

Usefulness in architecture accessibility, inclusion and usability as spatial sensory experiences



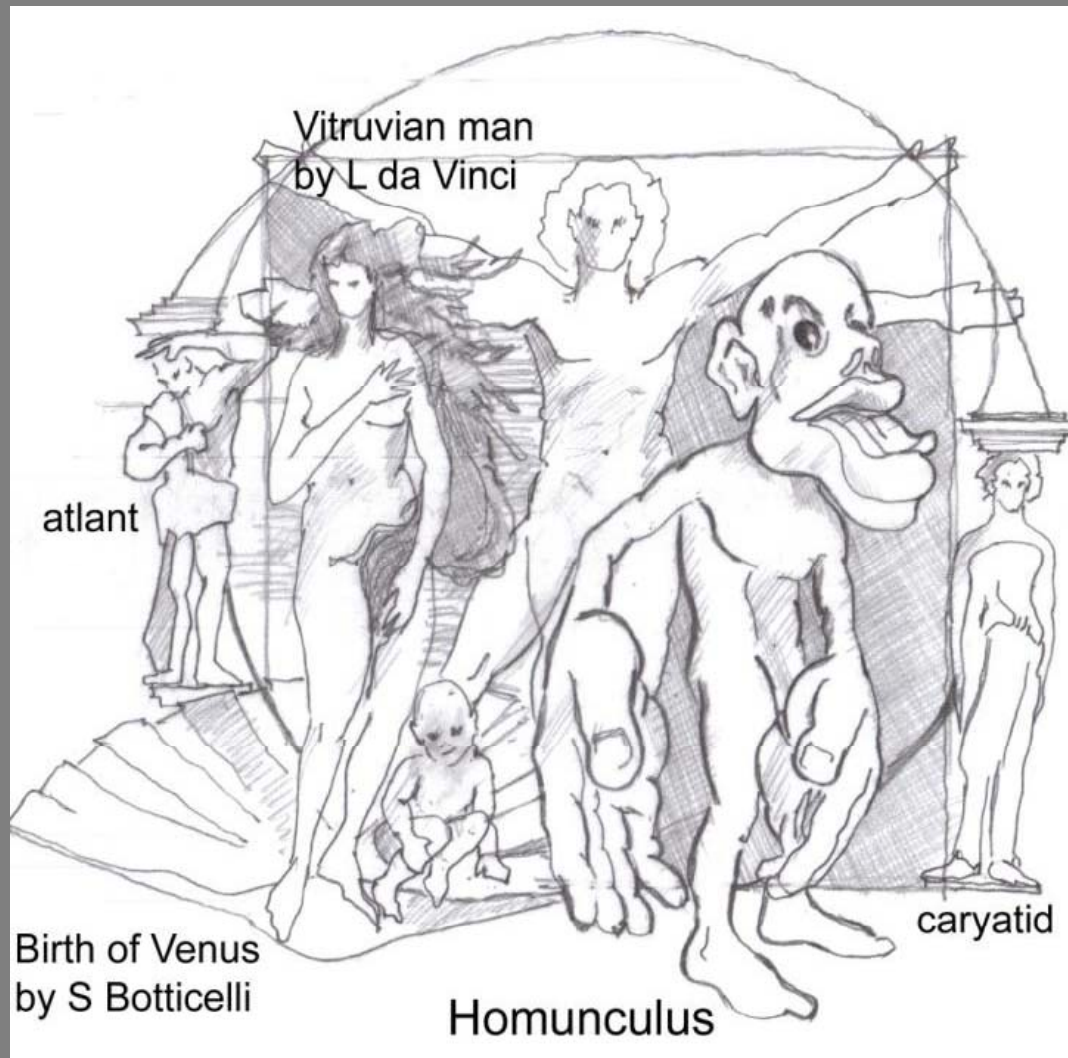
Jonas E Andersson

Ph D, architect SAR/ MSA



overview:

1. study about increasing awareness about accessibility and usability;
2. location: the School of Architecture at the Royal Inst. of Technology, KTH in Stockholm;
3. setting: continuing education course offered at the school;
4. eight participants, 7 women and 1 man (2 architects);
5. promote three-dimensional understanding of accessibility and usability.



