UKÄ's Programme Evaluations

Self-evaluation

HEI: KTH School of Architecture
Third-cycle programme subject: Architecture
Degree of Licentiate: yes
Doctorate: yes

Environment, resources and area

Aspect: Third-cycle subject area

Demarcation in width and depth
The subject area is in the programme syllabus described as:

"The subject of architecture at postgraduate level manages, develops and communicates knowledge of architecture. The subject treats the concepts and theories of architecture and their relationship to planning and design of the built environment. Postgraduate studies in architecture at KTH contain five areas of specialization: architectural design, architectural technology, history and theory of architecture, critical studies in architecture and urban design. "

Specialisations are further defined in the syllabus, with additional refinement in specific courses for each.

KTH's department of architecture began in 1876, and the first architect to receive a doctoral degree was Gustaf Birch-Lindgren in 1934. It has been organised in different ways, for a time consisting of two parallel educations before moving together in 1973. A single department of architecture was created in 2000, which also became its own entity in a new School organisation. Today, the School of Architecture (formally, the Department of architecture) is part of the School of Architecture and Built Environment (ABE).

Until the end of the 20th century, doctoral studies in architecture was defined as separate subjects at the department(s) of architecture. In the end of the 90s, these were Architecture History, Lighting Design, Analysis of the Built Environment, Morphology, Building Construction and Physics, Urban Design, and Design Methodology. Beginning in 2000, these have been integrated, but some subjects were also moved to other departments of ABE. The current programme can be seen as a formalisation and development of work that began with this integration.

The current syllabus saw a minor revision in 2016 that was formally decided in 2017. A larger revision is expected in 2017-2018 following an overview and potential revision of the specialisations. Today, almost all active students have re-enrolled into the current programme, even if they started in another subject. Three students that might be subject to interview are still following the research subject History of Architecture.

The research area and specialisations are broadly formulated to accommodate a tradition of maintaining diversity in specialisations and foci. However, specialisations undergo continual refinement to respond to the expectations on the environment, as well as to ensure that PhD-projects and education integrates well with the capacity and competence of the collective research environment. An example of a recent refinement is Urban Design (see www.arch.kth.se), which has an updated description that will be worked into the syllabus in a relevant form in coming revisions. Since the senior staff's knowledge is important for the specifics of the research directions, recruitment of senior staff is a key element and is strategically related to research education intentions.

relation to the programme
The current specialisations were developed with the study plan of 2007 and refined with the introduction of doctoral programme in 2011. (Before the doctoral programmes research education was arranged as studies in research subjects with administrative coordination.) They respond to a combination of academic ambitions and responsibilities of KTHA, and strengths and competences amongst the academic staff, but formulated with a concern to maintain diversity in scholarship—one of the strengths of research at the School. Thus in recruitment of associate professors in 2011, for instance, recruitment profiles were formulated so as to contribute to in both width and depth.
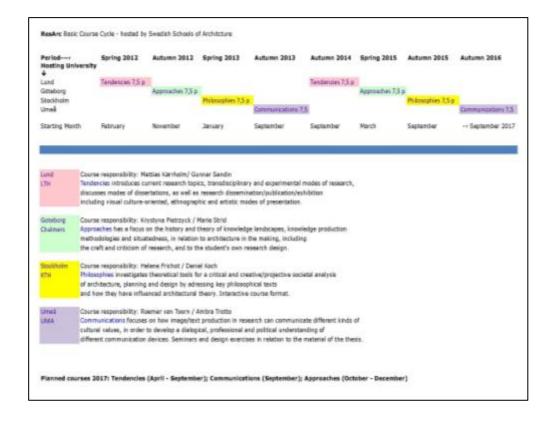
For the doctoral programme, it is important to note that delimitations of the subject area are formulated to accommodate and support a tradition where students are expected to make important contributions through formulation of research questions and framing of research, as different from traditions where students' major contribution tend towards following senior research staff's projects. This makes recruitment of students key in third cycle studies, where applications for openly formulated positions are judged not only on their respective individual qualities but from the point of view of whether the school has capacity to provide quality supervision for the proposed project.

Connection to scholarship or artistic practice and proven experience
Connection to scholarship, artistic practice and proven experience relates via specialisations that are recognisable in international academic traditions of architectural research. It balances a broad responsibility for developing and maintaining academic knowledge in architecture with the competence, capacity, depth and precision of the department's size and staff. As evidenced in the RAE evaluation of 2012, research at KTHA has "excellent" standing internationally (specifically within Space Syntax, The Welfare State and Queer-Feminist Theory in Architecture), as well as a notable good connection to surrounding society, including architectural practice.

The subject areas and specialisations are currently under revision, a process that began with discussions in late 2015. This intends to make sure that the school can cover the subject areas it claims, and as a response to the growth of cross-specialisations. Continuing to strengthen exchange between staff employed in artistic positions and in research-grounded positions can further form good ground for tying the subject area together and securing connections and relevance from professional, societal, disciplinary and academic perspectives.

Worth introducing already here is The Swedish Research School in Architecture (ResArc, http://resarc.se); nationwide and started in 2012, managed by a coordination group located at the Department of Architecture and Built Environment, LTH. Its steering committee has representatives from the four Schools of Architecture. As of December 2016 ResArc has 38 registered students. An important advantage was that each school took main responsibility for one basic (7.5 HEC) course in a two-year cycle of courses.

The four courses were labelled Tendencies, Approaches; Philosophies; and Communications. KTH is responsible for *Philosophies.* ResArc also provides thematic courses with higher specificity and a series of events (see further the report from LTH). KTH has mapped the courses expected within the KTH programme to the basic courses of ResArc, which makes a clear structure to follow even if the Syllabus cannot list courses at other universities as compulsory.

Self-evaluation
The definition and demarcation of the area and programme is under continuous discussion. Since the implementation of the doctoral programme the Higher Seminars have become an important forum where this is discussed by (1) presentations of ongoing research, and (2) invited presentations of research in other departments or other schools in architecture and other subjects. The subject area is discussed in Programme meetings (once per year, inviting all students and supervisors), in the FoFu-council ('Research and Research Education council'), in the Programme council (main supervisors, programme director, and student representatives), and in the supervisor collegiate. In addition, the KTHA has a Strategic Council that primarily concerns the undergraduate but influences the development of the subject area as a whole. The director of the programme participates in meetings at ABE, led by the ABE director of doctoral studies. The responsibility for this work lies on the director of the doctoral programme, on the head of research at the department, and the director of doctoral studies at ABE.

The introduction of the programme has led to several qualitative improvements. The emphasis on a common programme and a common subject increases overall knowledge and understanding of width and depth of research at the department. The reformulation of the 'Higher Seminars' as a common ground has significantly contributed along with the introduction of a Programme Director with the specific task to continuously develop the education. The recent minor revision of the syllabus reflects this in a clearer precision of specific goals for the doctoral programme in architecture.

We have identified that while the overall demarcation of the subject area is working well, the subdivision into the five specialisations is a challenge both in critical mass of students and in supervisory staff. Together with increasing cross-specialisation supervision it has become clear that it might be possible to form fewer specialisations, while maintaining the scope of the subject. This will be investigated during 2017. Further integration of artistic and research staff is key for the coming years.

