

Cadastral Practice – a Success for the Education in Land Surveying and Land administration at Bergen University College

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SUMMARY

The education in Cadastral surveying in Norway is located at Bergen University College in the western part of Norway. 30-40 students finish the program each year. The name of the program includes the word “design” in Norwegian and the program can be translated to “land design” or “property design”. An important part of the study program is the cadastral practice. In Norway cadastral surveys can only be conducted by the municipalities. Our students will in their 3rd Semester do cadastral survey for Fjell municipality, which is a neighbouring municipality to Bergen. Fjell municipality is one of the municipalities in Norway with the heaviest growth in population. The municipality has limited capacity to conduct all the cadastral surveys required, and the land owners have to wait up to 3 years to get the work done. The students are very satisfied to work with “real” cadastral surveying. Bergen University College are paid for the work and the income is used for financing of student activities such as participating in the FIG-congress in Sydney.

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1. INTRODUCTION

Cadastral practice has been a part of the study program in land surveying and land administration since 2005. Through this period we have conducted about 100 cadastral surveys for Fjell municipality. New knowledge has been acquired for every case. The students are enthusiastic, and it is motivating for both students and professors to meet the real world, and the real land owners.

2. THE EDUCATION

Education in Norway in land administration and land surveying is offered by several universities and university colleges. The major challenge has been the recruitment of staff to work at the universities as well as the recruitment of students. In some of the surveying educations we have as few as 5-10 students every year. Obviously, surveying education based on this number of students is very expensive compared to programs with student groups of maybe 100 students.

The study program in Bergen has no problem with student recruitment. Each year we have about 70 applicants who have the program as their first choice and our capacity is 45 students each year. Last year about 450 students had the program on their list of where they would like to start studying.

Bergen University College is one of the largest regional colleges in Norway. We have about 6000 students and the number of staff is 600. The faculty of engineering has all traditional engineering subjects and the total number of students is 1500. The number of students is increasing and the engineering education in Bergen has no difficulties in attracting students.

Thus we have a high number of students, and the economy of the faculty is strong.

The original aim of the surveying education in Bergen was to educate technical staff to the Land Consolidation Courts. It started in 1957 as a 1 year course at Stend agricultural school. In 1980 it became a 2 years education and in 1993 the education was transferred to Bergen University College.

Our study program is the only program in Norway in cadastral surveying. The students have courses in all aspects of cadastral survey and they learn land surveying, GIS, land use

planning, land administration, land tenure and legal topics. The students work with projects and an important aim is to teach the students teamwork.

In the 3rd semester in the program the students have cadastral practice. The cadastral practice is carried out in cooperation with Fjell municipality. Cadastral surveying is in Norway a municipal monopoly task, and the land owners cannot apply for a private surveyor to do a cadastral survey. However the municipalities are allowed to hire “private” cadastral surveyors if they don’t have enough capacity, or if there are other reasons. So in this context professors and the students are engaged by Fjell municipality as “private” surveyors.

Being a part of the faculty of engineering also gives our study program benefits because we can use the broad expertise of the faculty in all these subjects. As an example we offer follow up courses in industrial metrology. These subjects are normally found within mechanical engineering. Consequently we can offer our students to learn about metrology and many of the students will start working in mechanical industry offshore.



3. FJELL MUNICIPALITY

Fjell is an island community just west of Bergen, with approximately **21 400 inhabitants**. **The area of 147 km²** is divided into the northern part of Sotra, Bildøyna, Litle Sotra and

more than 500 large and small islands, rocks and islets.

The municipality has the mainland connection to Bergen, a large migration and an expansive industry built on oil, technology and service. Coastal base CCB and Ågotnes Industrial is Western Norway's most important center for the repair and supply services to the oil and gas sector in the North Sea.



The municipality is dynamic and it is an ambition to build a new "coast town" at Straume, the community center. The area will be transformed from a shopping/service center to an area where people also live in contact with the sea.