Source: Andersson, JE, 2011: Architecture and Ageing.

Sweden is ageing, 19 %
older people aged 65 years
and older (Sweden Statistics).

architecture about exterior
appearance with effect on
inner experiences of space

architects: experts on the fit
between human needs and
spatial adjustments and
requirements: see the inner
person (homunculus)

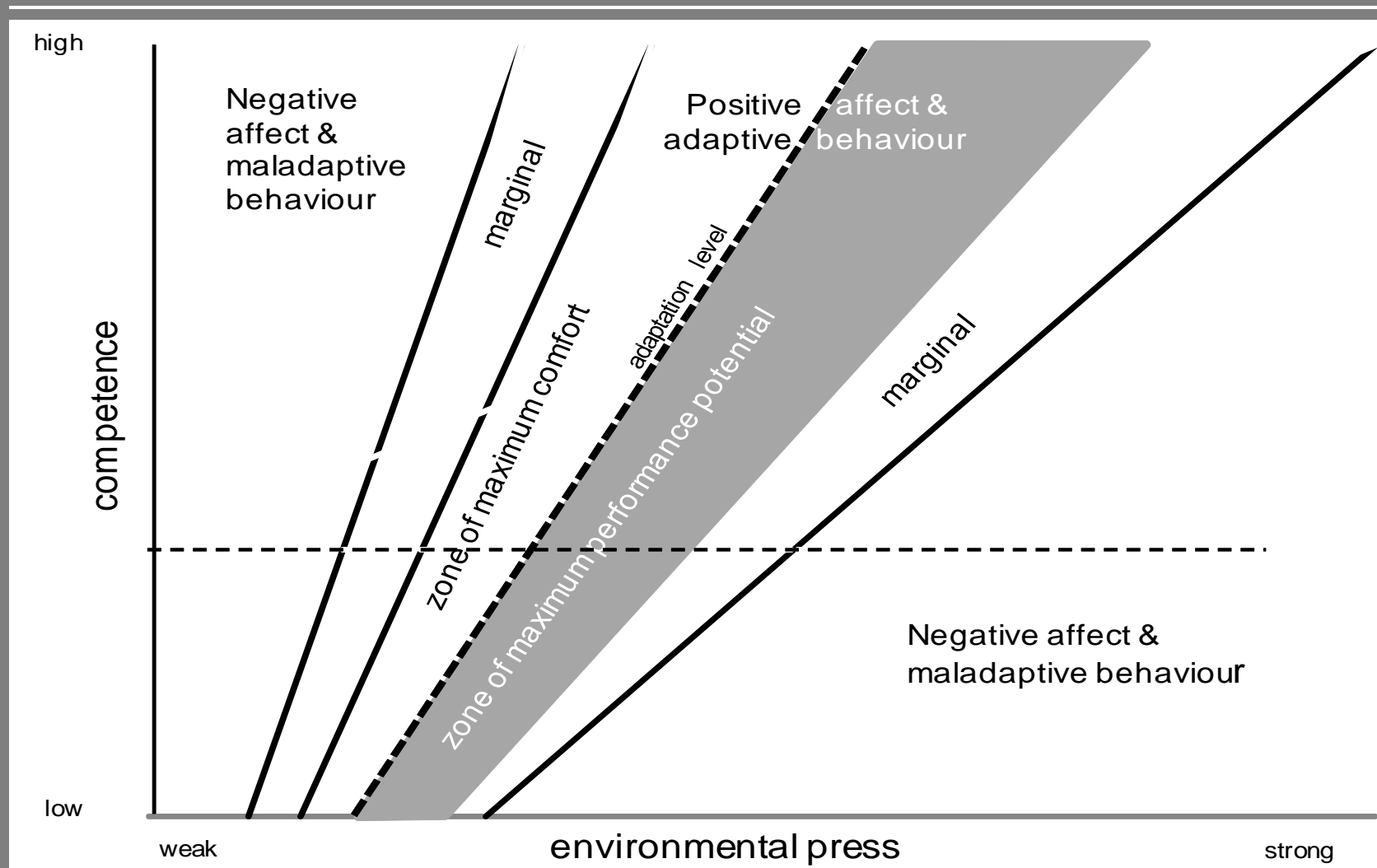
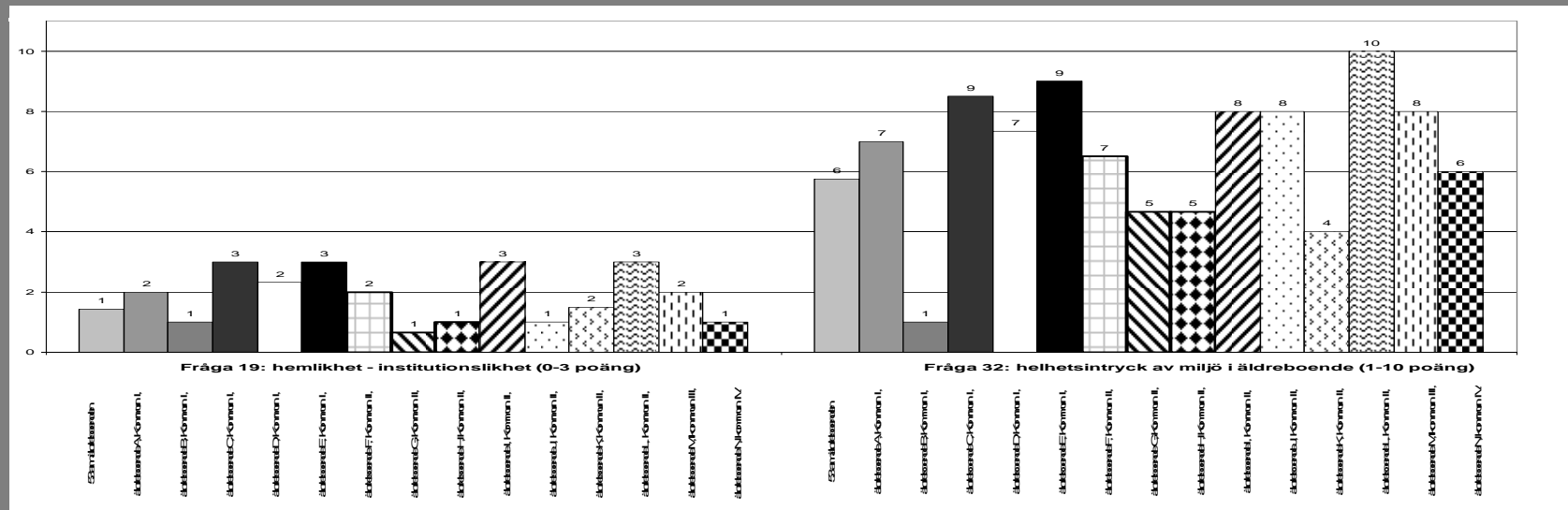


