# POLAND - Country, People, Culture and Science

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This paper is based on the lecture about Poland, which was given at Tezukayama College on December 13<sup>th</sup>, 2000.

### **General introduction**

Area of Poland is 312,000 km<sup>2</sup> with 39,000,000 inhabitants. Landscape is generally flat. There are many lakes on The North region of Poland and mountains on the South region. January is the coldest month in the year with the average temperature of -5 °C and July is the warmest month, it being 16 to 19 °C. The extreme cold winters come every 10- to 15-year-intervals, and then temperature falls to -38 °C. The highest temperature on July is until 33 °C. The capital of Poland is Warszawa (Warsaw) with 2,000,000 inhabitants. One major river is named Wisla (Vistula). Poland is divided into 16 voievodships. Our neighbors are Germany, Czech Republic, Slovak Republic, Lithuania, Russia and Belorusia. On the North and the South of Poland are natural strong borders, Baltic Sea and mountains, respectively. As other borders are unprotected by nature, someone was easily crossed in the past. Therefore, Poland has been often invaded by war-like people. Present borders of Poland were established after the Second World War. On 1st September 1939, German forces invaded Poland, starting history is the greatest conflict – the World War Second (Hitler aggression). During the Second World War 6 millions of Polish citizens were killed. Half of them were Jewish people murdered by the Nazis in the ghettos and concentration camps, mostly in Auschwitz (Oswiencim) located on the South of Poland. Cities were strongly devastated. Warszawa was almost completely destroyed, about 95% of the city being disappeared. Present borders of Poland were established in Yalta and Potsdam on July 1945 by USA, Great Britain and Russia. As a result, Poland was placed under Soviet sphere (influence). Poland lost a lot of eastern territories to Soviet Union (for example, Vilnus, Lwow) and some territories occupied by German returned to Poland. We were under influence of communist system until 1990, but the communist system was never really able to cut off Polish contact with the West countries.

## **Historical topics**

Strong protests against communistic system, strikes and mass demonstrations, were in 1956

in Poznan (leave 75 dead), in 1970 in Gdansk, in 1976 in Radom, Ursus and Plock, and in others places. From 1990 the communist system was changed as a result by so big protests, "Solidarity". The communists agreed to the "round table" talks with the opposition and to partly free elections. In 1990 Lech Walesa, an ordinary electrican, became President after the first free election since the war.

During the transformation of old communistic political system many difficulties took place and we have a lot of problems still. At present 15% peoples are unemployed, high inflation - 10%. Rich and very rich people grew in number but also numbers of poor people grew much more. Shops have already been Western standards due to very good contacts with Western Countries and Asia, mostly with Japan (many Japanese cars and electronics goods in Poland).

Poland has been a member of NATO from a few years (European and Atlantic Communities Organization) and probably Poland will soon be a member of European Union (may be in 2003).

Poland is Catholic country - 95% catholics, and others religions are present, like Protestants (Christian), Jews and Mouslim. There is no antagonism among these kinds of different religious people. Czestochowa is a sanctuary of the Holy Virgin Mary, main cult of Polish Catholic, until this day millions of Poles take parts in pilgrims to the place, and also from other countries.

In 1978 Cardinal Karol Wojtyla became Pope John Paul II, he has a big influence all over the world, independently on the religion. It should be mentioned here that Poland as a country was baptized in 966 (one thousand Christianity). The first leader of the Poles recorded in historical documents was Mieszko I and from him started Christianity.

Poland had only short period of independence, between end of the First World War - 1918 and 1939, when Hitler invaded Poland. The First World War finally came to the end on 11<sup>th</sup> November 1918 and the day (November 11<sup>th</sup>) is National Holiday in Poland, starting from 1990 (after changing political system). However, Poland was soon bound to face another dramatic trial, the Russian Bolshevik invasion in 1920, fortunately without success. A daring Polish counterattack on 16<sup>th</sup> August cut supply lines, and by 18<sup>th</sup> August the Soviets were surrounded and completely defeated. The success of Polish army is known as the "Miracle on the Vistula".

From 1795 until 1918 (during 123 years) Poland disappeared from the map (partitioning by Austria, Prussia and Russia). Previously, Poland has invaded by Turkish (1620-1621), Swedes (1655-1657) and then Turkish (1683) again.

Last king of Poland was Stanislaw August Poniatowski in years of 1764-1795. It should be mentioned here that the Great Seym (also called the Four Year Seym) in the years during 1788-1791 declared of Poland's Constitution in 1971 on May 3<sup>rd</sup> - the first such in Europe and the second in the world after that of America. At present May 3<sup>rd</sup>, starting from 1990, is National Holiday in Poland.

