeated in the extension with a similar size but including a small offset of a cube in a cube, connected to the old via a much smaller cylindrical form. There is, however, a noticeable difference in how the solution in Malmö places the new entry in the in-between cylinder, engaging both larger volumes equally and equidistantly from the new entry with several connections in-between and how the Växjö solution places the added cylinder *behind* the original square, leading to a differentiated relation to the public. In Malmö, furthermore, the old library still holds a large portion of the literature, whereas Växjö – arguably in a common form of solution – places all literature in the new volume and reworks the original book hall into casual reading places, information and utility desks, magazine and

newspaper sections, a café, and a few other service functions.

On one hand, this preserves the main hall as present in any library visit to Växjö, while the old building can remain unvisited in Malmö. On the other hand, this makes a radical transformation of what a visit to the ‘old library’ contains, what practices it includes, and the aesthetics and functionality of the spaces in Växjö whereas the part of being a ‘library’ that concerns the housing and mediation of access to books is preserved in Malmö. At the same time, in order for the old library in Malmö to become an integrated part of the new whole in use and not only in volumetric composition, it has had to be dramatically altered; an earlier courtyard has been turned into an atrium in which balconies and stairs form the main communicatory space of the volume (Figure 8), and one of the most active parts of the library has become its connection to the other volumes, i.e. where there used to be bricks and mortar. Neither as a configuration nor as a generic material-spatial arrangement guiding and allowing inhabitation, then, the old library operated remotely close to how it does currently. Arguably, this comes as a result of an altered idea of what a library is combined with a wish to include the existing library into such an idea, where the consequences of such an altered view have been followed through architecturally.

This solution in Malmö furthermore allows literature to remain closer to the public, whereas they are – in Hanson’s (1998) terms – insulated from the public in Växjö both distinctly spatially (number of spaces one needs to pass, especially in relation to total depth) and spatio-functionally (number of functions one needs to pass). It thus shows differences in relation to both architectural preservation and ideas of a library, but also in what careful consideration of the existing as argued for in both cases leads to as architectural proposals. From this point of view I will continue through the material of two times two proposals: two proposals regarding the Gothenburg City Library, and two proposals for the Stockholm City Library, in both cases comparing the winning proposal (which are radi-



**Figure 7.** The volumetric composition of Malmö (left) and Växjö (right).



**Figure 8.** Malmö City Library. Interior of the atrium, previously a courtyard, original building. Photograph: Malmö City Library/Niclas Blomgren.

cally different between the two to start) to an alternate proposal that shows clearly other configurational strategies (c.f. Peponis, et al., 2015).

## 2.4. Stockholm and Gothenburg

The Stockholm competition was an open international competition, receiving a vast number of contributions. Of these, I will mainly present two – Heike Hanada’s winning proposal ‘Delphinium’ (Figure 9) and JaJa Architects’ (Jakob Steen Christensen and Jan Yoshiyuki Tanaki) awarded proposal The Book Hill (shared 4<sup>th</sup> place). Hana-



**Figure 9.** Delphinium; extension proposal for Stockholm City Library by Heike Hanada. Press image from Sveriges Arkitekter for the competition.

da's proposal clearly separates new and old in two volumes, respectfully keeping the Asplund building intact in its volumes and as a solitary, whereas Christensen and Tanaki's makes a radical cut into the building connecting the new addition right into the rotunda of Asplund's work (Figure 10). This makes them two of the most radically different outcomes of the competition.

The Gothenburg extension was instead handled by a parallel commission given to five architectural offices. Also in this case I have chosen to make use of the winning proposal by Erséus Architects in comparison to one of the other proposals by Malmström & Edström. Here, the winning proposal (Figure 11) is claimed to work within the logic of the original work by "letting the library spaces grow forth and develop from within" (personal communication, Peter Erséus, May 2008, trans. by the author), whereas the other proposal maintains the exterior integrity of the building by adding a second volume to the side of the original seen from the square against which it is located (Figure 12). This means that the two are different both from one another and from the Stockholm proposals as in Malmström & Edström's work, the new volume holds auxiliary functions whereas in Hanada's work the new volume holds the main part of the book collection. Hanada's work also aims to transform the library into more of a 'public living room' whereas Malmström & Edström's aims to preserve the identity and character of the originally by adding space for the additional functions and activities expected of a library today. The relation



**Figure 10.** Book Hill; extension proposal for Stockholm City Library by JaJa Architects. Press image from *Sveriges Arkitekter* for the competition.



**Figure 11.** Extension proposal for Gothenburg City Library by Erséus Architects and WSP. Gothenburg/Press Image/Erséus Architects.



**Figure 12.** Extension proposal for Gothenburg City Library by Malmström & Edström. Gothenburg/Press Image/Malmström & Edström.

to Götaplatsen here adds an additional dimension as the original library forms a coherent image with the surrounding buildings in material and stylistic expression, which is challenged by the extension by Erséus both in the volumetric composition and in aesthetics and materiality.

