

Inspired Thinking for Universities of the New Millennium

Osaka University is one of the world's leading research-based universities. Here, President **Kiyokazu Washida** offers an inspiring insight into the factors underscoring the success of Handai—an innovative university with a global presence.

Osaka University—or Handai as it is known colloquially—traces its roots to two unique places of study: the Kaitokudo, an academy founded by five local merchants in 1724, and the Tekijuku school, established in 1838 by Koan Ogata, a pioneer of European medicine.

The Kaitokudo and Tekijuku are the foundations and inspiration of the 'Handai style' that places emphasis on cutting edge research, creation of new research fields, respect for liberal arts at the graduate school level, and contributions to society by active university-industrial collaboration.

Now in the 21st century, the university is a world-class institute consisting of over 30,000 students and staff, 11 undergraduate schools, 16 graduate schools, 5 research institutes, 4 libraries, 2 hospitals, and 24 collaborative-use facilities dispersed over the Suita, Toyonaka, and Minoh campuses. Quite fitting for the university motto of 'Live locally, grow globally', Handai has 74 inter-university academic exchange agreements with universities in over 20 countries, and notably, four Overseas Centers for Education and Research, located in San Francisco, USA; Groningen, The Netherlands; Bangkok, Thailand; and Shanghai, China.

Kiyokazu Washida is the 16th president of Osaka University. He has the distinction of being the first president with an arts background, with a prolific research portfolio covering the fields of philosophy and ethics. Washida has received many prestigious awards including the Suntory Prize for Social Sciences and Humanities in 1989, the Kuwabara Takeo Prize in 2000, and a Medal with Purple Ribbon from the Emperor of Japan in 2004.

"My predecessors were scientists," says Washida. "But science is a form of art. So I do not think of myself as being as different from them as some people may think." Washida stresses that his own background gives him a highly objective view of scientific research. "Noh is a highly stylized classic form of Japanese theatre where the characters wear masks," explains Washida. "And in Noh the term '*riken-no-ken*' refers to the ability of an actor to look at himself from the viewpoint of the audience, that is, objectively. This ability is important for university management, as well as other professions. I encourage my staff and students to cultivate this skill."



INNOVATIVE, GLOBAL ENGLISH LANGUAGE PROGRAMS

Osaka University is one of 13 core Japanese universities selected to participate in the 'Global 30 Project for Establishing Core Universities for Internationalization' program, or G30, by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in 2009. One of the major aims of the participating institutes is to double the number of overseas students by 2020. Each university is allocated a budget for five years, with which to recruit and educate 3000 to 8000 international students.

"As part of our 'Global 30 Action Plan' we have developed new and highly specialized courses which will be given in English," says Washida. In addition to ongoing programs, the Osaka University curriculum will see the launch of four new courses by the year 2011.

- Human Sciences undergraduate degree program, starting in April 2011
- Chemistry/Biology Combined Major Program, undergraduate degree program, starting in October 2010
- Special Integrated Science graduate school course, starting in October 2010
- International Physics graduate school course, starting in October 2010

Internationalization is a two-way process, and independently of this new program, domestic students studying at Handai are given an opportunity to study at partner universities overseas for up to 12 months.

THE MEANING OF GLOBALIZATION

"Modern science has been and will continue to be truly global," says President Washida. "Generations of scientists have been able to validate each other's ideas and experimental results irrespective of their location—science crosses all borders."

So what is globalization? "In the modern era, I believe that globalization refers to major changes in education," says Washida. "History shows that education essentially teaches young people the skills required to manage the society they live in. And education has been based on local 'values' of a particular country and its culture; so education has historically been a local exercise."

But modern society is highly interconnected and necessitates global thinking. "The food we eat, household goods and so on are often produced in other countries," says Washida. "A good education in the 21st century must be transferable internationally—I refer to this as 'inter-locality'."

The G30 program is a means of addressing issues related to global education by sending students at Osaka University abroad, and welcoming overseas students to study in Japan. "I would like our students to spend at least six months abroad during their stay here," says Washida. "Nurturing multilingual students, with the ability to respect and understand other cultures, is one of my major goals."