Aspect: Staff

Combined expertise in relation to the programme
We have 10 supervisors with docent competence for main supervision with the following expertise: professor in History and Theory of Architecture, Johan Mårtelius (on leave) and professor in Critical Studies, Katja Grillner (with 20% presence at our department due to duties as dean of KTH); 4 associate professors with docent competence: History and Theory of Architecture, Helena Mattsson; Critical Studies, Hélène Frichot (on sabbatical 2017) and Urban Design, Catharina Gabrielsson and Meike Schalk; 1 researcher with docent competence in History and Theory, Victor Edman, 1 post-doc with docent competence in Architectural Design, Christina Bodin Danielsson, 1 associate professor without who is not docent but has permission for main supervision in Architecture Technology, Tim Anstey, and 1 researcher with permission in Urban Design, Daniel Koch. We also have 1 main supervisor who was faculty at KTHA, now professor at TU Darmstadt, Germany, who is main supervisor for one student in relation to his specific competence in Architectural Technology, Oliver Tessmann.

We have 4 deputy supervisors (faculty not yet able to act as main supervisors): an associate professor in History and Theory of Architecture, Anders Bergström, a researcher in Urban Design, Ann Legeby, a lecturer in Architecture Technology, Charlie Gullström and a temporarily-employed guest teacher in History and Theory of Architecture, Johan Örn, 2015-2016. Several researchers within the department are available as experts; e.g. Jennifer Mack, architect and anthropologist, architectural historian Christina Pech (lecturer) and artistic professor in Architecture Ulrika Karlsson. All are involved in other institutions. Jonas Runberger, previously employed at KTH now at Chalmers, acts as secondary supervisor for students within architectural technology. Supervisors also include researchers from other departments.

Most supervision within the program occurs in cross-specialisation pairs bringing together different expertise. There is an administrative director of studies, Carin Österlund, who supports the students, supervisors and heads of program in administrative and practical questions. In co-operation with the administrator and head of program, the individual study plans (ISP) are updated once a year.
What is being done to ensure that there are sufficient supervisor resources in the long term
Supervisor resources are a combination of internal education (e.g. second supervisors to become main), recruitment of staff (e.g. Professors and associate professors—as well as employees with certain qualifications), and the formation of supervisor collaborations. Focus is on academic positions covering the programme's subject area.

The principle is that each student should have a minimum of two supervisors affiliated with KTH, where the supervisor team has 10% of a full time position per student (5% each). This does not include work on courses. This establishes a relation between number of senior research staff, available time toward supervision, and number of students. Supervision in pairs, together with cross-specialisation research, significantly contributes to a common understanding of strengths and weaknesses in supervision capacity.

One research area in urgent need for development is Architectural Technology, where we have two students employed as part of Innochain, a Marie Curie research network (headed by artistic professor Ulrika Karlsson), one student, and two licentiate students (industrial licentiates).
Recent changes in staff where supervisors have left for professorships at other universities (Tessmann, Runberger) or are on partial leave (Anstey, Grillner), have put a strain on the supervision capacity. Temporarily this is covered by other research staff as second supervisors, and that Tessmann remains main supervisor for one student. To ensure future resources, we have announced a new an Associate Professor position in Technology, and a methods and theory Associate Professor, expected to contribute to supervision in this specialisation.

After identifying many inactive (or low activity) students admitted in the third cycle, including those who had been registered in the early 2000s or before but had not taken more than a few credits, a thorough investigation was made in 2014-2016. This task resulted in changing a large amount of students' registration status to 'resting'. A 'resting' student is not considered active, but can be activated by a

simple departmental decision, and is therefore preferred over cancelling an enrolment which is both work-intense and often unnecessary. This has helped focus supervisory resources on active students, and had the benefit of creating a more cohesive community of students who recognise one another and who feel addressed more directly. It is also an important signal concerning activity degree, and timely completion of studies.

To ensure that supervisor resources in the long run, we are recruiting three new Associate Professors within the profiles Architectural Technology, Theory and Methods and Theory and History of Architecture. In autumn 2017, we are planning a call for 1-2 new Associate Professors in Urban Design.
What is being done to allow changing supervisors as needed

Students are offered personal development dialogues with the program director at least once per year, and can always address the program director as well as the study director (for administrative tasks). The program director begins the process to change supervisors and supports the student along the way, leading the dialogue to find new supervisors, formalizing the changes, etc. Change of supervisors have mainly occurred due to staff changes and has in most cases been without friction, where a second supervisor becomes main supervisor, with sometimes a new deputy supervisor. Changes of main supervisor for other reasons occurs only very rarely. Four students who had started their research education at the School of Architecture at Umeå University have relocated to KTH since summer 2016. Extensive dialogues and negotiations between Umeå and KTH have made it possible for the them to change research environments and to conclude their thesis at the PhD program of Architecture at KTH. All four students required new main and deputy supervisors.

According to students, transitions have been conducted in a very good way, although they affect the continuity of research projects as each supervisor is different (profiles, orientations, habits, etc.). A suggestion was to schedule a meeting with the outgoing and incoming supervisors together, to discuss the work.

scientific/fine arts and educational professional development
Development for supervisors and teachers is accomplished through courses, collegial meetings within the program and in exchange with similar PhD programs, as well as international seminars, workshops, conferences and symposia, and visiting scholarships. Supervisors and teachers are obliged to complete a pedagogical course (7,5 credits). Supervisors are also obliged to complete a course in PhD supervision (3 credits), to a total of at least 15 credits to be qualified as main supervisors. The main supervisor has to pass a docent exam. Supervisors are part of the program board which meets once per term to discuss supervision, take part in workshops and invite a lecturer from outside of the environment to introduce new perspectives. Several supervisors take part in similar professional meetings across universities. Professional development is also accomplished through continuous dialogues with peers, colleagues and guest lecturers within our institution, as well as with partner institutions in Stockholm. International cooperation includes the Centre for Architecture Theory Criticism History at University of Queensland, Australia African Center for Cities (ACC), Cape Town University, Cities Programme, LSE (2008-2010) the Swedish Research Institute Istanbul, Stockholms konstnärliga högskola (UniArts).

KTH provides a number of pedagogical courses and the programme encourages everyone involved in supervision to take the courses even if they do not intend to become main supervisors. Course fees for supervisor courses taken at KTH are covered. In addition, associate professors follow a course in leadership, with additional career, management and leadership courses provided by KTH.
societal developments relevant to supervision and teaching

Supervisors follow societal developments that are relevant to their supervision and teaching through their participation in what is called the Third Sector in Sweden; public discourses (e.g. lectures for political education at ABF – The Workers' Educational Association), in through presentations and exhibitions at museums and institutions (Gabrielsson, Grillner, Mattsson, Schalk), and they act as advisors for municipalities and or participate in writing policies (Koch, Legeby). Within History and Theory of

Architecture, Bergström and Edman have collaborated with the National Property Board Sweden (SFV), in expert assignments connected to on-going conservation work as well as a seminar series on the assessment of built heritage. KTHA encourages and supports contact between research and society, and in the 2012 RAE this was one of the areas which was considered "excellent".

supervision and teaching quality and scale
Quality is kept through systematic course evaluations, external and internal readers for dissertations and feedback throughout the work with a dissertation, regular program meetings with supervisors, exchanges with other institutions, and research exercise meetings with researchers, supervisors and students. As noted, there is also praxis for the amount of supervision time a student can expect; this may decrease on a case-by-case after five *effective* years of study.