Image: Andersson, JE, 2011: after: Lawton, M. P., & Nahemow, L. (1973). Ecology and the aging process. In C. Eisdorfer & M. P. Lawton (Eds.), *The Psychology of Adult Development and Aging*.

inspirational input:

1. Universal Design Education Project – Sweden in 2001-2004: rejected participation;
2. accessibility and usability addressed during practice-oriented and studio-based learning.
3. Therapeutic Screening Scale for Nursing Homes, TESS-NH, version 2003
4. positive outcome of using TESS-NH during 5 courses on architecture and ageing
5. Research-based learning on architectural experiences



Source: Andersson, JE, 2014: Architecture and the TESS-NH instrument, forth-coming

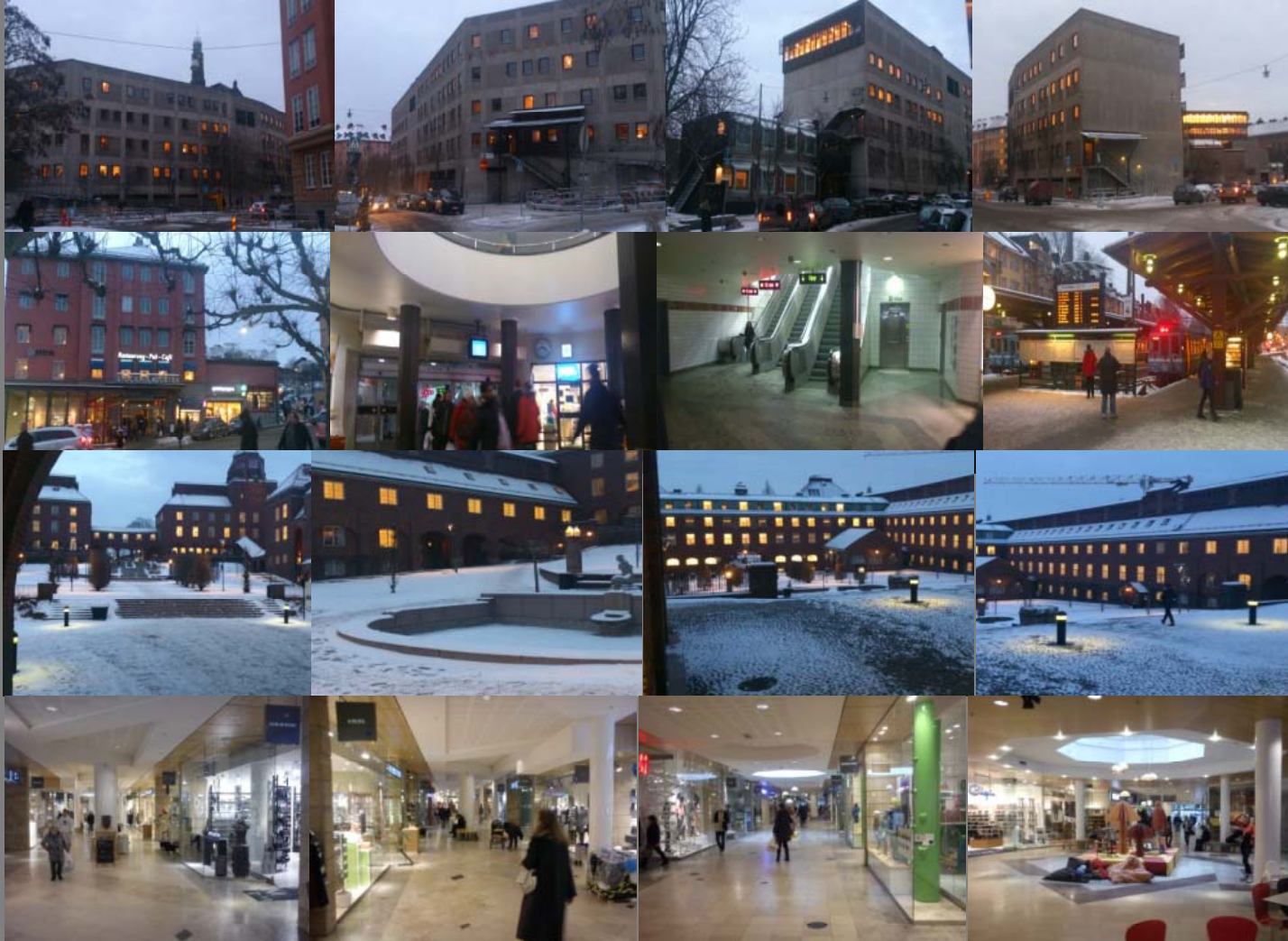
1. TESS-NH instrument, 2 questions a holistic assessment on a 10 graded scale of homelikeness and pleasantness of the architectural space

