FROM PROGRAM TO DESIGN, HOW ARCHITECTS' USE BRIEFING DOCUMENTS

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Architects often express dissatisfaction with the briefing documents consisting of long and detailed lists of technical requirements for each space within a perspective building. While this information is essential, it fails to transmit the feel for the project essential to the architect as the starting point for design. Architects therefore repeat much of the effort of preparing the brief – interviews with client and users, precedent studies, excursions to recent projects – in their preparation for design. This suggests the question: how much of this effort can be saved through better selection and presentation of briefing information.

This study will use a comparison of the briefing process in several countries, Denmark, The Netherlands, and The United Kingdom, to attempt to improve our understanding of the relationship between briefing and design. The paper concludes with a series of recommendations for improving briefing documents and the briefing process. The most important of these are that programs must convey not only the technical requirements of the spaces listed, but also the feel – both of individual spaces and the project as a whole. Programs should also convey the actions, culture and attitudes of the users of the facility. However, even with these inclusions, architects still need time and work to get the program (both as document and as idea) 'in their fingers'. The program cannot be presented as a literal text, instead it will always be analyzed by the architect, and this analysis seems to be an essential part of the design process.

INTRODUCTION

When approached for an interview for this research one architect, upon being asked what architects do with programs, made a gesture of throwing the document over his shoulder. This dismissive attitude towards briefs or programs[1] is familiar among architects. It demonstrates a deeply held and unexplored ambiguity of feeling towards briefing documents and the "commission" as they are presented to the architect. Architects commonly challenge the program, considering it inadequate, yet the nature of this inadequacy has not been explored. Although a great deal of concern has been shown in recent literature for the proper methods for researching and writing programs, very little attention has been given to how architects receive these documents and how they are used as input to the design process (Blyth and Worthington, 2001; Cherry, 1999; DAV & FRI, 2006; Wijk and SBR, 2004). Neither the literature on the preparation of programs of requirements nor that on design methods devotes much time to the process of

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[1] American and British terminology differs. In this paper "program of requirement", or more simply "program" will be used interchangeably with "brief".

reading briefing documents and integrating the information therein into the design process – into what architects do with briefing documents. It would seem that the general belief is that once written down in a document programming information is explicit, clear, and easily taken up into the design process. However, as will be shown below, many architects find this step difficult. The client's wishes and the information necessary to translate these wishes into built form seem to be inadequately expressed in program documents. Architects therefore usually seek additional information about their projects from their clients, often re-doubling the effort that has already gone into the program. It would therefore seem necessary to gain a far better understanding of the use of briefing documents by architects, and that such an understanding might well lead to an improvement of these documents and the briefing process and therefore to better buildings.

The most common form programs take, is a list of specific spaces required in the new building, together with their dimensions. Such documents are often very long and are essentially little more than detailed lists of the exact requirements for each space within the prospective building. This information is essential, but it is often not structured in a manner that helps architects to understand their clients' priorities. Further, information desired by architects concerning the history, culture and operations of the client organization is often absent from briefing documents. It is therefore common for architects and their clients to repeat much of the effort of preparing the brief – through interviews with client and users, precedent studies, excursions to recent projects – in their preparation for design. This suggests several questions:

- What is missing from briefing documents as they are now typically composed?
- How much of the effort or re-briefing the architect can be saved through better selection and presentation of briefing information?
- Or conversely: to what degree must architects engage personally in information-gathering activities in order to prepare for design?
- And, to what degree are programs inescapably obscure, and require interpretation by the architect in order to arrive at what the client 'really' wants?
- Finally, we could even ask: to what degree must clients engage in design activities in order to establish an optimal brief for the architect?

These questions guided us in the collection and interpretation of the interviews upon which this research is based.