The supervising group's composition and expertise is followed up with higher seminars, formal start-up, 50% and 90% seminars with external readers, and an internal reader of the dissertation at the 90% seminar who gives formal consent for the dissertation to go ahead to examination. If dissertation quality is considered below standard and it can be identified that this is due to shortcomings in supervision or teaching, the program will take measurements to ensure an improvement by e.g. appointment of a new supervisor team and allocation of extra funding (as a recent case).

Feedback is given through relevant stakeholders, such as the 3-5 external examiners that evaluate the thesis in a closed discussion with the supervisors and the opponent after the public defence. The programme has as praxis that the supervisors and the Chair of the defence (a supervisor not involved in the project) are present in the closed discussion to allow the committee to pose questions, but also so that supervisors learn strengths and weaknesses in presented theses. The Chair also gathers impressions that are passed on to the Programme Director and other relevant stakeholders as necessary, and the programme learn from both public and closed sessions. Information gained in this way is handled with care and respects the closed session (to preserve integrity of the process, jury, and student).

The Program Director has an important role in monitoring supervision. This is done in individual meetings with students ('development dialogue'), and meetings with supervisors, but also continuously in informal exchanges. In addition, supervisors discuss their working situation and expected steps for developing competence with their closest chief of staff.

Self evaluation of research environment/staff
Supervision competence and capacity is followed up through individual dialogue between programme director and students, development dialogue between staff and their closest chief, yearly programme meetings and regular programme councils and supervisor collegium meetings. It is further discussed in the department's management meetings, and monitored via quality of theses, course evaluations, and individual study plans by the programme director and administrator. The Higher Seminar plays a central role. It is further discussed in the Doctoral Education Council at ABE, where the programme directors meet with the Director of doctoral studies at ABE, and discussed and planned in the working plan as well as development plans for the department, which is further discussed with the Rector and central faculty of KTH in regular dialogues between schools (ABE) and KTH centrally.

The competence of staff both as supervisors and researchers is high, with good publication rate and continuous engagement with society. Evaluations suggests that in general, teaching and supervision works well and leads to good educational results. Several modes of dialogue between supervisors, programme director, programme administration, and students allow a continuous monitoring of the situation and enables most potential issues to be addressed in a timely manner. However, there are shortcomings in that the environment is small and thereby sensitive to changes in staffing or growths in research areas at the doctoral level. ResArc is an important resource for networks, exchange, high-quality courses, and comparing and developing programmes.

The recruitment of three assistant professors in 2011 was an important step in assurance of the long-term supervisor resources and is followed up with associate professors in 2017. A number of employed staff has been involved in supervision and doctoral course teaching and followed supervision courses. Continuing ResArc after the funding ends is a major step in securing quality in courses, networking and knowledge exchange on a national level. Two associate professors (Matsson, Frichot) have applied for promotion to professor.

The major challenge in supervision capacity has come from loss of staff due to pensions and staff leaving for other opportunities, and actions taken to amend this must be carefully followed up. Some of the modes of follow-up of supervision competence and quality is currently praxi, but tends toward the informal and could be further formalised, including a supervisor collegium. The coming revision of the programme syllabus must be directly interrelated with recruitment strategies.

Aspect: Third-cycle programme environment

broadening the environment through local, national and international networks
Researchers at KTH organized and hosted a series of themed research symposiums on *negotiating theory and method in architectural research* with invited international scholars and in collaboration with our Strong Research Environment – Architecture in Effect (architectureineffect.se), such as: "Critical Historiographies" (December 2014) convened by Mattsson, "Architects in Formation" (February 2015) convened by Bergström and "Critical Projections" (March 2015) convened by Schalk. Together with the Strong Research Environment Architecture in the Making (architectureinthemaking.se, Chalmers) the events "Architectural Morphology:" (May 2013, with EU FP7-project RIBS) by Koch and Miranda and "Making Knowledge" (December 2014) by Koch and Staffan Lundgren have been arranged at KTH. Several international research conferences have been organized by researchers at KTH: "The Architecture of Deregulations" (2016, Mattsson & Gabrielsson), "Transversal Ecologies" (2015, Urban Design), and "AHRA – Architecture and Feminisms" (2016, Frichot, Schalk, Gabrielsson & Mattsson). In addition, KTH employs post-docs when possible, currently Karin Reisinger within Critical Studies. Another example is the Higher Seminars, currently convened by Brady Burroughs, a weekly/bi-weekly occurring forum for exchange between researchers of all levels, both internally and with international guests.

Students participate with their own research contributions, as well as host sessions, do peer-reviews, and partake in coordination and organisation. The networks complement the third-cycle environment by bringing together researchers from other institutions nationally, as well as international guests, in forums that are based on collegial exchange. Likewise, students are encouraged, with the support of ResArc to attend the academic seminars within the ResArc community at the other Swedish departments, as well as international-exchange partner institutions. ResArc grants the students travel costs and accommodation.

Collaboration with surrounding society is conducted through public events, seminars and exhibits, such as a public seminar series called "The Just City" arranged by Gabrielsson at ABF-huset in Stockholm (spring 2016, Schalk, Legeby, Koch and students Ärlemo and Runting, with international guests). In January 2017, Runting, student in Critical Studies, together with two colleagues at KTHA and local artists, arranged an exhibit called *The Continuous Surface of the Welfare State* and a series of public talks at Zimm Hall in Stockholm. Burroughs held a public event and book release of her thesis at ArkDes- the Architecture and design center in. We also present our research 'inwards' to students in the undergraduate program at KTH through a 'Research Day' organized by Koch for masters level students.

Dissertations go through a rigorous internal review, consisting of public PhD seminars, peer review from invited guests (experts within specific fields), and feedback from supervisors. Students are required to present within the Higher Seminar series and to participate in international conferences within their related fields. The HEI have had several research commissions from regional and municipal administration and facility owners, as well as cooperation or co-funded projects. These include: 'Shared City' for Mistra Urban Futures with Gothenburg municipality (Legeby, Lars Marcus, Meta Berghauser Pont), 'Cities in Cooperation' for The National Board for Housing, Building and Planning with Gothenburg, Malmö and Stockholm municipality (Legeby, Marcus, Berghauser Pont), 'The Stockholm Commission for Social Sustainability' for Stockholm Municipality (Legeby, Koch, Ehsan Abshirini (PhD in geoinformatics, KTH)), 'To see and be seen in the healthcare environment' for FORMAS-BIC with Västfastigheter and Locum (Jesper Steen, Koch, Henrik Markhede (student)), for the National Property Board Sweden on conservation work (Bergström), as well as a seminar series on the assessment of built heritage (Bergström and Edman).
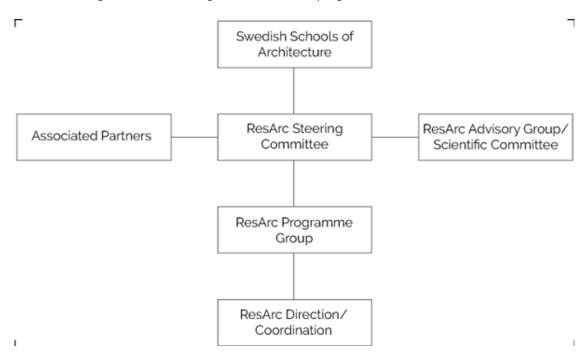
KTHA also hosts two large research and collaboration platforms that integrate research with society and practice: DECODE (Vinnova, Björn Hellström, involving several researchers and PhDs at KTHA) and Grön BoStad (EU, Erik Stenberg, intended to involve several researchers and PhDs at KTHA).

