

TADPK Workshop

Teaching Architectural Design and Professional Knowledge







CWP

Confronting Wicked Problems: Adapting Architectural Education to the New Situation in Europe

Agreement no.: 2014-1-NO01-KA203-000366

The Project

Project title: Project period: Confronting Wicked Problems: Adapting Architectural Educa 01.09.14 - 31.08.17 the New Situation in Europe

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Partner institutions:

The Oslo School of Architecture and Design (AHO), coordinator

European Association for Architectural Education (EAAE)

Architect's Council of Europe (ACE)

Politecnico di Milano

Universitat Politecnica de Catalunya (ETSAB)

Universiteit Hasselt

Ceske Vysoke Uceni Technicke v Praze

Technische Universiteit Delft

Universitatea de Arhitectura si Urbanism "Ion Mincu" (UAUIM)

Universitá degli studi di Genova (UNIGE)

The Activity

Name of the activity:

Staff Training Event

Name of think tank: TADPK

Purpose of the activity:

Conducting a series of meetings and seminars with architectural offices, young architects and students, in order to obtain a better insight in what level of professional knowledge relevant employers expect from newly educated architects.

Date and time for the activity:

25.04.2016, 9am - 29.04.2016, 12 pm

Grant awarded to this category of activity (YES/NO): YES

Receiving organization/hosting institution:

The Oslo School of Architecture and Design (AHO)

Participants/mandatory participation for (name and institution):

The Oslo School of Architecture and Design (AHO):

Tarald Lundevall

Thomas mc Quillan

Universitat Politecnica de Catalunya (ETSAB):

Anna Ramos-Sanz

Jordi Franquesa

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EAAE:

Ivan Cabrera

ACE:

Dubravko Bacic Roger Riewe

Documentation from the meeting:

- 1: Report
- 2: Photographs
- 3: Other documentation (detailed program, etc.)
- 4: Certificate of attendance

TADPK Workshop II Report

Adapting Architectural Education to the New Situation in Europe Teaching Architectural Design and Professional Knowledge - TADPK

TADPK - Short term staff training event - SPRING 2016 - OSLO

0. BACKGROUND

01. The workshop in Barcelona, 2015

The report from our first workshop, in Barcelona May 2015, opens with these statements on the complexity of architectural education:

Both the contents of Architectural Design/Professional Knowledge and the relationship that can be established between them lead to a rich and complex discussion, where absolute solutions do not exist, where a wide field of debate and reflection can provide great advantage and enrich our views.

What has been discussed throughout the TADPK workshop is related with learning and implementation of acquired knowledge, that is, on the academic period and professional practice, and the relationship between the two areas.

We could define learning as a process that leads to a real change, which occurs as a result of practice and experience and increases the potential for improved performance and future learning. Learning is not a product, is a process. Or in other words, the knowledge is not received, but is performed. Learning implies a change, a change in our knowledge, but also in

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our beliefs, in our behaviours and in our attitudes. In fact it implies a transformation on the ways of looking at the surrounding reality. This change develops over time, and has a lasting impact on how students think and act. It has a serious influence on what the students are going to do in their professional activities in the future.

Learning is not something done to students, but rather something students themselves do. That means it is most important what the students do - not what the teacher does. In fact, it is the direct result of how students interpret and respond to their experiences.

The students must learn when and how to apply the skills and the knowledge they learn. To develop professional abilities, students must acquire fundamental skills, practice by applying them, and know when to apply what they have learned. This means that the students must also practice combining and integrating different skills to develop greater autonomy.

But we have different levels of complexity when we study the learning process. Bloom's Taxonomy of 1956 defined six levels of the learning process, in a crescendo order of complexity: remembering, understanding, applying, analysing, evaluating and creating. The more complex one, creating, means to be able to make new connections, identify new relationships and design something new. This means to build a structure or pattern from diverse elements. And creativity is, we must say, one of the main aims we must deal with in Architecture.

