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Fieldwork education practice in graduate schools: A case study on human geography and regional geography classes at the University of Tsukuba

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Abstract

We discussed the significance and the problems of fieldwork education through an examination of concrete practices related to fieldwork education in graduate schools through a case study on the University of Tsukuba. Fieldwork classes have been conducted over a period of one week every year in both the human and regional geography courses at this university. In principle, every student enrolled in these courses is required to participate in fieldwork classes every year and to write and publish an academic paper. Firstly, we examined the preparation for fieldwork classes. After the decision on a field region, an orientation is conducted for the students to organize survey groups. All survey groups have the established purpose of clarifying the study area's geographic characteristics. After the group composition, mainly the group leader draws up a concrete survey plan. Every year, the fieldwork class usually takes place over six nights and seven days. Secondly, we discussed some dimensions of on-site education such as general survey, land use survey, daily schedule, and seminar. The seminar is an arena for testing the students from lower academic year groups. Finally, we pointed out some changes in the graduate school educational environment and problems with fieldwork classes. The environment surrounding fieldwork classes is becoming harsher year by year. With the advent of a society that highly values thorough protection of personal information and privacy, it is becoming gradually more difficult to conduct the traditional fieldwork style in which various kinds of information are obtained from individuals through interviews and records. Under such conditions, new efforts and initiatives are necessary in order to continue cultivating fieldworkers, who are the lifeblood of geography.

Key words: fieldwork education, human and regional geography, University of Tsukuba, fieldwork style

1. Introduction

In the course of human geography, the importance of fieldwork as a research method is beyond question. However, in the curriculum of Japanese graduate schools, few universities have established fieldwork as a formal subject. The purpose of this paper is to consider the significance and the problems of fieldwork education through an examination of concrete practices related to fieldwork education in graduate schools through a case study on the University of Tsukuba, which has incorporated fieldwork into the regular curriculum of the graduate school and has conducted regional surveys as a method of study since the era of its historical predecessors.

In this paper, we will discuss the fieldwork education practice at the University of Tsukuba's graduate school through analyzing preparation and conducting for the fieldwork class. After the discussion, we will consider some changes and problems on the fieldwork education.

The geography school in Otsuka was substantively established and developed from the initial stages by Keiji Tanaka. In this paper, the geographical studies conducted at the University of Tsukuba and its predecessors Tokyo Higher Normal School, Tokyo Liberal Arts and Science University, and Tokyo University of Education are collectively referred to as "Otsuka". The Tokyo Liberal Arts and Science University, founded in 1929, was particularly noted for its regional geography research. On-site research and inspection tours were highly valued as concrete research methods in Tanaka's tradition of regional geography, and Tanaka himself practiced thorough on-site research (Takano, 1977). "One of the Otsuka academic traditions is to decide on a certain region and lodge there for one week, give each student a topic and conduct on-site research. Of course, this involves on-site study camp supervision and moreover, conducting this from the first year of university straight after entrance, and also various kinds of preparation and research before going on-site; but the strict supervision during the study camp and the training towards survey-based research are unique to our university" (Tokyo Liberal Arts and Science University, 1955: 271). This type of thorough on-site research and education practice by Tanaka was described as "geography built by legwork" (Ikuno, 1975) and "starting and ending with inspection tours" (Miura, 1975).

2. Fieldwork education at the University of Tsukuba's graduate school

At the University of Tsukuba, fieldwork classes are conducted over a period of one week every year in both the human geography and regional geography courses. In principle, students enrolled in these disciplines are required to participate in fieldwork classes every year and to write