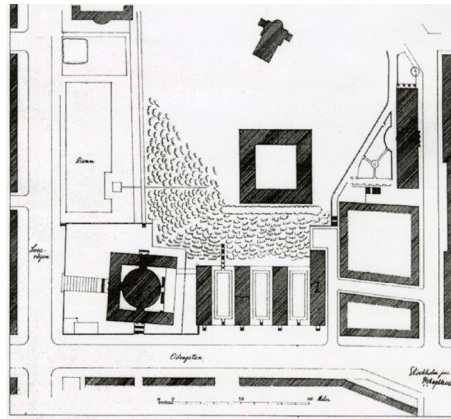
It is thus possible to create a kind of matrix of solutions amongst proposals, all argued for as carefully preserving the core of the architecture of the existing libraries. On the one hand proposals creating a new building in order to preserve volumetric composition and exterior aesthetics of the existing, and proposals focusing on the 'internal spatial logic' at the expense of considerations for preservation of exterior expression. On the other hand, it is possible to set up the extent to which the traditional 'library' is significantly altered or moved. Here, Malmström & Edström's proposal with a new volume is uncommon amongst extensions in that it specifically strives to maintain the existing as far as possible and let the 'new' functions and activities be housed in the addition. In light of the above discussion, however, it seems clear this matrix is insufficient as more



than a starting point.

Considering the question of spatial organisation, taking into consideration the distinct relation of Asplund's building to on the one hand an international library culture and on the other a prevalent idea of knowledge at the time of its making, it is arguably difficult to speak of preservation of the library without including how it represents and organises knowledge as a tree structure with distinct branches ordered around a central space of fiction. This is not a pragmatic solution to a programme, but a distinct formulation of an idea on several levels including spatial configuration as expression and representation as well as through how it organises narratives of library visits (c.f. Psarra, 2009) and distributes flows and other activities in and through the building. This organisational idea comes clear through how the tree structure has been maintained even when it might for practical reasons been better not to, and in how the deviations from the structure appear to be more or less hidden and subsequently less used (Koch, 2004). Arguably, the specific order of the collections – which has been altered over time – is of less importance than the systemic tree-representation and its relation to the central space of fiction. This representation also requires, more or less, all of the collection to follow this logic or it loses its power. The organisation furthermore tends to lead to a quieter space in the branches, as thoroughfare is more or less eliminated, supporting focused, undisturbed reading as a central activity while potentially inhibiting browsing.

This is not to say the volumetric composition can be ignored; Asplund's work as a whole clearly includes the volumetric arrangement and how these volumes meet the surrounding streets – carefully making the library offset and monumental from all directions – the streets, the park next to it, and the annexes (Figure 13). Keeping in mind the historical context of Asplund's work, the library as a solitary composition is an important part of its urban identity; an identity arguably also dependant on housing at least most of the library within its boundaries. Since his work remains within an



**Figure 13.** Asplund's Plan for the Stockholm City Library from 1928, showing the library without its fourth branch in the back, and with four annexes planned – as well as drafts of the park and hill. It is clear how the composition was a city planning question to a large extent. The square building at the top of the hill is a preliminary draft for a building for what is now Stockholm University. Public Domain by Age.

understanding of 'library' as primarily being concerned with the housing, organisation of, and access to a collection of books, de-coupling the building and the books under a new paradigm of library typologies becomes problematic from a point of view of preservation. At some breaking point, preserving the volume would still not preserve its library identity. This clearly has raised a kind of conundrum where the different proposals have opted to give priority to one aspect at the expense of other.

This contradiction is noted already in the competition programme, stating that "[t]he assignment includes proposing a link that ensures the best possible spatial and functional connection between the buildings, all while being sufficiently respectful to the Asplund building" (Stockholm Stad, 2006, p. 32). However, when it comes to the judgement of the competition, it comes clear how the respect for Asplund's volumetric composition and exterior overrules the programme's stress on the connection (see Stockholm Stad, 2007). The jury also points to a not awarded but mentioned proposal by Wingård's that arguably draws on the historical evolution of the Asplund building by rather than running a surgical corridor to the rotunda, replaces Asplund's own addition of a western foyer with the beginning of the new extension, which,





**Figure 14.** Brass; extension proposal for Stockholm City Library by Wingård's. Press image from Sveriges Arkitekter for the competition.

according to the jury, better connects to the rotunda and forms a more complete whole than the other proposals making the connection (Figure 14).

From this point of view, if we insist on the library as a representation of an idea through how it organises and distributes its material collection of books, it is then also not enough to – as in some of the proposals – ensure that the rotunda is a central part of most visits to the library. The narrative logic of arrangement would have to be maintained as well. That is, the tree-structure branching out from the rotunda. In the material of the competition, it is not fully clear to what extent the proposals breaking their way through the wall into the rotunda do this, though in as far as it can be told it appears the focus has been on reaching the rotunda specifically to incorporate it in the new structure.