We, as trainers, must succeed in the difficult task of giving our students the tools they will need in their voyage to the professional world. We have to foster how to achieve that these students will be great architects, good professionals. And they will be good professionals if they are able to create a new environment in our cities that responds to a well formed critical reasoning on it.

As a backdrop for our work, the challenging complexity of architectural education described here is a vivid reality. In our workshop in 2015, the TADPK think-tank discussed in detail the term knowledge related to architectural education: is it fruitful - or possible to distinguish separate types of knowledge that an architect should possess? We concluded with these three types of knowledge:

A. Knowledge of the discipline. This knowledge is the core content of curriculums today: architectural theory, history and broad architectural design training. It is linked to the

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learning that prepares students throughout their studies. Variations in this knowledge mostly depends on the capacities of the architects in each country and the curriculum that each school applies. This knowledge is mostly learned in established schools for architectural education.

B. Knowledge of practicality. This knowledge is related to the technical and legal aspects of professional practice. It has to do with building codes, constructions and detailing, with planning, with edification regulations as well as with the economic management of the firm, budget execution and measurements, and the development of all administrative documentation and management of architectural projects. All this knowledge depends fundamentally on the professional activity, but is also the subject of learning in universities and is part of the various curricula, especially in the higher grades.

C. Knowledge of the profession. This knowledge has to do with the activities and relationships with customers and government entities, the exchange of knowledge with other professionals, working cooperatively with other disciplines involved in the design process and executive, timing issues in the development of the projects and operation of the necessary logistics to carry out a particular project. Such knowledge depends largely on the cultural and social context and the field of specialization in which the architect is moving and therefore varies depending on the country in which the activity is exercised. This knowledge is learned exclusively in the context of professional activity, and seems intractable on campus.

02. More professional knowledge: a key to increased employability?!

The basic knowledge of the discipline is a wide and voluminous field, continually debated within all institutions for architectural education in their curriculums. In the TADPK think-tank workshop in Barcelona we therefore decided to continue our work focusing on the spheres of knowledge described under the points 2. and 3. above, presuming that these fields are the most relevant for our task, and in some way - hopefully - possible to "cover" within our time- and budget limits.

Before going further, we felt that it was necessary to learn more about how professional knowledge is dealt with in European architecture schools today: what content, when in the study progression, and how is this knowledge conveyed to the students? We decided

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to launch a simple questionnaire, addressing a limited but culturally/geographically representative number of schools. The idea was presented to and acclaimed by the EAAE in the meeting in Milan late August 2015, and effected later in the autumn. A preliminary study of responses from schools were presented in the TADPK – TNP 3-meeting in Oslo 20.11.2015, and a more systematic study were presented and discussed in the TADPK workshop in Oslo, April 2016. From a statistical point of view we are fully aware that a limited number of responses and possible misunderstanding of terms used might blur the study. On the other hand, we feel that our investigation has helped us to get a valuable *picture* of the situation.

Some survey findings:

- All responding schools offer education on professional/practical knowledge.
- Roughly 50% of the schools offer such education in specific courses, and the other 50% also offers such education in <u>dispersed/integrated in other</u> types of courses.
- Roughly 50% of responding schools offers courses on professional/practical knowledge on Bachelor level, the rest on Master level.
- Mandatory courses on professional/practical knowledge are mostly given on Bachelor level, roughly 2 out of 3.
- <u>Volume</u> (hours pr. semester) of mandatory courses, <u>average</u>: Bachelor level ca. 75, Master level ca. 50.
- ECTS earned, mandatory courses, average: 8 ECTS
- A majority of responding schools reports that education on professional/practical knowledge covers these themes: roles of the architect, standard procedures and tools, legal aspects related to public sphere (law and codes) and private sphere (business, ownership), project management, etc.
- Roughly 60% of responding schools does not require external practical experience (internships or similar) during the study-years to obtain degree, and does not plan to introduce such requirements. (Responses from the last 40% unclear, often mixed with existing requirements of mandatory practice in the post-study years.)