METHOD

This study is an attempt to improve our understanding of the relationship between briefing and design through a comparison of the briefing process in several countries – Denmark, The Netherlands, and The United Kingdom. Specifically, the manner in which architects handle briefing documents, seek additional information from clients, and take the initial steps from brief to design will be examined. The study is based on two sets of data drawn from the independent research of the two authors. The first author was primarily interested in characterizing in general terms the use by architects of program documents, and the practices architects use to supplement these documents, such as extensive discussions with the client, touring the client's current facilities, or taking the client on excursions to similar building types and the architects 'own' buildings. This data set consists of a series of interviews with architects, two Dutch and one English (referred to below as NL1, NL2 and UK1). The interviews were semi-structured open interviews performed by the first author (Heintz, 2006a). These interviews are wide ranging, soliciting information concerning a broad range of architect-client interactions and the use of the program during the design process. Throughout the interviews and the analysis of the data, attention is paid to secondary as well as primary benefits of the practices examined. For example, is the interviewing of clients regarding their needs (duplicating interviews made during the initial preparation of the brief) in fact of greater value in forming a good social and professional bond with the client? Do these duplicating interviews represent an opportunity for the architect to influence the brief, for example by helping the client to clarify their needs and the architectural possibilities available to them.

The second set of interviews was performed by the second author as part of his doctoral research (Overgaard and Davidson, 2006; Overgaard and Jørgensen, 2005). This project addresses the questions raised above by proposing a number of innovations in the program documents. Among these innovations are the withholding of area magnitudes for some spaces, the use of short inspirational essays, descriptions of the activities to be undertaken in specific spaces, and short statements made by users of the existing facility. An example of such a statement is given below:

"I enjoy such a Sunday in a sports hall in the suburbs - the thrill, the excitement...and I live with the waiting time between matches, I live with the hard benches and the smell of French fries – and sometimes I think what it would be like if the cook had the same energy as my daughter who is twelve". (Father accompanying his daughter to Handball) (Overgaard and Jørgensen, 2005)

A program for a sports hall was written employing these innovations, and used for a design competition. After the competition was completed, the competing architects, all Danish (and referred to below as DK1, DK2 and DK3) were interviewed. These interviews were used to evaluate the program and the specific innovations implemented by the author. They are, therefore, much more clearly focused than the first set of interviews, and the architects experiences and opinions expressed refer specifically to the sports hall program. Although several times the architects did compare this program to others they had worked with.

The two data sets are, therefore, complementary rather than supplementary. The comparison of the two sets required that we often compare general statements in one set with specific evaluations in the other, implicit comments to direct statements, and complaints to complements. It is therefore important to note the fit often found between the two complementary sets of expressions.

TYPES OF PROGRAMS

One can see most programs as falling somewhere on a dimensional line between two extremes. At one extreme, which has been standard practice in the United Kingdom for many years and is occasionally come across in Dutch and Danish practice, we have what might be called the *emergent program*. Here the client approaches the architect with a short 'client's brief' consisting only of a general description of the sort and size of building desired. The site may not even have been determined. The brief emerges through the initial design stages, or in a distinct pre-design phase, in which the client provides relatively unstructured briefing information and is confronted with a series of design alternatives constituting architectural expressions of the various strategic options available to them, and from which they must chose on the basis of the architect's advice (UK1). Design and design drawings, as well as various sorts of diagrams, are often used in order to develop the different strategic

options in the use of the site, the size of the building, and the phasing of the project. Although both Dutch and UK contracts and practice regulation allow for this 'pre-design' phase to be billed as a separate service (UK1), architects in both countries often perform this service as part of their design services – the briefing then becomes a hidden and unpaid augmentation of design services (NL2). Due to the active role played by the architect in this process we may refer to this practice as the *briefing architect.*

In the second extreme, the architect is briefed, that is the architect receives a *determined program.* This form is standard in the Dutch and Danish practice and prescribed by European tendering regulations which are now becoming standard practice throughout the European Community. In this case, the client has a already established a program of specific requirements before beginning discussions with the architect. The determined program is often prepared by professionally qualified staff within the client organization or in consultation with project management or business consultants. The expectation is that this program will be used to brief the architect and then to test the design proposals the architect generates from it. In Dutch practice, and in the increasingly important practice of integrated building provision contracts, the determined brief assumes contractual status, and the architects fees are dependent on the degree to which the final design complies with the specific requirements expressed in the brief.

