Architecture for the silvering society - Architecture competitions as innovators of space for frail older people

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Abstract
In the context of the universal ageing process that is currently taking place in western society, the organization of architecture competitions that deals with space for dependent ageing comes of relevance. Based on the welfare regime theory, it could be argued that this type of architecture is part of a national architectural typology. The type of welfare regime does not only supply spatial parameters to respect, but it also align architects' the spatial visions in order to incarnate the national socio-political ambitions. This type of space seems to have a slower pace of change, since a spatial innovation is juxtaposed with socio-political reform work of the welfare regime.

The present study is an explorative study of programming competition documents and winning entries that were part of the Swedish governmental initiative of 2010, "Growing older, Living well," to innovate space for ageing by use of architectural competitions. Three municipal architecture competitions that dealt with space for ageing (ordinary or sheltered housing) constitute the framework for this study. These were organized during the period of November 2011 to April 2012, partly sponsored by the Swedish Institute of Assistive Technology (SIAT), which administered the governmental allocation of 50 million SEK. The research material was accumulated by use of internet searches, interviews and questionnaires. The analysis applied pattern seeking and involved close reading, document analysis and spatial analysis of architectural drawings.

The study suggests a preliminary conclusion: programme documents used within the field of architecture for ageing and eldercare emphasize spatial requirements for an overall high architectural quality and long-term performance, but little attention is paid to the user perspective, how to grow old in a care environment with respect to the WHO policy of active ageing. In addition, the study demonstrates a conservation of existing notions about appropriate architecture for ageing at the expense of an integration of multi-disciplinary findings on the relation on ageing, eldercare and space. Consequently, architecture competitions that focus on the emerging ageing society could be seen as a restrained type of space for architects to digress. National welfare goals and existing means to achieve these goals act as inhibitors for an innovative spatial preparation for the ageing society.

Key words: architecture for ageing and eldercare, architecture competitions, welfare regimes, competition programme, socio-politics, user values.

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Introduction
In 2006, the Swedish National Board of Health and Welfare, NBHW, started to report a decreasing number of available flats in residential care homes for frail older people. Due to the aggravating health state of this group, this eldercare touched almost the most extreme scenario of budget deficits that the Swedish local and regional authorities had forecasted. This resulted in a more restricted attitude vis-à-vis the building of new residential care homes (NBHBP & NBHW, 2004). An extended home care service was offered to older persons with somatic diagnoses, while a dementia diagnosis became the ultimate reason for moving to a residential care home (NBHW, 2008). The decline of residential care homes resulted in the nomination of a parliamentary committee. During the period of 2006 to 2008, the Delegation for elderly living, DEL, started to investigate appropriate housing for the senior part of the Swedish population. The committee published two reports: the first one of 2007 focused on various forms of housing for older people who could be characterized as mainly able with a limited need of eldercare. This report attempted to redefine the existing nomenclature of various housing for older people, thus coining the idea of special safe haven residences (trygghetsboende) (DEL, 2007). The residences that were to be included in the stock of ordinary housing would offer a high degree of safety and security, since older people often report an increasing sensation of isolation and loneliness despite a maintained generally good health. The second report was published in 2008. The conclusions could be described as half-hearted, and they added power to the stance of the local and regional authorities, but little to the innovation of the residential care home (DEL, 2008). The credo of ageing in place was once again put forward, but a certain dissension among the committee members impregnated the document: At least, three members chose to add their individual reservation in a special appendix.

Growing old and living well
The Swedish governmental two-year program “Growing old, Living well” was launched in 2010. This programme proceeds from the loose ends that the first and the second DEL report created. The program assumes a global perspective in order to promote innovation concerning housing for both able and frail older people (SGO, 2010). The administration of the program was entrusted to the Swedish Institute for Assistive Technology (SIAT), which has distributed the allocated 50 million Swedish crowns in various projects. Apart from case studies on different phenomena in relation to older people and their choice of housing, the governmental program designated the architectural competition as an instrument for renewing ordinary and special housing for older people. In this aspect, the governmental program connects to the Swedish tradition of using architecture competitions in order to define space for the frail ageing.1 The architecture competition is juxtaposed with rethinking cultural beliefs and established notions: “The government wishes to create opportunities to orient financial support to local programming and architectural competitions that will stimulate creativity and innovative thinking when it comes to planning strategies that aim at offering senior citizens attractive and functional forms of housing (SGO, 2010, p. 1).” The use of the words creativity and innovative thinking reveals a an ongoing tendency in Swedish civil administration and in the European Union to address complex matters in relation to the welfare society with calls inventive challenges that is oriented to architects, engineers, entrepreneurs or researchers (OECD, 2005).

Aims and working hypothesis
The present study focuses on the three municipal architectural competitions that were realized in the three Swedish municipalities within the perimeters of the governmental
program. Of special interest is the correlation between the requirements, stated in the competition brief, and their implementation as design criteria in the eleven competition entry that the participating architects submitted. The working hypothesis states that programming documents used for architecture intended to be used for eldercare purposes will generate spatial requirements for an overall high architectural quality and long-term performance, but result in a limited understanding of the spatial implications of ageing, how to grow old with respect to active ageing (WHO, 2002).

**Methodology and research material**

This study draws conclusions from three parallel cases studies that pertain to the architecture competitions that were organized by three Swedish municipalities with financial support from the Swedish governmental initiative “Growing older, living well” (Stake, 1995; Yin, 2003).

**Document search**

The competition documentation, i.e. competition brief with appendices, jury assessment report, and competition entries, aligned with official documents supplied the necessary background to the three competitions. This documentation was compiled by searches on the websites that belonged to the Swedish Architects’ Association, SAA; the Swedish Institute of Technology, SIAT; and the participating municipalities. In addition, this documentation supplied a list of 62 potential key actors who were involved in the competitions. Contacts with the participating architects added 4 more names to that list.