The picture that evolves from the study is diverse but in some ways clear:

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- All schools give education on professional/practical themes, but the volume of such education is relatively small, never valued to more than 20 ECTS of a normal total of 300.
- A majority of European schools give education on professional/practical themes through mandatory courses on Bachelor level. In addition elective courses are often offered on Master level.
- A majority of European schools intends to "cover" a broad set of relevant professional aspects in such education: roles, tools, procedures, law and codes, project management.

According to the sector study "The Architectural Profession in Europe 2014", by ACE, 21 out of 28 states or federal regions in Europe requires 1 – 3 years of post-study practice before registration as architect is allowed. (One year in 3 states/regions, two years in 21 states/regions, and three years in 4 states/regions.) The reasons for these requirements are based on different cultural, political and professional traditions, but states the fact that most parties means that (sufficient) professional/practical knowledge only could or should be obtained in a "real" context, after the years of institutional education. Even the countries without such requirements, like Norway (not among the 28 states/regions mentioned above), regulates a similar situation through national building codes.

The schools' attitudes versus professional/practical knowledge as a vital element in the study-years is varied, and seems to be unclear or ambivalent. This might be the result of the (partly sub-conscious?) opinion that professional knowledge only is obtained in a real work-situation. In earlier years, with huge tasks related to post-war rebuilding of Europe, this was for sure a natural position: most architects were employed, and achieved their professional insights through real work and experienced, older colleagues.

The challenges of today, or the "wicked problems" we face, is that a reduced number of architects get these possibilities. The reason for this is the huge unemployment problems, especially in southern Europe, and the "eroding roles" for the practicing architects in northern Europe, where various types of engineers and specialists takes the (managing) roles that architects historically possessed. In this situation, possibly some sort of "new normal", architect-students ideally should be given tools enabling them to re-conquer earlier positions - and/or go into new roles and tasks.

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These questions have been discussed in our think-tank, and our preliminary conclusion is that architecture-students should be given a wider set of insights and knowledge, to make them more employable and prepared for wider fields of work.

1. ACTIVITIES

1.1 Program

The plan for our second workshop, in Oslo in April 2016, was to test the hypothesis above, through meetings with architectural practices, public offices employing architects, students, recently educated architects and teachers. AHO planned for this, and made a program with 6 "external" meetings and 2 "internal" meetings, for preparations and discussion of findings. Before all "external" meetings, a general presentation of the CWPproject and intentions for the meetings had been distributed to the involved parties. The series of meetings gave the TADPK think-tank full occupation for the period 25. – 28. April. The 29. April we arranged the TADPK - TNP 4-meeting, to sum up the workshop and debate alternative steps forward.

A detailed program for the TADPK Workshop II is attached to this report, Appendix 1.

1.2 Meeting minutes

We want to present the minutes from all meetings mentioned above, stating who were participating, and vital statements that were given. Statements with clear relevance to architectural education will be categorized as findings, and discussed further in the next chapter. The meeting minutes below are presented chronographically.

a) TADPK think-tank, internal meeting.

This was the first meeting in the Oslo workshop. The intention was basically to prepare for the upcoming meetings. The discussion on definitions of knowledge was repeated and updated, to ensure that our vocabulary was clearly understandable and efficient for discussions with externals. We decided to continue with our earlier definitions: the knowledge of an architect consists of disciplinary knowledge, practical knowledge and professional knowledge.

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Before the external meetings we had to discuss which questions we would raise. We agreed that we wanted open, fruitful meetings, but prepared questions that enabled structured debates. We wanted to pose similar questions to the different parties we would meet, allowing for more elaborated cross-checking afterwards. The questions were split in six topics, and allowed for sub-questions, with different "labels" according to whom we met. The six themes were:

- **A**: Understanding and **awareness** of professional knowledge
- B: Role of professional knowledge within an architecture degree curriculum
- C: Role of professional knowledge regarding employability
- **D**: Sufficiency of professional knowledge **at diploma level**
- E: Professional learning after diploma
- **F**: Professional knowledge **in evolution**

Final prepared questions for external meetings is attached to this report, Appendix 2.

