

## **National Clearinghouse for United States-Japan Studies**

Indiana University Memorial West #211 Bloomington, IN 47405-7005 (800) 441-3272 (812) 855-37

(800) 441-3272 (812) 855-3765 http://www.indiana.edu/~japan/Digests/geo.html

# Geography of Japan Anne K. Petry

July 2003

Good geography instruction, including the arts, literature, philosophy, and history, will immeasurably increase student understanding of Japan in both a personal and academic way. Geograph is an entrance to lifelong critical thinking, a practical tool for understanding past and present, and planning for the future. It provides a "spatial perspective for learning about the world…teaching students to think in terms of physical and human systems; patterns; movement of people, goods, and ideas; regions; environment." (Marran)

Japan in Spatial Terms. Japan, located off the East coast of Asia, is an archipelago nation comprised of four main islands, from North to South: Hokkaido, Honshu (the largest and most populous), Kyushu, Shikoku, and over 3500 smaller islands. The southernmost reach is the Ryukyu Islands. Japan stretches over 2,360 miles, so the people enjoy climatic variety. Superimposed on eastern United States, Japan stretches from central Maine to Florida. The Japanese people define their country as a "small, resource-poor island country." Japan has inferior coal seams, little iron ore, and nonexistent petroleum resources; it is reliant on imports, and on hydroelectric and nuclear energy production.

On a world map, Japan seems a small nation, dwarfed by China and Russia with North America facing over the vast Pacific, but Japan is larger in land mass (145,869 sq. mi/377,800 sq. km) than many of the world's 180 countries, including the United Kingdom and Italy.

Mountains occupy over 80% of Japan's landmass. Most of the mountains, such as the Japan Alps, were "uplifted" by the collision of the Pacific oceanic crust and continental crust of Asia. Some of Japan's mountains are clearly volcanic, such as the iconic Mt. Fuji (12,385 ft.), which last erupted in 1707. Much of Japan is long, narrow valleys between tree-covered low mountains, (either natural or reforested), with strips of agriculture and human habitation along the valley edges.

**Physical Systems.** Japan is located in the Pacific Ring of Fire, and has 186 volcanoes, of which about sixty are active. Many towns are famous for hot springs, or *onsen*. Japan is seismically active; many of its great cities are built on fault lines. Tokyo and Yokohama were largely destroyed by fires resulting from the great Earthquake of 1923 which took 130,000 lives. The city of Kobe experienced a devastating earthquake in 1995.

Since Japan is in the Northern Hemisphere, seasons are similar to North America and Europe. Winter can produce heavy snowfall on the western sides of Hokkaido and Honshu, as the Siberian winds pick up moisture from the Sea of Japan and deposit it as snow in the Japan Alps. Winter months are dry on the Eastern side of Japan.

Kyushu, being nearer the equator, is the first to experience spring's national treasure, the *sakura*, or cherry blossoms. *Hanami*, cherry blossom viewing, occurs in late March (Hokkaido in May), and can be compared to the delight some Americans take in viewing fall foliage. Continuous warm rains follow. The mountains define the boundaries of moisture received; the Pacific side receives less, and the Sea of Japan coast gets tropical rains. All Japan experiences a humid summer. The Japan Current (*Kuroshio*) provides a balmy autumn. Around November, typhoons (hurricanes) bearing fierce winds over water, aim for the southeastern part of the country. Usually, Japan's typhoons have exhausted themselves by the time they reach the Kanto Plain.

**Environment and Society.** No one lives further than seventy miles from the coast, so Japanese are oriented to the sea, even though their land is mountainous. Nearly all the people live on several flat coastal plains where it has been possible to farm. Only one, the Kanto Plain, is very extensive, about 120 miles long. This is Tokyo-Yokohama-Kawasaki, dominant urban and industrial region of the country. It has level land, a mild, moist climate suitable for farming, a deep harbor at Yokohama, and is more or less central to the country. It holds nearly one-third of the population (largest urban agglomeration in the world), and produces 20% of Japan's manufacturing. "Tokyo area is among the chief producers of steel, using iron ores from the Philippines, Malaysia, Australia, India and even Africa; most of the coal is imported from Australia and North America; the petroleum from Southwest Asia and Indonesia. The Kanto Plain cannot produce nearly enough food for its massive resident population. Food must be imported from Canada, the United States, and Australia as well as from other areas in Japan. Thus Tokyo depends on external trade for all things ranging from food to energy." (deBlij, 312-313)

Coastal plains include the Kansai District (Kobe-Kyoto-Osaka triangle), the Kansai or Tokaido megalopolis, the Nobi plain, (Nagoya,) and the Toyama district. Farmland can be found among the housing, public facilities, and general industrial sprawl of these areas. Farmers are adept at intense cultivation of fruit and vegetables, and small rice paddies are the norm. There is less population density in Hokkaido, where cattle and dairy industries are growing, with meat becoming a much more important part of the Japanese diet, especially among young people.