Internationally, the EU FP7 project Resilient Infrastructure and Building Security (Koch, Miranda) and Connected Media and Presence from European Institute of Technology (Gullström Hughes, Miranda)

provided research collaboration and contact with both state and commercial bodies in the EU. The HEI has also recently had Jonas Runberger as adjunct professor in Architectural Technology funded by White Architects.

ResArc – the Swedish national research school in architecture.
ResArc has allowed to focus resources better in terms of doctoral courses by distributing responsibility between the schools, has provided better critical mass to the courses, and has contributed to exchange, networking and other opportunities. While ResArc funding by Formas ends in 2017 the Schools have signed an agreement to continue sharing responsibility of courses and committed to the ResArc basic course cycle. ResArc is organised with a coordination team in LTH but is governed by the four schools of architecture together via a steering committee and a programme committee.

The steering committee is responsible for visionary work, follow-up and long-term strategy and is comprised of representatives from the Schools of Architecture, but also representatives from the two nationally composited strong research environments 'Architecture in Effect' and 'Architecture in the Making', and student representatives. An external member (from the *Swedish Association of Architects*) represents architectural practice. The content and overall organisation of the courses and events is handled by the Programme Group, that consists of directors of research studies in the different schools, student representatives, leaders for planned and ongoing courses, and members of the coordination team. Course evaluations, as well as statistical outcomes of questionnaires given to students or alumni graduates are regularly presented and discussed in both groups. For additional details on ResArc see the report from LTH (ResArc host).

composition of the student group
The active student group (Fall 2016) consists of 9 male and 16 females from 28 to 49 years old. In addition, there are 8 female and 2 male students inactive, from 35 to 49 years old. The active students are 6 in Critical Studies, 7 in Technology, 6 in History and Theory (including enrolled in the previous subject History of Architecture), 1 in Urban Design, and 5 without specialization. 4 of the active students are researchers recently relocated from the former doctoral program at UMA . Many originate from outside of Sweden, so language skills include native English (4), Spanish (1), Persian (1), Russian (1), Dutch (1), Swedish (12), Korean (1) and Serbian (1).

work from another location or environment

While some students choose to work from another location care is taken to gather everyone regularly, whether through the Higher Seminars, research meetings, or other events. Several students work transdisciplinarily between research environments or in collaboration with other institutions and/or industry. Four are 'industrial doctoral students' that work part time at an office or municipality (Marja Lundgren, Lina Martinsson Achi, and in the future Ann-Kristin Kaplan and Malin Alenius). This provides immediate contact and context in practice and favorable conditions to work in-depth with specific projects, but often leads to most time spent at the office or municipality. This poses challenges in integration into the research environment and the broader view of the subject area. Time management between education and practice has proven an important task. The responsibility to ensure integration rests on the main supervisor, but the higher seminars and other common occasions become important. These students still have a workplace at KTHA.

The ResArc environment
The KTH programme has a mandatory course component of between 60 and 90 HEC, of which 45 are compulsory. ResArc (38 students formally enrolled and additional in courses) has become important, as students build research networks and sometimes co-write articles. For example, ResArc supports (financially and with senior researchers acting as peer reviewers) the student-initiated and managed research journal *Lo-Res, Architectural theory, politics and criticism,*[1] whose editorial board consists of students from Lund and KTH. The most important contribution by ResArc is perhaps the package of four basic courses, providing in total 30 HEC. With additional thematic courses and courses belonging to each school's own existing curriculum, the student is well supported with courses. Consequently, KTH mapped compulsory courses to the ResArc cycle, allowing to draw on the potential of ResArc, to ensure the compulsory course component.

composition of the supervisor group
The supervisor group (both main and second) consists of 7 females and 7 males, with most ranging from 45-55 years old; 2 in Critical Studies, 3 in Technology, 4 in History and Theory, and 5 in Urban Design.

supervisors work from another location or environment
Most supervisors work primarily in-house, but several have part-time positions with other institutions or faculties, architecture offices or other practices, which sometimes makes scheduling common meeting points difficult. There is a general consensus to reserve Friday afternoons for research-related activities, such as the Higher Seminar, to have a recurring meeting point. At least one supervisor of each student is someone with regular presence at KTH. In recent years, increased focus has been put on the main supervisor's availability at the HEI with fewer exceptions. In some cases established supervisory structures or subject expertise has meant that the main supervisor works elsewhere, such as Tessmann (now Professor at TU Darmstadt) is supervisor for Annie Locke Scherer.

systematic reviews
The quality and scale of research is followed in several forums, including Programme Council, individual discussions between PA and students, supervisor collegium and Research- and Research Education council. It is also discussed in the Research Education Council at ABE, where programme directors are present, and in the ABE dean's management group. It is followed up in an annual assessment by KTH, which includes a range of factors (e.g. publication rates, number of research events, international guests and exchange, etc). Together with development plans for the department and the ABE, this forms grounds for discussions with KTH centrally regarding funding, staffing, and actions. Research staff also has individual development dialogue with their closest chief, which includes competence development. KTHA has a Strategic Education Council for Architectural Education with doctoral student and research staff representatives, and head of research are present, ensuring connection with the societal and professional context.

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[1] See http://www.lo-res.se/ for more information.

A specific focus of the SRE Architecture in the Making is the relation of research to architectural practice, and the SRE Architecture in Effect addressed the effects of architecture in society. AKAD (cooperation forum between the four Schools of Architecture) has a direct dialogue with the Swedish Association of Architects, and the SREs and ResArc have representatives of profession and society in advisory boards.

Following staff changes, the KTHA has applied for and received a grant from KTH to develop the field of Urban Design, and announced three assistant professorships. Additional assistant professorships are being discussed for Urban Design.

Self-evaluation
Third cycle-programme environment is followed up in several ways, ranging from statistics of publication, workshops, and research events to individual dialogues. These systems allow a continuous assessment of the environment and discussions on long term development. Additional support in assessment of quality comes from ResArc and the SREs.