**The informants**

In case study I, 27 informants were targeted (12 men and 15 women), while a group of 19 (8 men and 11 women) informants were mapped in case study II. In case study III, 16 informants (7 men and 9 women) were found. In addition, two representatives of the Swedish Architects’ Association, SAA, and two representatives of the Swedish Institute for Assistive Technology, SIAT, were approached, see table 1. Of the full sample, 13 persons represented the competing architects, 21 persons the organizer and members of the competition jury, 3 persons the competition functionaries, and 2 representatives from each organization that the SAA (competition secretaries) and the SIAT represent. The majority of the informants were female respondents. The identified key actors were promised full confidentiality. All answers have been anonymized.

**Table 1. Overview of the informants in the study distributed according to affiliation.**

<table>
<thead>
<tr>
<th>Architecture competition</th>
<th>Informant</th>
<th>Total</th>
<th>Method</th>
<th>Total</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>men</td>
<td>women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the Mun. of Burlöv¹ (16)</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>the Mun. of Gävle² (27)</td>
<td>3</td>
<td>10</td>
<td>13</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>the Mun. of Linköping, ²³ (19)</td>
<td>4</td>
<td>9</td>
<td>13</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>the Sw Inst A T, SIAT (2)</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>the Sw Ass Arch, SAA (2)</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>30</td>
<td>42</td>
<td>21</td>
<td>29</td>
</tr>
</tbody>
</table>

Notes: 1) Municipalities: Interviews and questionnaires have been supplemented with secondary mails or telephone calls. In the case of the SAA and the SIAT, the number refers solely to various questions addressed as e-mails. In the same manner, the number for interviews refers to the number of telephone communications in the matter. 2) The architect in charge of the work with the competition entry, and named in the jury report, was approached for an interview or a questionnaire. When responding, this person often added additional names of other colleagues, and these were included in the sample of informants. 3) In the case of Linköping, only one of the representatives of the SAA were contacted.
Data accumulation
The data accumulation started after the completion of each competition. The first step involved the distribution of a questionnaire form in pdf-format, attached to an e-mail. Given the low response rate in case study I and II, these informants were approached a second time with an e-mail or a telephone call with the suggestion of an interview instead of the questionnaire form. By doing so, the response rate increased considerably. The interview guide was used as the sole research method in case study III, with a response rate of 80 per cent. All in all, the response rate for the three case studies was 64 per cent. A total of 56 answers were collected for further analysis.

Research methods
The research methods have involved free structured interviews and questionnaires. The questionnaire contained five thematic sections with 40 questions, a shortened version of an existing interview guide of 82 questions that was used in relation with a municipal architecture competition in 2006 (Andersson, 2009). A bias with an electronic document was discovered: Only persons with a high computer skill managed to fill out the form. As a consequence, the questionnaire had to be revised and transformed into an interview guide with five themes of inquiry, see table 2.

The potential informant was approached with an e-mail that explained the purpose with the study. In case study I, where the questionnaire form was used for the first time revealed a low response rate. The realization of the interview was adjusted to the informant’s use of language and the conversation that the five themes generated. The interviews were recorded, and lasted, in average, 15-30 minutes.

Table 2. Overview of the interview guide with the five themes that were used for inquiry.

<table>
<thead>
<tr>
<th>Item</th>
<th>Themes for inquiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Background details that preceded the organization of the municipal architecture competition (competition site, programming documents, user involvement, administrational preparation).</td>
</tr>
<tr>
<td>2</td>
<td>The writing of the competition brief, the participating architects’ use of the brief, the jury’s use of the brief, and the perceived accuracy of the brief for the competition.</td>
</tr>
<tr>
<td>3</td>
<td>The competition entries compared to the defined competition task, and a discussion of its relevance for the submitted entries.</td>
</tr>
<tr>
<td>4</td>
<td>The architecture competition as an entity seen before and after its completion (public response, coverage in media)</td>
</tr>
<tr>
<td>5</td>
<td>Supplementary questions (perceived level of innovation and rethinking housing for older people in general, the architecture competition as an instrument for rethinking existing notions about housing for older people).</td>
</tr>
</tbody>
</table>

Data analysis
The accumulated research material for this study consists of three types of material: architectural drawings, spoken and written statements about the competition. This demanded a narrative and a spatial analysis.

Interpretative spatial analysis
The competition entries that the various teams of architects, selected through a pre-qualification procedure, designed based on the competition programme were also included in the research material. This drawn material was analyzed in relief to what could be deducted from the competition programme. The architectural designs were
subjected to a spatial theory\textsuperscript{ii}, that states that the built space can be seen as a compilation of four basic entities, see Figure 1 (Andersson, 2011b). The four entities are: the cell, the corridor, the niche and the multi-purpose space. The basic spatial entity is the cell with four walls, floor and ceiling in a primarily quadratic shape; the second one is an extended rectangular shape with two walls, floor and ceiling: the corridor; the third one is the niche with three walls interconnecting walls and an opening as large as the widest wall, floor and ceiling, while the fourth entity has an open spatial shape that may include either of the previously mentioned and whose main characteristics is the multi-purpose use. By combining this theory with the possible triple outcome of the Swedish guidelines for residential care homes for frail older people, i.e. homelike, hotel-like and hospital-like environments (Andersson, 2011b), an analytic model that pertains to the exterior, interior and the perceived space can be assembled.

