

The University of Tokyo Magazine

淡青

t a n s e i

English
Edition

07

July, 2007

TANSEI aims at sharing worldwide the latest developments at UT with everyone interested in education and research.

Presidents' Discussion

The Great Journey of Incorporation

Panel Discussion

Speaking of Books,
the Library,
and the University





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TANSEI - The school color of the University of Tokyo is light blue (tansei in Japanese). It was initially used at the first rowing regatta between the University of Tokyo and Kyoto University in 1920.

The colors of the two universities were determined by drawing lots. Kyoto University drew dark blue and the University of Tokyo light blue. Since then, light blue has been the school color of the University of Tokyo.

We have the pleasure to present to you TANSEI 07, which celebrates the 130th Anniversary of our university. This issue features a discussion of “The Great Journey of Incorporation” by two university presidents, Kazuo Oike of Kyoto University, and Hiroshi Komiyama of the University of Tokyo. They speak frankly about the experiences of Japanese universities under changing circumstances of the last two years.

You will also find another special discussion on books and the library, indispensable equipment of the academic world, between Koichi Kabayama, Director of the Printing Museum, Ayumi Watanabe, Chief Announcer of NHK, and hosted by Kazuhiko Saigo, President of the University Library. Together with information about the Historiographical Institute, we hope this article will pique your interest in the cultural heritage of the University.

As with the preceding volumes, TANSEI 07 aims give you a better understanding of the multidimensional activities of the University of Tokyo.

Toru IWAMI

*Professor of Economics, Ph.D.
Chairperson, Public Relations Committee*

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The Great Journey of Incorporation


Reflections on the First Two Years since Incorporation

As the incorporation of Japan's national universities drew near, the University of Tokyo and Kyoto University were busily making massive preparations for a voyage on which they had never embarked before. On April 1, 2004, the two universities set off on their respective journeys with great hopes and fears about the mighty voyage ahead through the unknown.

Kyoto University President Kazuo Oike led the great project of transforming that institution into a national university corporation. For this issue's 'Dialogue,' we invited him to speak with University of Tokyo President Hiroshi Komiyama. Their commitment to creating universities adapted to the 21st century is ever-evident in their conversation.

 **Komiyama:** You became Executive Vice-President of Kyoto University in 2001 and then president on December 16, 2003. Your university was incorporated as a national university corporation on April 1 of the following year, so you took office as president at a very difficult time. I may have had it a bit easier because I was Executive Vice-President the first year after the incorporation!

 **Oike:** Perhaps so!

 **Komiyama:** The university's Executive Vice-Presidents who served before me had quite a time preparing for the incorporation. Atsushi Koma, Hiroshi Miyajima, and Seigo Hirowatari, who were Executive Vice-Presidents at that time, had been preparing for the incorporation for years. We took over the reins from them. I

remember that cooperative ties regarding systems and other matters had been forged at that time with Kyoto University even though we were essentially rivals. They had created a liaison council composed of the Executive Vice-Presidents of our two universities.

My personal theory is that incorporation is a framework that allows each university to express its unique character. Until that



point, Japanese universities were “universities in a developing country.” The University of Tokyo and Kyoto University have historically been very different in terms of approach, but, be that as it may, they were branches of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in terms of structure, and they had a style similar to the convoy system. About 30 to 40 years ago, however, Japan achieved outstanding economic development and came to boast the second largest GDP in the world and to be counted, without question, among the family of advanced nations. I think that, alongside such economic development, universities should enter the age where they demonstrate their unique character. This will open the way to a new era. That’s why I have advocated since quite a while ago that national universities should have corporate status. In that sense, I think it is good and appropriate for the times for national universities to be corporations.



Hiroshi Komiyama
President of
the University of
Tokyo

Oike: You said that you suspected that things were more difficult for me. My predecessor was Makoto Nagao, the 23rd president of Kyoto University, and he served up to about three and a half months before the incorporation. I had worked with him throughout as Executive Vice-President so I was tired even before the incorporation.

As the incorporation approaches, you think, “The administration is

going to change anyway so let’s have the next administration create the university’s internal regulations,” and you start to leave more and more things for them to do! But, when the announcement of the next president was made at the election in September and I panicked when I discovered that I was to be right in the center of the fray!

I had to do all the things I had shifted onto the next administration so I hit the panic button. I had to give up my laboratory so that I could focus on that work. I didn’t have time to think everything through so I felt like I was in the middle of a whirlwind and doing a slap-bang job.

It was all we could do to create a framework that would meet the requirements of the law. One year later, in around April 2005, I felt like I had arrived at a place where I could finally relax and think carefully about the administration of the incorporated university with calm judgment. So, it’s still too early for me to reminisce!

You had just become president at that time, so I imagine that you were able to do exactly what you wanted right from the beginning. I am jealous in that sense. I didn’t have sufficient time to be able to think about what I wanted to do from the start.

Bottom-up Leadership

Komiyama: I see. The key issues after incorporation at both of our universities were personnel and finances, I imagine. Navigating through such issues is difficult. How was it at Kyoto?


Oike: In the end, personnel is a question of how proactively a corporation, as an independent organization, manages its human resources. We were in quite a bit of contact with MEXT regarding the incorporation, but I said that

I wanted them to let me handle personnel matters. I said some quite harsh things, but I believe that personnel is something that a university should do independently, and I thought I needed to stick to that principle. What we discussed the most at my university was whether to have directors-general or to abolish that position. In the end, we decided to abolish the position and to not have directors-general. In exchange, all directors-general, including people who were from MEXT, were made executive directors or Executive Vice-Presidents of the university. I am the one who made those decisions, and they were quite difficult to make.

Kyoto University’s Faculty of Boards has a higher level of autonomy than that of other universities. The question is how to balance that. When I became president, I said that I wanted leadership to mainly be “from the bottom up,” thinking of this and other matters. “Bottom-up leadership” is a vague expression, but I think that that vague quality is important! The expression gradually gained concreteness as we went along, but adopting the policy of mainly bottom-up leadership is deciding to make leadership something that everyone in the university partakes in. I adopt this principle in personnel matters as well so I announced to the general managers and assistant general managers that I wanted them all to act as leaders who have important responsibilities. In any event, we discussed to death whether to adopt a bottom-up or a top-down style.

Komiyama: I don’t think what I am going to say will contradict the bottom-up leadership that you have just spoken about, but from start to finish I have consistently spoken of a system of autonomy, distribution, and cooperation. I think that the mechanism whereby the entire

university acts in cooperation is the leadership of the university president. The question is how to create the mechanism for this cooperation. That's the hardest part because a university would no longer be a university if you eliminated the bottom-up element. Society may have the image that a university president's leadership is similar to that of Carlos Ghosn, the man who came to Nissan and succeeded in leading the company through a dramatic recovery. But universities need their own style of governance. Oxford, Harvard, and other universities overseas also seem to be struggling in this regard. It is pointless for the president, in the name of leadership, to do something foolhardy that destroys the university.

 **Oike:** I first learned of your system of autonomy, distribution, and cooperation in a newspaper article, and I thought, "President Komiyama is indeed a professor of engineering!" The word "system" has the feel of engineering to it: the idea that the various elements act independently, but come together in the end to act together as one system has the hue of engineering.


I used to be dean of the Graduate School of Science. Professors in the sciences act independently; they are all loners. Autonomy and distribution apply to them, but they do not cooperate!


They operate in a world of 100 percent diversity.


Around the time I became president, I thought in the back of my mind, "I don't know how I will be able to lead with everyone going their own way like this!" So I naturally came to take a stance of just doing what has been decided already and not forcing things. Once the university became a corporation, though, there were many who said that was not good. The Administrative Council is a prime

example. The Faculties at Kyoto University have strong autonomy so I have to demonstrate leadership as president while valuing that. We at least have to give the appearance that we are all working together toward a common objective!

Once we were actually incorporated, though, everyone was very cooperative. When we incorporated, we officially created the Deans and Directors Meeting which discusses many issues and brings the results of their discussions to the Administrative Council and the Education and Research Council. Once we did this, people really invested themselves in the discussions.

 **Komiyama:** Remembering back to the time when I was a professor, I can tell you that I didn't listen very carefully to what the president was saying and I didn't read the *Tansei* (University of Tokyo magazine) very much either. I think the same is true of professors today. But then many times, they will suddenly react to just part of what you have said and start debating with you. They have a tendency to listen to only part of what you say and then to express their views on the entire issue. I want to tell them to stop acting like that and to let us each do our jobs. That's what is missing at my university now.

 **Oike:** Exactly right! It must be like that at all universities. The lone-wolf professors are probably not listening to what we say, but it is important that they say what they want to say. For this reason, my mailbox is always open to receive "E-mail to the President," and I always read what people write to me.

 **Komiyama:** That's a good idea! I shall do that too, starting tomorrow!




Kazuo Oike
President of
Kyoto University

Of the problems that we currently face, there are issues that are deeply related to university autonomy and academic freedom and issues that are virtually unrelated. Finances and the like are somewhere in the middle, perhaps. They are a gray area.


For example, at the University of Tokyo we created a Procurement Division with the aim of cutting procurement expenses for various items. This Division reduces costs by ordering similar items from a single vendor and by conducting competitive bidding. This issue is virtually unrelated to university autonomy.

It is true that the cost of upgrading the toilets in one faculty likely has a slight impact in a roundabout way on the budget of another department, but things of this nature are not related to university autonomy and academic freedom. In some cases, it is better to link the issues in these gray areas together and to handle them together, rather than to have the various faculties tackle them each in their own way.

Faculty Members Are a University's "Products" and Should Be Cut as Little as Possible.

 **Oike:** When I was Executive Vice-President and we were designing the incorporation, I suggested that a set amount of tax be levied within the university and the funds be used to implement policies. Everyone was against my proposal, and it was decided that the amount

of the tax should be discussed on a case-by-case basis when it seemed really necessary. As part of this system, we today have a Planning Committee where such matters are discussed. If you suggest something that you want to do, they are very understanding and cooperative. It took some time, but I think that we have finally gotten the system on its feet and operating securely.

 **Komiyama:** To reduce faculty by one percent a year has been considered a hard thing for university administrators in the past, but if we look at universities and private companies around the world, we see that they are making more dramatic cuts than that. The University of Tokyo has 4,000 faculty members so cutting 40 a year would be equivalent to one percent. What I want to question, though, is whether that way of raising efficiency is actually good. The university would be made the most efficient if we keep reducing the number of staff until there are none left. But, that would mean that we would stop being a university!


The personnel costs of the 4,000 faculty members of the University of Tokyo are of a different nature from personnel costs in the private sector.

That is why I say to the department heads, “Let’s not cut faculty members under any circumstances!” Of course, we may need to raise efficiency by cutting support staff in some cases. But there will also be cases where we need to strengthen

“ I would like to see the people who are asked to submit nominations look carefully and nominate many good people from among those around them.” ”

support further.


Faculty members are a university’s ‘products’ so I want us to do whatever we can to avoid decreasing their numbers. If we can do that, the incorporation will mean the liberalization of the university system, and I think this leads to there being merits in making the most of the university’s unique character.


 **Oike:** I couldn’t agree more! There is nothing we can do about the reduction in subsidies from the government. It is crucial, though, that we endeavor ourselves to increase the number of faculty posts and thus increase our ‘products’ using various creative methods. If we are told after we have increased the number of posts that we must reduce them the very amount that we have raised them, then we will have wasted our effort. In all events, therefore, we must have the public acknowledge our efforts to increase the number of posts. Universities must have society broadly recognize that they are doing everything they can to make faculty increases at their own initiative. We will need to create a culture where the university’s efforts in this regard are supported by the public and faculty increases are protected by the public.


Keeping pace with U.S. President Bush, the Japanese government has announced that it will invest 25 trillion yen in R&D in the 3rd Science and Technology Basic Plan. Where will that money be invested? That is very important. We have to do everything we can to have the money come to the university. I want to use it to increase the university’s assets. I think it would be best if there were a framework for the funds to remain at the university while gaining the full recognition of the public.