Overall, the third cycle programme environment at KTH is in a good state, where ResArc constitutes an invaluable resource. Academic staff and doctoral students are active in scientific, practice, and popular contexts both nationally and internationally, with support from the department. KTHA excelled in 'contact with the surrounding society' in the 2012 RAE, for all areas of interaction with architectural practice, municipal and other state bodies, and society at large. There are challenges in terms of critical mass of students, which poses additional challenges for course quality. Funding for students is an increasingly challenging issue. Following the end of the SREs there is a challenge to maintain national and international networks.

The commitment to continuing the basic course cycle and cooperation of ResArc is fundamental for continued high quality. While cooperation with society and practice is good, there is potential in integrating this further in the doctoral education, with care taken to the integrity of doctoral studies. Cross-departmental cooperation at KTH is also an underused potential. Additional checkpoints (e.g. 30 and 70% seminars) could be formalized.

Design, teaching/learning and outcomes

Overview
To provide an overview of how the design of the programme and its different aspects and components intends to meet the goals and learning outcomes of the programme, we include a table. Dark grey indicates *primary* focus and light grey *high importance.* It is schematic, and as most goals are part of most components, we have chosen two levels of importance to provide a map of emphasis.

Legend: ■ = primary (dark grey), ▨ = high importance (light grey)

Activity → / Goals ↓ — Fulfilment	Research & Writing of thesis — Dissertation	Research work	Compulsory Courses — Scientific Theory & Method	Communications	Concepts and theories	Higer Seminars	Specialisation	Elective courses, Workshops, seminars, conferences etc — Elective courses	Research events
Knowledge & Understanding									
Broad orientation within a systematic understanding…		▨	■	▨	■	■			
…deep and relevant specialized knowledge…	▨	■	▨		▨	▨	■		
..familiarity w scientific/artistic methodology in general…	▨	▨	■		▨		▨		
…specific area methods in particular	■	■	▨		▨		■	▨	
Competence & Skills									
Scientific analysis and synthesis and independent critical examination…			▨	▨		▨	▨		▨
Critically, independently and carefully formulate research questions, plan methods and work within given parameters…	■	■	▨	▨			▨		
With a dissertation show ability…	■			■					
…to identify need for additional knowledge…	■	▨	▨			▨	■	▨	
…present conditions for contributing to society's development and support others' learning.	■	▨		■			▨		▨
Judgement & Approach									
Intellectual independence and scientific adequacy, as well as research ethical judgement	■		▨		■			▨	▨
In-depth insight into possibilities and limitations of science, its role in society and responsibility for its use	▨	▨	▨	▨	■		▨	▨	
Specifically Architecture									
Communication with society in general	▨			■					▨
Research ethics and societal consequences	▨		▨	▨			▨		
Societal situation in relation to research	■				▨		▨		
Interaction between values and researh	░	▨	▨		▨				
For the UKÄ evaluation									
Preparation for future professional life		▨		■			▨	▨	▨

Overall structure for monitoring and evaluating progress and quality

Since many of the specific goals are followed-up through a common structure of monitoring and evaluating, we begin with a brief overview.

Systematic reviews are carried out: all students complete a midterm (50%) and final seminar with an invited opponent and peers/supervisors. Each student is expected to present twice at the Higher Seminar course, which in practice has meant after ca one year (25-30%) and after ca three years (70-80%). In addition to the opponent for the final seminar, an internal reviewer is appointed as a thorough reader and a quality check of the dissertation. The student meets with supervisors to debrief on comments and concerns, as well as to decide a plan of action. Parallel to these seminar presentations, students have meetings with supervisors to discuss comments on papers or chapters providing concrete feedback on writing. The combination of supervisorial feedback, regular series of seminar check-points, and involvement in research events ensures the environment maintains its high quality.

Since 2012 individual study plans and other formal documents, including midterms and final seminars, internal reviews and other steps, pass through the programme management (earlier directly between supervisors, students and the KTH ABE level). This significantly improved the overview of the students, programme and progress, and is now implemented as mandatory in the new eISP system at KTH. In cases where study plans are not updated, a dialogue has been initiated with supervisor and student to encourage submission and clarify reasons. This has enabled to follow progress and completion of theses more closely, and the programme director to follow up delays and extensions.

Since 2015 the final seminar has been refocused. Earlier, it was considered an important point for feedback on further development but now its role as quality assurance has been emphasised with raised expectations on presentation of near-finished material. This has decreased the time between seminar and defence, which earlier took a significant amount of time and extended doctoral studies beyond deadline.

An important forum for disseminating and acting on feedback has been "research training meetings" convened by the Programme Director (Koch 2012-2015, Frichot 2015-2016, Schalk 2016-) at least 1-2 times per term, a forum for general and specific research programme information and/or discussions at the departmental level. The programme director has also invited each student to individual discussions on situation and progress.

Aspect: Achievement of qualitative targets for 'knowledge and understanding'

broad knowledge and understanding
We ensure broad knowledge and understanding both within the third-cycle subject area and for scientific methodology/ fine arts research methods in the subject area in several ways. This is best described in relation to our program syllabus, which connects the goals of the program to both formal and informal activities. Goals for the doctoral education are achieved through courses according to the individual study plan (ISP), seminar participation, participation in national and international conferences, as well as through individual supervision.

The overall goals for "knowledge and understanding" are achieved primarily through participation in courses and individual supervised research. Many of the current doctoral projects (ca 50%) explore design research/artistic research methodologies and/or experimental writing. Here, "knowledge and understanding" is achieved through *doing*. This is one reason why the doctoral programme in architecture has its own course in Scientific theories and research methods, while KTH has common courses for the other programmes. Particular courses, such as 1A5035 (Scientific theories and research methods in architecture), 1A5031 (Architecture's concepts and theories), as well as the specialisation courses contribute to "knowledge and understanding" in a wider perspective of research in general, in architectural theory and architectural research specifically, and within specific research areas. In addition, 1A5032 and 1A5033 (Higher Seminar in architecture 1 and 2) contribute to an understanding of architectural research as a wide-ranging subject area.

progression
An important part of the regularly occuring seminars (e.g. higher seminars, midterm, final seminar) is the production and review of partial manuscripts toward the dissertation, in order to allow writing and ideas to develop in dialogue with different expertise within specific fields of interest.

Qualitative targets, learning outcomes, learning activities and examinations, are followed up as students are update and review their individual study plans (ISP) together with supervisors at least once a year (submitted centrally to KTH). The ISP includes a list of courses along with dates of completion/intended completion, and in the new eISP (electronic ISP) there are fields to follow up progress in each individual aspect area. The ISP also includes a plan of activities and goals for the coming year, as well as a revised description of the project. This document provides a valuable basis for discussion and review between the student and supervisors in terms of both national and institutional goals as well as how these relate to disciplinary and professional aspects.

The programme funds each student with 10 000 SEK each year (for 4-5 years), recommended for conferences, workshops, seminars and other outreaching activities nationally and internationally. Since this funding goes through the Programme Director, in dialogue with supervisors and students, the programme can follow the what extent students make use of this opportunity.

completion within the scheduled time
Besides regular evaluations through seminars and review of ISP, students are encouraged to participate in conferences, symposiums and other events, in order to establish partial deadlines to produce material for the dissertation. Another important aspect is regular follow-up and feedback from supervisors, as the work progresses. In consultation with the supervisors, the student may receive help in setting realistic goals for the work and deadlines for key points.