![Figure 1. The four spatial entities: the cell, the corridor, the niche and the multipurpose space.](image)

<table>
<thead>
<tr>
<th>exterior space</th>
<th>interior space</th>
<th>perceived space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localization in built environment</td>
<td>Combination of four fundamental spatial entities</td>
<td>Elements part of the perceived space and assessed as home-like, residential-like or institution-like: balcony/ French balcony, terrace, fake/ true open fireplace, elaborated/ neutral interior colouring, elaborated spatial configuration that emphasized the boundary between communally shared and individual space with varied passages and sojourns, spatial configuration that did not emphasize the boundary between communally shared and individual space with straight passages without sojourns, exterior building mass, interior built scale, crowdedness-emptiness, entrance composition, spatial entities, windows, garden, localization, materials used, individual entrance door, space adjustable to personal needs, sensory stimulation, transspatiality, Transspatiality refers to the contact with the exterior space. French balcony, bay window, panorama window, garden, terrace.</td>
</tr>
<tr>
<td>adjacency (close to), integration (in the middle of)</td>
<td>The cell is a space with a certain usage enclosed by four walls, a floor and ceiling.</td>
<td></td>
</tr>
<tr>
<td>periphery (far from)</td>
<td>The corridor has two walls, a ceiling and a floor. It is narrow and long, and creates a directional axis</td>
<td></td>
</tr>
<tr>
<td>Type of facade</td>
<td>The multipurpose space signifies a spatiality defined by its ceiling and the floor, since the walls are not perceived.</td>
<td></td>
</tr>
<tr>
<td>monolithic facade (boundary)</td>
<td>The niche has five surfaces, a floor, three walls and a ceiling.</td>
<td></td>
</tr>
<tr>
<td>membrane facade (transparency)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>structural facade (attenuation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fenestration</td>
<td>Spatial effects</td>
<td></td>
</tr>
<tr>
<td>form (horizontal/ vertical)</td>
<td>straight passages</td>
<td></td>
</tr>
<tr>
<td>composition (group/ solitary)</td>
<td>passages with varying size</td>
<td></td>
</tr>
<tr>
<td>Entrance</td>
<td>nodes of passages</td>
<td></td>
</tr>
<tr>
<td>cavity</td>
<td>sojourns</td>
<td></td>
</tr>
<tr>
<td>canopy</td>
<td>Material used</td>
<td></td>
</tr>
<tr>
<td>portico</td>
<td>Inventory of materials in communally shared space and in individual space</td>
<td></td>
</tr>
<tr>
<td>undefined</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Illustration 1. Overview of the analytic model of exterior, interior and perceived space.
Figure 2. This model is called the discursive model of an architecture competition in a Swedish municipality (Ibid.). Here, the discourses have been combined with one to all of the three genres of classical rhetoric. Compared to the original model (Cold, Dunin-Woyseth, & Sauge, 1992), some aspects have been relocated. This concerns the following items: 1) In the original model this item is placed at the current position of “Work/ Processes”; 2) In the original model this item is placed at the current position of “Emotional Experiences”; 3) In the original model, this item is placed at the current position of “Institutions/Resources”; 4) In the original model, this item is place at the current position of “Care/ Taken Care of”.

Narrative analysis

The competition documentation, questionnaires as well as other textual documents were subjected to close reading in order to establish recurring themes that could be translated into design criteria for the subsequent design task in the competition (Brummett, 2010). The preliminary conclusions that could be drawn from the listening were cross-checked with what could be sustained from the written material. In the very centre of the analysis of the competition documentation, lays the capacity to convey the organizer’s spatial visions for the future built environment to the participating architects. The analysis of the competition programme has aimed to define the type of discourse and rhetorical genre that appears in relation to an architectural competition, see Figure 2 (Andersson, 2011a). In classical rhetoric, there are three rhetorical genres (Karlberg & Mral, 2006). The deliberative rhetoric uses dissuasive or persuasive elements in speech and writing to argue a case, while the epideictic rhetoric analyses negative or positive models in order to define what is to avoid and what is to desire (Ibid). The forensic rhetoric is concerned with legal matters, and focuses on what is right and
The human-spatial bound discourse (HSD) on architecture and ageing consists of a mixture of all three genres, while the other four discourses correspond to one of the classical genres. The ethical discourse (ED) uses an emotional stance in order to define the appropriateness of certain space, and, therefore, demonstrates a similarity with the epideictic rhetoric. The conceptual discourse (CD) and the visionary discourses (VD) are aspects of the deliberative rhetoric, since these discourses use logic reasoning in terms of right and wrong in order to conceptualize visions for the future built environment. The planning-based discourse (PBD) equals the forensic rhetoric, since this discourse defines feasible measures to undertake in order to realize a certain type of built space.

RESULT
The following section is divided into sub-sections that will describe in detail the three case studies in the sample. The opening section will present information regarding the governmental initiative to rethinking housing for older people. The second section will retrace the individual characteristics of each municipal architecture competition in the sample. The order is motivated by chronology.

1. General background of the cases
In order to define the potential receivers of the allocation of means to the organization of competitions, the SIAT started mapping the 290 Swedish municipalities by sending a letter with information to the head of each local executive committee. They were encouraged to prepare an application to the SIAT for funding, and offered advice on how to organize an architecture competition and its specific aims. In March 2011, the SIAT had received twelve applications for organizing a competition, of which five were granted funding: the municipalities of Burlöv, Halmstad and Linköping; the municipal housing companies of Gavlegårdfarna AB and the consortium of five local real estate companies in Karlskrona. However, the municipality of Halmstad withdrew its application, and the consortium in Karlskrona closed the competition prematurely in June 2012. The realization of the governmental program took a total period of 23 months, and transferred to the individual architecture competition this period ranged from 10, 5 to 16 months, see Figure 3.

1.1 The participating architects
The architecture competitions were announced in professional journals and other media. If interested, the architects had to submit a set of various documents in order to allow for the organizer to make a selection. The three architecture competition generated 120 applications (CS I: 36; CS II: 33; CS III 51 applications). The eleven participating teams of architects were selected by the individual organizer of the architecture competition in a prequalification procedure. The applicants had submitted 1-6 documents that supplied both financial and taxation information about the architecture firms, and artistic and professional skills (key persons, 5-6 referential objects, bidding offer for subsequent commission). An overview of the competitions is presented in table 3.