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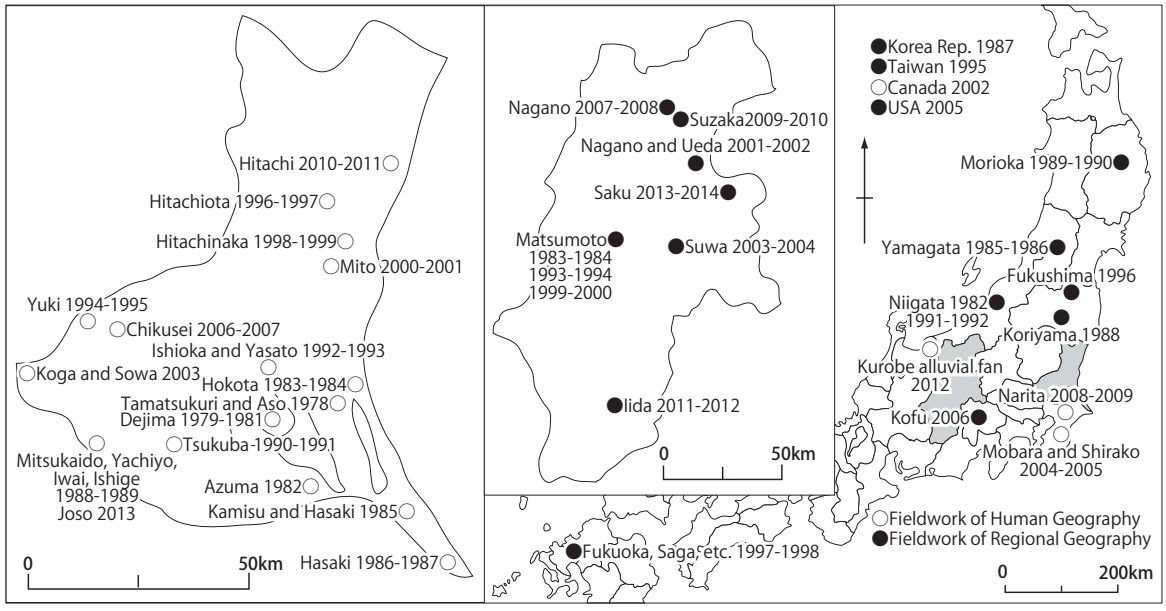
Fig. 1. Official reports of the fieldwork classes at University of Tsukuba

and publish an academic paper in the University of Tsukuba's official report (Fig.1).

Fieldwork has been practiced in Ibaraki Prefecture and Chiba Prefecture in the Kanto region—the area surrounding the university—in the course of human geography and in the middle-sized city areas of the Tohoku, Shinshu and Kyushu regions in the course of regional geography (Fig. 2). Fieldwork classes have been conducted for over 35 years, since November 1978, when fieldwork classes were first implemented in the course of human geography, to the present (2013). It is common for fieldwork classes to be conducted from spring to early summer (May to June), corresponding to the agricultural off-season before rainy season, and from autumn to early winter (October to November). The results of these fieldwork classes are presented as academic papers, which have been published in 35 volumes (Fig. 1).

Fieldwork classes were established at the University of Tsukuba from the time of its inception as an arena for training that fosters "a scholarly foundation that uses research experience of actual field conditions as the starting point to consider regions," per the Otsuka geography tradition. It would not be an overstatement to say that the traditional fieldwork style based on (topographic) maps and aerial photography with field observation and interviews was constructed from fieldwork classes in human geography and regional geography.

In the course of human geography, the teaching staff and graduate students are organized into several groups in the study area and conduct field surveys collaboratively. For example, groups are composed according to themes such as livelihoods, economic activities, lifestyles, residential styles, social structures, daily activities, and population structure in the study area, and all participants aim to clarify the surveyed area's regional characteristics. In the course of regional geography, a style has become established in which importance is placed on students' autonomy; teaching staff and students carry out research in the study area based on their own individual awareness of issues. This incorporates the intention that research theme of each student's thesis will be conducted in different fields. In this way, fieldwork classes in both courses of human and regional geography share the common point of depicting topography as the whole use of environmental resources by human



※The name is area at fieldwork.

Fig. 2. Study areas of fieldwork classes at University of Tsukuba(1978-2013)