Even more than science and technology, the university must maintain basic research in

general. Usually, the endeavors of universities are not very visible to the public even though the university in fact does a variety of important things. Regarding the culture of Chinese characters, for example, the University of Tokyo has a very good font database, and Kyoto University has a good database of the Chinese classics. These databases should continue to be developed, but it is hard for them to receive funding from public sources. The question of how to develop and maintain valuable intellectual property should be considered under the leadership of the president. We must create a framework where we collect a tax within the university from fields that make money and transfer the funds to other areas.

 **Komiyama:** What I know after watching for one year is that humanities professors demand comparatively little money!

 **Oike:** It’s not just comparatively little; it’s very little!

 **Komiyama:** I think professors in the sciences will agree if you talk it through with them, though.

Improvement of Infrastructure and Liberal Arts Education

 **Oike:** Kyoto University’s biggest issue right now is buildings. We are not making any headway in facility improvement. We checked the earthquake resistance of our buildings and found that some might collapse in an earthquake. This issue cannot be solved with a small amount of money, but we simply must do something.

And, there is the question of how to invest what little budget we have so that the special features of the university stand out. There are many options, but one is public relations. I imagine that the University of




Tokyo has *Tansei* as part of its public relations. The question is how best to have a variety of people see what goes on inside of the university. This is very important. Now it's like we open a window for the public to see into the university, whenever we have some extra funds.

We started several projects in fiscal 2005. First is Senior Campus in which we invite city residents who want to study at the university come hear some lectures for a few days and experience dining in the cafeteria. At the end of the program, we give them a certificate of completion. This program is very popular. That is one way we have opened a window for the public.

Next is Junior Campus in which we invite junior high school students to hear lectures. They learn what a university lecture or lab is like. We do not go out and deliver the lectures; the students come to us and we show them firsthand. We started this program with the thought that it was important to have junior high school students experience the atmosphere of the university themselves. This program is also very popular. Through this, we have opened a window to show junior high school students what goes on at Kyoto University.

Every time we have some extra money, I would like to create mechanisms like these, one by one, to show the university to people.

Finally, there is improvement of our facilities outside Kyoto. We have facilities in dozens of places in Japan alone and in dozens of places in Southeast Asia, Africa, and other parts of the world as well. We have to invest in these facilities and keep them up. We must do everything ourselves, from security on up. I would like to see the functions of these facilities enhanced.


 **Komiya:** I first want to improve the infrastructure for internationalization at the

university. With the amendment of the Enforcement Regulations for the National University Corporation Law, the scope of projects eligible for long-term loans has been expanded, and the ministerial ordinance governing expenses is scheduled to be reviewed in March as well. This will make it possible for us to borrow money and make infrastructure improvements, and I



would like to develop infrastructure so that exchange students and other non-Japanese can come here with their families. I think we should have a facility that's something like an international guest house.

In the same way, it is crucial that we have schools where the language of instruction is English and hospitals where English is used. I think we could create a hospital like that at our university hospital or in cooperation with a nearby university hospital. Regarding the question of elementary and junior high schools, Chiba Prefecture and Bunkyo City are both very enthusiastic. These three are the infrastructure required for internationalization. At this point, our university professors are in a difficult position when they invite foreigners, particularly because the rents and prices are high in Tokyo.

 **Oike:** They're high in Kyoto too! I want to set up infrastructure for foreigners at Kyoto University as well, but there is also the question of our hospital. When I talk about the mission of Kyoto University, I talk about three things: education, research, and medical care. I cite medical care as a symbol of services that contribute to society. I still want to see system reform, for example, of

international bidding. Why do we need to have international bidding when we purchase new machinery or equipment? I would like to see it changed to a system where we can imitate procedures used in the private sector. And, I would like to borrow some money and create a state-of-the-art hospital. Improving our hospital is an important issue as we look toward the future.

Regarding residential halls, creating a situation like that at Tsinghua University, which, enviably, has large apartment complexes with thousands of units, is out of the question. Japanese universities lag farthest behind in this area. I would like to resolve this issue by using a framework where we can invite third parties to get more and more involved.

 **Komiya:** Another thing...




I would like to improve education in the liberal arts, in other words, education at our Komaba Campus, by investing more money in infrastructure and human resources.


During the 20th century, knowledge increased in volume and segmented greatly. If the eighteen- and nineteen-year-old students at the Komaba Campus directly enter a segmented field, they will have a hard time gaining an overview of their academic area. That was hard to do in our era too, but there were no genomes and stuff in those days! The amount of knowledge today is vast. It would be the very devil if you started right in with a specialized field.


In the curriculum at Komaba, we now offer the Global Focus on Knowledge Lecture Series. In fact, I gave the final lecture in the series just the other day. There were a total of 13 lectures. Professor Masatoshi Koshihara (professor emeritus) gave the first lecture. His lecture was followed by those by Katsuhiko Sato (professor, Department of Physics, Graduate School of Science), Yasuhiro Iye (professor, Institute for Solid State Physics), and me. I was the one to propose the series so I ended up giving some of the lectures. Thanks to the support of professors in various fields, we were able to create the Global Focus on

Knowledge Lecture Series.


We plan to hold a Global Focus on Knowledge Lecture Series on various topics in the future, such as life, mathematics and information, human beings and the environment, society and systems, and thought and art. I would like to see at least one faculty member assigned to each series, for the series to be accessible from various places through IT, and for it to be translated into, say, English and Chinese. I think the series should be made available not just to our students but to society in general and to the world.


 **Oike:** One of your university's assets is its College of Arts and Sciences, and the University of Tokyo should put a lot of care into that.

 **Komiyama:** I really believe so. How is it at Kyoto University with the reorganization of the College of Liberal Arts and Sciences?


 **Oike:** We have created KULASIS, which stands for "Kyoto University's Liberal Arts Syllabus Information System." It is absolutely crucial that liberal arts education is provided from the early stages of students' university years. People have various opinions on this, and some professors say that students


can do liberal arts at their leisure after they have mastered their specialization. But students would never study liberal arts after they have completed their specialization. Once they enter their specialization, they will do that. They will never look outside of it. That's why the study of liberal arts must be done in the early stages of education. That is what we struggle the most with. We have adopted the approach that the entire university must participate in providing a liberal arts education.

 **Komiyama:** It's the same at the University of Tokyo. We have agreed that the College of Arts and Sciences is responsible for liberal arts education, but that it is supported by the entire university.

 **Oike:** Now I want to establish the concept that university entrance exams as well as liberal arts education are the responsibility of the entire university.

People often compare U.S. and Japanese universities. When I think about which school we should compare ourselves to, I think of Berkeley (University of California, Berkeley) which is about the same size as we are. It has about 5,000 full-time faculty and about 25,000 students. We are about the same size and have about the same budget. We differ notably, however, in the number of Nobel Prizes. Berkeley has 19 prizewinners at the university while Kyoto University has only five, including graduates. And, Berkeley has seven prizewinners who are current faculty members. It bothers me that that we only differ in that respect.


 **Komiyama:** The issue of international presence is also important.

 **Oike:** Yes, it is key. The university must engage in efforts to show itself off well to the outside

world.

I spoke with the director of the Nobel Museum, and he said that Japan does not nominate Japanese. On the rare occasions when Japan nominates someone, it is a non-Japanese. Apparently 1,000 people are nominated for the Nobel Prize in Physics alone. I would like to see the people who are asked to submit nominations look carefully and nominate many good people from among those around them.

Culture Created by Brothers Joining Together

 **Oike:** The University of Tokyo was established in 1877 and was “The University.” Kyoto University was opened 20 years later and was Japan’s second university. In other words, the University of Tokyo is Kyoto University’s big brother.

Of course, we compete with each other as rivals, but I think it is very important that we brothers join together and do something together. You say that the University of Tokyo will become the world’s finest university. Kyoto University also has many “world’s best” programs if you look at its faculties separately. If our universities share the idea that our two schools work together to train students, we could do many things, such as mutual recognition of credits and dual degree programs.


We will boost all Japanese universities through friendly rivalry

Hiroshi KOMIYAMA

Born in 1944. Graduated from the Faculty of Engineering of the University of Tokyo in 1967 and earned his Ph.D. in engineering from the university’s School of Engineering in 1972. Became an associate professor at the Faculty of Engineering in 1981 and a professor in 1988. Served as Dean of the School of Engineering from 2000 to 2002. Became Vice President of the University of Tokyo in 2003 and Executive Vice-President in 2004. Assumed office as the 28th President of the University of Tokyo in April 2005.

by competing together. There will be no private and no public universities. I would like to have Kyoto University set up partnerships with private universities as well. I want to create a university culture in Japan where universities encourage each other to engage in all different kinds of cooperative relationships.

And, I would like to create a culture in which people make financial contributions to universities for academic scholarship. I think that these two items are of crucial importance for Japan in the future. I would like to see the University of Tokyo take leadership as big brother!

 **Komiyama:** I am not sure that we really are the big brother!

I agree 100 percent with what you have just said. Continuing on from it, universities play a function in society. When the national universities were incorporated, I sensed very strongly that society does not look upon universities with affection today.

We bear some responsibility for that, but I think society overall needs to have the sense that it is creating its own university. I want people to stop thinking things like, “Japanese universities have these problems so let’s just go to overseas universities.” Rather, I would like society to see universities as places where they can bring their ideas


Kazuo OIKE

Born in 1940. Graduated from the Faculty of Science of Kyoto University in 1963 and became a research associate at the university’s Disaster Prevention Research Institute that same year. Received his D.Sc. in Geophysics from Kyoto University in 1972. Served as an associate professor at the Disaster Prevention Research Institute from 1973 to 1988 when he became a professor at the university’s Graduate School of Science. In 1997, appointed Dean of the Graduate School of Science. Became Executive Vice-President (for education and student affairs) of Kyoto University in 2001. Assumed office as the 24th President of Kyoto University in December 2003.

about how young people should be trained and how we can resolve the various issues of the 21st century. I think that universities will play an indispensable role for Japan in the 21st century. As one such relationship with society, there is creating a culture in which people contribute to universities, as you mentioned earlier. Most people question why they should have to contribute to national universities, which are supported by the government. We have to change their thinking and invite them to create the university together with us. To achieve this, the question is how to make what goes on at our universities most visible to society. This is an area of competition among universities and is a common issue that we face.

The University of Tokyo and Kyoto University must, of course, compete as rivals, but I would like to see us cooperate as brothers in those areas where we can develop joint work.

Thank you for visiting the University of Tokyo today.

 **Oike:** Not at all. Thank you. It was good to have an opportunity to express my ideas!

FEBRUARY 2, 2006

AT THE OFFICE OF THE PRESIDENT OF THE UNIVERSITY OF TOKYO

“ In other words, the University of Tokyo is Kyoto University’s big brother. ”



Watanabe: Today our theme is “Books and the University of Tokyo,” focusing on the university library. The future of the library is likely to be linked to the future of the university in this new era. But when was it that the institution we know as the university came into being?

Kabayama: The university as

an educational institution began in medieval Europe. The University of Paris, Oxford University, and the University of Bologna were founded in the 12th and 13th centuries. Although these universities have changed somewhat in form and scale over the centuries, they remain essentially the same. Before that, the locus of learning was the monastery.

Christianity was the dominant force in medieval Europe, and books were read by a very small number of people, most of them Christian clerics. Almost all books were both produced and read in a monastic setting.

Watanabe: And of course they were all manuscripts, weren't they?

Kabayama: Yes. Printing technology made its appearance in the mid-15th century, but until that time books were made by copying from the original by hand. Making copies of books was one of the most important roles of the monasteries. It required incredible labor. To make a copy of the Bible—both Old and New Testaments—would take even a veteran copyist about a year. The language used was Latin. And the very process of making these manuscripts was a religious practice, like copying Buddhist sutras is in East Asia. Later, with the creation of the universities, the numbers of the faculty and students soon grew much larger than the monasteries, and there was a need for scholarly works and textbooks. Expert copyists were hired, and the books began to be produced at the universities. This did not yet reach the mass level, or general public, but a much larger number of books began to circulate in manuscript than during the age of the monasteries. They were expensive, though. Since it took a year to make a single copy of the Bible, books went for a high price.

Watanabe: We think of libraries as very large collections of books, but what about libraries back then?