Historically, many projects have taken more time than the stipulated four years. We have identified several possible reasons, including the type of research (as a humanistic research subject) and an emphasis on original research questions and thorough theory and method development during the studies. Together with high ambitions this has provided high-quality theses but challenges in terms of completion. Students also tended to work more on their own with less follow-up by the school before the programme was initiated. Although the length of studies is continuously worked on and remains a

challenge, recent years have seen an improvement with more students finishing closer to the nominal length. Contributing to this improvement are increased emphasis on common activities and closer attention that projects lie within the capacity of the supervision staff. Additionally, a wider implementation of mid-term seminars help the student focus and limit the scope of research. There is also a cultural shift in the environment to focus more on the studies as an education targeting a post-doctoral career, which supports more timely studies. A recent change is to reorient the final seminar to focus more on a near-finished PhD with minor edits to complete it, rather than as a point of feedback for additional work.

quality improvement actions
For the last several years, every PhD has gone through an internal quality review by a senior researcher not involved in the project. Recently, this follow-up has been re-examined to better respond to the dual role of giving feedback and quality assessment of the final product. Since 2015 the internal quality reviewer is present at the final seminar and acts as an alternative for the PhD defence, providing a thorough reading at the last checkpoint (final seminar) before the dissertation is approved for defence. The internal quality reviewer's role to check the final version of the thesis has been emphasised. KTH ABE has introduced a quality policy for doctoral studies, requiring a mid-term seminar or a licentiate with external reviewer. Prior to this, KTHA have used mid-term seminars for many students, implemented as a principle for all in 2012.

The restructuring of the Higher Seminars course into a curated common platform for students and researchers has been implemented for several reasons; many students felt alone in their research, issues and challenges, and they lacked knowledge in what other students or researchers were doing. Over several years, the higher seminars were reformed to provide a more distinct quality, and to become a common ground and a regularly occurring meeting point (earlier, 'higher seminars' were examined by the supervisor based on criteria of a number of seminars anywhere). Today a significant portion of students continue to follow these seminars after completion of course credits.

ResArc courses are evaluated in discussion with course participants and written course evaluations, which are discussed by course managers and in ResArc (where representatives from the students are present). Feedback gathered from KTH students specifically have been compiled and discussed in these forums, as well as with the course's host institution. This since the programme maps three of its compulsory courses to the ResArc courses.

Aspect: Achievement of qualitative targets for 'competence and skills'

ability to plan and use appropriate methods to carry out tasks within time frames
The design and content of the programme ensures that students can plan and use appropriate methods to carry out research and other qualified (artistic) tasks within determined time frames, in both national and international contexts, in speech and in writing, and can present and discuss research and research findings in dialogue with the academic community and society in general in the way it links qualitative targets (or goals) to learning outcomes, learning activities and examinations/evaluations.

The overall goals for "competence and skills" are achieved primarily through participation in courses and individual supervised research, with the support of courses and various seminars/activities. This includes training in the reading, understanding and critique of scientific/academic texts and the ability to argue for or against one's own and others' results, conclusions and interpretations. In this context, courses 1A5032 and 1A5033 (Higher Seminar in architecture 1 and 2), as well as the orientation courses specific to each candidate's own research area, are of importance, while 1A5031 (Architecture's concepts and theories) also plays a supporting role. Through participation, presentations and discussions with peers, senior researchers and guests, students develop their ability to critically, independently and creatively identify and formulate relevant research questions and to test methods with scientific precision, while examining and evaluating this within a forum of other researchers.

Training in the communication of research occurs, both in writing and speech, by way of presentations at scientific/academic conferences, within a context of peers both local and international. Likewise, through the course 1A5034 (Communication of knowledge within architectural research), students practice the communication of ideas through written, spoken and graphic means. Training in communication skills also comes through participation in teaching undergraduate courses and seminars.

potential for contributing to the development of society and supporting the learning of others
Students demonstrate potential for contributing to the development of society and supporting the learning of others through teaching and lecturing within the undergraduate education and as guests at other institutions and contexts outside the academy. Students take on many different roles, from being course leaders (e.g. Runting, "Images of Desire", 2016; Burroughs "Reconstructing a Colletive Critical Fiction", 2014), and as teachers in theory courses and design studios on several levels. Likewise, all doctoral candidates were invited and encouraged to present their research briefly to the entire masters level student body on a "Research Day" as part of the masters orientation course. Students are also encouraged and invited to present at workshops and other public occasions, including the Higher Seminars, providing critique and feedback to other students and researchers. The course in communication is important in the training of skills to make one's work accessible to others.

progression during the programme
Progression is achieved linking qualitative targets, learning outcomes, learning activities and examinations through increased involvement and responsibility within activities that demand "competence and skills" necessary for work as a researcher. Through supervised independent work on a dissertation, students gain the ability to contribute to knowledge in both national and international contexts, primarily in written forms. Through activities such as seminars and conferences, students present and discuss research in dialogue within academic communities. To reach a broader audience they participate in other forums such as exhibits, panel discussions and informal talks/lectures.

Likewise, students are given responsibilities that help develop their "competence and skills"; for example, several students were involved in the organization, preparation and convening of the international AHRA conference "Architecture and Feminisms" held at KTH 2016. Besides participating through papers and presentations, many helped with the peer review process or chaired sessions. Many teach at the undergraduate level at KTH and other institutions.

Several supervisors encourage or initiate collaborative writing projects together with their students in order to help the students with academic writing/publishing experience. This also includes students being invited to co-edit special issues of journals or books together with supervisors or other senior researchers. In response to co-authorship as an increasingly important skill as well as a pedagogical tool, ResArc arranged a conference on the topic, where the majority of contributions were co-authored by students and supervisors.

completion of their programmes within the scheduled time
The most important factor in helping students complete their programme in time is supervision and active work with the ISP. A time schedule along with appropriate methods to achieve the desired deadlines is discussed together with supervisors on a regular basis.

Students are expected to present a final manuscript of all proposed content along with visual material at the final seminar, in order to allow opponent, supervisors and internal reviewer a full understanding of the project, and to give the student a chance to identify the need for necessary amendments. This also provides a 'test run' for the project as a whole, to avoid hindrances toward the end of the process. All students have a final seminar and a midterm review, and follow the higher seminar series.

quality improvement actions
Specifically concerning "competence and skills," there has been an increased emphasis on co-authorship and including discussions on *research practice* in courses. The ResArc course 'Approaches' puts a significant emphasis on methods, and the ResArc course 'Communications' focuses on not only writing and academic publishing but the relation between form, content, audience, and media.

Comments on these courses have been discussed in the ResArc steering committee and programme council to further develop this aspect of these courses. Specific seminars and workshops that focus on communication and presentation have been arranged in both SREs, and a special seminar was dedicated to publication and bibliography systems, as well as the open-access concept.