1.2 The competition documentation
The main stock of the competition documentation, i.e. competition programme with appendices (however, the jury assessment report was written by the SAA and supervised by the municipality), was written by the local organizer. A final draft was submitted to the SAA and the SIAT for additional comments, but only the SAA returned advice on the
Figure 3. An overview of the different steps in the governmental program “Growing Old, Living Well” and the preparations of the three municipalities to take part in the initiative.
<table>
<thead>
<tr>
<th>Architecture competitions realized within the governmental program Growing old, Living well, and headed by the SIAT, 2010-2012.</th>
<th>Amount of allocated means to the competition by the SIAT</th>
<th>Preparations prior to the realization of the competition</th>
<th>Type of architecture competition Remuneration of participating architects</th>
<th>Time table for the architecture competition</th>
<th>Competition secretary and competition functionary</th>
<th>Participating architects (the winning team indicated in bold)</th>
<th>Number of questions on the competition task as expressed in the competition programme</th>
<th>Interrogatory actor concerning questions on the programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture competition “New built environment for older people in the proximity of the Kronetorp Manor, the municipality of Burlöv.” Arranger: The Municipality of Burlöv.</td>
<td>Means for pilot study: 500 000 SEK. Means for Architecture competition 1 100 000 SEK.</td>
<td>YES; the pilot study “Future-oriented housing for older people” with external coordinator. The project was realized as a special study by the local eldercare administration. Time table: Sept 2011 to Jan 2012. Closing report in April 2012.</td>
<td>Invited architecture competition with prequalification procedure Each participating team of architects received: 300 000 SEK.</td>
<td>Initiation to participate 26 sept – 1 Nov 2011. Announcement of selected architect’s team: 2011-12-05. Distribution of competition programme: 2011-12-05. Opening meeting for teams of architects and jury members: 2011-12-14. Separate SIAT meeting Burlöv: 2012-02-09. Questions on competition programme, answer period 2011-12-05 to 2012-02-14. Submission date of competition entries: 2012-03-15. Jury assessment period: 2012-03-15 to 04-20. Closing of competition/ announcement of winner: 2012-06-20.</td>
<td>Competition secretary: representative of Swedish Architects’ Association, SAA. Competition functionary: representative of City Planning Office, the Municipality of Burlöv.</td>
<td>Architect team 1: White arkitekter AB, Malmö, Sweden; Architect team 2: Johan Celsing arkitektkontor AB; Malmö; Stockholm, Sweden; Architect team 3: Chroma Arkitekt AB och Torna landskapsarkitekter AB, Malmö, Sweden.</td>
<td>No notes were taken during the opening meeting, and therefore the number of questions formulated during this meeting have not been possible to establish. The opening meeting ended with a visit to the competition site for all participants in the meeting. During the competition period, 2 additional questions were addressed to the competition functionary in relation to the competition task and the competition programme.</td>
<td>Architect team 11: 5 questions (the five questions generated one additional question on the answers that were given).</td>
</tr>
</tbody>
</table>
structure and the wording. Until the beginning of the competition in Gävle, the SIAT lacked a strategy for evoking the key items in the governmental initiative, and during the opening meeting of this competition the SIAT suggested an improvised solution with separate meetings during the competition period. The competition documentation that the participating architects had to digest had the following components, see table 4.

<table>
<thead>
<tr>
<th>Competition documentation</th>
<th>Planning parameters</th>
<th>Ageing issues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comprehensive level</td>
<td>Detailed level</td>
</tr>
<tr>
<td>Cs I. Municipality of Gävle</td>
<td>final competition programme</td>
<td>appendices (drawings, detailed planning documents, constructional documents),</td>
</tr>
<tr>
<td>Cs II. Municipality of Linköping</td>
<td>final competition programme</td>
<td>appendices (drawings, detailed planning documents, constructional documents),</td>
</tr>
<tr>
<td>Cs III. Municipality of Burlöv</td>
<td>final competition programme</td>
<td>appendices (drawings, detailed planning documents, constructional documents),</td>
</tr>
</tbody>
</table>

The period for questions on the competition documentation varied from 4 days to 92 days (CS I: 4; CS II: 92; CS III: 69 days). In addition, the remuneration of the architects varied between 150 000 to 300 000 SEK. The competition documentation is mainly written in a forensic rhetoric that is focused on what is right or wrong for the particular design task. This is a planning-based discourse.

2. The three architecture competitions
In this section the case studies will be described and presented in chronological order. An overview of the characteristics of the submitted entries is found in table 5. The competition entries are executed in a modernized functionalist type of architecture.

2.1 Case study I. “Elm Street, resident inclusion in the refurbishment of rental flats”
In this case, architecture competition in the municipality of Gävle, the competition programme opens with a quotation from the comprehensive physical planning document for Gävle. By use of this passage, the programme explains that the design task concerns a condensation of existing built space in order to optimize the use of infrastructure and municipal services: “from a sustainability point of view, the dense built environment is
Table 5. Overview of the submitted entries in the three architecture competitions.