In the minutes for "external" meetings, where our prepared questions were used - at least as a starting point for discussions - the question's code and number (for instance B2) will be referred where relevant. Please also see Appendix 2.

b) Snøhetta, external meeting.

Participation: TADPK think-tank members, Deputy Managing Director Simon Ewings and Senior Architect Ingebjørg Skaare, Snøhetta Oslo, and Managing Director Erik Vitanza, Snøhetta Overseas.

A2: Some professional knowledge is definitely necessary – personal attitudes and characteristics are most important when employing new architects. Through portfolio's you get an impression of a persons skills. Professional *understanding* is more important than "pure" knowledge. --- Newly educated should know the steps in a normal project process. --- They should be able to allocate and use resources in an economic and intelligent way. ---- Want to know if people are team-players, and if it is likely that they will manage to have good discussions with colleagues and clients.

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B1: Through the education it is most important is that professional aspects are illuminated for the students. They should also learn basic steps for setting up an architectural practice.

<u>C2:</u> The interview is obligatory and most important. And again: personal qualities!

<u>E1:</u> Depends: --- 2 years to be operative --- but 4 – 5 years to be able to run a project!

F1: Increased abilities to design a (good, appropriate) process – to foresee who are the important stakeholders in various phases to come.

c) Jensen & Skodvin, external meeting.

Participation: TADPK think-tank members, Partner, Director Jan Olav Jensen and Partner, Director Børre Skodvin.

A2: They should not be *possessive*, and have a natural tendency towards *collaboration*. Personal characteristics are very important. Ideally they should have the mind of an *architect*, with great ability in combining complex information.

B1: A statement: "First architecture students are brain-washed, then they are rebuilt, and later, in practice, they die" --- (!) Obviously students should learn that professional knowledge is a reality, and that it exists - for instance to learn about the tension between market and ideas. But they should not learn much - then they will be too obedient --- (!) A statement: "The education years is like a soup – but the students should be more focused on the ingredients than the recipe" --- (!)

<u>D1:</u> Student portfolio's are important – not at least how it is structured and presented. "The hidden curriculum" is impoertant.

D3: No - mandatory practice is only a way to "serve the market" ----

<u>F1:</u> In the future we will see less and less time spent on creating architecture – and more bureaucracy and paperwork.

d) Master students, external meeting.

Participation: TADPK think-tank members, Master-students at AHO.

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<u>A1:</u> Students are in a *bubble* – they feel comfortable with this, and hope to learn professional knowledge in an office later. --- Aware that professional knowledge exist but have tried to avoid so far ---- (!) The school should prepare students better - the attitude of a professional architect is possible to convey to students! ---- Students should learn how to avoid/drown in external influence

B1: It is very little education on professional knowledge today. Students should learn more about "how to protect an architectural idea" ---- The mandatory (small) course in 6.th semester is ok but too early ---- Perhaps better with an elective course, later in the education years -----

<u>C1:</u> To know about the relevant tools --- To be *skilled* (not defined in statement)---- To have a good portfolio ---- To master BIM-design -----

<u>D1:</u> Would like to learn about the *whole process*, all necessary steps ----

D3: It would have been ok with a mandatory practice period in the education -

D4: Would like to have more professional knowledge – and be able to "give something back to the society" ----

E1: A couple of month's? ---- But probably 5 years before "fully operative" ----

F1: The future will see more teamwork, more interdisciplinary work and tasks ----- It will be more process-oriented work, huge technological shifts will come ----

<u>F2:</u> To protect your architecture, you have to learn more professional knowledge ----(!)

e) Recently educated architects, external meeting.

Participation: TADPK think-tank members, recently educated architects, from AHO. (The young architects had finalized their studies from 1 to 6 years ago.)