Regardless of the form of the brief – emergent or determined – the process of design, and the time elapsing during design (which given the fact that no organizations are static allows for continuing changes within the client organization) will lead to design choices that constitute changes to the agreed upon brief. Projects that allow for, and encourage, continuing changes to the brief throughout the project can be referred to as innovation projects, while those that stay within the limits of a fixed brief are regarded as implementation projects (Engwall, 2001). In well-organized formally structured projects the brief itself will remain an agenda item for design team meetings throughout the design process, and agreed changes will be registered in notes of the meetings or as emendations to the briefing document. In small projects these changes may be simply verbally agreed, and the participants rely on their memory and trust (NL2).

It should now be clear that the program must serve several purposes within the development process. It is a bearer of information, providing guidance in the

generation of design schemes. It is a source of criteria for testing or control of the designs generated by the architect. It is also a source of inspiration stimulating the architects in their search for a form suitable to their client's needs. We will examine each of these functions below.

PROGRAM AS INFORMATION

The program of requirements is of course meant to communicate the client's requirements to the architect. It is meant to bear information, and to be clearly legible. Yet architects seem not to perceive it so. One architect (NL2) seemed to consistently treat the program as a cryptic or esoteric text, the true meaning of which had to be extracted through the use of both heuristic and hermeneutic methods. Another, (NL1) stated that the problem was to "*understand what they actually had in their heads, what they had in their unconsciousness, because that is much more natural than anything in a program of functions and areas.*"

A third (UK1) said: "*there's always an element of exploring what the brief really will end up being. … We use the design of buildings as a way of discovering what the brief is about, both in terms of spatial configurations and their meaning to the client, and that's why design is so valuable.*"

It seems that the meanings sought by architects in the program of requirements are not transparently available. Instead, they seek some level of clarification of the desires of the client that are not stated. Indeed, says NL1: "*The desire for architecture is never in the program.*"

To see how the program functions as bear of information we must begin with the concrete example offered by the Danish study. Overgaard and his associates developed a style of programming document that attempted to make this elusive meaning more transparent. This innovative program incorporates a number of elements rarely seen together in a program of requirements. They specifically left some areas open (did not specify the number of square meters required) in order both to indicate when their specifications were important, and to give the architects more freedom in their designs. They included a series of brief essays or manifestos intended to display the clients' attitudes towards their activities (in this case sports) and the future building. They included, not only a list of rooms, their areas (m2), and their technical requirements, but also descriptions of the activities that would take place

within the rooms. Finally they included extensive quotes from interviews with users in order to give yet more feel and understanding of the client organization and its needs and culture:

"*Many from the other junior teams come dribbling in and out of the hall, they hang out at the back and play one against one in a mix between team, age and gender, if the gym people have a mattress it can be used to lay on while the practicing players are checked out for new moves or we whisper about who is hot on the older team.*" (Junior Basketball Player) (Overgaard and Jørgensen, 2005)

In every case the Danish architects reported that they found these innovations helpful. DK3 summed it up: "*It was a really good program, clearly visionary and yet open. It was obvious that the client wanted to create something different, a new identity, something special. This signal helped our project to become freer and more visionary.*"

The 'openness', the occasional lack of specification of area magnitudes, was felt to be stimulating by all three architects. Interestingly DK3 took the openness as permission to double up the use of various spaces and thus decrease the total area of the project. Only DK1 indicated that too much openness would be a problem – they implied that they would not be confident that they understood what the client wanted. (It is interesting to note where that these were the youngest and least experienced of the architect interviewed. It is therefore natural that they would be less confident in their ability to interpret the program.)