| Architectures competitions realised within the governmental programme for architecture competition (in bold style) | Participating architects (winning team in bold style) | Competition entry and motto | Characterization of the entry from the jury report | Urban level | Building typology | Integration in the surroundings | Built space: analysis of space in individual flat and communal area | Other comments |
|---|---|---|---|---|---|---|---|---|---|
| Architecture competition 1: “User involvement of other people in the design process” | Team I: Akerblom Arkitektur AB, Stockholm, Sweden | 5 slender and tower buildings | This entry is a solidly thought-through building with a strong identity that
| 3-4 storey buildings (slender and tower buildings, 2-3 storey row houses, and 3-4 storey row houses) | integrated in the surrounding built environment, however, not with the | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| Architecture competition 2: “New housing district in the municipality of Boo” | Team II: Westerdals Arkitektur AB, Göteborg, Sweden | 2 separate buildings in 3-5 storeys | The green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| Architecture competition 3: “New residential care home” | Team III: Ramberg Arkitektur AB, Stockholm, Sweden | 1 separate building in 1-2 storeys | the green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| | Team IV: Snow Arkitektur AB and Arneberg AB, Stockholm, Sweden | 1 separate building in 1-2 storeys | the green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| | Team V: Living Arkitektur AB, Stockholm, Sweden | 1 separate building in 3-4 storeys | the green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| | Team VI: Svea Arkitektur AB and Berg Arkitektur AB, Stockholm, Sweden | 1 separate building in 3-4 storeys | the green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| | Team VII: Björk Arkitektur AB and Rannevik Arkitektur AB, Göteborg, Sweden | 1 separate building in 3-4 storeys | the green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| | Team VIII: Eng Arkitektur AB, Stockholm, Sweden | 1 separate building in 3-4 storeys | the green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| | Team IX: Vux Arkitektur AB, Stockholm, Sweden | 1 separate building in 3-4 storeys | the green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |
| | Team X: Wester Arkitektur AB and Nyberg Arkitektur AB, Stockholm, Sweden | 1 separate building in 3-4 storeys | the green structure that links the existing park at Svenskäng via the | integrated in the landscape on a | kitchen open to living room space, niche and | Small flats in sunny locations, only bathroom accessible from bedroom |

Legend: X - refers to a single building that in the urban landscape lacks visible connections with the surrounding built environment or with the topography.
the type of space to envision.” In consequence, the organizer also urges the participating architects to produce sustainable solutions with limited environmental effects (AB_Gavlegårdarna & Gävle_kommun, 2011, p. 5).

“In this competition, the key issue is to which extent the existing built environment can be condensed with additional buildings, and the design of this new built space. This is not only a matter for the competing architects and the competition jury, but also an issue that has to be answered by the residents, neighbours and the City Planning Office. The competition is two-fold: primarily, to present at least 50 flats that would attract residents within the target group people aged 65 years and above. Secondly, the design task is to demonstrate how existing buildings can be adjusted to modern demands of accessibility and usability. Given the outcome of this assessment, the author of the individual competition entry may decide if the existing row houses can be integrated in the new design. The competition entries are to be executed in an environmental and sustainable spirit of design. The challenge for the competing architects is to conceive attractive and cost-efficient housing for older people grouped in harmony with the existing green environment. This design should demonstrate innovative housing solutions for older people, not to mention technical equipment that would prolong an ageing in place (Ibid, p. 5-6).

If this quotation is structured, a set of requirements for the design task falls out that makes it possible to formulate eight design criteria.

1) Assess the reasonable level of condensation of the existing built space at Elm Street.
2) Suggest a feasible architectural design for the additional built space of the district.
3) Conceive at least 50 flats that target the demands of older people.
4) Demonstrate refurbishment solutions of the existing row houses that would create a higher level of accessibility and usability.
5) Suggest a comprehensive solution for the district that integrate the existing row house, or replaces these with new type of housing.
6) Integrate the solution for the district in the surrounding context of infrastructure and municipal services.
7) Implement smart house thinking in the proposed housing for older people in order to promote innovative thinking for this target group.
8) Conceive overall attractive and cost-efficient housing for older people around the existing green space at the Elm Street.

The intent was that a parallel pilot study on the user group of older people who today have a tenancy agreement on a flat in one of the existing row houses would supply a description of the target group older people aged 65 years and older and their specific needs. However, this study was ongoing when the architecture competition opened, and only raw preliminary results were added to the programme as an appendix.

The architects’ understanding of the competition programme
For this competition, the organizer selected four versatile architecture firms, three from Stockholm, and one from Gothenburg, but all Swedish. The architects chose to focus on the competition site and its constituents, since they found little of relevance in the programme concerning housing for older people. In addition, they found the transfer of the decision of renovating or demolishing the existing row houses based on financial and technical considerations to the competing architects’ team odd. According to them, this was a matter that the organizer should have resolved prior to the competition. The
competition programme generated a substantial number of questions, 24 questions all in all. One factor that could explain this number is the fact that the time for questions was set to only four days. The questions can be distributed according to the author:

Architects’ team 1: 3 questions;  
Architects’ team 2: 6 questions;  
Architects’ team 3: 6 questions;  
Architects’ team 4: 10 questions.

Lacking information about older people and their housing preferences, the competing teams of architects chose to find information outside of the competition program in order to conceive a structuring idea for the competition entry. To some extent, the information meeting that the SIAT offered on 2nd December 2011 did constitute a necessary input in this work, mainly in regard to the use of information technology and smart house concept by older persons. However, the meeting was geographically restraining, and only the competing architects and jury members in Stockholm participated.

The competition period for the conception of competition entries was approximately 3 months, from 10 October 2011 to 18 January 2012. However, the architects maintain that a disproportionally large part of this time had to be consecrated to investigating the matter of refurbishing or demolishing the existing row houses, and a minor part to conceive innovative housing solutions for older people. In addition, the preliminary results from the pilot study on user involvement proved that the current residents wished modest changes that made the design task inconsistent. Therefore, the competing architects developed two strategies towards the residents’ saying: a) the residents’ statements were acknowledged and integrated in the structuring idea for the competition entry; b) the residents’ statements were deemed as an accessory component that allowed a certain liberty to interpret as a design parameter.

The design task and its realization in four competition entries
The jury assessment report supports the architects’ opinion about the competition programme’s low level of infusing innovation into the design task concerning appropriate architecture for older people. The design task became mainly active on an urban level rather than on the direct building level. The complexity on the urban level, i.e. to renovate or demolish existing buildings, superseded the detailed work of elaborating sustainable designs of flats adjusted to older persons’ conceivable panorama of needs. The dominance of the urban level made the architects inclined to present a complete solution for the whole district of Elm Street. After having assessed the feasibility to keep the existing row houses, the architects’ conclusions diverge in three directions, see Figure 4.