Aspect: Achievement of qualitative targets for 'judgement and approach'

intellectual independence, (artistic integrity) ability to demonstrate scientific probity/ disciplinary rectitude and ability to make research ethics assessments
The programme's forms and content ensures intellectual independence, (artistic integrity) the ability to demonstrate scientific probity/ disciplinary rectitude and the ability to make research ethics assessments. The overall goals for "judgement and approach" are achieved through supervision, conversations with peers, courses and work on the dissertation. The aspect is practiced within the individual supervised work toward the dissertation, as well as through elements dealing with ethical implications within the obligatory coursework, especially 1A5035 (Scientific theories and research methods in architecture). Since varying methodological directions have specific ethical challenges, the specialisation courses play a central part for judgement and approach within each specific direction's problem areas. 1A5032 and 1A5033 (Higher Seminar in architecture 1 and 2) are important courses for insight into specific questions and challenges surrounding "the aspect within other research traditions.

broader understanding of capabilities and limitations
The programme at KTH ensures that the student achieves a broader understanding of capabilities and limitations, role in society and human responsibility for how work is used through many of the "architecture-specific" goals, which are practiced not only within the student's work toward a dissertation, supervised research, and conference and seminar participation, but also in the architecture-specific courses, where 1A5031 (Architecture's concepts and theories) and 1A5034 (Communication of knowledge within architectural research) play important roles. These combined activities provide insight into possibilities and limits of architectural research, as well as accessibility for a broader audience and possible consequences when research reaches outside the academy. Within KTH's field of knowledge, 1A5035 (Scientific theories and research methods in architecture) is an important source of knowledge on artistic methods and approaches, as well as interpretive sciences and methods that transgress traditional disciplinary boundaries.

progression
Progression is achieved during the programme through courses as students are exposed to a wide range of relevant research with varying theories, methods and forms of communication, which they engage with in synthesis or critique. Through assignments, seminars and workshops, along with invited guests, the students' own research engages with contemporary questions, challenges and limitations. Within this model, qualitative targets, learning outcomes, learning activities and examinations are all linked directly through the candidate's own ongoing research, in dialogue with the latest and most relevant research and the experts responsible for that research.

completion within scheduled time
Each of our courses assigns tasks that directly engage the students' own research. In this way, each assignment toward the completion of coursework directly develops the individual research projects toward dissertation, while challenging a other relevant, contemporary research methods and approaches.

quality improvement actions
The programme syllabus has (2016-2017) been refined to specify 'judgment and approach' as it comes to the subject area, and research ethics has been discussed more thoroughly in the courses at KTH, especially the Higher Seminars.

Self-evaluation

KTH centrally, ABE, the School of Architecture and ResArc has a number of systems and methods in place to follow-up quality and progress. Individual meetings, ISPs, seminars, common meetings on department, School and university level, etc. This monitors both general tendencies and individual progress and quality. On several occasions throughout the doctoral studies progress, content, and skills are evaluated by external reviewers, most explicitly in the mid-term review, final seminar, and dissertation defence. The internal review is important in ensuring a common view of what is a good thesis at KTH. Supervision discussions and direct dialogue between Programme Director and supervisors and individual students respectively form a local, continuous and qualitative basis complemented by course evaluations and other forms of quantitative data.

Feedback from jury members and opponents confirm that overall, the doctoral education at KTH produces dissertations of a high quality internationally. They are considered to show remarkable independence in a critical stance toward formulation of research question, use of method, and design and structure of the thesis. There is a significant challenge in helping students finish studies on time, and to ensure a continued stability of critical mass of courses and students. ResArc has ensured an unprecedented quality. Local courses are, however, not given with the regularity that would be preferable.

Since the implementation of the doctoral programme, a number of steps have been taken to improve quality: the Higher Seminars courses have been changed to be coordinated and examined by the programme; mid-term seminar has been made mandatory; mid-term and final seminars have more focus as programme responsibilities and events; internal review has been structured as participation in the final seminar and a final review of the thesis; the final seminar has been refocused to emphasise quality assurance of a near-complete thesis; yearly workshop meetings with supervisors and students including dinner; an increased emphasis on presentation and publication outside of the HEI during the studies; individual meetings between programme director and students; monitoring of progress and studies through individual study plans have been improved; programme support for participation in national/international events have been implemented; ResArc has been implemented and there is an agreement to continue after the funding ends; the School of Architecture and ABE has funded doctoral positions with faculty funding.

The most significant challenge for the programme is funding for new students, to ensure a critical mass and continuity in research education. National funding from research councils to doctoral education have decreased or been removed as a possibility, faculty funding is increasingly limited, and scholarship funded PhDs is likely to be limited or outright discontinued without systems and funding in place to compensate. Additionally, quality assurance and dialogue structures can be more fully documented to ensure long-term stability and continuity, and a long-term plan for course provision developed. Programme-wide evaluations can be done on a more consistent and continuous basis. Discussions on research culture and what a PhD is needs to continue in order to help students finish on time. Post-doctoral opportunities is key, both in practical terms and in integrating this perspective further in the programme activities.

Working life perspective

preparation for working life
Preparation for working life is ensured by particular modules within the PhD courses which prepare students for work life as researchers; for instance, the course Scientific Theory and Research Methodology (1A5035) contains a moment on research applications. Higher Seminars have also become a platform for discuss research applications.

Students are encouraged to teach up to 20% of their time to gain experience in teaching and to build a teaching portfolio, which broadens their competences and skills for a competitive labour market. The number of industrial students and those pursuing a thesis within practice-based design is increasing within the programme as are funding opportunities for transdisciplinary research projects. The Strong Research Environment 'Architecture in the Making' supports several practice-based thesis projects (Boric, Norell) and industrial doctoral research projects (Lundgren).

collection information that is relevant for quality assurance and development
Information relevant for quality assurance and development of the programme is collected through examination situations with international guests who act as 'opponents' and members of the grading committee and assess theses. Development dialogues, research training meetings and questionnaires are other media for collecting information that is relevant for quality assurance.

work with alumni experiences
ResArc conducted two PhD student surveys; one questionnaire to alumni PhDs in 2014 providing an overview of how former students experienced their studies and education and to what degree they could make use of their experiences in their subsequent working life. This study was followed up in 2015 with a questionnaire to all active students at the Swedish schools of architecture, to get a view of how they perceived social and work situation and education. The survey showed that a greater emphasis on transdisciplinary contributions, a more straightforward approach towards dissemination contexts, and a strengthened collaboration with architectural and urban practices were regarded as important. Also seen as important were future career possibilities, methodological guidance, and teaching experience.[2] The results from these surveys were assessed and discussed at ResArc meetings, as well as by concerned at each school.

opportunity for work at the institution
Many students have either worked for the institution prior to beginning their doctoral studies and/or have been given the opportunity for work at the institution while finishing or after finishing their dissertations in the form of teaching and administration. The involvement of students in teaching is significant and at times dialogue focuses on ensuring there is enough time to focus on the studies.

actions taken
We have a representative of The Swedish Architects Association on the board of ResArc for feedback from the private sector. ResArc also pursues a dialogue with the Swedish Architects Association about retrieving research funding from private funders in the future.