#### Cities and Towns

Krakow (Cracow) is a very important city in Poland, strongly connected with culture. In

1364 Kazimierz the Great (Kazimierz Wielki) founded Krakow Academy, later renamed the Jagiellonian University, It was one of the earliest universities in the central Europe, the second being in Prague. Courses were taught in law, medicine, mathematics and astronomy - all in the Latin language.

Krakow was the capital of Poland until 1596, Warszawa had become Poland's capital from that time, because King Zygmunt III enthusiastically wanted to the located closer to the heart of the realms of Poland, Lithuania and Sweden, and an another reason was that a few years earlier a great fire of Wawel Castle in Krakow, the seat of Poland's kings, took place. The most famous bell in Poland was hung in the tower of Wawel Cathedral in the region of Zygmunt I. Massive in size and deafening in sound, it is rung only on important state occasions. Wawel Castle in Krakow is visited often by many foreigners. In Krakow is located a beautiful Saint Mary's Church with Wit Stwosz's altar made between 1477 and 1489 by the German sculptor Weit Stwoss (know as Wit Stwosz in Poland). The altar's human figures are arranged in scenes of the life of Jesus Christ.

A small town Wieliczka is located at 10 km far from Krakow - a royal salt mine. The Wieliczka miners were respected and admired all over the Europe. In recognition of its role and beauty, in 1978 the Wieliczka salt mine was entered on the first UNESCO World Heritage List as one of the finest monuments of the world cultural and natural heritage. The place is also visited by many foreigners' guests.

Warszawa in 1596 was just a small town, but it grew rapidly. The Royal Castle was reconstructed between 1598 and 1618 as the official residence of the Waza kings, and soon became a center for culture - the meeting place of artists, musicians and actors. During Second World War the Royal Castle in Warszawa was completely destroyed and rebuilt in 1970 - 1978.

In Warszawa are located many others king places in different region of the city, for example, Wilanow Palace and Krasinski Palace.

Between 1952 and 1955 was built a gargantuan Palace of Culture and Sciences in Warszawa as "fraternal" gift from the Soviet Union.

Torun is one of historically important and very attractive cities in Poland. In 1997 Torun was included on the UNESCO World Heritage List since preserves original street pattern and outstanding early buildings.

Nicholas Copernicus (1473-1543) was born in Torun, great astronomer who "stopped the sun and moved the earth". He also interested in politics, economy, medicine and others. In Torun are located several museums, and one dedicated to N. Copernicus itself.

During the Second World War Torun was occupied by the invading Nazi forces. Several thousands of intelligent and/or active people in culture were executed.

### **Culture and Science**

In 1945 was established Nicholas Copernicus University to continue the traditions of disestablished Polish Universities in Vilnus and Lwow. In 1992, five km from Torun, was

constructed 32-metre radiotelescope, it being the third biggest in Europe. Professor. Wolszczan, one professor of the University, is the first person who discovers a planetary system outside our solar system. He is working now in Pennsylvania State University in United States and he is also head of institute of Astronomy at Nicholas Copernicus University in Torun.

Total number of students in N. Copernicus University is 33,000, and Torun has 200,000 inhabitants. In 1999 Pope John Paul II visited the University and met senior representatives of other Polish universities.

Some other Polish names are well known all over the world. Frederick Chopin, one of the greatest musical geniuses, creator of Mazurkas and Polonaises, was born in 1818 in Zelazowa Wola, about 60 km far from Warszawa. Today, a visit to Zelazowa Wola, now under the care of Warsaw's Frederick Chopin Society, is a must in the itinerary of every musician and music lower who comes to Poland. On every Saturday and Sunday and every holiday throughout Spring to Summer, leading Polish or foreign pianists give concerts of Chopin's music. The unique atmosphere of these concerts, with audience seated in the beautifully kept park surrounding the old manor house, and listening to the music being played inside. Also every Sunday and holiday, Chopin recitals by eminent Polish or foreigners artists held in the Lazienki Park in Warszawa under the monument to the composer invariably attract large crowds.

Maria Sklodowska-Curie (1876-1934) identified two new chemical elements, radium and polonium. She shared two Nobel prizes (in 1903 and 1911) and became the first woman professor at the Sorbonne in Paris.

Zygmunt Wroblewski and Karol Olszewski in 1883 liquefied oxygen and nitrogen for the first time.

The name Father Maximilian Maria Kolbe is well known not only in Poland but also in Japan. He came to Nagasaki in 1931as a Catholic priest to talk with Japanese people about Christianity and published some journals in Japanese. He spent 3 years in Japan. Until now is here museum concerned the life and activity of Fr. Kolbe. I visited the museum and his room on April 24<sup>th</sup>, 1998. It was just the day when Fr. Kolbe came to Japan and a few Japanese priests celebrated Holly Mass in his room. He was killed in Auschwitz by Germany by injection of phenol and his body was burnt in crematorium and the ashes were scattered all over the land. Father Kolbe offered his life instead of Franciszek Gajowniczek, selected for killing, who had family. In Catholic religion, all priests are single and this way Fr. Maximilian Kolbe saved life of other man who had family. In Niepokalanow (near Warszawa) is famous sanctuary and museum dedicated to Saint Mary and Fr. Maximilian Kolbe. People come to his sanctuary from Poland, from the whole of Europe and from other continents. In the museum we can find some souvenirs concerned his stay in Japan. Father Maximilian Kolbe is a Saint in Catholic religion.