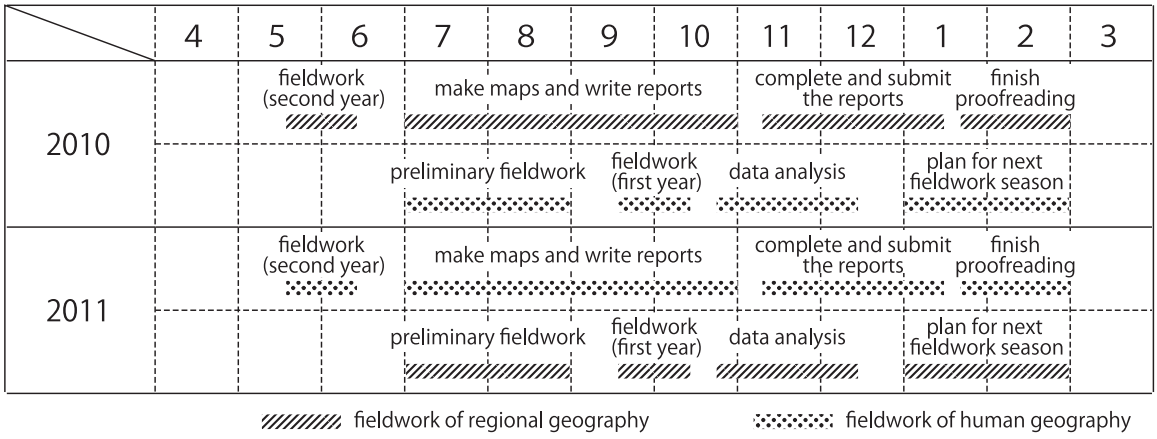


Fig. 3. Yearly schedule on fieldwork classes at Univerysity of Tsukuba(2008-2009)

groups while focusing on land use and landscape. At the same time, it can be said that the two fieldwork class styles have complementary functions in their taking contrasting approaches to their set research themes.

3. Preparation for fieldwork classes

3.1. Deciding on the field and coordinating with relevant organizations

The previously mentioned fieldwork classes in both human geography and regional geography are conducted in the same field over a period of two years. The fieldwork schedules for academic years 2010 and 2011 are shown in Fig. 3. In 2010, the human geography students carried out their first-year surveys in Hitachi City, Ibaraki Prefecture. The regional geography field students conducted their second-year surveys in Suzaka City, Nagano Prefecture and wrote reports at the end of the academic year. In 2011, the human geography students conducted their second-year surveys in Hitachi City and wrote their reports, and the regional geography students conducted their first-year surveys in Iida City, Nagano Prefecture. The participating graduate students take part in the respective fieldwork classes and present the results of their fieldwork as an academic paper. We will examine the fieldwork implementation method through a case study on the 2010–2011 human geography fieldwork class.

As we mentioned above, the study area of research is basically chosen by the teaching staff. In the course of human geography, it is common for fieldwork to be conducted in small and medium cities in the Kanto region, with a focus on Ibaraki Prefecture and Chiba Prefecture. This is because since the University of Tsukuba's foundation in the 1970s, studying the region surrounding the university has been the principal objective. Research conducted in Ibaraki Prefecture also has implications for regional contribution, but additionally, proximity to the field is important; thus, it can be said that additional surveys have the major advantages of convenience and saving on transportation costs. In order to set well-balanced survey themes, there has been a trend to favor small and medium cities, which include both urban regions and rural areas, as targets for research (Fig. 1). Narita is a small city located roughly 50–60km from Tokyo with a population of 120,000 or so. It is a region that has seen the development of national projects, represented by the Narita International Airport, which opened in 1978, and that has a similar geographical environment to that of Tsukuba, which has been built up as a city of academic research. The region was selected as a study area for a two-year survey because it contains plentiful research themes such as the location of airport-related facilities that accompanied the construction of the airport; the development of new housing communities; the Narita-san Shinsho-ji Temple, which attracts some of the highest New Year's visitor numbers in Japan; and upland crop farming with lowland rice-paddy cultivation zones.

Directly after the field location is determined, coordination with relevant organizations is carried out. Students offer formal greetings to institutions such as city halls or town/village offices, the local chambers of commerce and industry, the Japan agricultural cooperative, the leaders of the local self-governing body and merchants' association, and other organizations or persons who will assist the students during their surveys. Additionally, the students consult with these organizations about the contents of their surveys and other topics related to the study area and request coordination. Among these relevant institutions and persons, contact with administrative bodies is particularly important. A graduate school fieldwork is different from individual research in that a total of over 30 participants perform an on-site survey over the course of one week (Fig. 4). As a result, the burden (survey pressure) placed on the region is greater. In addition to the convenience of using statistical data and obtaining various types of regional information, coordination with administrative bodies is also important

Fig. 4. Fieldwork class of regional geography in Suzuka City, 2010

for building a relationship of mutual trust with the region.