COMPETITIVE SOCIETY AND THE MEANING OF 'MATSU'

Universities must prepare students to cope with the fast pace and intensely competitive society triggered by the proliferation of information technology. Washida offers a unique philosophic view about competition and industrial trends with reference to the word 'wait,' or 'matsu' in Japanese.

"Modern society is based on competition, with a tendency to be constantly looking forward, a focused 'prospective view,'" says Washida. This can have a downside, however, in that competition can result in too much emphasis moving forward, such that the value of careful consideration is lost.

Washida adds that these competitive and rapid actions can be counterproductive, and not necessarily a rich and enlightening experience for all concerned—especially in academia—where careful thought requires time, and cannot be rushed.

"Such 'pro'-based action in traditional forms of agriculture and fishing industry would not yield favorable results," says Washida. "For example, fruit that is harvested too early is bitter, and fishermen must be patient and wait to catch their fish. Waiting is an extremely important part of these industries. My point is that too much competition is just as bad as too little. That is the significance of 'matsu', or waiting. In the case of a university, one of my roles is to find an appropriate balance for encouraging innovation and discovery."



Left to right: Vice President Kiichiro Tsuji, in charge of the G30 program at Osaka University; the Life Sciences Library; and President Kiyokazu Washida.

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CUTTING EDGE RESEARCH FOR THE FUTURE

Osaka University is a research-based institute that emphasizes 'basic', 'exciting', and 'responsible'.

With a view to strengthening its research infrastructure for the future, Washida has initiated the establishment of world-class research centers. Some recent high profile, multi-million dollar research initiatives include:



- The Immunology Frontier Research Center (IFReC), led by world renowned immunologist **Shizuo Akira**, with a mission of 'whole body imaging of the human immune system'. The IFReC was selected in 2007 as one of the highly prized World Premier International Research Center Initiative programs initiated by MEXT.



- **Toshio Yanagida** is collaborating with nine other groups and six companies on the 'Yuragi Project', where the concepts of biological fluctuations—yuragi—are being applied to information networks, and robotic machines and systems for improved energy conservation, lower cost, and greater security and comfort.



- **Satoshi Kawata** is director of the Photonics Advanced Research Center, and leads a project on 'evolving from electronics to photonics'. The aim of the project is to exploit the properties of light to manipulate nanomaterials such as carbon nanotubes and biomolecules.



- **Tomoji Kawai** is head of a new project: Ultra-fast Single-Molecule DNA Sequencing, Ultra-Low Concentration Virus Detection, and Ultra-Sensitive Biomolecule Monitoring. The aim is the development of the ultimate biochip using single molecule analysis technology.



'CLINICAL PHILOSOPHY' AND THE FUTURE

Osaka University is internationally recognized as having made important contributions to the arts, medicine, physical sciences, and engineering. What does the future hold? "I would like to encourage our faculty and students to work on defining problems that the human race must address for a safe and prosperous society," says Washida. "Simply responding to the social needs of tomorrow is not enough. We must address issues of the 'day after tomorrow'."

Washida captures the essence of the critical reasoning process required to achieve these goals with the term 'Clinical Philosophy', a phrase that refers to connecting fundamental philosophical ideas to modern society. "This simply means taking a closer look at our everyday surroundings," says Washida. "Whether we consider fashion, medical care or education, we do not need a heavy textbook on philosophy to understand what is happening around us. We just need to be more observant."

Washida was elected president in August 2007, and he has a clear vision for the future. "I want to see our students acquire a high level of literacy in a wide range of languages," says Washida. "The Global 30 program will be a catalyst for this. Also I would like Osaka University to be an integral part of our local, and needless to say global, society. Finally, I want Osaka University to be the birthplace of outstanding ideas and discoveries that capture the imagination, and resonate world-wide. If asked 'where was this discovered', I would like to hear, 'that it originated at Osaka University'. That's the *Handai* style.

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