2. Similar answers from female and male respondents, however, assessors with architect background inclined to lower grading than care professionals

curriculum:

1. *Architecture for all – accessibility, inclusion and usability*
2. 6 five-hour long lecture-seminar-excursions;
3. 4 types of built environment to assess with an assessment protocol with 6 sensory aspects: acoustics, functionality, kinetics, thermality, olfaction, and visibility on a five-graded scale, where 1=poor, and 5=excellent

4 types of built space:

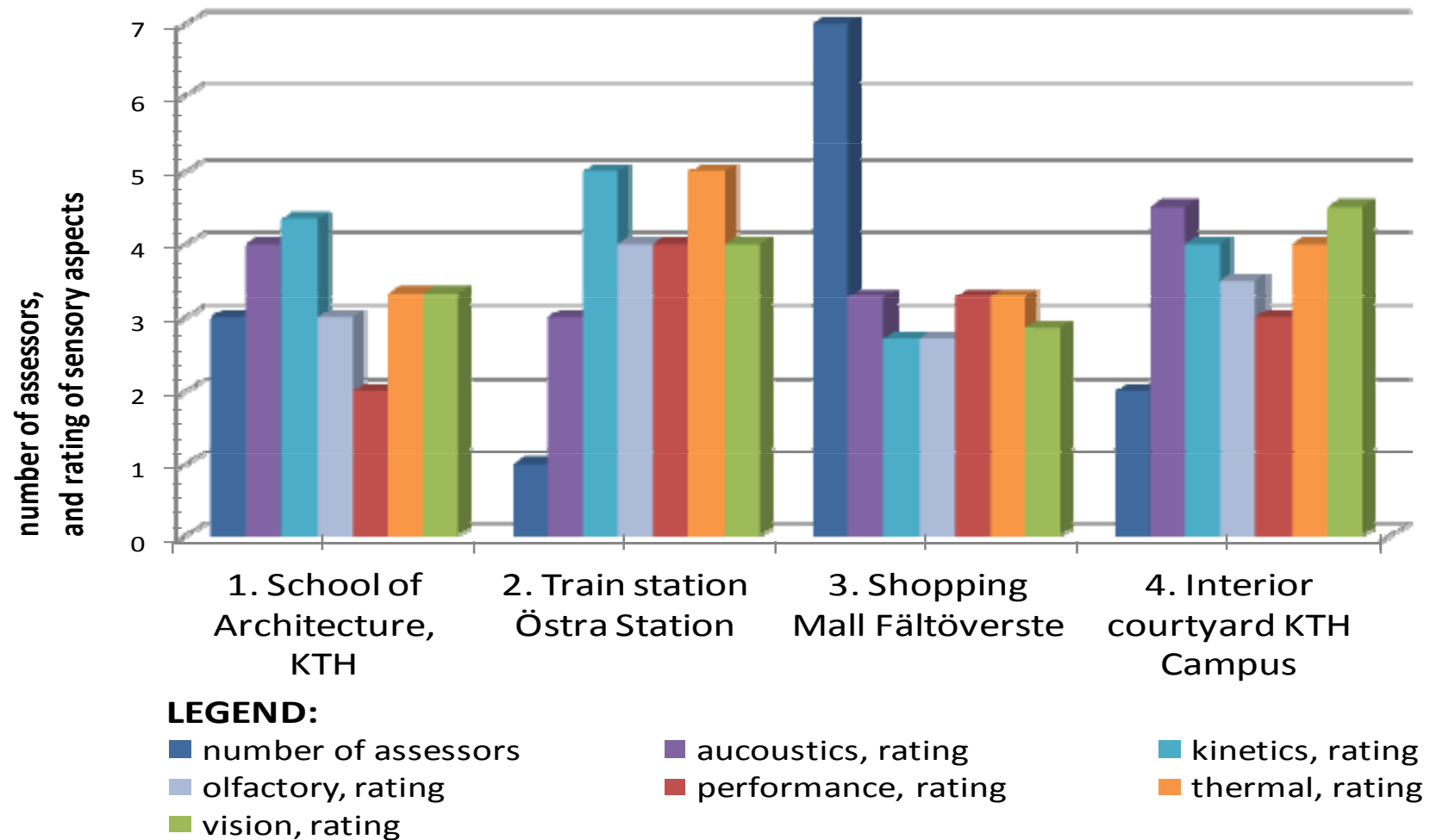


School of
Architecture
KTH

Östra Station,
train station

KTH central
campus, court
yard (winter
view)