The research in Poland is realized at universities, research institutes of different ministries and at the Polish Academy of Sciences. In Poland are different kinds of universities (teaching and research):

- university (subjects: biology, history, physics, chemistry, etc.),
- agricultural university,
- technical university,
- medical academy,
- economic academy.

I am working at the Research Institute of Pomology and Floriculture, which is under patronage of the Ministry of Agriculture. The institute was established in 1951. Prof. S.A. Pieniazek who organized the Institute, was nominated as the first director and kept this position until his retirement in 1993. The Institute is located in small town Skierniewice (40,000 inhabitants), 70 km from Warszawa (50 min. by train) and 70 km from Lodz (800,000 inhabitants). At present in our Institute works 30 professors and associate professors, 39 persons with Ph.D., and 45 persons with M.Sc.

Main fruits produced in Poland: apples, pears, plums, cherries, strawberries, raspberries, black currants, gooseberries and others.

Main vegetables produced in Poland are tomatoes, cucumbers, cabbage, lettuce, carrot, onion, red beet, spinach, cauliflower, peas, bean, celery, parsley, leek, chicory and others.

Main ornamental plants produced in Poland are gerbera, roses, carnations, alstroemeria, and many other cut flowers, many species of pot plants, tulips, gladiolus, lilies, daffodils and others, and nurseries of ornamental perennials, shrubs, trees.

The plants are often propagated by tissue cultures in Polish laboratories (120 laboratories).

Personally I am interested in (1) hormonal control of growth and development of tulips and (2) physiological role of jasmonates, a new group of plant hormone, in growth and development of plants.

The Polish Academy of Sciences was established in 1952. Among its statutory functions are: development of science in its own research institutes, organization and promotion of scientific research, publication of monographs and journals, coordination and realization of major scientific programs and international scientific cooperation.

The Polish Academy of Sciences is composed of two parts: - the first is a corporation of scientists - members and corresponding members elected by the General Assembly (there are also foreign members elected from among the most distinguished scholars abroad), - the second part is concerned with research comprising institutes and laboratories in different area, physics, mathematics, biology, etc.

Members of the Polish Academy of Sciences of all categories (national and foreign) are elected by secret ballot, but have to be confirmed by the Academy's governing bodies. The highest decision making body of the Academy is the General Assembly which has its working body called Presidium.

Members of the Academy belong to the respective Sections and there are seven Sections (Divisions):

Section I - Social Sciences and Humanities,

Section II -Biological Sciences,

Section III - Mathematics, Physics and Chemical Sciences,

Section IV - Technical Sciences,

Section V - Agricultural, Forestry and Veterinary Sciences,

Section VI - Medical Sciences,

Section VII - Sciences of the Earth and Mining.

It is my great pleasure to inform that in the May 2000 General Assembly of the Polish Academy of Sciences (after long procedure - 3 steps in the election) elected Prof. Dr. Junichi Ueda from Osaka Prefecture University for Foreign Member of the Polish Academy of Sciences at Section V - Agricultural, Forestry and Veterinary Sciences. Once more, congratulations and best wishes to you, Professor Ueda.

## Acknowledgements

I would like to express my sincere thanks to Professor Suhei Fujii, Professor Roichi Yamamoto and Professor Shin Nakayama for giving me an opportunity of the lecture at Tezukayama College.







Palace of Culture and Sciences in Warszawa (left), Chopin's Heart in Holy Cross Church in Warszawa (center) and Father Kolbe's room in Niepokalanow (right)

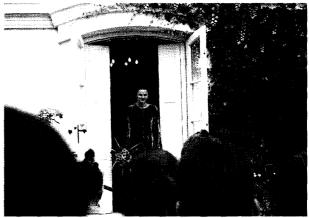


Old Town in Warszawa



The Polish Academy of Sciences in Warszawa





Zelazowa Wola (Birth Place of Frederick Chopin)



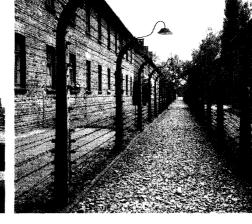
Market Place in Krakow



Inside of Market Place



Auschwitz (Oswiencim)







Research Institute of Vegetable Crops (left) and Research Institute of Pomology and Floriculture (right) in Skierniewice