A1: Depends a lot on how students design their study-years --- As years go on, they regard that more education on professional knowledge should have been given ---- although it is difficult to teach! The most important thing is to make the student *aware* of the different

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aspects of professional knowledge --- Definitely needed, but not in detail! ---- To some extent such knowledge grows by "osmotic" pressure in the professional context ----

B1: Some sort of specializing should be considered - professional knowledge is not a theme for wider generalizing --- Education on professional knowledge should be given, but more as elective studies than mandatory ones ----- It is room for more professional education in the AHO curriculum ----

<u>C1:</u> Have to prove that you are "self-driven" ----- Practical experience from architectural office(s) very important ---- Statement: I had worked in a small public administrationoffice, knew something about planning, law and building codes - this made me more attractive ---- You get job's through your *network*, not by responds to advertising!

<u>D1:</u> A general "awareness" of the role of the architect is necessary ---- The diploma-process is very useful – you learn about programming and design development! ---- The most important elements you have to know are related to process, roles and management of design and building processes.

D3: Perhaps – but is has to be well organized, and monitored by the school! ----

E1: 2 years should be sufficient ----

<u>F1:</u> More *multi-disciplinary* processes – networks to other professionals will be more important than today --- New and better software will change and improve a lot of work for the practicing architect ---

F2: Professional knowledge will be more important than today - and must to a larger extent be clearly related to your own country/work context

f) The Oslo Agency for Planning and Building Services, external meeting.

Participation: TADPK think-tank members, Managing Director Ellen deVibe, Director Finn Kolstø, Director Anders Bermann Vaa, Director Åse Munthe Sandvik (all Master Architects.) (The agency is responsible for all area-planning, plan/building control and administration of special area-development projects. The agency has the political system of Oslo as "main owner and client", and employs ca. 450 persons.)

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is essential. ---

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A2: The agency work with a wide set of tasks, and look for different abilities, related to the actual type of position. ---- Statements: In essence much of the work is social science, and we always look for process-oriented architects. --- Not at least do we look for seekers with management experience in interdisciplinary processes. ---- We want our young architects to "see potentials", to be curious, proactive instead of reactive. ---- The ability to lead an egalitarian, listening communication with all sorts of clients is essential. ---- When judging young appliers, the office give a 20-minutes test: "describe – with pen on paper – a special task/challenge/situation". This tells us much about general abilities, what they want to do <u>B1:</u> A lot of the young architects applying for job in the agency says that the education has not given insight related to procedures on political decision-making. They miss more knowledge on normal procedures in a building-case. ---- All employees in the agency must be able to write (fairly good) Norwegian. The result of this is that foreigners are more seldom in the staff. ---- AHO should give more attention to the student's communicationabilities. ---- Awareness of professional roles, and the role as a professional public servant,

C2: The agency works on behalf of society – all employees must have a developed social awareness.

<u>D1:</u> Some knowledge on how (the Norwegian) society "functions" when it comes to planning and building processes, roles and political decision-making.

E1: 2 years of work make new employees operative.

E2: Systematic post-graduate courses are more important/valuable than (length of) practicing period.

<u>F1:</u> In the agency <u>all</u> planning and building tasks has to be formally considered versus sustainability. Such considerations will increase, according to upcoming changes of the environment.

F2: Knowledge on and methods for dealing with new challenges related to migration and "social sustainability" must be given in schools.

g) Faculty at AHO, external meeting.

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Participation: TADPK think-tank members, Professor Marius Nygaard, Professor Bente Kleven, Part-time teacher Bjørn Holther.

A1: Information about the "society and the world" should be given --- to increase students general curiosity. --- Main aspects of professional knowledge should be mentioned, so students get an awareness ---- Students should be learnt "what do you give to the client"? ----- Education on professional knowledge should be given late in the study years ----

B1: A little more of professional knowledge should be learned – perhaps as an element in Master courses? ---- A general *client focus* – like that we see in our Institute for Design – should be introduced.

C1: A job candidate with documented skill (portfolio) and not at least is socially trained is attractive ---

D3: Mandatory practice should be avoided ---- if introduced, a detailed monitoring of content and quality must take place ----

E1: This depends a lot of the actual practice type and culture --- 1 to 3 years to be operative?!