Self-evaluation
The working life perspective is taken into account in both courses, events, and individual research, and especially for academic careers further supported by providing opportunities to teach, publish, and travel to conferences etc. Preparation for practice and other non-academic careers vary and is largely dependent on supervisors, even if it is discussed in for instance Higher Seminars and in mid-term and final seminars.

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[2] A summary of the questionnaires in English can be found at
http://resarc.se/login/stafflog/staff%20login.html under point 4. Surveys.

Preparation for working and post-doctoral life during studies is an area the HEI has identified as of significant interest and will develop in the coming. During the self-evaluation it has come clear there are no national or local goals specifically concerning this area, and coming syllabus revision should discuss the possibility to include it explicitly.

Doctoral student perspective

students active part in improving the programme
Students play an active part in improving the programme and learning processes through participation as elected representatives in the different boards that monitor the quality of the doctoral education (representative in the program board (discusses doctoral education); the research and research education board (discusses strategic questions concerning the research environment on the level of the institution (FoFu)); board of students of ABE School; ResArc). In addition, development dialogues between programme director and individual students provide important information for improvement, and are important resources where they can voice concerns and make suggestions in addition to the supervisory situation. The portion of courses that are elective also allows specialisation and learning that caters to individual student's needs.

participation in decision-making processes
Students participate in decision-making processes, including preparation for matters relating to third-cycle education through representatives within different research organizations (ResArc, FoFU, doctoral program) that affect their education and policies at KTH. Research training meetings are convened regularly (usually 1-2 times per term), in order to inform candidates of any pertinent information, policy changes, etc, and to gather feedback on issues of concern.

physical and psycho-social working environment
A good physical and psycho-social working environment is ensured in a number of ways:
- by providing adequate work spaces (a new building in 2015, providing a desk and bookshelves within research areas for each student)
- through forums for meeting and interaction with their peers
- regular contact with supervisors
- forums and channels for important information concerning PhD students (KTH has an administrator in charge of research-related practicalities such as study plans, Ladok, etc., Carin Österlund)
- laws that protect the students work situation, and a human resource person (Ove Strind)
- students have a right to development dialogue at least once a year. Minutes are taken and followed up year
- ResArc has conducted a comprehensive questionnaire.

Collection, compilation and use of comments from students and alumni
Comments from students and alumni about the programme are collected, compiled and reported to the students through elected representatives who attend board meetings and report via email with minutes from meetings on PhD concerns. They are used in quality assurance and improvement of the program as the basic material for developing action plans within needed areas.

actions taken to strengthen the influence of students
We have introduced individual development dialogues where students give us feedback about how they experience their situation within the research environment and what improvements they wish for in order to be able to conduct their research in the best possible way. The students' feedback is recorded in a protocol and discussed in the board meetings. ResArc has become more stable with course evaluations, discussions for postdoc opportunities and the follow-up of the programs.

feedback to stakeholders
Feedback is given through development dialogues, which are followed up each year; through course evaluations and regular questionnaires. On an informal level, the regular research training meetings are an occasion where all students can present, discuss and reflect on issues within their research environment, courses, examination moments, etc. and make suggestions for improvements.

Self-evaluation

KTH with ResArc has a good structure for student influence and for gathering student opinions. The structure includes individual, collective, and national aspects, but a challenge is that both researchers and students are very pressed for time, which is a challenge for participation. Program-wide questionnaires and other program-focused evaluations can be made more consistently.

Gender equality perspective

gender equality perspective in the programme's design

KTH has the unique and internationally recognized presence of a group of researchers, both senior and students, with a specific knowledge and interest in gender-related issues. Based on previous work of this group called FATALE located within the Critical Studies research area, the KTH programme draws on specific competences built-up during that period. Since then, Critical Studies has changed and expanded containing a specific focus on gender and power. This concentration of gender competence and awareness, however, is not limited to the Critical Studies area, and a gender equality perspective is integrated in the programme's design and teaching/learning activities in several ways:

- Many senior researchers (Bergström, Koch, Mattsson, Gabrielsson, Grillner, Schalk, Frichot) explicitly discuss gender issues in relation to their own research through articles and presentations, helping to give these issues a visibility and legitimacy among academic peers.
- Several senior researchers have been invited as keynote speakers internationally to events dealing specifically with gender within our discipline, e.g. Grillner at "Feminism and Architecture" Parsons School of Design, NY 2015, and Frichot at "Parity Talks," ETH, Zurich 2016.
- Great care is taken to introduce the work of both female and male scholars during courses, including common and specialisation courses in order to avoid promoting and reproducing an academic canon of all male references.
- Within the course 1A5031 (Architecture's concepts and theories), a specific section of the course is devoted to issues on gender, with academic readings from within queer/gender theory, critical theory and feminist theory, followed by a writing assignment and group discussion.
- Our reputation as a strong environment in terms of gender perspective has also allowed to host the AHRA conference on "Architecture and Feminisms" (2016), which brought scholars from all over the world to KTH for presentations, discussions and events on feminisms (and gender) in relation to architecture.
- Our Architecture and Gender course, offered both as an elective in the undergraduate education and as a continuing education course for practicing professionals, has been taught by researchers in Critical Studies since This course has also had influence in that former students who attended the course have now returned to teach.
- Several of our doctoral candidates explore explicit themes dealing with gender and architecture in their research. (Burroughs' recent dissertation on queer feminist architecture, *Architectural Flirtations: A Love Storey* 2016; Runting's and Ozmin's ongoing research).

opportunities and challenges regarding the composition

9 male and 16 female students allows to create balanced discussion groups during courses, to have equal representation in decision-making bodies, and a balance within the workplace socially. Despite this possibility, some research areas such as Critical Studies are all female. This gender imbalance presents a challenge to an area with explicit critical and feminist theory base, to convey that gender issues are not only 'women's issues'. Another challenge is where, no matter the gender ratio of the group, one strong (usually male) voice dominates group discussions. This is particularly pertinent to the courses 1A5032 and 1A5033 (Higher Seminar in architecture 1 and 2). At KTH we try to avoid this by putting in place a set of rules, where all speakers must raise their hands to be recognized by the moderator, and wait their turn.

follow-up, integration of gender perspective and relevant actions

Initiated by the program responsible undergraduate education, Malin Åberg-Wennerholm, KTHA has adopted an equality policy throughout all education. The plan demands equal representation of teachers, guest lecturers, gust critics and theoretical and architectural references in lectures and literature lists. In the beginning of the term, all staff suggest an equality action plan for their part of the education, followed by a document at the end of the term which gives an account of actions and results. KTHA arranges

compulsory educational moments (course and workshops) on gender equality for all staff. There is also a demand from KTH that in dissertation defenses the examination group must be gender diverse. Likewise, job applications are evaluated by a gender-balanced group of experts.

<u>Self-evaluation</u>
While KTHA is in a good place in many aspects of gender equality, it is of importance to continue to improve. Here, informal structures and practices can be examined, and a continued discussion amongst staff and students is central to increase understanding and affect informal behaviours and structures. Coming recruitment of both staff and students is another key. Continued evaluation of specialisations is of interest even if the overall gender distribution is in a good place.