Of the descriptions of activities, the manifestos, and the interviews more will be said in the next section. What was interesting was that the architects seemed to 'triangulate' between the various technical and 'soft' descriptions of the spaces and this gave them a much more concrete idea of what was wanted.

DK3: "*The essays were read in the beginning and created early images that could be combined with the more factual and detailed demands later on in the process. In this way the essays were inspiring but not dictating.*"

One of the Dutch architects (NL1) complained that this sort of information, about business processes (activities), organizational history and culture was almost never present in the program, and normally had to be acquired

through extensive discussions with the client. The British architect (UK1) preferred not to engage in lengthy discussions with the client Rather he expected the client to have already reached a clear understanding of their future operations, and depended on his staff to elicit this from the client. In discussions of his design method he revealed that he relied on his extensive knowledge of "conventions" of behavior and on imaginary "enactments" of scenes expected to take place in the future building to supplement the technical descriptions he received from his clients (Heintz, 2006b). Thus what the other architects wanted to receive from the client, UK1 drew from his own knowledge.)

In expressing their satisfaction with Overgaard's program, two of the Danish architects (DK2 and DK3) indicated that they were very pleased that the program did not contain too much information. That they were not encumbered with extensive lists of technical specifications.

DK3: "*We just made a competition for a Norwegian Technical School* [the same as architect DK2] *where the program contained both plan diagrams, section diagrams and a much too detailed description considering the early stage of the project. We had to lay that program aside and apply a win or lose strategy.*"

It must be remembered that this was a program for a competition, and that they were well aware that if they won the commission there would inevitably be extensive changes to the design they had proposed.

DK2: "*... competition projects are actually just tools that make it possible to proceed. A lot of details are changed afterwards anyhow.*"

This correlated with NL1's statement that while important information regarding the client was often absent, too much detailed information was often included in program documents, including building regulations – with which architects are required in any case to be familiar. NL1 has his staff summarize the program, and this summary is used for the early design phases. The full program is then brought out at the design development stage.

UK1 also relied on his staff to filter the program for him, relying on verbal summaries and statements in design meetings.

Only NL2 expressed concern about this, stating that although a division of the program into summary and detail might be interesting, he wanted to receive both at the same time, as the technical requirements often have spatial implications of which he needs to be aware in the early stages.

Most of the architects interviewed here indicated the importance of getting the feel for the project. Both Dutch architects used the same expression: "*getting it in your fingers*" to give an idea of what they were talking about. This is done in two ways: diagramming, and sketching from the program. DK3: "*We made a general diagram / storyboard from the beginning in order to start our conversation. It is convenient to spend time on this activity in order to get into the program.*"

However this was often supplemented, where possible, with further communication with the client. Face-to-face meetings, reference to existing buildings, and excursions to similar buildings or recent buildings by the architect (NL1, NL2). (As the Danish project was a competition, this contact was severely limited in advance of the award of the commission.)

PROGRAM AS INSPIRATION

Architects seek inspiration from many sources. For UK1 the site is an essential source of inspiration. NL1 seeks their inspiration from within their own interests:

"*We always try ... to formulate something that isn't in the program of requirements, 9 out of 10 times, 99 in 100 times, and something that we find exciting in the project, something completely from the hidden agenda of the designer, something we ourselves want to learn from the project, something we want to develop, discover or research, something that makes it exciting for us, makes it challenging, and that often costs us a great deal of effort to find in the project. ... There are a number of developments in our field, in the society, that we find interesting, and with which we want to do something, to try something out in this project.*"

The Danish architects found inspiration in the program, in the manifestos, the description of activities, and the interviews:

DK1: "*The interviews that were conducted with users were explicitly readable in the program. You could almost hear them speak. It brings the project into reality and creates an atmosphere. ... Compared with other*

programs there was a lot of energy in this one. The program was important for our feeling of being free to experiment in our sketching."