F1: A larger ability to handle/take part in interdisciplinary processes will be more and more demanding --- not at least to handle sustainability related challenges. ----

F2: Courses specifically on process management should be given ---

h) TADPK think-tank, internal meeting.

Participation: TADPK think-tank members.

The minute covers internal discussions held during the week:

Further discussion on our knowledge-definitions were necessary, to obtain more clarity in the on-going series of external meetings. This "model" was introduced:

Disciplinary knowledge = the art of architecture

Practical knowledge = <u>science</u>, "how to do", technical solutions

Professional knowledge = <u>business</u>, society

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The vital themes / aspects of architectural professionalism:

- Roles for the architect
- **Process**
- Law and codes
- Economy
- **Participation**
- Documentation
- Management

With these precisions/keywords some of our "external" discussions proved to develop more smooth and efficient.

2. FINDINGS

2.1 Synopsis of external feedback.

Through the sequence of meetings we have got a series of statements: related to the six "themes", and given by parties with different positions. Some of them are mere statements, while others are explicit and deserve to be called "findings". In next chapter the findings with direct relation to architectural education will be identified. Responses to our questions:

A Understanding and awareness of professional knowledge:

All parties agreed that professional knowledge is important. Students, young architects and faculty would not oppose "a little more" education in this field, but not more detailed knowledge – instead clear focus on society, process and management.

Offices are basically looking for team-players, people with awareness for society and communication, socially trained, and process-oriented, pro-active, curious.

B Role of professional knowledge within an architecture degree curriculum:

None of the external parties asks for a substantial increase of professional knowledge. But at the same time they propose that students should obtain more "understanding" (of society and the roles and tasks for an architect). Keywords like awareness, social insight,

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knowledge on political decision-making, knowledge on how society "functions", management and process were given by respondents.

C Role of professional knowledge regarding employability:

Students, young architects and faculty emphasize skill (documented by portfolio), that they should have some years of practice after education, and be "self-driven".

Offices says clearly that personal qualities and social awareness are most important.

D Sufficiency of professional knowledge right after diploma:

All external parties mention that some knowledge on how the actual society/context functions. No clear attitude to practice in study years - if introduced, it has to be well controlled and monitored. Students want better understanding of normal progression/steps in a "complete" planning- and building process.

Offices mainly ask for *general awareness of the roles* of an architect in society.

E Professional learning after diploma:

Most external parties said that 3 - 5 years practice after education are necessary to make a young architect fully "operative". Many mentioned that more post-graduate courses should be offered.

F Professional knowledge in evolution:

All external parties predict a future where teamwork, interdisciplinary processes etc. will be even more important.

All external parties said that professional knowledge definitely will be necessary, but more focused on the actual social and political context, and on process management.

2.2 Findings with relevance to architectural education..

I) Schools should give education on professional knowledge. This education should to a larger degree focus on the actual society and context, and how it "functions". The goal is to develop the students social awareness and general curiosity.

Comment:

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It has been regarded that the opinion in architectural offices is that students coming directly from education lack the necessary insight for practice. We are a bit surprised that these types of arguments did not occur in any of our discussions. On the contrary: practicing architects expect that the various elements of professional knowledge has been illuminated for the students, but they pay little or no attention to if students have knowledge on relevant laws, building codes, user treatment procedures, project- and office economy, management etc.etc. They are very clear on what makes a job candidate attractive: he or she has to be socially aware, pro-active and curious – a team-player!

II) Education with focus on society, should present the typical roles for an architect in the actual society, and the stakeholders/parties in environments that an architect will meet.

Comment:

Students and young architects say they learn too little about the various work-positions, the typical tasks they will meet and the typical teams or working relationships they will encounter. The amount of such knowledge given varies from school to school, but increased awareness on these items should be considered.

III) Awareness of and preparation for more interdisciplinary processes should be given as an element of professional knowledge.