Kabayama: They certainly had nothing the size of the University of Tokyo Library. Books were expensive, there were few places to read them, such places tended



Panel Discussion

Speaking of Books, the Library, and the University

People living the academic life, faculty and students alike, have an intimate relationship with books. In this issue, Koichi Kabayama, Director of the Printing Museum, Tokyo; Ayumi Watanabe, Chief Announcer at NHK; and Kazuhiko Saigo, Director of the University of Tokyo Library, meet to discuss books, the library, and the University of Tokyo. Their conversation speaks to the essence of the intellectual spirit.

to be on a small scale. Even so, the University of Paris, which later developed into what we know as the Sorbonne, had a collection of hundreds of manuscripts by the middle of the 15th century. But these were quite large volumes, and needed to be there for everyone to read, so borrowing them was out of the question.

Watanabe: So you couldn't take them out of the library?

Kabayama: Not only were they not lent out, in most cases they were chained to the desk so you couldn't physically remove them from the library. Books were something you read in a monastery or a university library. I imagine that people were probably lined up waiting to read certain books.

Watanabe: When you think about their origins, university libraries have quite a weight of history, don't they?

Kabayama: Indeed. Around the middle of the 15th century Gutenberg developed movable type, and books became much cheaper and more plentiful. But as they did, it became incumbent upon the universities to collect them. Professors and books—they are the symbols and the strength of the university.

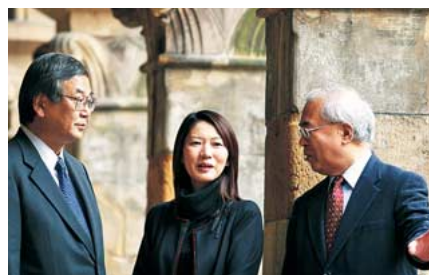
Books Are a Treasure-house of Opportunities

Watanabe: Professor Saigo, your field of specialization is chemistry. For academics in the sciences, what value do “books on paper” have at this point?

Saigo: The academic journals are shifting to electronic publication at a rapid pace, and the digitization of books is also progressing rapidly. Yet books that collect and present the work that someone has done

over the course of the past twenty years or so are still extremely important to us. Lately, this sort of book has also begun to be published in electronic format. For research that may be fine, but I am of the opinion that electronic materials are not desirable for educational purposes. I think it is important to have the experience of reading that comes from moving your eyes over paper and browsing through pages. If you read in that way, every once in a while you will have a moment when you come across something you weren't looking for, something completely unexpected.

Watanabe: Yes, absolutely. The same is true of looking things up in a dictionary.



Saigo: For me, that is education. It's often said these days that with the progress of digitization we don't need paper-based materials in the sciences anymore, but I believe we should treat paper with respect—now more than ever. In my lab we have students reading from ten or twenty different types of electronic journals, but we also try to buy printed materials. Works that have been digitized can be searched only by using keywords. If all you do is search with a specific keyword, you can frequently miss other references that are valuable from an educational standpoint. In other words, I think using a keyword may be necessary for research, in education you can't narrow things down to a single keyword.

Kabayama: There are various aspects to scholarly research. Sometimes, as they say in English,

you are “looking for” a specific book. But there is also the word “search,” which implies you are taking a peek at neighboring areas, being a bit more open to stumbling across something interesting. I think in scholarship both have their place. Sometimes in your work you are “looking for” and other times you are “searching.” Because of this, I think paper books are important.

Watanabe: Instructors at exam prep schools are telling their students to buy electronic dictionaries, since you can look up a bit of English vocabulary in a second—often by entering just the first couple of letters. Students are told that this will save them the time it would take to memorize thousands of English vocabulary words, so they buy them. But as parents we tend to think that it is also important to have the experience we had of opening one of the big Japanese dictionaries like *Kojien* or *Daijirin* to look up a word and having our curiosity stimulated by coming across an illustration on the same page that might have nothing to do with what we were after, but made us stop and wonder, “What is that?”


Kabayama: Or the word next to the one you were looking for...


Watanabe: Exactly. It's the joy of discovery. For students scrolling through an electronic dictionary, such discoveries are probably much less frequent. The electronic



Ayumi Watanabe
Chief Announcer
at NHK

dictionary generation is going to be entering the University of Tokyo soon, and the more outstanding students will probably go on to become researchers and teachers and have the responsibility for guiding the next generation. When you think about it in this way, I think it is critical—extremely critical—that teachers emphasize to their students the importance of books.


 **Saigo:** We modern people should reflect on what Dr. Kabayama said earlier about how expensive it was to make a book in earlier times—on what extravagance was borne in the interests of study and learning. You could certainly see the universities of the past as being extravagant, for they were collecting books at a time when a single volume might be worth the equivalent of several thousand dollars. I don't think that in terms of Japan's future it is good to simply pursue efficiency just because it is cheaper or more convenient. And in that sense I think our libraries have an increasingly important mission to fulfill.


 **Watanabe:** I was once involved in doing a TV program about Kumagusu Minakata. At one point in his life he went to the library of the British Museum every day and copied out books by hand. When I heard this, it really made me wonder—what if, instead of doing this, he'd had access to the things we have today, such as copy machines and the Internet. Wouldn't he have




Kazuhiko Saigo
Director of the
University of
Tokyo Library

been able to pour all the time he would have saved into his research, right from the start? Wouldn't he have been able to accomplish much more? But what do you think? Is there value in learning things by writing them out?

 **Saigo:** Once upon a time I made it a practice to take books and journal articles that summed up twenty years or so of progress in the field and take notes on them, summarizing what they said. I would try to condense a page into three lines or so. To put it another way, I couldn't write those three lines unless I had understood what was on that page. I saved these notes, and later, I could go back to them and say, "Ah, yes, that was it. So maybe now we could try this." By having read them carefully enough to take notes, I had got my brain working. But today's students just make copies and pile them up on their desks. We often say to them, "Oh, you've gotten really good at making these piles of paper, haven't you!"


 **Kabayama:** With some students these days, when you ask them to write a paper, they'll cut and paste a few lines from one source and a few lines from another and think that they are fulfilling the assignment. You sometimes get papers that start out in one style of writing and end up in quite another! They aren't even aware of it. Well, they may have put together something that looks like a paper, but because they haven't really processed it with their own hands and mind, they don't master the information.


The Different Role of Books in the Sciences and the Humanities


 **Kabayama:** I don't have any statistics on this, but Japanese academics, especially those in the




humanities, tend to collect a lot of books, both personally and for their work. From the Nara period onward scholars have had a long and very close relationship with books. Books have been plentiful, and it became a habit to have them close at hand to read and study, so for many scholars in the humanities it was like building personal libraries. My house is crammed with books—every once and a while a floorboard will buckle under the weight. People tell me there's really no need to build up such a personal library, and generally speaking, that's true. But I also want to have the books I use frequently and the books I have just bought near at hand. So in the end, I wind up with a house full of books.

 **Watanabe:** Dr. Saigo, you were just speaking of the importance of books, but do scholars and researchers in the sciences also have this tendency?

 **Saigo:** In the sciences, the useful life of a book for teaching or research purposes is generally about ten years.

 **Watanabe:** For cutting-edge research, I suppose.

 **Saigo:** After books have been around for ten or fifteen years, scientists will tie them up with plastic twine and sell or recycle them. The turnover is pretty quick, so in my study I probably have only about three hundred books related to my work. Three hundred books—that's like a high-school kid's library! But that is just the books I actually use for work.

Watanabe: I guess that's just the fate of science books.

Kabayama: These days even professors in the sciences no longer tell you to get rid of old books, but for a long time I had real trouble having them understand why they should be kept. "What do you need all those old Meiji-period books for," they would say, but I always felt that Meiji- or Edo-period books still had significance that might eventually come to light again.

Saigo: A friend of mine who studies the history of science has had a terribly hard time finding the books he needs for his research. If university libraries don't take responsibility for preserving such sources, in the decades to come the documentary basis for later scholars to understand scientific progress in the 20th and 21st centuries will disappear. I think it is important that we take the time, as I said before, to let our thoughts range freely as we turn the pages of a book, and also that we take the time to think about the people, remote now from our direct experience, who lived two or three hundred years ago.

Kabayama: The analog nature of the book is something that is essential to intellectual work. Some people argue that once a book has been digitized we can dispose of it, but isn't there still something of value in handling a printed book? It has a jacket, a cover, a variety of type designs for the Roman alphabet, *kana*, *kanji*. It bears the traces of the other people who have used it... All of these things in concert make up what we think of as a book.

The Difficulty of Managing and Storing Books

Saigo: As I am sure you know, the University of Tokyo Library used to keep track of its holdings

with a card catalogue. Nowadays this information is entered into computers, but there is an enormous backlog of older books in the collection that have not yet been electronically catalogued—more than a million volumes. To input the information on all these books will probably take ten people about a decade, at the cost of tens of millions of yen per year.

Watanabe: How did all these books wind up in the Todai collection?

Saigo: After the Great Kanto Earthquake of 1923, donation of books to the collection from all sorts of different sources increased dramatically. Today, we catalogue books as soon as they come in, but cataloguing was unable to keep up with these older acquisitions and they were shelved in the stacks without being catalogued. Every once and awhile a professor will come to us and scold us, saying, "How can you allow such a precious book to be kept in the general stacks?!"

Kabayama: Well, books are a treasure and really should be treated as such. But it is also true that a book is useless unless it is used.

Watanabe: Brought to life through reading.

Kabayama: When you think of it in terms of ease of use, a book will not live if it is shut up in a box somewhere in a back room. The books in a university library only come to life when they are read by the faculty and students. This is one of the difficulties we face when we consider the role and mission of the university library.

Watanabe: From the standpoint of library management, the preservation and restoration

work on historical sources being steadily carried out at the Historiographical Institute is quite important. I had the opportunity to look in on this project the other day, and it is really incredibly demanding manual labor.

Kabayama: This sort of preservation and restoration work is something that doesn't get much public attention, but it is absolutely critical for the books. Books are vulnerable to a variety of damage: from oxidization, rats, insects. So they must be constantly monitored, aired out from time to time, and repaired. Sometimes they sustain water damage, and to restore a waterlogged book to a readable state is a job that requires professional expertise.

Saigo: I think work of this kind is wrapped up with the fundamental issue of how Japanese understand culture. There's a tendency to think that Japan is a wood and paper culture in which even buildings rarely last a century, but I think we are in trouble if we don't change this attitude. There are cathedrals in Europe that have had phased restoration work going on for the last three hundred years, where the scaffolding never comes down. Fundamentally, books should be treated this way as well.



The Mission of the University Library Is Service

Saigo: I think we have to change our traditional way of seeing ourselves as the library of a national university. Since becoming



director of the library two years ago, I have worked with the head of the administrative department and other staff to emphasize service—a word that seems most out of place in a university setting. Like a restaurant that seeks out the freshest ingredients and uses its ingenuity in the preparation of its menu, we need to constantly provide our users—the students and faculty—with fresh materials for their use. How do you maintain this freshness? Well, refrigeration technology has advanced so much that maybe we ought to be considering it for books as well!

Watanabe: That's an idea. This concept of service included, how do you see the future of the university library?

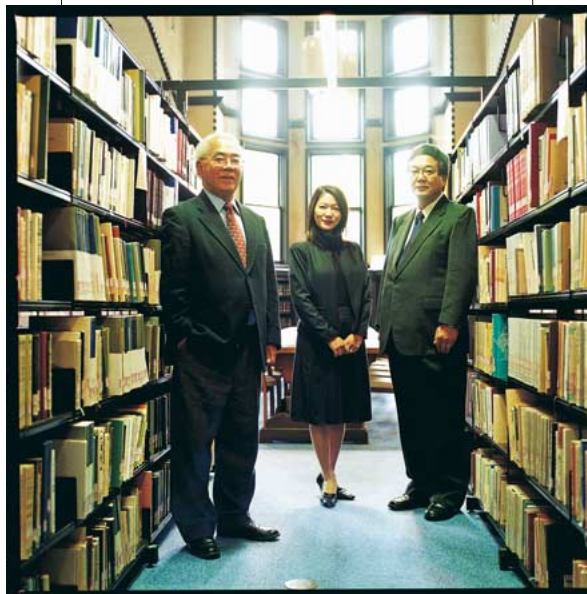
Kabayama: Traditionally, the university library has been seen as a tool for research and education, oriented to the faculty and student populations. But at this point I think things have changed a great deal. I'm told that now members of the general public may also use the University of Tokyo Library system if they follow the appropriate procedures?