DK2:"*We were excited after the first reading. There were some very clear opinions in the program.*"

We can see that the manifestos, the descriptions of activities and the interviews fill the gap described by NL1. They also show how the more concrete and more lively information provided by these are more stimulating to the designers' imagination than are the simple statistics normally presented in programs of demands.

DK3:"*Like the essays, the descriptions of the daily situations inspired but did not dictate solutions. They triggered a good discussion in the competition team and functioned as a catalyst for the architects´ own experiences. The openness of the program gave room to the sketching architects' own bodily experiences.*"

Thus the power of information to inspire architects may well lie in the way in which program information is presented and in the conscious choice of presenting information of an either concrete or abstract nature. This fits in with the generate and test pattern mentioned by the architects in which one source or form of information stimulates the generation of design alternatives, and another is used to test the alternatives. (UK1 described how this testing activity often generates new criteria for the next cycles of generating and testing.)

PROGRAM AS CONTROL

In Dutch practice the program of requirements becomes an explicit part of the contract between the client and the architect, and fulfillment of the contract is considered to be fulfillment of the program. In other jurisdictions the relationship between the program and the contract may not be as explicit, yet it remains an implicit expectation that the architect will design in compliance with the program. This means that the program of requirements must serve as an instrument to be used by the clients or their consultants to test and control the design. Architects seem to be somewhat uneasy with this use of the document.

NL1: "[If the program is made by project managers], *then everything is in it. That goes all the way to the minimum dimensions of a toilet. ... And what, in practice, I experience as a problem is that you then*

make a preliminary design, or even before that, if you have made a sketch, the project manager immediately sets the whole book against the sketch."

The project manager tries to apply the testing phase in a manner and a time that is not welcome. Attention is wasted on incidental details when the architect wishes to discuss the general approach.

Further, the contractual use of the program, and the desire to 'manage' the architect lead some clients to be extremely rigid in their interpretation of the program – treating it as a "*Holy Bible*" (NL1). This is often frustrating for architects. Those interviewed here uniformly reported that the form of a project will inevitably evolve as the parties increase their understanding of the 'problem' during the design process in ways that tend to contradict or violate the formally proposed program of requirements.

Where this evolution is accepted and recorded, as in emergent briefing, it is a measure for the architects of the success of their application of their knowledge and skills. It may also be a measure of the degree to which the client organization itself is sensitive to changes in its environment and internal structure and processes.

Where this evolution is rejected, as in determinant briefing, it is resented by the architect, and architects believe in general that this leads to less well suited buildings than otherwise could have been produced. DK2: "*In this case* [Norwegian competition] *it was an external consultant who had written the program and he might have been more interested in providing the client a certain performance than in prioritizing the information and make the program usable. It is important that competition projects are open to the clients' and users' own interpretation. They should be open to adapt to changes in use and preferences over time.*"

Despite the unease expressed by architects over the use of the programming documents by the client to test the fitness of the design, they are certainly used by the architects themselves for this purpose. Every architect reported a process whereby their design proposals went through cycles of generation and then testing against the program. The length of these cycles varied from one architect to another, and one architect (DK1) rather candidly admitted that they had let the cycle run too long in the generation phase before checking their design against the financial constraints implied in the program.

CONCLUSIONS

The first impression presented by these interviews is that architects seem to share their attitudes towards programs of requirements and the initial phases of the design process across jurisdictional lines. There was a great deal of commonality between the Dutch and Danish architects, although this was expressed as dissatisfaction by the Dutch and approval (of the innovative program) by the Danish. It is perhaps still premature to draw this conclusion, but there does seem to be a design process (at least in broad outline) that is constant across regulatory environments. What is certain is that there is at least as much variation in program documents and their interpretation within countries as there is between them.