1. Two refurbishment proposals with the existing row houses kept intact or one storey being added to the existing building height in order to meet modern building requirements of accessibility and usability, paired with additional built space in three to five storey in order to add a financial credibility to the competition entry (Architects’ team 1 and 3).
2. A reshaping proposal in three storeys that is to be implemented step by step in order to change the district into a dense built space with a variety of flats (Architects’ team 2).
3. A novel proposal that suggests a complete demolition of the existing row houses and a replacing new built space in two storey on top of the existing basement floors (Architects’ team 4, winner).

The architects suggest that the competition programme contained sparse information about future-oriented space for the senior generation. The competition entries and the
Architects’ team 1

Refurbishment 1: one storey added to the existing row houses in combination with a five story tower building to finance the refurbishment.

Architects’ team 3

Refurbishment 2. Some row houses are demolished and replaced by three to four storey buildings in order to finance the refurbishment of the existing row houses to which one room has been added angular to the existing building and facing the park.
Architects' team 2

Reshaping: The existing row houses are replaced in a long term reshaping process with 1-3 storey buildings and the creation of private court yards for each group of housing. The park space is condensed.

Architects’ team 4 (winner)

Novel solution: the existing row houses are replaced by three storey buildings but the green space is left intact.

Figure 4a. Overview of the four competition entries in the architecture competition in Gävle, arranged in the three identified directions, refurbishment, reshaping or novel built space.
jury assessment report promote a notion that the appropriate architecture for older people is a universal one. Both conclude that accessibility, functionality, building performance and usability are building requirements of relevance for people of any age. However, it is architectural aspects such as a direct relation from the inside space towards the outside space, integration in the surrounding built environment and easily accessible infrastructure that makes housing attractive. This competition supplies ground for a preliminary conclusion that appropriate architecture is a type of universal design open for anyone regardless of age or possible impairment, cognitive or functional.

2.2 Case study II. “Town block Walpurgis Night: invited project competition concerning the design of future-oriented housing for frail older people”

In five introductory sections, the competition programme prepares for the definition of the design task in the municipality of Linköping. These sections supply the background and the link to the governmental program. More specifically, this text explains the municipal intentions with the competition (Linköpings Kommun, 2011a):

"The task is to propose an architectural design of a residential care home with appropriate functionality and high architectonic qualities. This housing should be conceived in a way that diminishes the institutional feeling that often is perceived in this type of housing. The actual implantation of the building on the steep site and in virgin nature should be done with consideration. The ambition for the project is to integrate the new residential care home with the existing built environment so that a new meeting place falls out of the design. This measure strengthens the feeling of living in a community with safety and rich opportunities for people to meet regardless of age. A residential care home that offers space for meeting becomes a natural place for various activities that will involve all residents in the area. This installs a sensation of community, satisfaction and well-being. Assembly halls for celebrative moments, gymnastics, swimming, studies and other leisure activities exemplify such space. The municipality wishes a design that add value to the existing one so that:

1. the individual resident of the residential care home may enjoy the surroundings;
2. the residents in the existing built environment will welcome the new addition to the environment (The competition programme, Ibid, p. 4).

If this quotation is structured, a set of requirements for the design task falls out that makes it possible to formulate ten design criteria; to create:

1. a residential care home with high performative abilities,
2. a residential care home with high architectural qualities,
3. a residential care home that minimize/ is free of the an institutional feeling,
4. a residential care home that is integrated in the steep natural site,
5. a residential care home that will be perceived as an obvious addition to the existing built environment since it contributes with new space for communal assemblies between the residents in the residential care home and the neighbours,
6. a residential care home integrated in the surrounding environment in order to install a feeling of community, safety, security and possibilities to meet above age barriers,
7. a residential care home in which the positive aspects of the existing neighbourhood can be integrated and add quality for the frail residents in the home,
8. a residential care home that through its architectural design will neutralize the neighbouring residents’ hesitation against a new implantation of built space in the
area,
9. a type of housing that residential care home incarnates for the coming decade of 2020s with respect to accessibility, usability and modern technology,
10. an increased possibility for frail older people to continue to reside in a familiar neighbourhood but in a new type of housing.

The number of residents per unit in the residential care home is defined as approximately 10 persons. The communal space is estimated to 15 square-meters per residents, which is identical with the quota that was used by the National Board of Housing, Building and Planning in relation to the state grants that were open during the period of 2007-2011 in order to increase the number of available flats in residential care homes (NBHBP, 2011). However, the older frail person is evasive in the programme similar to the care staff that is to work in the home. The diagnoses that the residents will probably suffer from are rationalized into the following description: “The physical environment must be designed so that persons with reduced cognitive and locomotory abilities will find their way. The main entrance must be clearly visible” (Linköpings Kommun, 2011b, p. 2).

The architects’ understanding of the competition programme
The municipality of Linköping had selected four versatile architects’ firms, three from Stockholm, and one from Malmö. One firm in Stockholm (architects’ team 4) and the one in Malmö (architects’ team 2) collaborated with Danish architects’ firms. The competition programme generated few questions, seven in all. The participating architects assess the programme with appendices as convenient for the purpose. The questions were formulated by the same architects’ team (Architects’ team 4), and, according to their own statement, they had to do these inquiries in order to reach a similar understanding among the Danish and Swedish members of the team. The period for asking questions on the competition programme was set to 3.5 months.

However, the architects regret that the competition programme did not include the staffing of the residential care home, since from their experience, even this question has a bearing on how to design an appropriate residential care home. By adding the staffing situation, the architects maintain that the architectural design becomes innovative. Only two architects’ teams chose to challenge the given number of residents per unit, the Danish-Swedish teams of architects. The SIAT held a special meeting to inform this group of participating architects about space for the frail ageing process and the research that the institute produces. Most of the architects participated in the meeting that they assessed as inspiring and beneficial for their work.