Fältöversten,
shopping mall

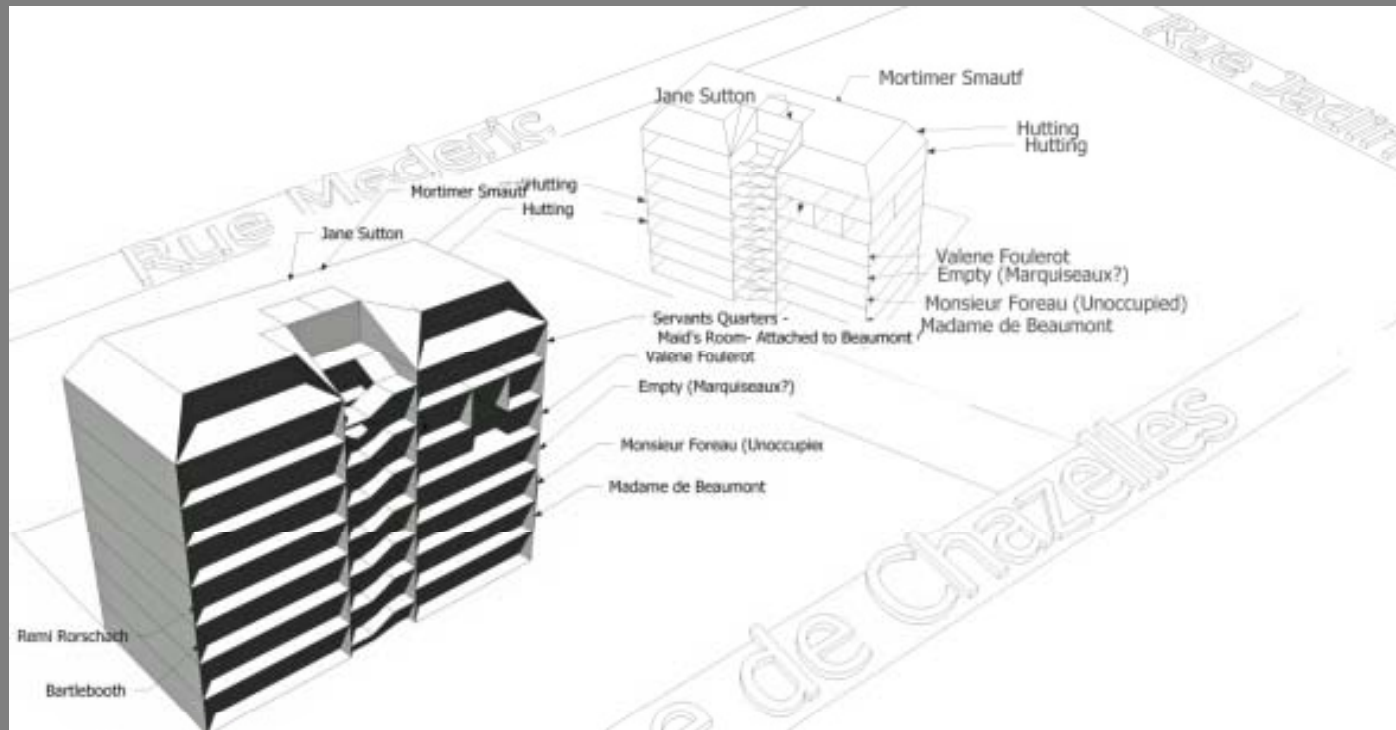


literature:

1. Steinfeld & Maisel, 2012: Universal Design;
2. Arthur & Passini, 2002: Wayfinding: people, signs and architecture;
3. Perec, 1978: Life, a user's manual.
4. Independently chosen additional literature to solve assignment

Intentions for selection of literature

1. increase knowledge about the fit between the architectural design and individual user needs;
2. promote spatial thinking;



Spatial interpretation of the residential building that is the backdrop to the events that unfold in Perec's book.

preliminary conclusions:

1. the confirmation of vision as the primal sense;
2. relationship between architecture and other senses due to the type of design, the intended use or attractions available;
3. the participants showed an increased awareness on the relationship between the architectural design and the fit with user needs

assignment on wayfinding:



Bild 5. Tomt med bilar och diverse. Var är vårdcentralen?



Bild 6. Beslutspunkt 5- en lastkaj. Kan det här vara vårdcentralen?



Bild 7. Första skylten för vårdcentralen



Bild 8. Entrén visar sig runt hörnet.

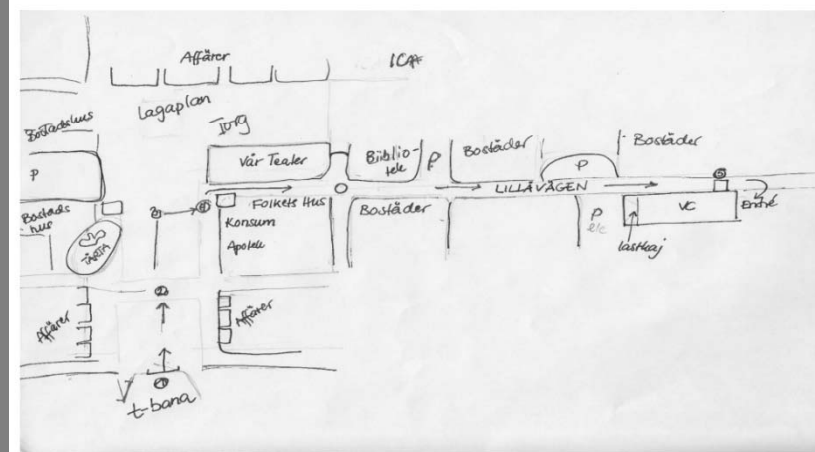
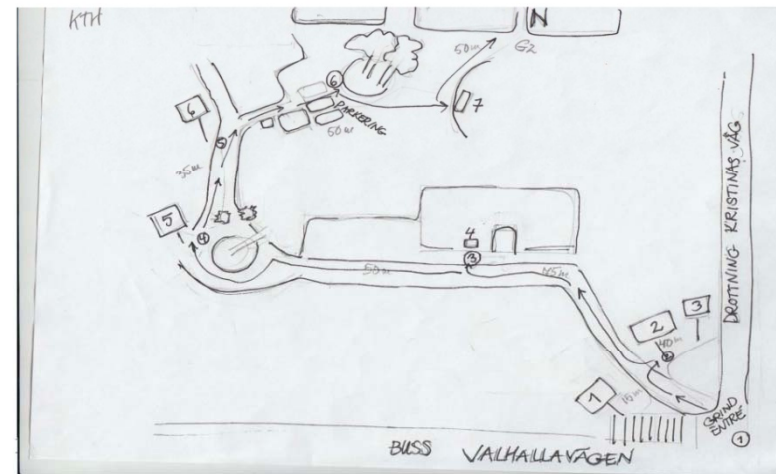


Fig 3. Beslutspunkter på väg i Bagarmossen □ = skylt, o = beslutspunkt



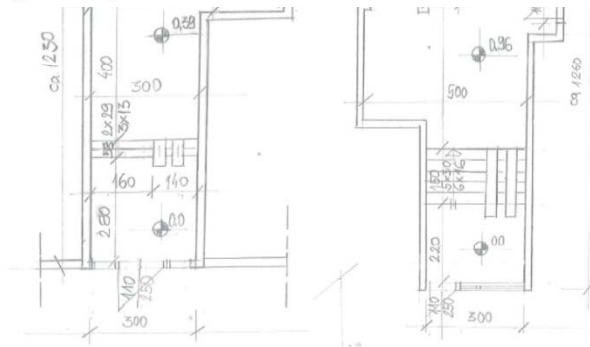
Figur 4. Beslutspunkter på väg till Sophiahemmet område. □ = skylt, o = beslutspunkt