Saigo: Yes, if they specify the materials they want to use at the circulation desks, even people from outside the university may use the reading areas.

Watanabe: That's quite a change, isn't it. The Todai libraries are splendid buildings; it would be great if more people would come

and see what they look like inside. As you know, beginning in 2007, a large number of people in Japan's baby boom generation will be hitting retirement age. I think a large number of them will look to the universities in pursuit of an intellectually stimulating way to spend the free time they will have after retirement. The University of Tokyo will also be celebrating its 130th anniversary. Are you planning any new library services oriented to the general public?

Saigo: That's a very problematic area... At this point we



can't allow people from outside the university to borrow books, so we must ask them to use the reading areas in the libraries.

Watanabe: I imagine there are a lot of people who would like to take a peek inside the libraries of the Todai system, so I would like to see it opened as much as possible to the general public. Especially the beautiful facilities in Kashiwa.

Saigo: The Kashiwa Library is open to people from outside the university if they are pursuing scholarly research, doing survey work, or participating in a lifelong learning program.

Kabayama: In addition to their function of making books available to readers, libraries also perform the social service of exhibiting rare books for the public to see. There are many rare books in the General Library and Historiographical Institute that can be exhibited. Certainly no one would ever dream of being able to pull precious manuscripts like the "Documents of the Shimazu House"—a National Treasure—off a shelf and sit down to read them.


Saigo: Well, we sometimes have exhibits in the Hall of the General Library... Right now, those of us involved with the library are working on an idea called "Media Union." The concept is to create a space where library patrons can both access digital data and read printed materials. This would of course involve using an automated storage and retrieval system for the printed matter and the latest information technology to make the materials speedily available. And we're thinking of creating a "promenade" as part of this space, where we could team

up with the archives at the Historiographical Institute to create a venue enabling public exhibition of rare materials from the collection. However, we really do not have the necessary resources for this, so things are moving rather slowly.


Kabayama: It has long been thought that exhibiting material from the collection is not one of the basic functions of a library, but I disagree. I think it is an essential function. And it is becoming a worldwide trend for libraries to mount such exhibitions.


Watanabe: Speaking of library services, and the sort of automation

and IT that Dr. Saigo just mentioned, the Kashiwa Library seems to have started offering some rather futuristic services, hasn't it?


 **Saigo:** Yes. The Kashiwa Library is equipped with an automated storage and retrieval system with the capacity for a million volumes. And in conjunction with this automated stack system we are using information technology to the fullest extent possible.

Digital and Printed Media Are the Two Wheels of the Todai Library System

 **Saigo:** I still consider myself an active scholar and academic, so I tell people I am running the library as a hobby! But even as a hobby it took some getting used to, initially.


 **Watanabe:** Why, because your background was in the sciences?




 **Saigo:** Yes, that was a problem. Looking back on it, even though I might have bought and read books for the fun of it, I don't think I felt reading was one of the things that made life worth living. But during the time that President Komiyama was director of the library, I had the opportunity to serve for two years as his assistant, and it was then that I began to feel there was something here that transcended the distinction between the sciences and the humanities. It struck me quite forcefully that even though the approaches might be different, the sense that books and libraries were important was common to both. It

was then that I began to think of digital and print media as the two wheels of our library and to work to build our system and offer services with that in mind. Since then, I've really been drawn into it. I'm really into it now!

Expectations for the Todai Library System


 **Watanabe:** Even today, new Dead Sea Scrolls are being discovered, and in Japan *mokkan* [thin strips of wood with written inscriptions, dating mainly to the 7th and 8th centuries] are still being unearthed. Such records are extremely valuable for people of later eras. I think it is very important to consider how Todai is to preserve its vast collection of books, pass them on as a cultural legacy, and make them available for use in new scholarship and research. For my own part, when I was a student at the University of Tokyo I wasn't really aware of how many precious books there are in the Todai collection. I am looking forward, as an alumna of the university, to be able to make use of them as time goes by.

 **Kabayama:** I am an alumnus of this university as well, and because of this, I have come to have an extremely strong interest in the quantity, quality, and availability for use of the books in the Todai collection. When I was at the university they were readily at hand and I tended to think of them as my own possessions, but after leaving



Koichi Kabayama
Director of the Printing Museum, Tokyo

the university, as a member of the general public, there are things I would like to see changed. I would really like to see wise stewardship of this precious, important resource, so that it can be effectively utilized socially and culturally.

 **Saigo:** I intend to work hard to make that happen.

DECEMBER 5, 2006

IN THE ITALIAN RESTAURANT CAPO PELLICANO ON THE HONGO CAMPUS OF THE UNIVERSITY OF TOKYO.

[PHOTOS ON PAGES 10 TO 15 WERE TAKEN ON A TOUR OF THE GENERAL LIBRARY ON THE HONGO CAMPUS]



The roundtable discussion at Capo Pellicano

Koichi KABAYAMA

Born 1941. Completed the Master's program in the Graduate School of Humanistic Studies, University of Tokyo in 1968. In 1990, became a professor in the Faculty of Letters, University of Tokyo (serving 1997-98 as Dean of the Faculty of Letters). In 2001 named Director of the National Museum of Western Art. In May 2002 became a professor emeritus of the University of Tokyo. Since October 2005 has served as Director of the Printing Museum, Tokyo.

Ayumi WATANABE

Born 1960. Graduated from the English Department, College of Arts and Sciences, University of Tokyo in 1982. Entered NHK in 1982 as an announcer. In June 2006 assigned to the NHK Japanese Language Center. Presently a chief announcer at NHK.

Kazuhiko SAIGO

Born 1946. Graduated from the Department of Chemistry, Faculty of Science and Engineering, Tokyo Institute of Technology in 1969. In 1993, became a professor in the Faculty of Engineering, University of Tokyo. In 1995 became a professor in the Graduate School of Engineering. In 1999 became a professor in the Graduate School of Frontier Sciences. Since April 2005 he has been Director of the University of Tokyo Library System, and since April 2006 a professor in the Graduate School of Engineering.



A “Heinrich Heine’s Werke”

Herausg. von Heinrich Laube, 6 Bände, Wien, Bensingerg. Ogai Collection



B “Mukashi-Banashi (Hinamamebon)” (昔ばなし(雛豆本))

Katei Collection



C Schedel, Hartmann. “Liber chronicarum” Nurnberg, 1493

Kamei Collection

D “Keichitsuchufuzu” (啓蟄虫譜図)

Nanki Collection



Major Collection

General Library

Collection Name	Quantity	Contents
Ogai Collection		Works of history and literature, biographies, Edo-period maps, Western books collected by Japanese writer Mori Ogai (1862-1922).
A	18,605	
Katei Collection		Edo-period novels and theatre plays collected by Japanese writer Watanabe Katei (1864-1926).
B	1,851	
Kamei Collection		Collection of Kamei Koreaki (1861-1896), descendant of the Lord of the Tsuwano domain (currently in Shimane Pref.). Primarily holds works on Western fine arts collected during his studies in Germany.
C	1,958	
Gakken Collection		Chinese and Japanese medical books owned by Prof. Dohi Keizo (1866-1931), also known as Gakken.
	4,618	
Shachiku, Chikurei and Chiju Collections		Collections of Renga and Haikai poems collected by the haiku poets Ono Shachiku (1872-1913), Tsunoda Chikurei (1856-1919) and Okano Chiju (1860-1932).
	6,577	
Seishu Collection		Classic works of Chinese and Japanese literature collected over three generations by the Watanabe family, from Japan's Koshu region (Yamanashi Pref.).
	25,000	
Tanaka Yoshio Collection		Works on natural history (botany, zoology, agriculture and forestry) and exhibitions collected by Tanaka Yoshio (1838-1916).
	6,000	
Nanki Collection		Owned by the Tokugawa family of Kishu (Wakayama Pref.), the Nanki Collection incorporates a number of private book collections of the Edo period.
D	96,000	
Morse Collection		Collection of natural sciences books and materials on Japan donated by Edward S. Morse (1838-1925), an American zoologist who taught at the University of Tokyo.
	1,200	

Graduate Schools for Law and Politics / Faculty of Law

Gaikotsu Collection		Newspapers, magazines, picture postcards edited by Miyatake Gaikotsu (1867-1955), initiator of the faculty's Meiji Collection of Newspapers and Journals.
E		
Yoshino Collection		Works on the history of modern Japanese politics collected by Yoshino Sakuzo (1878-1933)
	8,716	

Graduate School of Medical Science / Faculty of Medicine

Waldeyer Collection		Collection of German anatomist Wilhelm von Waldeyer-Franz (1836-1921). Books and materials on anatomy, zoology and anthropology.
	2,000	

Graduate School of Humanities and Sociology / Faculty of Letters

Ichikawa Collection		19th and early 20th century English-language literature and materials on linguistics collected by Professor Ichikawa Sanki (1886-1970).
	1,200	
Hearn Collection		Works, translations and research papers by Lafcadio Hearn (Japanese name Koizumi Yakumo, 1850-1904), originally part of the Ichikawa Collection.
	303	
Motoori Collection		Autograph manuscripts and other works by Motoori Norinaga (1730-1801), his descendants and disciples.
	3,534	

Books

These are representative collections held by the University of Tokyo Library System.

Graduate School of Economics / Faculty of Economics

F Adam Smith's Library	Private collection of British economist Adam Smith (1723-1790).	314
Engel's Library	Private collection of German statistician and economist Ernst Engel (1821-1896).	1,160

Graduate School of Arts and Sciences / College of Arts and Sciences

Kano Collection	Private journal and correspondence of Kano Kokichi (1865-1942), principal of the Dai-ichi Koto Gakko.	
Kitani Collection	Materials on joruri from the late Edo period to the Meiji period collected by joruri and drama specialist Kitani Hogin (1877-1950).	228

Graduate School of Interdisciplinary Information Studies/ Interfaculty Initiative in Information Studies

Ono Collection	Materials related to the history of news media in Japan collected by Professor Ono Hideo (1885-1977), founder of the University of Tokyo's Institute of Journalism and Communication Studies.	1,144
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Institute of Oriental Culture

Ooki Collection	Materials on Chinese law collected in Beijing by lawyer Ooki Kan'ichi (1881-1958).	3,168
Sokodo Collection	Ming and Qing dynasty theater plays and novels collected by Nagasawa Kikuya (1902-1980).	3,000
Daiber Collection	Manuscripts and materials on Islamic culture collected by Professor Hans Daiber (Vrije Universiteit, Amsterdam).	367

Institute of Social Science

Itoi Collection	Documents on the state of Japan's labor collected by Itoi Kinji (1895-1959), who headed the Tokyo Employment Office (Tokyo Shokugyo Shokaijo).	10,500
Records of the International Military Tribunal for the Far East	Court documents and other records of the International Military Tribunal for the Far East held in Tokyo between 1946 and 1948.	454
DGB Collection	Documents and materials of the Deutscher Gewerkschaftsbund (or DGB, German Trade Union Federation), covering the 1900 to 1970 period.	7,000

Historiographical Institute

Shimazu Family Collection	Historical documents from the Heian to the Edo period transmitted among generations of the Shimazu family of Satsuma (Kagoshima Pref.). Designated as a national treasure.	17,000
So Family Collection	Historical documents belonging to the So family of Tsushima (Nagasaki Pref.).	2,900
Tokudaiji Family Collection	Historical documents belonging to the Tokudaiji family.	4,400
Masuda Family Collection	Historical documents of the Masuda family of Iwami (Shimane Pref.) dating back to the medieval period.	7,600

E "Kokkei Shimbun"
(滑稽新聞)
Gaikotsu Collection



F "A Catalogue of Books belonging to Adam Smith" Esqr. 1781

Adam Smith's Library



G "Edo Ojishin no zu" (江戸大地震之図)
Shimazu Family Collection

University of Tokyo Library System

The General Library
(Hongo Campus)

The Komaba Library
(Komaba Campus)

The Kashiwa Library
(Kashiwa Campus)

Faculty and
Institute Libraries

Library Website

<http://www.lib.u-tokyo.ac.jp/index-e.html>

The Historiographical Institute Collection and Compilation

The Neverending Task of Editing Historical Data

The Historiographical Institute—for more than a century it has been engaged in the collection and compilation of historical documents. Here, new content is being steadily assembled out of the raw materials in the collection.