3.2. Conducting orientations

After the decision on a field region and formal greetings to administrative bodies has been completed, an orientation is conducted for the students. Pre-fieldwork orientations, which target all participants, are held three times: two months prior to the start of the fieldwork, one month prior, and immediately beforehand. At the first orientation, the fieldwork's purpose, overview, cost, schedule, cautionary points and so on, are explained and the confirmation of the participants is attempted. Because the human geography fieldwork classes are conducted on the principle of group surveys by the teaching staff and students, before the orientation, the students obtain cooperation from doctoral course students who are highly experienced in regional surveys and exchange opinions on topics such as group composition and research themes.

3.3. Determining the survey groups

The number of survey groups and the survey contents differ by study area, but all survey groups have the established purpose of clarifying the study area's geographic characteristics. In the human geography class, topographic research based on empirical regional surveys has been highly valued since the era of the University of Tsukuba's predecessors. An academic tradition has been inherited that places great importance on training geographers who can record regional characteristics by observing the field while walking around with topographic maps and field notes, even in an area with no major distinctive features.

The Narita survey was composed of the following six groups. Focusing on the town that arose around Shinsho-ji Temple, which had been the center of Narita from the Edo period, and Narita International Airport, which has been the city center since the 1970s, the six groups were as follows: the Urban group (Narita-san Shinsho-ji Temple town area), the Residential group (Narita New Town community activities), the Lowland Agriculture group (forms of livelihood in the Inbanuma lakeside villages), the Upland Crop Farming group (changes in upland agricultural areas from the construction of Narita International Airport), the Tourism group (inbound tourism in the area surrounding Narita International Airport), and the Distribution group (freight forwarders in the area surrounding Narita International Airport). Each group has a doctoral student as group leader who is central to advancing the research from drafting the survey plan, conducting the on-site survey, and analyzing data to writing the report. The group members are allocated based on the students' preferences. However, in consideration of the balance between groups of students' academic years, specializations, interest in issues, etc., the teaching staff make some adjustments to group compositions.

3.4. Planning the survey contents

After the group composition is finalized, a concrete survey plan is drawn up, mainly by the group leader. Group members decide on the plan together while acquiring maps and statistical data, arranging interviews, designing questionnaires, and consulting with relevant organizations. For example, the agricultural area survey groups (the Lowland Agriculture group and the Upland Crop Farming group) in Narita, composed collaboratively, made a formal written request to perform a survey. Each group designs questionnaires based on its respective research goals.

In addition to these survey requests by each group, the duration and purpose of the fieldwork class are widely disseminated in the study area using PR materials such as circular notices by the local self-governing body and city bulletins in order to conduct the on-site surveys smoothly.

The use of vehicles is indispensable in fieldwork classes in provincial cities. In addition to using college vehicles

Fig. 5. College vehicle

owned by the University of Tsukuba, students who possess their own cars are requested to use them. Necessary items for the fieldwork class are transported by college vehicles (Fig. 5). Supplies such as printers, copier paper in various sizes, envelopes, and stationery are brought as shared items. Additionally, one photocopier is leased during the duration of the survey, installed in the students' lodgings, with the aim of convenient document copying.

4. Conducting the fieldwork class

4.1. On-site education

4.1.1. Before departure

Every year, the fieldwork class usually takes place over six nights and seven days, starting on a Sunday and finishing on the following Saturday morning. In recent years, in both human geography and regional geography, the first-year survey has generally taken place in autumn/winter (late October to early November), with the second-year survey taking place in spring/summer (late May to early June). The principal objective of the first-year fieldwork class is to narrow down the research theme and direction while proceeding with the on-site survey. In the human geography fieldwork class, students assemble at the university at 8am on the first day (Sunday), split into groups to board different vehicles, and head for the field location.

4.1.2. General survey

After arriving at the field, a "general survey" is performed by all members. Directed by the group leader, the participants conduct an inspection tour of the proposed survey region (Fig. 6). The general survey is important in order to take an overview of the whole area and also for the participants to share a concrete image of the survey region.