Comment:

All parties we met in our meetings stressed that the work of an architect more and more would take place within an interdisciplinary context. A better understanding of the knowledge, values, working-methods and capacities of other professionals should be presented. New types of processes that evolve from broad teaming should be presented and discussed as an element of professional knowledge.

IV) Education on professional knowledge should increase the focus on typical plan- and building processes, on design of task-defined, appropriate processes, and general process

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management. This education should also problematize new challenges, on themes like sustainability, changes in technology and migration.

Comment:

Not at least the students and the young architects we met stress that an overview of the normal, "full" process of plan- and building, and the normal teams involved, should be given during the study years. Such knowledge will help students to make the transit from studying to practicing more easily. It could also help the young architect to be more aware of his or her role and capacities when new types of challenges are addressed.

V) Professional knowledge should preferably be presented to all students on lower level. Later in the study period, more elective courses should be given.

Comment:

Students and young architects say that the motivation – and readiness - to learn professional knowledge grows through the study years. To move more of the education from Bachelor to Master level should be considered. Through elective courses on elements of professional knowledge some students might obtain special insight and ability, preparing them for management etc. on a higher level. This specialisation could increase the student employability.

VI) If introduced, mandatory practice-periods during the study-years has to be well monitored and quality-controlled by school.

Comment:

All parties we met in our meetings seemed to agree that real professional knowledge only would emerge through work-positions. Not at least in the countries where no practice period after the study-years are mandatory for licensing, types of controlled/monitored integrated practice-periods could be considered.

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VII) Schools should offer various and relevant post-graduate courses on professional knowledge.

Comment:

We know that the amount of such courses is increasing in most European countries. They are mostly offered by various actors in the planning and building environment. All schools giving architectural education should examine their actual situation, establish fruitful collaboration with other parties, and secure that less commercial, professionally relevant courses are offered to architects.

3. EVALUATION

At this stage the seven proposed activities are not detailed or economically calculated. It is also clear that the existing variety of professional knowledge offered in European schools makes it necessary to design the "local" content and methods for education on this type of knowledge. This means that an accurate evaluation is premature at this stage.

The TADPK think-tank will investigate, detail and evaluate the proposals in its future work. Further findings with relevance to architectural education might also be found during next years workshop in Barcelona, where we plan to conduct another series of interviews.

To prepare for the CWP-project's final report on Teaching Wicked Problems it is also necessary to discuss our proposals in relation to the findings of the Sustainability and Heritage think-tanks. Our intention is to use next year's workshop in Barcelona as a tool to come further on these themes.

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Oslo, 01.07.2016

Name: Tarald Lundevall

- W-hundur

Signature

Member of the think-tank TADPK, The Oslo School of Architecture and Design (AHO):

Name: Thomas Mc Quillan

Signature:

Member of the think-tank TADPK, The Oslo School of Architecture and Design (AHO)

Name: Heidi Kristensen Holte

Stamp and signature:

Legal representative, The Oslo School of Architecture and Design (AHO)

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Appendix 1.

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TADPK Oslo-event, April 2016

Program:

Sunday 24.04

Ivan, Jordi, Roger, arrives in Oslo. Dubravko arrives the 25., noon.

Anna arrives the 28., ca. 17:30.

Check in: Savoy Hotel, adr.: Universitetsgata 11. (Same hotel as last time.)

Monday 25.04

- 09:00 Tarald comes to hotel, group walks to AHO. Assembly in room G4.
- 10:00 TADPK think-tank meeting. Agenda: Week program. Conducted by Tarald. Discussion: "What are the most important questions we want to pose in meetings with offices, students and teachers (at AHO)?" (ACE, AHO, ETSAB and VAL should prepare proposals, 10 minutes pr. representative.)
- 12:00 Lunch, with AHO Dean Ole Gustavsen. Assembly in Boardroom.
- 14:00 TADPK think-tank meeting. Agenda: Survey results, findings. Presentation by Dubravko.