Source: Zyto, A, 2013: Vägen till vårdcentralen (Finding the primary care centre)

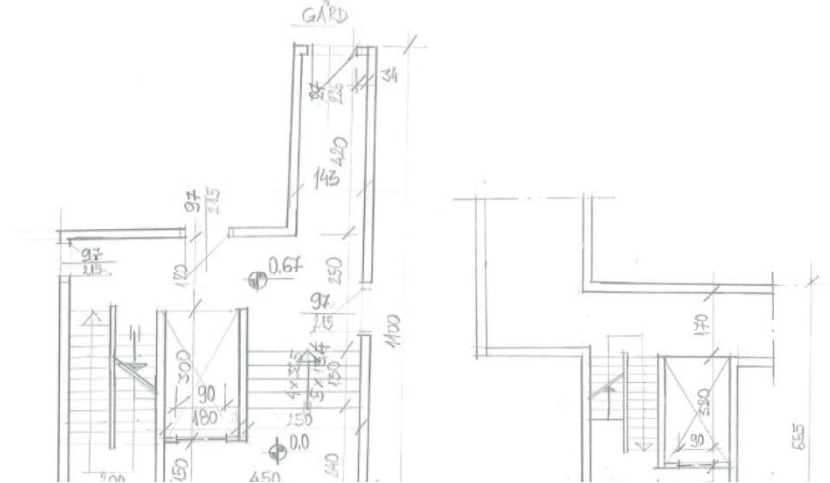
assignment on wayfinding:



Figur 16: Exempel 11-15



Figur 12: Entré ritningar, skala 1:100 – Sjövikstorget 11, 7 (ritningar av författare)



Figur 17: Entrédörr



Figur 18: Posthantering

Source: Delilbasic, R, 2013: Tillgänglighet i entréer och närmiljöer till nyproducerade flerbostadshus

© **Jonas E Andersson**, Ph D, architect SAR/MSA, assistant professor • **School of Architecture, KTH**
The Royal Institute of Technology KTH Stockholm Sweden • email: jonas.andersson@arch.kth.se



over-arching conclusion

...accessibility, usability and inclusion are spatial constituents that need to be activated on a personal level by the individual designer...

references:

Andersson, J.E. 2011. *Architecture and Ageing. On the interaction between frail older people and the built environment*. Stockholm: School of Architecture, Dpt Architecture and the Built Environments, Royal Institute of Technology, KTH.

Andersson, JE, 2014: Architecture and the TESS-NH instrument, forth-coming

Delilbasic, R, 2013: Tillgänglighet i entréer och närmiljöer i nyproducerade flerfamiljshus. See www.kth.se/polopoly_fs/1.399483!/Menu/general/column-content/attachment/Uppsats_Tillg%C3%B1nglighet_RD_20130121.pdf

references:

Lawton, M.P. and Nahemow, L. 1973. Ecology and the aging process. The psychology of adult development and aging. In C. Eisdorfer and M. P. Lawton eds. *The Psychology of Adult Development and Aging*. Washington D.C, American Psychological Association. pp. 619-674.

Zyto, A, 2013: Vägen till vårdcentralen, pdf-publ. See www.kth.se/polopoly_fs/1.399482!/Menu/general/column-content/attachment/V%C3%A4gen%20till%20v%C3%A5rdcentralen130521.pdf



thanks for listening...

Jonas E Andersson,
Ph. D. architect SAR/ MSA

School of Architecture,
Royal Institute of Technology, Stockholm.
e-mail: jonas.andersson@arch.kth.se