4.1.3. Land use survey

We can cite the land use survey as a distinctive feature

Fig. 6. General survey in Narita City, 2008

Fig. 7. Land use survey and draft map of rural area in Suzuka City, 2010

of the first-year survey. The land use survey work is divided among all members and conducted in the center of the city and the agricultural areas targeted in the survey (Fig. 7). Using cartographic information such as city planning maps, aerial photography, and residential maps as a reference, the participants clarify the actual land use situation while walking all over the field location. The land use survey is the most fundamental and important survey for understanding of the region, and it is always performed at the start of the fieldwork class. As far as its educational function, it aims to correct the students' understanding of the field's landscape and to cultivate the ability to design maps.

4.1.4. Daily schedule

The schedule of the fieldwork class is effectively fixed. Participants eat breakfast at 7:30am and depart for the field at 8am or so. Depending on each group's schedule, they may use part of the survey time to make survey appointments or have discussions between group members. Participants return to their lodgings at 5pm as a guideline, and each member organizes his or her field notes or takes part in discussions. Dinner is eaten at 6:30pm, and a seminar is held between 7:30pm and 9pm. At the seminar, each group gives a report of the day's survey results and their upcoming plans, and afterwards, a question and answer session and discussion is held with all participants.

4.1.5. Seminar

The seminar presentation is an arena for testing the students from lower academic year groups. It is common for their mistakes in transcribing interviews or insufficient surveys to be pointed out by other members (Fig. 8). However, as the survey proceeds, opinion exchange at the seminars gradually becomes active, and there is a sense that all participants have furthered their understanding of the region. This can also be inferred from the increasingly animated expressions of graduate students who have come to realize the attraction of fieldwork. After the seminar has finished, it is not uncommon for some groups continue working until after midnight with activities such as sorting and copying materials, writing field notes, and conducting discussions about the direction of their research (Fig. 9). Health maintenance is also an important factor in fieldwork.

Fig. 8. Seminar (left : Narita, 2009, right : Suzuka, 2010)

In order not to hinder the following day's survey activities, resting well is said to be another form of study. Furthermore, the deepening of friendship between participants and lively opinion exchanges while drinking alcohol can also be seen. Although the fieldwork class is an arena for practical fieldwork education, it can also be said to perform the function of strengthening group solidarity as a social arena.

4.1.6. Composing letters of thanks

After the fieldwork class has concluded, it is important to write and send letters of thanks to persons who have assisted the students during the survey. Moreover, the students then organize the collected materials and the discovery of issues in preparation for next year's survey. Regarding the land use survey, the participants carry out the task of applying color to the draft map and request a technical specialist to perform the cartographic work (Fig. 10).

4.2. Second-year survey

The second year is when the survey report is composed. Based on the results of the first year, some changes to the survey contents or setting of new themes are considered, but essentially the method of conducting the fieldwork class is the same as the first year's. Coordination with relevant organizations is carried out before starting the fieldwork class. Contact between these organizations and the graduate students has already been made during the first-year survey, so coordination progresses comparatively smoothly. It is common for requests for materials to be made directly without any intermediation by teaching staff.

Orientations are held three times over April and May, at which confirmation of research themes and reports on progress status are made in addition to the reorganization of the survey groups. In principle, the participants are requested to take part in the survey for two years, but there are some graduate students who are not able to participate in the second year for various reasons including graduation. Furthermore, because the first-year students in the master's and doctoral courses are new participants, it is necessary for them to be distributed evenly between the groups. The new group composition is assembled centering on the participants from the first-year survey, with the addition of new members. At this time, the transfer and confirmation of the survey contents are important.

Fig. 9. After the seminar (left : Chikusei, 2007, right : Narita, 2009)

The fieldwork class schedule is also identical to that of the first year, taking place over six nights and seven days starting on a Sunday and finishing on the following Saturday. The general survey is conducted on Sunday, the first day. Based on the first-year survey results, the group leaders can be seen giving a skillful explanation of the region. Because the land use survey is conducted during the first-year survey, in general it is not carried out during the second year. The second year contains the task of composing the report, and there is a trend towards surveys with more deductive goals. As well as interview survey forms, it is common for students to design questionnaires and distribute and collect them during the fieldwork class (alternatively, before or after the fieldwork). It can be said that each day of the second-year survey is a Fig.ht to obtain the necessary data to establish what kind of narrative will be conveyed in the final report. At the evening seminars, in addition to reports on the day's results, there are increased opportunities to debate the main points and the conclusion of the academic paper. It can be said that the fieldwork class is an arena for experientially understanding fieldwork methodology by writing an academic paper for publication in Tsukuba's official report (Fig. 1).