The design task and its realization in four competition entries
The jury assessment report recapitulates the discussion concerning the size of the unit among its members. It resumes accurately the view among the participating architects about what the competition has achieved: Firstly, the competition has aimed for an innovation of the residential care home within the current definition of acceptable costs for care and staffing. As a consequence, neither of the teams who challenged the number of residents per unit find themselves fortunate in the competition. Secondly, what the competition has achieved is a renewed focus on the relation between the architectural design and the well-being of the frail older person, but also for the satisfaction of the care staff working there. The architects maintain that the architectural conception has been about emphasizing those spatial qualities that may enrich the older person everyday living. This concerns aspects such as being in reach of daily distractions and experi-
The view to the exterior space as the universal source of distraction.

Architects’ team 2

Architects’ team 3, winner
Figure 5. Overview of the four competition entries in the architecture competition in Linköping, arranged in the two identified categories.
ences, a room with an inspiring view, the sensation of the outdoor environment compared to the indoor space, the sun’s warmth and the daylight penetration.

In this case, the competition site invites the architects to use both the urban level and the direct building level, but in a combination and to an extent that can the individual understanding of the design task induces. The main difference between the four competition entries lies in how the urban level and the building level have merged into a structuring idea for the competition entry. Therefore, the individual flats are well executed, but the inner communal space lacks those considerations that make it easy to understand and find one’s way in. In that aspect, the older person with cognitive or functional impairments has not been fully respected. The submitted entries boil down to two categories: a) the view to the exterior space as the universal source of distraction (Architects’ team 1) versus b) the dynamics between the exteriority and the interiority, and the private flat as compared to the communal space (Architects’ team 2,3 and 4), see Figure 5.

2.3 Case study III. "New housing district for older people near the Kronetorp Manor.”

In this competition programme, the precise description of the design task is found in the opening section of the text, but not under in the passage that is entitled design task. This attributes the competition programme with an interpretative dilemma that requires an attentive reading. Following two quotations demonstrate this complexity:

“The design task is to conceive an illustrative overview of the development of a new housing district around the Kronetorp Manor that will be a new district to the existing community Arlöv, and to suggest 100 flats in close proximity of the manor that are intended for older people. The opportunity to a pleasant neighbourhood that the centrally located existing built environment around manor supplies has to be exploited in the design of an elderly friendly environment (section Inbjuden arkitekttävlingBurlövs_kommun, 2011, p. 3).”

“The competition entry must display a solution for an age-integrated new housing district in which the senior part of the local population will be able to meet people in other age groups, children, young adults and adults. The level of exploitation and the suggested solutions must be environment friendly and sustainable. The competition entries shall demonstrate other aspects such as accessibility, usability and integrated meeting places and pathways through the district. Even parking solutions must be included. In addition, the disturbing noise from neighbouring infrastructure must be considered. In order to supply an attractive district for housing for both residents and property companies, the suggested housing types must be financially and technically advanced. The 100 flats for mainly senior residents shall be presented with a floor plan, elevations and facades. The result of the parallel pilot study on the housing preferences among the senior citizens in the municipality (...) shall be visualized. The competition will result in an illustration for a new detailed plan of the area that except the 100 flats for senior citizens will also include 200 flats for other age groups (section tvlingsuppgiftBurlövs_kommun, 2011, p. 5-6).”

If these quotations are structured, a set of requirements for the design task falls out that makes it possible to formulate ten design criteria.

1) Conceive an illustration of a new housing district in the close proximity of the Kronetorp Manor estate, the new housing district of Arlöv,
2) Create a hundred new flats for senior citizens near the manor that will enjoy the comfort of having the old manor as focal point for older people and other age groups.

3) Create a new age-inclusive housing district in which the senior part of the population will meet children, young adults and adults of other ages.

4) Present a feasible level of exploitation of the area and building solutions that result in a low environmental impact and a sustainable solution.

5) Elucidate important aspects with regard to the localization, the design of meeting places and pathways, and the green environment in general (including parking solutions).

6) Create solutions of how to reduce the noise impact from neighbouring infrastructure.

7) Propose a housing district that may be attractive for both residents and property developing companies.

8) Propose housing solutions that are financially and technically advanced.

9) Propose housing solutions of a 100 new flats for older people with floor plans, elevations, and facades (a concretization of the governmental program).

10) Except the 100 flats for senior citizens the participating architects shall suggest at least 200 flats for people of other age groups.

In the competition programme, a parallel pilot study is referred to as a source of knowledge with respect to housing preferences among senior citizens. However, when the competition programme is distributed the pilot study is not yet complete, and only preliminary results are put as an appendix (the report is finalized in January 2012). Therefore, the competition programme has few information about housing preferences among the senior part of the local population.

**The architects’ understanding of the competition programme**

In this competition, the organizer selected three versatile architects’ firms, two firms based in the nearby Malmö and known by the municipality (Architects’ team 1 and 3), and on firm with head-office in Stockholm and a local office in Malmö (Architects’ team 2). The participating architects have few objections against the competition programme, and few questions were raised. One of the participating architects suggests that the programme was an optimal version of a programme, whilst another participant makes some remarks about the unclear definition of the design task. For this person, the true meaning of the design task becomes clear first in the jury assessment report. Only 6 questions were formulated by one of the competing architects’ team (Architects’ team 3), but these mainly referred to missing documents that the organizer omitted to send out as promised at the opening meeting the 14 December 2011. The time for addressing questions on the programme was set to two months.

For all of the participating architects, the design question is mainly active on an urban level, and it involves housing preferences and age integration. However, the architects did find the focus on older people as odd. The SIAT arranged a special meeting in the municipality to address these questions. Representatives from all firms participate, and for those, who represent a collaborative level in the project, the meeting is informative. However, participants on a responsible level in the project suggest that this meeting added new parameters to the competition programme which they found obstructive. The competition period was 4.5 months, the 6 December 2011 to 17 April 2012.
Architects’ team 1

The manor and the outbuildings as remains in an urban landscape in a future-oriented perspective

Architects’ team 2, winner

The manor and the outbuildings as remains from the previous agricultural landscape in a near future
The manor and the outbuildings as focal point for a new housing district that will be realized in near future

Figure 6. Overview of the three competition entries in the architecture competition in Burlöv, arranged in the three identified categories.