The more than one thousand volumes compiled by the Institute are a precious source of documentary materials for those engaged in the study of Japanese history.



Katsumi MIYAZAKI

Professor
Historiographical Institute



The Institute's Collection Compilation and Databases of Historical Materials

The Historiographical Institute is a research institution whose primary work is the study and compilation of source materials on Japanese history from antiquity to the Meiji Restoration of 1868. It had its origins in an academy for Japanese studies established in 1793 by the nativist scholar Hanawa Hokiichi with support from the Tokugawa shogunate. In 1869, the second year of the Meiji era, its work was taken over by a bureau created by the new government to compile an official national history of Japan. Then, in 1888, with the establishment of a department of Japanese history at the Imperial University (predecessor of the University of Tokyo), the historiographical enterprise was relocated there. It acquired its present name—Shiryō Hensanjo—in 1929.

The systematic collection of historical materials to serve as the foundation for research and documentary compilations began in 1885. But this did not mean collection of the original documents from all over the country. Instead, various methods were used to make copies of the originals for use in compilation and research. These included tracing, transcription, and the facsimile reproduction (by hand) of pictorial materials. After World War II photographic reproduction using microfilm became the norm. At present we do location shooting of documents averaging about 100,000 frames annually.

After more than a century of collecting activity, we now have more than 100,000 reproductions of original documents. In addition, over the years many owners of documents have donated them to

the Historiographical Institute, so we have also amassed a substantial number of original documents as well. At present, we have one National Treasure (Documents of the Shimazu Family), thirteen Important Cultural Properties, and nearly 200,000 other important historical documents in our collection. The library of the Historiographical Institute has a much larger collection of these documentary materials than we do of books printed with moveable type. That the Historiographical Institute not only uses these in its research and compilation work but also makes them available for public use by Japanese history researchers from outside the institute and the university is one of the major features of the collection.

Since 1901, the Historiographical Institute has compiled and published a large number of documentary collections based on the sources in its possession. We have now published more than a thousand volumes of primary historical documents under such series titles as *Dai Nihon Shiryō* and *Dai Nihon Komonjo*. And since 1980 a project has been under way to reconfigure this into an electronic database of historical data. The publicly accessible online database (see following page) now extends to some twenty-five categories, and receives as many as 1.9 million hits a month when we are getting heavy traffic from outside the institute. This coexistence of a more than century-long program of compiling and publishing historical documents in the traditional medium of print with the provision of historical information through the new format of the online database is something we like to think of as the two wheels of the Historiographical Institute, now and in future.

Historical Document Collections Published by the Historiographical Institute

Dai Nihon Shiryō (Chronological Source Books of Japanese History)	380 vols.
Shiryō Soran (Comprehensive Catalogue of Historical Sources)	17 vols.
Dai Nihon Komonjo (Old Documents of Japan)	217 vols.
Dai Nihon Kokiroku (Old Diaries of Japan)	116 vols.
Dai Nihon Kinsei Shiryō (Historical Materials of the Edo Period)	127 vols.
Dai Nihon Ishin Shiryō (Historical Materials of the Meiji Restoration)	43 vols.
Nihon Kankei Kaigai Shiryō (Historical Documents in Foreign Languages Relating to Japan)	38 vols.
Shosoin Monjo Mokuroku (Inventory of the Shosoin Documents)	5 vols.
Nihon Shoen Ezu Shuei (Collected Maps of Estates from the Ancient and Medieval Eras)	7 vols.
Kao Kagami (Monographs)	6 vols.
Total (including other publications)	More than 1,000 vols

Principal Historical Materials and Books in the Institute's Collection

Books (including woodblock-printed editions)	168,254
Japanese and Chinese books	161,943
Western books	6,311
Historical materials (block-printed editions and manuscript copies) (includes 1 National Treasure and 13 Important Cultural Properties)	195,410
Historical materials (reproductions produced at the Institute)	110,329
Calligraphic reproductions	7,105
Calligraphic reproductions (copy)	4,436
Mimeograph reproductions	22,705
Photographic reproductions	39,388
Mounted photographs	23,222
Pictorial reproductions/rubbings	3,589
Manuscript books	9,845
Facsimiles	32
Old photographs	7
Serial publication	2,703
Japanese periodicals	2,505
Western periodicals	198
Film Holdings	64,242
Microfilm	48,018 reels
Sheet film	7,224 titles
Glass dry plates	9,000
Electronic publications (including videotapes)	714 titles

Sample Page from a Chronologically Organized Document Collection (Dai Nihon Shiryo)

Entry text

In *Dai Nihon Shiryo*, a chronologically organized compilation of historical sources, each day's entry begins with a brief descriptive passage called the *kobun* (entry text) summarizing the events and occurrences that took place that day. In the example shown here, the entry text reads "On the third day of the seventh month of the eighth year of the Genna era (1622), the lawful wife of Maeda Toshitsune, the third daimyo of the Kaga Domain, passed away." There are now some 300,000 entry texts such as this, written over the course of more than a century, and all of them have now been entered in an electronic database. In other words, we now have an extremely detailed and extensive chronological database of the thousand-year period covered

by the *Dai Nihon Shiryo*, from the late 9th century to the Meiji Restoration of 1868.



Chronologically organized document collection database search screen

Source citation 1: Takasuke sukune hinamiki (The Diary of Mibu Takasuke)

The entry text is followed by citations from sources substantiating its content. The first is from Takasuke sukune hinamiki, the diary of a court noble named Mibu Takasuke. Maeda Toshitsune's wife died in Kanazawa, and Mibu records this in his diary four days afterward in Kyoto. The original document is in the collection of the Archives and Mausolea Department of the Imperial Household Agency. The Historiographical Institute has microfilmed the document, and also has made it available as a photographic reproduction for the purposes of research, compilations, and

library use. There are more than 30,000 such photographic reproductions in the Institute's collection.



Photographic reproduction

Source citation 2: Nitta Uichiro shi shozo monjo (Documents in the Collection of Nitta Uichiro)

A report of the death of Maeda Toshitsune's wife is also recorded in a letter written by a retainer of the Date family of Sendai. This document is contained in a calligraphic reproduction of a volume entitled *Nitta Uichiro shi shozo monjo* (Documents in the Collection of Nitta Uichiro). Calligraphic reproduction—hand-copying of sources—was used extensively, beginning in the early years of the Meiji era, before photographic copying of sources became common in order to collect copies of documents scattered all over Japan. There are presently more than 7,100 such calligraphic reproductions in the Institute's

collection. When permission can be secured from the owners of the original documents, these reproductions are being made available on the Internet.



Calligraphic reproduction display screen

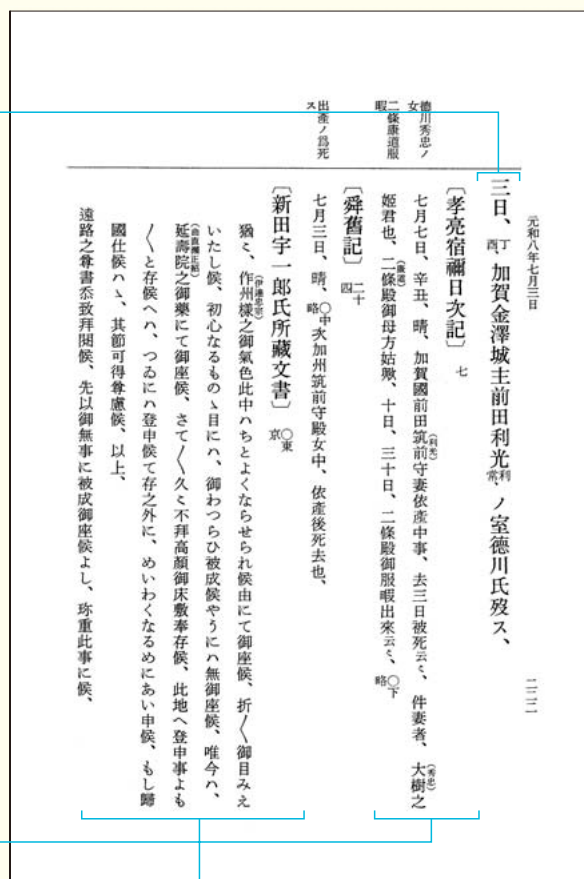
The Historiographical Institute's Database for Collection and Compilation of Historical Documents

The Historiographical Institute has been compiling a number of different databases to achieve greater efficiency in its compilation work, to make completed documentary collections more easily useable, and to promote the public availability of the historical materials in the Institute's collection. There are now 25 databases of different kinds accessible from the Institute's

website (<http://www.hi.u-tokyo.ac.jp/index-j.html>), ranging from cataloging information on the historical sources in the collection and a detailed comprehensive chronological table of Japanese history to indexes of historical figures, places, and events; complete texts of diaries and other historical documents; and visual and art historical materials such as portrait paintings, woodblock prints, etc.



Pictorial reproduction of a portrait of Tokugawa Ieyasu (original in the collection of the temple Kan'eiji)



Publicly Accessible Databases

Documents Archive Catalog
Dai Nihon Komonjo Catalog
Integrated Dai Nihon Shiryo
Kokiroku: Full Text
Komonjo: Full Text
Nara Period Komonjo: Full Text
Heian ibun: Full Text
Kamakura ibun: Full Text
Chronological Documents Summary
Early Modern Chronological Documents Summary

Meiji Restoration Documents Summary
Supplementary Database for Compilation of Early Modern History
Dai Nihon Shiryo Index
Personal Name Index of Medieval Records
Monogram (kao) Cards
Historical Visual Catalog
Portrait Information
Portrait Reproductions in the Historiographical Institute Archives
Estate Map Reproductions in the Historiographical Institute Archives
Printed Materials (surimono)
Woodblock Prints (nishikie)
Old Photographs (koshashin)
Interactive Translation Support System
Dictionary of Sources of Classical Japan
Electronic Dictionary of Cursive Japanese Letterforms

Campus Tours

Student Campus Guides Take On the Challenge

The University of Tokyo is not only a center of learning, but also a “town” with a history of more than 100 years. Those who come to visit this town, rich with tradition, can enjoy campus tours offered by student guides. As the guides show visitors “around the town,” exercising their ingenuity in various ways, they exhibit the affection and pride of true inhabitants.



The campus tours by student guides follow the course shown in the map on the right, around the central part of the Hongo Campus.

Tree-lined promenade from main gate to Yasuda Auditorium
A famous crowd-pleaser here is the tradition that “A new student who fails to find a lover by the time the leaves fall from the maidenhair tree is doomed to a loveless four years.”

The beginning of campus tours

Kenjiro SUZUKI

Former Todai campus tours representative

The first Todai campus tour started July 3, 2004. We started from zero, but there have now been 150 tours, serving more than 2,000 visitors (as of April 2, 2006). During that time, the campus tours have steadily evolved.

Near Gotenshita Ground
Soccer fans are impressed to learn that “This ground was built according to FIFA official specifications and is able to host international meets.”

Information Center
Here the tour stops for a 30-minute break. In response to questions, the guides talk about student life, the entrance exam experience, even the love lives of Todai students.



Student guides talk about their experiences



Masayo SAKABE

(at left in photo; fourth-year student in the Faculty of Pharmaceutical Sciences; two years of guide experience)

One day it struck me that, even though I chose this school because of its famous

traditions, I really didn't know much about it. That was my reason for becoming a guide. I wanted to find out more about the university myself, and pass that knowledge on to others. A good thing about being a guide is that I have been able to chat with all kinds of visitors, from teenagers to the elderly. Lately I've thought that it would be

nice to offer tours inside Yoshida Auditorium. It's a building that symbolizes the University of Tokyo, so I'd like to include it in the tour. Another thing is that reservations are accepted only by email, which may present a barrier to older people who are not comfortable with personal computers. I think something ought to be done to address this matter.

A variety of different tours were started, including tours for high school students and historical tours. It became possible to offer tours even during long breaks such as summer vacation, and on Sundays.

The Todai campus tours have two main selling points. One is the emphasis on interaction with the visitors. The other is that the tours are run mainly by students. These two aspects have been true from the very start.