Japan is the leading fishing nation in the world, plying the high seas to feed the largest per capita fish-consuming nation. Increasingly, aqua-culture technology cultivates shellfish, seafood, and seaweed in many shallow bays and estuaries. (Reischauer, 24)

The Seto Inland Sea was the axis for much of Japan's early history. Seas were once the major means of communication/transportation, but modern Japan has superb internal systems, including railway lines, subway systems, enormous bridges and tunnels to connect this island nation. The tunnel to Hokkaido is longer than the European "Chunnel". Airline travel is available, and the *shinkansen* trains carry passengers at speeds averaging over one hundred miles per hour.

Places and Regions. The Jakota Triangle- (<u>Japan</u>, <u>Korea</u>, <u>Taiwan</u>) is characterized by huge cities, enormous global commerce, high consumption of raw materials, and rapid development. Japan is also part of the Pacific Rim, with land facing the Pacific, relatively high levels of industrialization and urbanization indicating high levels of economic development, and huge imports/ exports which move mainly across the Pacific. Japan can be seen as small units of mountainous terrain; some scholars suggest that this is one reason for the decentralized pattern of government developed in feudal times. Today, there are forty-seven prefectures, many still following historic mountain boundaries. Japan's regions are: Hokkaido, Tohoku, Chubu, Kanto, Chugoku, Kinki, Shikoku, and Kyushu-Okinawa.

Japan's rivers are small, not navigable for any great length, fast moving and useful for generating some hydroelectric power. Rivers and plentiful rainfall make possible extensive agriculture and forest production. Wood is also imported, largely from Southeast Asia.

**Human Systems.** Japan is a developed nation, indicated by its GNP per person (\$37,126 in 2000), the occupational structure of its work

force (7% agriculture, 24% industry, 69% service), energy consumption, transport and communication levels, amount of metals required annually, worker productivity, rate of literacy, nutrition, and savings. Since 1920, full-time agricultural employment fell from 50% of the Japanese labor force to 4% at the turn of the twenty-first century. The record of Japan's modernization is a world-famous success story; it can be traced in geographic terms by examining resources, economic spatial organization, and international relations. (deBlij, R14 and *New Signet World Atlas*, xxii)

Japan has one of the world's highest physiologic densities, the number of people per unit of cultivable land. During the 19<sup>th</sup> century, when modernization and industrialization were rapid, and Japan was winning military victories aimed at expansion, the population grew. As medical services and public health improved post 1945, the birth rate rose sharply. The population at the time was 70 million, and with a doubling time of only thirty-five years, a crisis was created. In 1948, the government established the Eugenic Protection Act, legalizing abortions; there were millions. Contraception was encouraged. Both policies, by 1985, had lowered the birth rate. The death rate fell simultaneously, so by the 1990's, the government was concerned about a new problem, stagnant population growth. Immigration does not contribute to population growth in Japan, which maintains its largely homogeneous population by policy, and does not encourage large numbers of foreign workers. Emigration has little effect. With the fertility rate at a new low, the projection is that Japan's population will peak at 127 million, then drop to around 113 million by 2025. This means an aging population, a shrinking work force, and a smaller tax base to support rising pension and welfare costs. Geographers suggest that more women will enter Japan's labor pool, retirement ages may rise, and that robotic technology will increase to address this problem, but Japan will face "social and economic adjustments that must accompany less-than-zero, or negative population growth." (deBlij 487-488) Many companies already have excess workers, and graduates have trouble finding jobs in times of recession.