4.3. After survey completion

If the fieldwork class is insufficient as an on-site survey, additional surveys are conducted. Proximity to the field is advantageous for this point. The second-year survey is completed in early June, and subsequently, after sorting data (including the aggregated questionnaire results) and creating diagrams, the students begin the task of writing their papers. As a rough guideline to this process, additional surveys and data sorting are completed by late August, the narratives of the papers (with discussion between group members) and the creation of diagrams are completed by the end of September, the first draft is completed by the end of October, and after reviews by teaching staff and rewrites, the manuscripts are submitted to the printing office as academic papers in the general time frame of the end of December or the New Year. Because the reports are

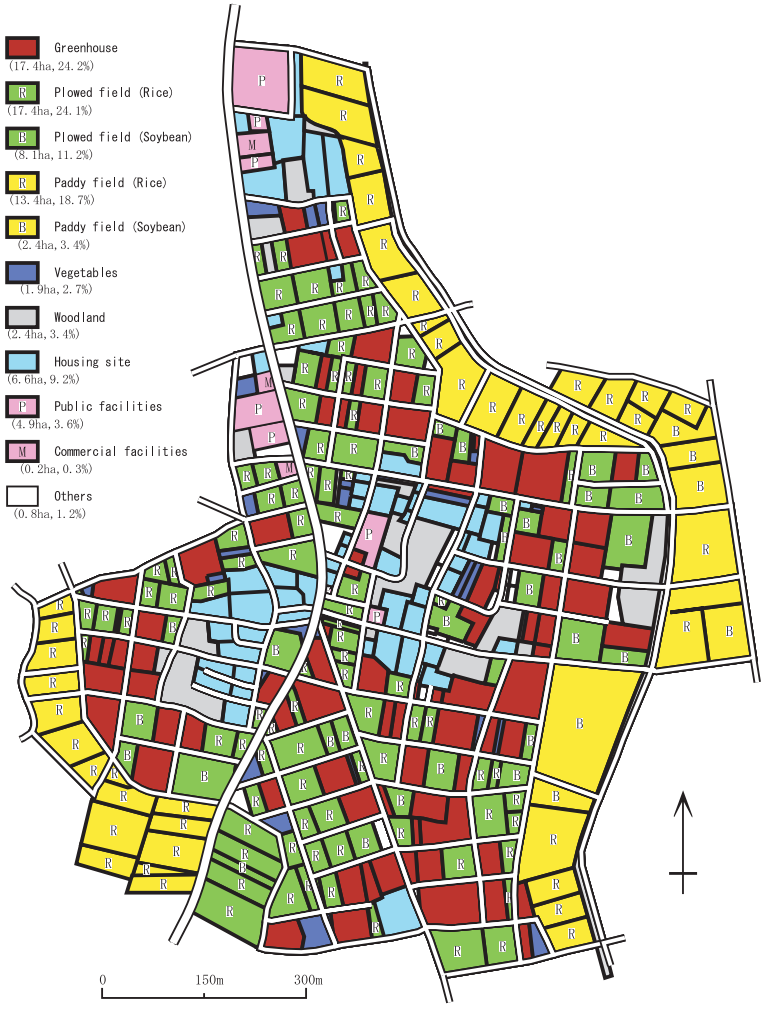


Fig. 10. Example of draft map (Chikusei City), 2007

published at the public's expense, delivery is not until the end of February. In parallel to this sequence of preparation for composing the report, increasing numbers of students make oral presentations to the Association of Japanese Geographers or the Human Geographical Society of Japan (Fig.11), exhibit their results in the field region (Fig.12), or submit and publish their papers in other academic journals. Furthermore, some students are motivated by the surveys in the fieldwork classes to choose their regions as the fields for their graduation theses.