The design task and its realization in three competition entries
The participating architects’ teams like the jury in this competition reach the conclusion that older people are not definable as a homogenous group of people with identical needs and similar housing preferences. Instead, as the jury assessment report states that the perceived attractiveness of a particular type of housing is a type of universal design that focuses on “classical values for appropriate housing like light penetration, choice of materials, possibility to furnish and views to the exterior space” (Hjälpmedelsinstitutet_HI, 2012, p. 6).

However, and both the architects and the jury agree in this matter: the design task for this competition has mainly been active on an urban level, to structure the built environment around the Kronetorp Manor estate, and therefore the several aspects of interest for the governmental program have not been activated in the competition. Still, the architects maintain that this focus has put an extra attention on how to create an accessible and usable environment for people with cognitive or functional impairments. In this competition, the submitted competition entries bear witness of how competing architects’ different reading of the programme. Given the inclusion of the introductory section in this lecture, the submitted entries assume three approaches towards the manor and its outbuildings and the time factor, see figure 6:
1. The manor and the outbuildings as focal point for a new housing district that will be realized in near future (Architects’ team 2);
2. The manor and the outbuildings as remains from the previous agricultural landscape in a near future (Architects’ team 3);
3. The manor and the outbuildings as remains in an urban landscape in a future-oriented perspective (Architects’ team 1).

Discussion
The present study has focused on the three architecture competitions that were realized within the governmental program Growing old, Living well (Regeringskansliet, 2010). Put in a global context, this study is consistent with previous studies on architecture competitions in the sense that the competition documentation demonstrates the essential components of the current ideological paradigm concerning architectonic ideals and the contemporary dialogue about architecture (Bloxham_Zettersten, 2007; Rustad, 2009; Tostrup, 1999). The special interest in this study has been the correlation between the requirements that are specified in the competition documentation and their realization as design parameters in the submitted competition entries. As demonstrated by the entries that have been conceived by eleven versatile architects’ offices, the architectural space is an outcome of how the architects have understood the competition programme. In that aspect, the competition realized in the municipality of Burlöv is the most interesting one, since the different outcomes can be linked to the unclear definition of the design task: Two competing teams have focused on the section that is headed by this word, while the third has conducted a comprehensive reading of the whole document and realized that the organizer’s understanding of the design task is found in the very beginning of the document and under another headline.

What could be considered as a disappointing outcome of the competition is the feeble bearing on what could be described as the key element in the Swedish governmental investment in the project: It could be said that the submitted interest demonstrate a poor interest in housing preferences that concern the ageing generation. This outcome seems related to the overall time schedule for the program, which has resulted in a time efficient process that has not allowed a methodical exploring of issues of relevance for the ageing population by the municipal organizer. However, this dilemma has been revealed by the competition juries who suggest that the senior group of the population cannot be considered as a homogenous group of people with similar needs and preferences. In that sense, the realized competitions add power to the understanding that age cannot be used as a parameter to define people: ageing is a prerequisite in living, to earn new experiences in order to complete an individual life story (Cortina_Orts, 2012; Messy, 1992). The competitions demonstrate that architecture has a different pace of ageing than the human ageing process. Appropriate architecture can be seen as a built environment that is based on accumulated human experiences on what installs a feeling of being at ease and in peace: the daylight penetration, the dynamics between the exterior space and the interior one, and the contradiction between the private space and the communal one.

Seen as an entity, the three architecture competitions spurred to produce new space especially for the ageing society may reflect a more severe critic of current trends in building. The three competitions suggest that future built space should exploit a closer fit between architecture and the potential user: there is a symbiotic relation between the
individual process of making home and the rational aspect of providing homes. The home is a psychological process of appropriating space and standing one's ground (Lefebvre, 1985). In this context, the three competitions demonstrate the close relation between life and home architecture as a backdrop to life: Both the competitions in Gävle and in Burlöv concern a home environment that has been appropriated and integrated in life since many years. In the case in Gävle, the competing architects pay little respect to this emotional connection that the residents enjoy in relation to their living environment. These entries defy the principle of ageing in a familiar environment, whilst the competition in Burlöv is consistent with what many gerontologists have argued: a familiar environment is vital component in a successful ageing process (Hurtig, Paulsson, & Schulz, 1981; Rowles, 1993, 2000). On the other hand, the second competition in Linköping describe an ageing friendly ambition in the sense that both the organizer and the architects acknowledged the emotional connection to the built environment by integrating and opening the residential care home to the surrounding neighbourhood in a de-institutionalisation ambition.

Concluding remarks
The present study has focused on the three municipal architectural competitions that were realized in the three Swedish municipalities of Burlöv, Gävle and Linköping within the perimeters of the governmental program. The correlation between the requirements, stated in the competition documentation, and their implementation as design criteria in the eleven competition entry that the participating architects submitted. This study demonstrate that programming documents used within the field of architecture for ageing and eldercare generate spatial requirements for an overall high architectural quality and long-term performance, rather than an enlarged understanding of how to grow old in a care environment with respect to the WHO policy of active ageing (WHO, 2002).

References
i It has to be mentioned that the governmental program was preceded by a joint initiative from Christer Neleryd, executive director of the special program Äldreguiden (Guide for the elderly) that the NBHW launched in 2007 and finalized in 2010, Magnus Rönn, associate professor at the School of Architecture, the Royal Institute of Technology, KTH, the author of this paper, then doctoral student, and Susanne Iwarsson, professor at the CASE Research group, Lund University, who presented the idea of organizing several architecture competitions with research-based competition documents in November 2009 at a meeting at the Swedish Social Ministry.

ii This theory has been formulated by the Swedish architect Hans Fog, professor em, the Royal Institute of Technology, KTH, Stockholm.