Japan has a rich, unique cultural history which is related to her geography; love of natural beauty has influenced all Japanese culture. Japan's tea houses and Zen gardens are admired worldwide: rocks represent mountains, combed gravel evokes the endless sea, and long vistas are successfully suggested. Garden elements often represent spiritual beliefs, and there are detailed rules regarding their placement. Some garden and architectural designs came with Buddhism from China and Korea during the seventh century; elements such as hills, ponds, islands, bridges and shrubs are still found in Japanese gardens. Shinto, an ancient religion, honors invisible kami spirits in trees, rocks, and water. The rituals observed in making these gardens were proposed in 12<sup>th</sup> century Sakutei-ki, or Secret Book of Gardens. (Delay, 54) Flower arranging, ikebana, and ink-painting, sumi-e, are also related to contemplation of nature's beauty. Textiles celebrate the beauty and meaning of blossoms, trees, birds, fish, mountains.

For a nation so appreciative of natural beauty, Japan's modern environmental protection record is not good. The beautiful Japanese crane, *tancho*, is close to extinction, though once numerous in Hokkaido; salmon and trout have disappeared from polluted rivers; brown bears have been hunted to endangerment even in Hokkaido; coral reefs in the far south are being destroyed by scuba diving tourists. Numbers of the monkey *macaca* have been reduced, as have the natural flora and fauna of the plains, home to most of Japan's population and industry.

**Uses of Geography.** The subject of geographic study is space; for much of Japan, space is a rare commodity. As early as the 1600s, the people of Tokyo, then *Edo*, filled in wetlands around the Imperial Palace. Modern Tokyo has attracted a huge population, demanding space; land reclamation has resulted in the filling of 20% of the surface area of Tokyo Bay. Tokyo International Airport, Disneyland, and Yokohama seaport facilities are on reclaimed land. A Landsat Image in *National Geographic*, October, 2002, shows the incredible

extent of this human alteration of natural environment. The impact on the fishing industry is monumental; the impact on humans living there is being discovered daily. (Dalby, 42)

### Geography for Life: The National Geography Standards

A geographically informed person knows and understands:

### The World in Spatial Terms

How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

- How to use mental maps to organize information about people, places, and environments in a spatial context.
- 2. How to analyze the spatial organization of people, places, and environments on Earth's surface.

#### Places and Regions

- 3. The physical and human characteristics of places
- 4. That people create regions to interpret Earth's complexity
- How culture and experience influence people's perceptions of places and regions.

#### Physical Systems

- 6. The physical processes that shape the patterns of Earth's surface.
- The characteristics and spatial distribution of ecosystems on Earth's surface.

#### **Human Systems**

- 8. The characteristics, distribution, migration of human populations on Earth's surface.
- 9. The characteristics, distribution and complexity of Earth's cultural mosaics.
- The patterns and networks of economic interdependence on Earth's surface.
- 11. The processes, patterns, and functions of human settlement.
- 12. How the forces of cooperation and conflict among people influence the division and control of Earth's surface.

## **Environment and Society**

- 13. How human actions modify the physical environment.
- 14. How physical systems affect human systems.
- The changes that occur in the meaning, use, distribution, and importance of resources.

#### The Uses of Geography

- 16. How to apply geography to interpret the past.
- 17. How to apply geography to interpret the present and plan for the future.

#### References

- Craig, Albert M. *The Heritage of Japanese Civilization*. New Jersey: Prentice-Hall, 2003. ISBN: 0-13-576612-5
- Dahlby, Tracy. "Tokyo Bay" *National Geographic*. October, 2002, 32-57.
- deBlij, H.J. and Alexander B. Murphy *Human Geography: Culture, Society, and Space*. New York: John Wiley & Sons, sixth edition, 1999. ISBN: 0-471-35595-X
- Delay, Nelly. *The Art and Culture of Japan*. New York: Harry N. Abrams, 1999. ISBN: 0-8109-2862-0
- Geography for Life: National Geography Standards. Washington, DC: National Geographic Society, 1994. ISBN: 0-7922-2775-1
- Marran, James F. "Geography: An Essential School Subject-Five Reasons Why" *Journal of Geography*. Jan/Feb, 2003, 42-43
- Reischauer, Edwin O. and Marius B. Jansen. *The Japanese Today: Change and Continuity.* Cambridge, MA: Belknap Press of Harvard University, 1999. ISBN: 0-674-47184-9

**Anne K. Petry** is a professor in the School of Education at Rhode Island College. She is a seminar leader and head of the Rhode Island partner site with the Five College Center for East Asian Studies, a national coordinating site for the National Consortium for Teaching about Asia.

The National Clearinghouse for U.S.-Japan Studies is made possible through the generous support of the Japan Foundation Center for Global Partnership.