The cadastral surveying in the municipality is conducted by 4 cadastral surveyors and they totally have 2-300 surveys each year. This is almost as many as in Bergen municipality, where we have about 250000 inhabitants. The reason for this is that the population in Fjell is growing very fast. The administration in the municipality is not growing as fast as the population and they have problems with the capacity of the services.

4. CADASTRAL PRACTICE

The cadastral practice starts with meetings between cadastral surveyors in Fjell and the professors from BUC. The municipality has made necessary decisions on land subdivision to start the surveying work.

A week after this the students arrive from their summer vacation and we establish student groups with 3-4 students. We give every group 2 cadastral surveys and this year we had 13 groups doing altogether 26 cadastral surveys. The students give a presentation to the class, the professors and the surveyors from the municipality one week later about what sort of cadastral surveys their cases are, and they are ready for summoning of the cadastral surveys. The landowners will have one or two weeks to prepare the survey and then the students and the professors are ready to meet the landowners.

The field meeting is administrated by the professors and the students are observing. They make their notes from the meeting and are prepared to discuss with the professor what happened between the land owners how the parcel and the boundaries were established.

The land surveying is done by the students but they are followed up by a professor. The professor controls the survey and look after that the students have done the work according to the national standards.



The result from the cadastral survey is prepared by the students and the professors as a team work. The results include minutes from the meeting, agreements, documentation from the land surveying and the information to be registered in the Cadastre.

5. ADVANTAGES FOR THE STUDENTS

For the students it is an advantage to be part of the real world also in the course of their studies. In Norway each cadastral survey has its own life and we never know what happens when we meet the land owners. The students gain knowledge about 20-30 cadastral surveys and this is very valuable for the students.

They are “learning by doing” and they never forget the work they did in the municipality. The students are well prepared to start cadastral surveying in municipalities and are often offered jobs before they have finished their studies.

The students become a part of the professional society during this practice and they are allowed to follow the largest cadastral conference in Norway. As a result of this they establish contacts and they feel familiar with the other professionals.

6. ADVANTAGES FOR THE BERGEN UNIVERSITY COLLEGE

The professors at BUC will every year have cadastral practice as a result of this work. We are building a big library of cadastral surveys and we can do research on each cadastral survey if it is interesting and we can do research on the trends and challenges.

The professors are asked to give presentations on conferences and follow up courses and this is the best marketing for the education.

The connection between the professionals and the BUC has never been better. When we do cadastral practice and research, we are able to speak with the professionals in a proper way. We are establishing follow up education and we are able to develop the profession further.

When the students are satisfied with the education and especially the cadastral practice, they inform their friends about their experiences. Then BUC will have more and better qualified applicants to the study program. This we can see on the increase of the applicants to the program. From 2004-2009 it has increased with 100 %.

7. NEW CADASTRAL LAW – WHAT ABOUT THE FUTURE?

We are optimistic about the future. The new cadastral law has no education requirement for the cadastral surveyors. The reason is that the cadastral surveyors are appointed as civil servants in the municipality. In Norway the municipalities decide themselves how they do their work and what competence should be required. The Parliament will not give specific regulations about what education people working in the municipalities shall have in this area.

But the state recommends that the cadastral surveyors at least shall be bachelors in land surveying and land administration. This was specified when the new law was put into force 1st January 2010.

When we shall do our cadastral practice in the future we have some challenges. One challenge is that the new law states that the cadastral survey shall be finalised within 16 Weeks after it is required by the land owner. We may not be able to meet these deadlines, but however it is our intention to do so.

8. CONCLUSIONS

The cadastral practice is a success for BUC and Fjell municipality, and for the students. BUC has developed very good relations to the municipality and this is valuable both parts. Through the cadastral practice we are encouraging the profession and this is a benefit for the society as a whole.

BIOGRAPHICAL NOTES

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