The innovations carried out in Overgaard's program – openness, description of activities, manifestos, and interviews – seem to be vindicated by the comments of the Danish architects. One might object that Overgaard's architects were withholding criticism in order to maintain good relations with consultants who prepare programs and can influence clients in the choice of architects. However, the match between the points over which the Danish architects expressed satisfaction and those over which the Dutch expressed dissatisfaction is noteworthy and confirms the opinions of the Danish architects.

The inclusion of soft data, such as descriptions of activities or user statements, seems to provide a source of inspiration to the architects. This might be an interesting way to attract the attention of the architect to the concerns of the client and distract the architect from their private sources of inspiration such as those mentioned by NL1.

We should now return to the questions posed in the introduction. Firstly, what is missing from briefing documents as they are now typically composed? The pleasure expressed by the Danish architects with the soft data in the sports hall program suggests that this is a missing ingredient. There seem to be benefits to the inclusion of soft information in the program. The soft information may shorten the 'getting acquainted' phase of the process. It will certainly provide the client and programming consultant an opportunity to reflect on the future of their organization, which may reduce some of the delays imposed by the inconsistencies in the program noticed by the British and Dutch architects. Yet at the same time the data also seems to

confirm the hypothesis implicit in the second question.

How much of the effort or re-briefing the architect can be saved through better selection and presentation of briefing information? Here the answer would be to be 'some'. That the inclusion of soft data, and the contrast between specified areas and open areas conveyed a great deal of information to the Danish architects, helping them to get started on the design.

Then: to what degree must architects engage personally in information-gathering activities in order to prepare for design? Here it must be said that while the architects may not have to participate in the information gathering process, the restatement, reorganization and redrawing of the program information seems to be an essential part of the initiation of design. It is the way in which architects get their fingers into the material.

Programs are therefore inescapably obscure, and require interpretation by the architect in order to arrive at what the client 'really' wants? This is because it is through the interpretation and restatement of the clients needs that the architect translates these into a form that is accessible to their architectural imagination.

For architects a room can never be simply 'a room'. It must always have a feel, a feel that complements the activities that will be accommodated within it. This feel can only come from a diversity of ways of understanding the room, in terms of its area or volume and its technical requirements, but also in terms of the nature of the actions to be performed there. Providing multiple, perhaps even sometimes redundant, expressions of the needs for the rooms seems to facilitate architects in arriving at design alternatives that will meet with client satisfaction. The soft data also provided architects the possibility of triangulation, and allowed them to be more certain that they understood the client's wishes. This is especially important in design competitions where the architects may not communicate with the client before producing their designs.

Architects seem to need to draw, sketch, diagram, and organize the information in the program of requirements themselves as part of the process of designing. At the very least, they believe this to be the case, and there is no evidence to contradict them. Better programs can better facilitate architects, but they cannot save them from the effort of analyzing the clients' needs for themselves.

Finally, we could even ask: to what degree must clients engage in design activities in order to establish an optimal brief for the architect?

According to the architects interviewed here (especially NL and DK), clients need to extend their programming into design phases in order to enable their own insights gained through confrontation with design proposals to influence the program. Concrete design proposals always cause clients to re-evaluate their expectations. This may be in part due to the way design schemes often expand of the 'realm of possibilities' by showing clients possibilities of which they were previously aware.

The architects uniformly experience the program of requirements as an emergent phenomenon, regardless of the document with which they are provided, and the intentions of the clients or their advisors. Only the most rigid management can defy this tendency, and then only, according to the architects, at the expense of both the clients' and the architects' interests. We may therefore conclude that programmers (clients and their consultants) should include both soft and hard descriptions of the clients' requirements as well as of the client organization itself, and accept the fact that the design process will continue to yield insights that change the program.

It would finally seem that while briefing documents can be improved, efficiency (as implied in the initial questions) is not the goal to be sought in the briefing process. Rather the goal of preparing briefing documents and of briefing the architect should be effectiveness, as measured in the degree to which the briefing documents express the social and emotional content of the project and so inspire the architect to address the central concerns of the client organization.

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