The objective of the campus tours is to provide visitors with a “memorable experience” so that they become fans of Todai. It’s not enough just to introduce them to historical sites and campus facilities, nor would that satisfy them. Interaction with visitors by the guides, who are students, is an indispensable part of the tour experience. That’s where the “emotions” are first touched. The students who serve as guides are more than just “introducers.” They are the University itself. (That’s something that happens even without intending it to.)

Because that’s the objective, the campus tours emphasize interaction with the visitors. A team of two guides

is assigned to each tour group, limited to no more than 15 people. When more people request tours, the number of guide teams is increased accordingly. The policy of small groups is followed religiously. Moreover, at least 30 minutes of time during the tour is devoted to talking with the visitors, which is also highly appreciated.

The other feature, as noted above, is that the tours are run by students. The appeal for students is to create something new from scratch, and also to advance what already exists. I was able to enjoy both of these appeals over the past two years. Here I’d like to talk about the first of them.

There’s a special appeal to creating something new from nothing. It’s freedom, and novelty. You can imagine lots of things, and be creative. At the same time, it’s a real challenge. In the case of the campus tours, it meant successive late-night sessions for the guides, creating the course and drawing up a manual. Because we started from zero, there was no template to build on. It was an ongoing process of trial and error. To create a course, we first had to

decide on the main places of interest on the campus. Once these were chosen, we had to figure out how to visit each of these in the most efficient sequence, and so on. These decisions had the guides wracking their brains. The same for creating manuals. The very freedom of the tasks meant that there were many different approaches to choose from. The problem was that each approach was “correct” in its own way. Through trial and error, the outline of the present campus tour came into being. The course and manual in use today are for the most part the ones created at that time.

For two consecutive years, more than 80 percent of those taking campus tours report being “highly satisfied” (according to questionnaires of tour participants). Behind this result is the firm dedication of the student guides.



Kinds of Campus Tours

Regular tour

A two-hour course around the Hongo Campus, starting from Akamon and ending at Yasuda Auditorium.

Science campus tour

To be offered a few times a year. This tour will introduce visitors to the Faculties of Engineering and Science facilities on the Hongo Campus, as well as to the Faculty of Agriculture facilities on the Yayoi Campus, neither of which are included in the regular tour.

One-hour tour

To be offered a few times a year. Aimed at those who cannot take part in the full two-hour tour, this will pack in just the famous spots of the University of Tokyo.

Tour for high school students

Offered twice monthly. While being an abbreviated tour, it conforms more closely to the needs of high school students, with a longer time set aside to talk about topics such as student life, research, and entrance exams.

Historical romance tour

To be offered a few times a year. Those whose curiosity is not satisfied by the regular tour alone can get their fill of historical places on this highly fascinating tour.



Aya YOSHIOKA

(at right in photo; fourth-year student in the Faculty of Law; two years of guide experience)

It was originally the splendid campus that attracted me to the University of Tokyo. That’s why I became a student guide, out

of a desire to make other people aware of the appeal of this campus. As I’ve continued to serve as a guide over the past two years, I have gradually come to realize that to visitors, I am the “face” of the university, so I always try to be conscious of how I am seen by people from outside. I’m especially

careful to respond to email inquiries sincerely, without seeming impolite. Looking ahead, I would like to see even more emphasis on special tours geared to different interests, such as historical tours or mystery tours.

UT-OCW&TODAI TV

Todai Knowledge Flies the Airwaves

The opening of universities and of their knowledge is happening now, in a variety of ways. One example is open courseware. Another is TODAI TV. University of Tokyo knowledge, refusing to be confined, is taking to the world's skies, lifted by the notion that ideas are free.



What Is UT Open CourseWare?

UT Open CourseWare (UT-OCW) consists of syllabi, lecture notes, videos, test questions, and supporting materials from courses offered by the University of Tokyo, which are being made available freely to the public over the Internet. The university started offering this material in May 2005, for the purpose of sharing with the public far and wide the knowledge of the University of Tokyo. Currently 34 courses are available. For the first ten months of this project, through March 2006, the Web site has been accessed around 7 million times. Recent UT-OCW offerings include an omnibus course, “Global Focus on Knowledge/Science of Matter” by Emeritus Prof. Masatoshi Koshihara, Prof. Katsuhiko Sato, Prof. Yasuhiro Ie, and University President

Hiroshi Komiya, as well as “Sociology of Care” by Prof. Chizuko Ueno, “Business Administration I” by Prof. Takahiro Fujimoto, and “Educational Administration and Finance I and II” by Prof. Masahito Ogawa and Assistant Prof. Masaaki Katsuno.

Another new addition is the start of podcasting, from April of 2006, for the Global Focus on Knowledge lecture series offered by the College of Arts and Sciences. These podcasts should help bring University of Tokyo knowledge even to those whose busy schedules give them few opportunities for learning, and to the young, enabling them to enjoy learning at any time and place.

What Is TODAI TV?

TODAI TV (University of Tokyo Television) is an educational service intended mainly for self-learning and self-study by students. It addresses the

problem of how to provide learning opportunities to a diverse student body. A growing number of students, for example, enter the university without having mastered subjects such as physics, due to the different paths available for taking entrance exams. Another factor is the expansion of graduate schools to include more foreign students and students coming from the working world. In the past, the extra efforts of individual research centers were able to cover this diversity; but TODAI TV has been developed to address the issues on a school-wide basis.

TODAI TV will present streaming videos of basic courses in such fields as physics, information science, and statistics. Currently Introduction to Computer Science is being offered, with other material to be added over time. Videos of various courses and public lectures offered by the University of

(Photo, from left) UT-OCW top page, TODAI TV top page, screen showing TODAI TV content (UN Secretary-General Kofi Annan Honorary Degree Conferment Ceremony and Commemorative Lecture)



Tokyo are also being made available. The first public lecture to be shown is on "Population," a theme taken up in this fiscal year. Podcasting is also being offered, mainly by the Public Relations Office.

Technology and Living Up to Expectations

The University of Tokyo is hardly the only institution of higher learning to be opening its educational content to the public; this is now a trend seen worldwide. In fact, even in Japan there are similar projects at Kyoto University, Keio University, Waseda University and others. Nonetheless, whereas other universities are apt to measure their openness in terms of the number of courses offered to the public, the University of Tokyo is keeping to its own independent policy. Rather than focusing on quantity, it strives to make available the kinds of high-quality lectures and courseware that people would expect from the University of Tokyo, and to provide these to a large and broad audience.

Another feature of the University of Tokyo services is that they are part of an overall trend toward introducing information technology in the school-wide education programs. This process is being implemented by a project team set up in the Educational Planning Office, supported by the Center for Research and Development of Higher Education. These organizations are promoting a school-wide project called TREE (Todai Re-designing Educational Environment). With the scope of these efforts extending across the entire university, a UT-OCW visual search engine called MIMA SEARCH has been implemented in cooperation with the university's Center for Innovation in Engineering Education and the Information Technology Center, among others; moreover, with the cooperation of the Komaba Organization for Educational Development, it has become possible to create a video archive of the Global Focus on Knowledge lecture series. The university plans to step up such activities even further in coming months and years.

Courses Available on UT-OCW

Graduate Schools/Faculties Lecture	
College of Arts and Sciences Junior Division	Global Focus on Knowledge <ul style="list-style-type: none"> • Science of Matter • Formation of Society
Law and Politics	• Political Analysis 2003
Medicine	• Pathology Introduction
	• Clinical Bioinformatics
Engineering	• Applied Acoustics
	• Fundamental Physics for Electronics I
	• Machine Design Technology
	• Statistics Mathematical Principles
	• Quantum Mechanics II
Humanities and Sociology	• Sociology of Care
Science	• Molecular Computing
Economics	• Business Administration I
	• Business Administration II
	• Management Theory
	• Contemporary Economic History of Japan I
Arts and Sciences	• Historical development of the Spanish language
	• Geographical variation of the Spanish language
	• World Model
	• International Politics
Education	• Educational Administration and Finance I
	• Educational Administration and Finance II
Frontier Sciences	• Nonlinear Finite element-method
	• Physics of Transition Metal Oxides
Information Science and Technology	• Computational Linguistics
Interfaculty Initiative in Information Studies	• Information Semiotics
	• Communication System
	• Evolutional Ecology Informatics
Public Policy	• Case Study

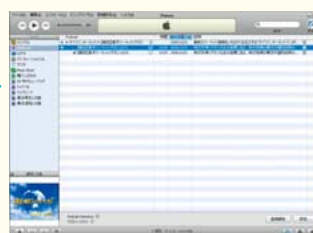
Accessing Todai Knowledge by Podcast



1 Podcasts can be accessed at the University of Tokyo podcasts section of the iTunes Music Store, or at the UT-OCW section or TODAI TV section of the University of Tokyo Web site (<http://www.u-tokyo.ac.jp>).

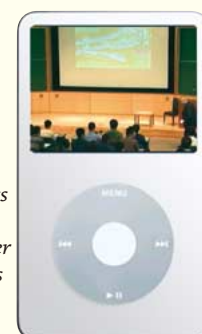


2 Register "University of Tokyo podcasts" in your iTunes software.



→ The latest lectures are downloaded automatically.

3 In those spare moments during your busy day, on the train or wherever you are, you can access the "knowledge of the world."



UT 130th Anniversary Project

At the Forefront of the Age

April 12, 2007 marks the 130th year since the founding of the University of Tokyo. To mark this occasion, the university began a year-long program of commemorative events starting in November 2006. An overview of the activities is presented here, along with an introduction to the commemorative marks and characters chosen to honor this milestone.

Junichi HAMADA

Chairperson, Committee on the UT 130th Anniversary Project; Executive Vice President of the University of Tokyo



Official Mark of the 130th Anniversary Commemoration

The official commemorative mark envisions knowledge as a living organism. It represents the ability of the University of Tokyo to continue discovering new knowledge into the future, and its ability to continue fostering new talent, as a “futuristic, intelligent life form” that continues growing and evolving. It also symbolizes the University’s commitment to active engagement with the various academic and societal themes in the 21st century, and the “dynamism of knowledge” that is born transcending fields of specialization and national borders.



THE UNIVERSITY OF TOKYO 130TH

Our world is facing serious issues, in the political and economic realms, in technology, and in the life sciences, which demand solutions from a global perspective. At the same time, the academic learning required to support such efforts is affected by the simultaneous explosion of knowledge and specialization of research, as noted by President Komiyama in the introduction, making it difficult to grasp the big picture. In the midst of these two polarized movements, there is a growing demand from society for unified knowledge. As a leading center of knowledge in Japan, a nation at the frontier of emerging issues, the role of the University of Tokyo as an integrator of academic knowledge has become increasingly important.

With the incorporation of Japanese national universities, the University of Tokyo is now at a stage that can be called its “third founding”. At this stage,

the series of events commemorating the 130th anniversary of the University present an opportunity to open a debate with the world about what the University of Tokyo should be and should become in the future, and to discuss the road ahead with many different people. Looking ahead to the future, we would like to express through these events “our identity as the University of Tokyo”. To this end, we have asked for the active participation in this commemoration of faculty, students, and graduates alike. In addition, this is an opportunity to appeal through these events to a broad range of people in society who share our aims and aspirations, hopefully leading to their collaboration and support. By commemorating this milestone in diverse ways and with broad participation, we hope to convey the ideas that will underpin the future of the University of Tokyo and the coming age.

Three winning commemorative marks

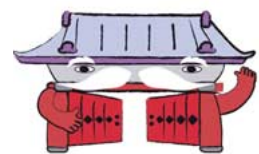


Work by **Keisuke Maruo**

Choosing the ginkgo (maidenhair tree) leaf, the symbol of the University of Tokyo, as the basic motif, this work expresses the scale encompassing the world of scholarship, the relations between different fields of learning as well as their independence, and how they are being opened to the outside world.

The design also takes into consideration the possibility that the work might be printed in black and white.

Three winning characters



Work by **Teruyasu Mizoguchi**

Nickname: Akamonjii

The motif of this character is Akamon, a gate that has been designated as an important national cultural property and is a symbol of the University of Tokyo. With the gravitas of its long tradition but also with warmth, it opens up to receive the people who come to the school.