Tuesday 26.04

- 09:30 Snøhetta office. Adr.: Skur 39, Vippetangen. www.snohetta.com Meeting with office leaders, open discussion on TADPK-questions.
- 12:00 Lunch, in Snøhetta office.
- 14:00 Jensen & Skodvin office. Adr.: Sinsenveien 4D. www.jsa.no Meeting with office leaders, open discussion on TADPK-questions.

Wednesday 27.04

- 09:30 AHO, room G4. Session with master students at AHO: *TADPK-questions, group-discussions, presentations.* Conducted by Thomas.
- 12:00 Lunch, at AHO
- 13:00 AHO, room G4. Session with recently educated architects. TADPK-questions, discussions. Conducted by Tarald.



TADPK Workshop

Teaching Architectural Design and Professional Knowledge









Thursday 28.04

08:30 Plan- og bygningsetaten (Oslo City Planning Office)

Meeting with office leaders, open discussion on TADPK-questions.

Adr.: Vahls gate 1

12:00 Lunch. Somewhere in Oslo city.

14:00 AHO, room G4. Meeting with AHO teachers.

TADPK-questions, discussions.

Conducted by Thomas.

19:00 Karl Otto invites the group for dinner, in his home.

Adr.: Smestadhagan 7, Smestad.

Friday 29.04

10:00 AHO, room G4. TADPK think-tank meeting, to sum up:

What have we learnt these days, important findings, other types of input to be included in our report? Structure of the report?

Conducted by ETSAB representative.

TADPK Oslo-event closed.

12:00 Lunch, at AHO

13:30 TADPK think-tank: Transnational Project Meeting 4 (TNP 4), agenda: Status, economy/formalities, production of report: responsibilities and milestones, next dissemination-event, eventualities.

16:00 (approx..) Meeting closed.

Friday 29.04 Roger, Anna, leave Oslo Saturday 30.04 Ivan, Jordi, leave Oslo

Sunday 01.04 Dubravko leaves Oslo



TADPK Workshop

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Appendix 2.

FA	Faculty
ST	Students + Young Architects
PR	Professionals + Employers

	_
bio	Biographical variation
gen	Generational variation
mar	Market variation
geo	Geographical variation

UNDERSTANDING AND AWARENESS OF PROFESSIONAL KNOWLEDGE Α



- A.1 How important is this professional knowledge for an architect education?
- A.2 How important is this professional knowledge for hiring an architect?

В ROLE OF PROFESSIONAL KNOWLEDGE WITHIN AN ARCHITECTURE DEGREE CURRICULUM

FA	ST	PR
gen		gen
aeo	aeo	aeo

- Is it properly proportioned today with respect to the whole?
- B.2 Has it been better proportioned in previous curriculums
- B.3 How do you think this is taught elsewhere?

C ROLE OF PROFESSIONAL KNOWLEDGE REGARDING EMPLOYABILITY



- C.1 What do you think that makes a job candidate attractive?
- C.2 What is the most important characteristic that you look for in a job candidate?
- C.3 Do you think that this characteristics in a candidate depend on the European country?

D SUFFICIENCY OF PROFESSIONAL KNOWLEDGE RIGHT AFTER DIPLOMA

FA	ST	PR
geo	geo	geo

- D.1 What professional knowledge is essential for diploma level?
- D.2 Do you think that students in other countries are better prepared regarding knowledge?

FA	ST	PR
	ST	PR
•		PR

- Do you think that a mandatory practice period should be included in an architect education?
- D.4 How well prepared do you think you are after diploma?
- D.5 Do you expect candidates have skills that you didn't have as a fresh graduated?



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Ε PROFESSIONAL KNOWLEDGE LEARNING AFTER DIPLOMA

FA	ST	PR
FA	ST	PR
mar	mar	mar

- E.1 How long should it take to a freshly graduated architect to be an operative architect
- E.2 What professional knowledge might be learnt after diploma?
- E.3 Does it depend on the market segment that you are going to work at?

F PROFESSIONAL KNOWLEDGE IN EVOLUTION

FA	ST	PR
FA	ST	PR

- Which changes do you foresee in the near future within the field of architecture?
- What does that mean for professional knowledge?