5. Concluding remarks: Fieldwork class changes and problems

In this paper, we examined fieldwork education practice and results in relation to academic tradition based on a case study of the human geography and regional geography fieldwork classes at the University of Tsukuba. In closing, we will address changes in the graduate school educational environment and problems with fieldwork classes.

It is well known that rapid changes are taking place in the environment surrounding graduate school education. As an example of such changes in graduate schools in recent years, the ratio of male to female students, the proportion of international students, and the ratio of master's to doctoral course students are shown in Fig.13.

Until the mid-2000s, the doctoral course of geography at the University of Tsukuba was a five-year system, consistent with master's courses. Previously, the majority of entrants to graduate schools wrote a doctoral thesis and proceeded to be employed as researchers in universities and other institutions. However, at present, the unique doctoral course consists of the master's program and the doctoral program, and the career aspirations of graduate school entrants have changed greatly. Quotas for master's course students have been significantly expanded, and graduate school entrants with diverse goals and academic backgrounds are increasing. Notable changes can be seen in, for example, the increased ratio of master's students and the rising numbers of international students. Furthermore, with factors such as class credits having become more sub-

Fig. 11. Oral presentation at AJG, 2008

stantial, we cannot overlook the fact that graduate students are now busier than they were in previous years.

The environment surrounding fieldwork classes is becoming harsher year by year. With the advent of a society that highly values thorough protection of personal information and privacy, it is becoming gradually more difficult to conduct the traditional fieldwork style in which various kinds of information are obtained from individuals through interviews and recorded. In thematic mapping, it is not uncommon for situations to arise in which it is not permitted to record accurate places and toponyms. At the same time, the creation of safety support systems within fieldwork is an urgent task. Fortunately, to the authors' knowledge, there have been no serious accidents or

Fig. 12. Oral presentation to the local people, 2006

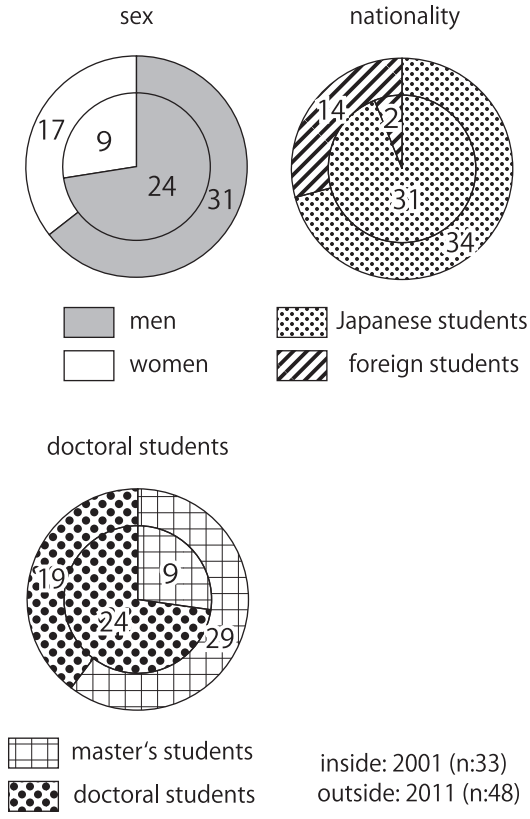


Fig. 13. Changes of the ratio of graduate stdents in terms of sex, foreign students and doctarl students

incidents during the University of Tsukuba's human geography and regional geography fieldwork classes, but it is necessary for universities to take responsibility for how safety will be ensured during fieldwork in the future.

Qualitative and quantitative changes at graduate schools affect the implementation of fieldwork classes in various ways. For example, we can indicate 1) changes in graduate school entrants' senses of purpose, 2) diversification in their career aspirations, 3) changes in academic trends in geography (the separation of human geography and physical geography), 4) a demand for social contributions (a preference towards "useful" research), 5) changes in interpersonal relations between graduate students (from a vertical hierarchy to a network format), 6) an increase in entrants inexperienced in geography (a decline in basic academic performance), 7) limitations in Japanese language ability due to the increasing number of foreign students, and 8) a lack of skill at using new tools among teaching staff.

Under such conditions, new efforts and initiatives are necessary in order to continue cultivating fieldworkers, who are the lifeblood of geography.

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