Chosen commemorative marks and characters

Entries were solicited for an official commemorative mark and character to celebrate the 130th anniversary. Of the many entries received, one was selected as the official mark, while three other winning commemorative marks and three winning characters were also chosen.



Work by **Kazuo Chikushi**

The design motif here is of overlapping circles, which represent the interrelation between the University of Tokyo and society, while also forming a kind of infinity symbol (∞) that expresses the infinite possibilities arising from this relationship. The symmetrical form is meant to express the stance of the University as it earnestly approaches people, society and researches.



Work by **Yasuko Koishizawa**

The three rings forming the outline of this symbol indicate the tri-polar structure of the University in the new age, consisting of the Hongo, Komaba and Kashiwa campuses, while at the same time indicating the importance in the new age of relations between people, and between society and university. These relations are also expressed in the "UT" symbol (with an inverted U) at the center, which can be seen as people joining hands with each other. The door in the center signifies the door to the future, showing that the University of Tokyo in the new age is taking up the challenge of the unknown.



Work by **Momoko Ichimura**

Nickname: U-Tan

The "UT" abbreviation used for the school has been made into a character, with U as its face and T as its body. The result is a rabbit-like character called U-Tan. Its mouth is a simplified form of Yasuda Auditorium, and on its body is the ginkgo leaf that is the University of Tokyo symbol. The pink color is appropriate for a rabbit, while the yellow-green "T" of its body represents the campus with its lush natural growth. The easy-to-say name "U-Tan" was chosen in the hope that people will find this character appealing and familiar.



Work by **Aya Miyazaki**

Nickname: Gustoff

Throughout its long history of 130 years, the University of Tokyo has maintained its top position in Japan, and even further advances are to be hoped for in the future.

This character shows a bright future, in which the University, in the midst of globalization and worldwide competition, rides on its traditions (represented by the ginkgo leaf) to reach new heights, as a "gust of wind" in the world.

The character depicts the newness of Todai achieved by building on tradition.

Please watch the following 130 year commemorative site for updates on coming events:
<http://www.130out.pr.u-tokyo.ac.jp/>



Preparation of an intellectual promenade featuring research results

In commemoration of the 130th anniversary of the University of Tokyo at each campus is currently choosing locations where one can feel the accumulation of the results of the university's intellectual activities, and proceeding with the creation of an 'intellectual promenade' where individuals can relax, narrate, enjoy, or quietly contemplate.



Hongo
Campus



Komaba
Campus



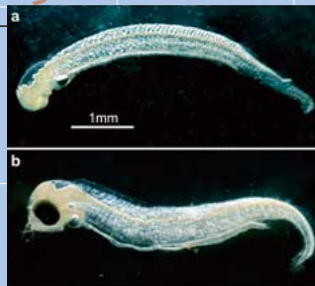
Kashiwa
Campus



Shirokane
Campus

Invitation
to
Science

Above: A two-day-old pre-leptocephalus caught on June 7, 2005, on the day of the new moon. The eyes and teeth are still unformed. Below: A five-day-old larva collected three days later.



Kuroshio Current

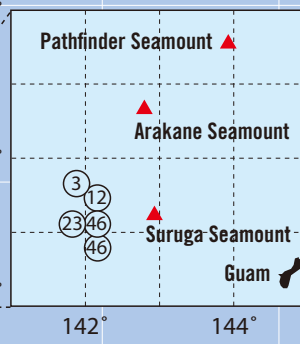
North Equatorial Current

Mindanao Current

Figure A

Guam

Figure A'



Migratory Behavior of the Freshwater Eel: Mystery Solved?

In June 2005, a major discovery was made. A large number of newly hatched eel larvae (preleptocephalus) were collected in the vicinity of a seamount near the Mariana Islands in the western North Pacific. At that moment a freshwater eel spawning site was pinpointed for the first time ever. The discovery solved a riddle that had persisted ever since Aristotle's time in the fourth century B.C.. But have we really solved the mysteries of the freshwater eel's migratory behavior?



Katsumi TSUKAMOTO

Professor, Ocean Research Institute

<http://www.ori.u-tokyo.ac.jp/en/index.html>

A Japanese expedition to locate the spawning grounds of the freshwater eel was carried out as early as the 1930s, apparently inspired by Danish oceanographer Johannes Schmidt's discovery of the spawning grounds of the Atlantic freshwater eel. A full-scale project to locate the Japanese eel's spawning grounds, led by the University of Tokyo Ocean Research Institute, was launched in 1973 (First Eel Expedition).

The Fifth Eel Expedition of 1991 collected approximately 1,000 leptocephali (transparent eel larvae shaped like willow leaves) 10 mm in length and determined with near certainty that the spawning grounds were somewhere in the waters west of the Mariana Islands (figure A). However, this discovery merely located

the spawning site within a fairly broad area without pinpointing it. (In fact, this was and remains the situation with the Atlantic eel, despite early progress made.) To zero in on the spawning site, we worked from two hypotheses—the “seamount hypothesis” regarding the specific location and the “new moon hypothesis” concerning the timing of the event. Combining these two ideas, we hypothesized that the eels would spawn at one of the three seamounts around the Mariana Islands (the Pathfinder, Arakane, and Suruga seamounts) during the summer, around the time of the new moon. The idea was that one of these seamounts was the designated spot for the rendezvous between the males and females, with the ridges of the three seamounts functioning as a kind of road

sign. Meanwhile, the darkness of the new moon would heighten the efficiency of fertilization during mass spawning and minimize the number of eels eaten by predators.

With this hypothesis as a basis, we searched for more than ten years, beginning in 1994, but found no convincing evidence. In 1998, we used the two-person submersible JAGO (maximum operation depth 400 meters), owned by Germany's Max Planck Institute, to search for spawning adult eels on the slopes of the seamounts—again with no luck.

Then, in the summer of last year, we undertook our Twelfth Eel Expedition using a large plankton net dubbed Big Fish, which we had developed for the study. This time we succeeded in catching approximately 400 preleptocephali (two days old) with undeveloped mouths and eyes (see photo). The discovery took place on June 7, on the day of new moon, about 100 km west of Suruga Seamount (figure A'). Since the eggs spawned near the seamount would have drifted west with the ocean current, it was possible to conclude that both hypotheses were correct.

With this discovery the current fell on over 70 years of Japanese investigations to discover the spawning grounds of freshwater eels. The event was featured prominently in newspapers and on television.

Since then, people have often said to me, “That's great that you found the eels' spawning grounds. Now that your work on eels is finished, what will you do next?” In truth, this is only the beginning for eel research. From now on the spawning grounds that we located will become the starting point for a variety of inquiries branching out in different directions. At what depth does spawning occur? Do the eels spawn in pairs or in groups? What migration route do the adult eels follow? Why do they have to travel thousands of kilometers to spawn? What causes the fluctuations we see in the eel population? There are countless questions. Answering these questions will require the combined knowledge and cooperation of scholars in a wide range of fields: not only animal behavior, physiology, and fisheries but also earth science, marine physics, marine chemistry, molecular biology, and so forth. The age of adventure, when we searched single-mindedly for the spawning grounds, is over. Now the real science begins. The golden age of eel research is yet to come.

Law and Policy on Bioethics and Biotechnology Project

This project was launched in 2002 with a grant-in-aid for creative scientific research from the Japan Society for the Promotion of Science. Although controversy over bioengineering and bioethics has emerged as one of the major issues of the 21st century, it has yet to be studied adequately either from the legal or from the medical standpoint owing largely to its interdisciplinary nature. With this in mind, staff from the University of Tokyo Faculty of Law organized the five-year project in cooperation with medical practitioners from the Faculty of Medicine and elsewhere.

Norio HIGUCHI

Professor, Graduate Schools for Law and Politics

<http://www.j.u-tokyo.ac.jp/en/course.html>



Japanese and American scholars, physicians, and judges discussed and compared the ethics of two professions at the symposium "Legal Ethics and Bioethics" in December 2004.



Bioethics and the Law (Koubundou Publishers, 2005), written and edited by Norio Higuchi and Yuko Tsuchiya of the University of Tokyo creative scientific research project "Law and Policy on Bioethics and Biotechnology."

The Law and Policy on Bioethics and Biotechnology Project began with three objectives. First, build an interdisciplinary network: specifically, set up multiple study groups spanning disciplines and universities, publish the content of their discussion in journals and books, and through these activities communicate the significance and importance of this field, particularly to young researchers and business leaders. Second, because the topic itself spans national borders, strengthen linkages with researchers overseas by holding workshops and sending young researchers to participate in overseas seminars. Third, compile teaching materials that can be used in Japan's newly established graduate schools of law and provide opportunities for the lawyers of tomorrow to consider a variety of issues in this field. (For more on the project's activities, see [http://](http://www.j.u-tokyo.ac.jp/biolaw/)

www.j.u-tokyo.ac.jp/biolaw/)

The project was fortunate enough to receive the rank of A in its midterm evaluation and is now in its fifth year. We have already published a textbook, *Casebook: Bioethics and the Law* (Yuhikaku Publishing Co.), which has been in use at the University of Tokyo School of Law and other law schools since last academic year. The results of various symposiums have also been published under the title *Bioethics and the Law* (Koubundou Publishers). On the subject of bioengineering, the journal *Jurist* is presenting the findings of our study group in serial form. In terms of international networking, we have created opportunities to learn together by inviting scholars from Britain, Australia, South Korea, the United States, Germany, and other countries to participate in symposiums and lecture series. We also sponsored workshops for

Australian, U.S., and Japanese researchers held at the University of Melbourne Law School.

What we are learning through these activities is the true meaning of the word *interdisciplinary*. It is exhilarating work, and at the same time it vividly reveals the narrowness of legal thinking and its limits. For example, what should doctors do if a patient with an incurable hereditary disease asks them not to inform family members? While physicians expressed a desire for clear legal guidelines on how to proceed, they also showed themselves uncomfortable with and rejective towards a legalistic approach to such problems. What we need first of all is to appreciate at first-hand the importance of dialogue transcending professional barriers and use that understanding as a base from which to proceed.

Can Historical Perceptions and Nationalism Be Studied Scientifically?

The territorial dispute over the island of Dokdo/Takeshima remains a sensitive issue between Korea and Japan even today. Why do the people of both countries believe that the island belongs to their country? How have those beliefs been formed?

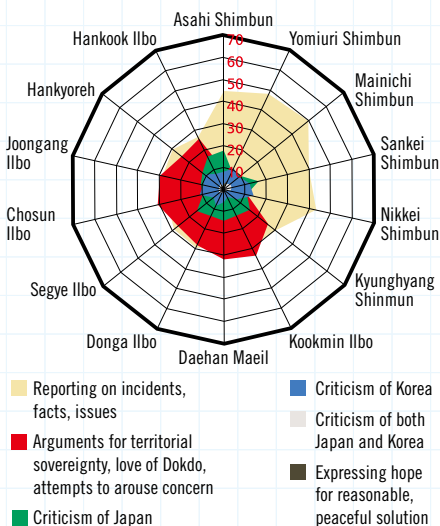


Daesong HYUN

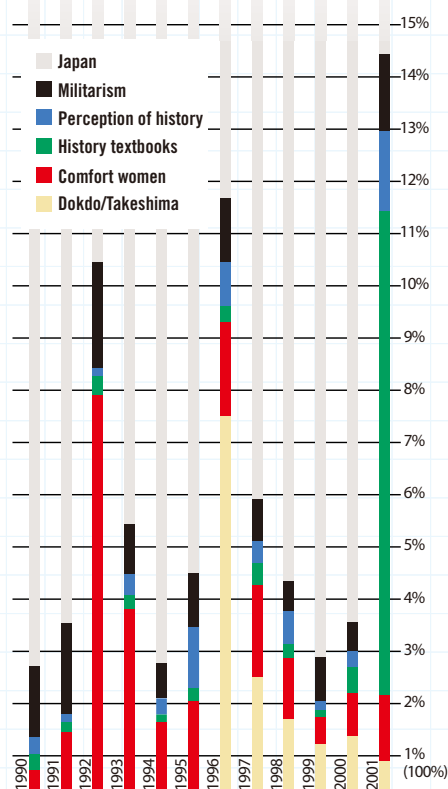
Associate Professor, Institute of Oriental Culture

<http://www.ioc.u-tokyo.ac.jp/>

Viewpoint of Dokdo/Takeshima articles in Japanese and Korean newspapers, 1990–2001



Percentage of articles on Japanese perception of history, militarism, "comfort women," and Dokdo in Japan-related articles appearing in Korean newspapers between 1990 and 2001



The island of Dokdo/Takeshima, the object of a longstanding territorial dispute between the Republic of Korea (hereafter Korea) and Japan, can be regarded as a kind of *topos* that awakens historical memories and nationalistic sentiment. Speaking of the way the fragrance of a rose might evoke recollections of his childhood, Henri Bergson wrote that "I smell a rose and immediately confused recollections of childhood come back to my memory. In truth, these recollections have not been called up by the perfume of the rose: I breathe them in with the very scent." I was interested in knowing to what degree Koreans "breathe in" the memory of colonial rule with the "scent" of Dokdo, and what sort of image of Japan and the Japanese the Koreans call to mind, or create, from that scent.