As noted earlier, the winning proposal in Gothenburg, in comparison, explicitly attempts to work with the 'formal logic' of the existing over and above its volumes or its exterior expression; what is to be preserved is the original's 'inner logic of growth' from the inside out. Under such logic it is reasonable to preserve the overall arrangement of functions and collections and let them grow outwards. While this logic only holds so far – the extension is after all rather modest in meters from the facade and there is little difference to this growth related to any need – it formulates a radically different stance. In the situation, the rhetoric around the proposal suggesting that the old library will still be visible through the glass parts of the new

facade must be considered more of a post-rationalisation (c.f. McMorrough, 2008); at the very least, it can be noted that as the work has been realized, the old library is hardly visible as reflections and viewing angles hide it behind the new glass facades. It is, however, part of the motivation of the jury. All the same, the approach have allowed Erséus to create a new whole based on an inner logic with consequences for other architectural questions such as the exterior expression and the contextual relation across Götaplatsen to the surrounding buildings.

Malmström and Edtröm's proposal here reminds more of the solution in Malmö, although even more consideration may be allowed for the existing situation. An added volume housing 'other' or 'new' activities attached to the old with some connections in between. Naturally this at least skews the configuration and centrality somewhat and rearranges certain flows, but arguably to a comparatively small extent. It does, however, clearly signal the split between the traditional and the new and questions can be raised how this affects the whole. In comparison to the Malmö case, one can raise the question whether there is a contradiction between global integration of the whole and preservation that can only be resolved by deliberate choice of priority, but this may seem premature. What is clear, however, is how different priorities taken to certain extents radically conflict with one another, possible to read as differences on the level of architectural principles and ideologies. What the configurative analysis allows is a deeper and firmer understanding of the structural representation and mediation of ideas of knowledge, its orders and arrangements, and the way it is to be accessed, sequenced, insulated, separated, and connected. It furthermore strengthens this understanding by showing how, specifically, the spatial configuration is powerful in communicating this by how it structures flows of movements and other activities, as expressed through correlations between configurational measures and various activities on the one hand, and additionally through how measures relate to common individual behav-

iours of visitors on the other. That this statistical correlation increases when the volumetric composition and more detailed configuration of delimitations and allowances of visibility coincide in their basic network logic is of interest but not the main point.

### **3. Transformations and Additions between Geometry, Aesthetics and Configuration**

What I have tried to do here, is not to suggest one strategy as superior over the other. I believe it is fair to say that I have my preferences, but that more than that I am deeply fascinated by the process and the proposals in how what could be considered as small shifts in priority can lead to such radically different results – and how this leads to all the proposals being argued for as being respectful to the existing building. To an extent, the proposals conduct a discussion where each of them challenge the very notion of preservation in all of the other proposals, suggesting they have misunderstood just what the foundational principles of the libraries are, which leads further to a discussion about architecture and architectural principles that reach deep into the heart of the concept. The argumentation presented for competition or parallel commission proposals must here, as McMorrough (2008) argues, be treated partially as ruminations on established case. While it must also be considered that there are many reasons that the proposals have reached their final shape, studying the proposals themselves as statements in such a debate is what allows for this discussion to happen.

I do not here propose that it is as simple as differences between valuing aesthetics or use; this is clearly not the case and I would challenge such a division to start with. However, relations between geometry, configuration, aesthetics, and many other factors come into play, as well as how they relate to programmed content and to consecutive appropriation and inhabitation, as aspects of integrated architectural questions. These are statements made regardless of whether they are intended or not, and priorities made in the decision of a winner regardless of ex-

pressed intent or explicit motivation. In light of this discussion, one could argue that Asplund's solution is resistant to extension by the dual relation of a tree-structure with a central rotunda inscribed in a distinct solidity of geometrical definition. This is only partially true, however, as the original library lacked one of the branches leaving one side open. On the other hand, the extension possibility was effectively cut off with Asplund's own addition of the final volume in the 'back' that geometrically seals it off.

The issue can of course be further complicated by raising questions of what the original architectural intentions were, both explicitly and implicitly, which additionally is challenged by the interplay of the discursive versus the non-discursive in architectural design suggesting that we cannot understand the original intentions solely by looking at what was formulated in speech or writing, which, in addition to not communicating non-discursive ideas, is also balanced by how the architects have had to argue for their proposals as well as how they have sought to present the work as conforming or challenging concurrent traditions – and if so, which.

What we can say, however, is that the appropriation and inhabitation of the buildings, clearly shown empirically to relate to the spatial organisation in several distinct ways, reasonably must be one piece of the discussion that cannot reasonably be disregarded even if in the end it can be given higher or lower priority than other factors depending on aims and values. However, the more the inhabitation or the way a library mediates an idea of knowledge through how it structures narratives of uses and visits is valued, the more significant it becomes to consider the spatial-configurational effects of the extensions. In some cases, this may provide keys that allow clearer choice to be made on priorities and proposals, whereas in other cases it may help clarify if within the set ambitions a proposal taking care of all expectations is plausible. In order for a configurational analysis to contribute beyond mere pragmatics, however, a more complex understanding of mediation of ideals, values and meanings

not as separate from but intertwined with practical considerations and user concerns must be brought into play and analyzed from the point of view of architectural propositions.

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