I have attempted to analyze the Dokdo/Takeshima issue not as a territorial matter but as a matter of perception—to understand why the Koreans believe Dokdo is Korean territory and why the Japanese believe Takeshima is Japanese territory—and to elucidate the influences that have formed those perceptions. It is impossible to discuss the Dokdo/Takeshima problem without dealing with issues of historical perception and nationalism. But how can historical perception and nationalism, concepts that are difficult even to define, be analyzed?

In my recent book *The Birth of Territorial Nationalism: The Politics of the Dokdo/Takeshima Issue* (Minerva Publishing, 2006), I focus on the impact of the media, discussing the "pseudo-realities" constructed by the Japanese and Korean media, and attempting to shed light on the bidirectional mechanism between the "production" and "consumption" of

public opinion, as well as on the social and cultural conditions that make it possible. In other words, how have the realities of the Dokdo/Takeshima issue been conveyed to the public via politicians' rhetoric, remarks by opinion leaders, and the media? In the process I looked at what was said and what was not said, and I analyzed the symbols and icons that were summoned up when the issue was mentioned. I also analyzed the perception structure of the Koreans that is formed in this manner.

To summarize briefly in the interests of space, I conducted a comparative analysis of the content and features of the discourse found in Japanese and Korean print media reports and discussions and found that in Korea the "discursive space" built around the Dokdo issue was a biased space and that discourse consistently tied the assertion of Korean sovereignty over Dokdo to the issue of Japanese historical perceptions to continually awaken historical memories. I also found that the Koreans are strongly influenced by the "pseudo-realities" created by the media; that from childhood they are instilled with the belief that "Dokdo is Korean territory" and with a negative image of Japan; and that the education system performs the role of officially sanctioning the beliefs that have already been formed. I also determined that there is a high correlation between people's perception of the Dokdo issue and their image of Japan, and that their perception of the Dokdo issue and image of Japan influence Koreans' attitudes toward Japan.

In the foregoing I have used the phrases "I found," and "I determined" for a reason. These are the "scientific" conclusions to some extent that I reached by analyzing the content of 2,734 newspapers articles concerning the Dokdo/Takeshima issue published over a period of 12 years, together with questionnaire surveys carried out on 2,112 Korean middle school, high school, and university students. Needless to say, in social sciences, the mental freedom to achieve an "epistemological break" is more important than the scientific precision of the method. Nonetheless, we must continue efforts like this to make political science more of a science if we are to prevent the discursive space surrounding Japan-Korea relations from being completely dominated by nationalism and conflicts over historical perception which is little better than emotionalism.

Dreams of barrier-free science

A wide range of academic disciplines are becoming an immense driving force towards the realization of a barrier-free society. One of these driving forces—"assistive engineering"—has already begun to open up a bright future for visually, hearing and vocally impaired individuals.



Tohru IFUKUBE

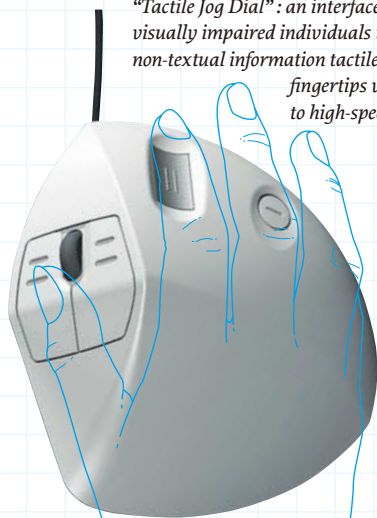
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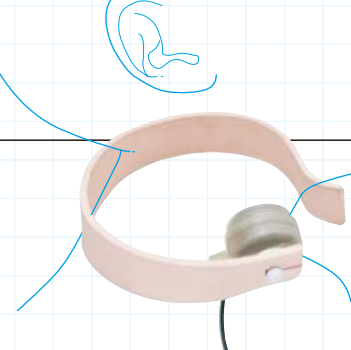
Faced with declining birthrates, an aging population and information gaps, etc., the "realization of a barrier-free society" has become an urgent challenge in Japan. Through the field of "assistive engineering," we have conducted research for the purpose of bringing technology to bear in assisting those with reduced or lost hearing, sight and limbs, etc. Some examples of the practical application of such technology include an "artificial larynx" (product name: Your Tone) for vocally impaired individuals; for hearing-impaired individuals, a "voice-activated captioning system" and a "tactile aid," which conveys information by sense of touch; for visually impaired individuals, a "tactile jog dial," which quickly converts text to speech and tactile sensations and "acoustic virtual reality," which uses stereophony to convey information; as well as an "MH (metal hydride) actuator," which assists with rehabilitation for people with weak limbs.

The objective of assistive engineering is to allow people who have suffered deterioration or loss of functionality of part of their body to live a comfortable life, an objective which is no different

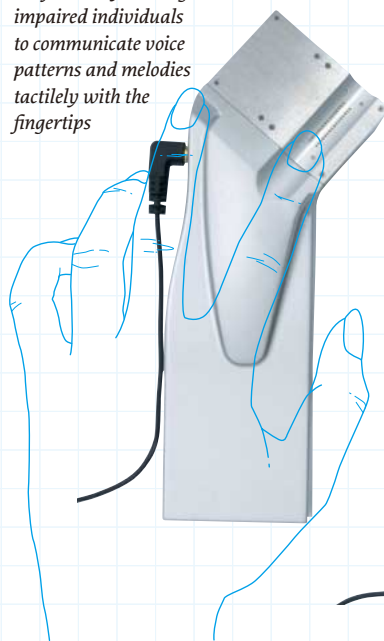
"Tactile Jog Dial": an interface which allows visually impaired individuals to communicate non-textual information tactilely with the fingertips while listening to high-speed voice data



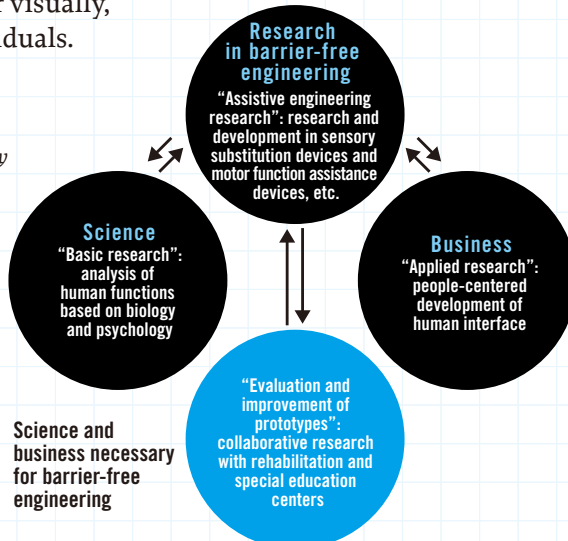
"Your Tone": an artificial voice generator capable of producing voice inflections in laryngectomy patients



"Tactile Aid": a tactile aid for use by hearing-impaired individuals to communicate voice patterns and melodies tactilely with the fingertips



Invitation
to
Science



from that of medical care. However, rather than treating the disability itself, welfare engineering takes the approach of using technology to substitute an individual's place of living or bodily functions. In this regard, assistive engineering is entirely different from medical techniques which introduce artificial materials, such as an artificial heart, into the body to provide treatment. However, substituting bodily functions is not as simple as replacing a broken robotic sensor or limb with another.

One aspect of the human brain is that, due to changes in the environment or deterioration or loss of functionality, parts of the brain which were not previously used become activated, thus generating new capabilities. Examples of this include people who have lost their hands learning how to write freely with their feet, and people who have lost their sight becoming able to detect the size of a room or sense obstacles in front of them with sound alone. Such changes in the brain are called "plasticity" and are what produce the compensatory functions which result from the lost functions. It is important to restore functionality while being careful not to destroy such compensatory functions.

Additionally, it can also be said that a barrier-free society cannot be achieved with engineered technological development alone. It is essential to deploy "barrier-free science," which

involves research on the activities of the brain in perceiving things as well as the human behavior concomitant to such, surveys on the economic effects of the diffusion of barrier-free products, and user evaluations, etc. RCAST is the optimal place for realizing barrier-free science in that it has specialists in a wide array of different fields. Assistance from barrier-free technology can also serve to help people who have previously subsisted on social security payments by giving them another chance to work and live a meaningful life.

Furthermore, as barrier-free science takes up the difficult challenge of using technology to achieve the same kinds of functions as those of people, this may also lead to types of innovation previously unimaginable as an extension of existing science and technology. We have the "dream" that such innovation will open new markets and allow a greater number of people to benefit from science and technology.



"Voice-activated captioning system" for hearing-impaired individuals

News in Brief

2006

January to December

01

January

- A meeting of University Presidents from 10* of the world's top research universities including the University of Tokyo was held at Singapore National University to establish the International Alliance of Research Universities (IARU).

*10 UNIVERSITIES

Australian National University; National University of Singapore; Beijing University; ETH Zurich; University of California, Berkeley; University of Cambridge; Copenhagen University; Oxford University; The University of Tokyo; Yale University.



04

April

- Start of the new academic year.
- University Matriculation Ceremony.
- Relocation of the Graduate School of Frontier Sciences to the Kashiwa Campus completed. The Graduate School had been dispersed between the Hongo and Kashiwa Campuses since its establishment in 1998.



02

February

- Public symposium 'Sustainability Science and the Future of Global Culture' co-sponsored by the Association of East Asian Research Universities (AEARU) and Nihon Keizai Shimbun.

03

March

- University Commencement Ceremony.



05

May

- UN Secretary General Kofi Annan awarded an honorary doctorate.
- The 79th May Festival (*gogatsusai*) was held on the Hongo Campus.

08

August

- Open Campus 2006 was held and the university welcomed about 4,500 visitors to the Hongo Campus and 1,700 to the Komaba Campus.

10

October

- The forum 'Creating the 21st Century' was held at the Yasuda Auditorium in the presence of Nobel Prize laureates.
- The Komaba Communications Plaza (KCP) was established on the site of a former dormitory as a center of support for student activities and for faculty and staff at the Komaba Campus.



11

November

- The first President's Council was held. The President's Council was established for the purpose of receiving advice and support from specialists in a wide range of fields to support the development of the University of Tokyo as a global institution.
- Homecoming Day at the University of Tokyo was held at both the Hongo and Komaba Campuses. The welcoming ceremony at the Yasuda Auditorium started with an address by President Komiyama, and continued with reports of collaboration between graduates and the university, and a declaration of the launch of a range of events to celebrate the university's 130th anniversary.



- The 57th Komaba Festival

12

December

- Scott McNealy, founder of Sun Microsystems, presented a lecture in the Large Auditorium entitled 'The Entrepreneurial Spirit and The Participation Age'.

2007

January to May

03

March

- The cruising team of the university yacht club participated in the 2007 J/24 World Championship Race.



- University Commencement Ceremony.

04

April

- H.E. Romano Prodi, Prime Minister of Italy, made a speech on common interests and issues between Italy and Japan at an event to mark 2007: Year of Italy in Japan.
- University Matriculation Ceremony.



05

May

- The second President's Council meeting was held in London. In the second meeting, detailed discussion focused on issues raised in the first meeting in November 2006. The President's Council currently has 25 members representing 14 nationalities.
- The 80th May Festival



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