# Earth Research – The Tradition in the Teisseyre Family

## Barbara TEISSEYRE

⊠ bmteiss@wp.pl

The interest of **Professor Roman Teisseyre** in earth sciences and his achievements, broadly described in this book, may have its source in the family tradition – his grandfather Wawrzyniec, uncle Henryk, and cousins Juliusz and Andrzej Karol were all geologists interested in various branches of geological sciences and passionate of field research.

Roman was born in Lwów in a family whose lifestyle was dominated by research passions of his grandfather Wawrzyniec, a well-known geologist. Kazimierz, the third oldest son of Wawrzyniec, and the father of Roman, often participated with his brothers in field research expeditions organised by their father. Reminiscences of these expeditions were likely to be shared by Kazimierz with young Roman.

A significant impact on the development of Roman's interest in earth sciences may also have had his stay in Wrocław, close to the family of his uncle Henryk, who organised geological research in Wrocław and Polish exploration of the Sudetes after World War II.

Roman, together with his mother and sister Izabela came to Wrocław in 1947, after having traveled a long and complicated way by Kraków and Jelenia Góra. The family shared an apartment on today's Pereca Square in Wrocław. Roman attended the First High School in Wrocław on today's Poniatowskiego Street, where he got a high school diploma by the end of 1940s. Then, he studied physics at the Faculty of Mathematics, Physics and Chemistry at the University in Wrocław, before finally moving to Warsaw. As a student, he often participated in field research expeditions in the Sudetes, organised by his uncle Henryk for geology students. The time spent in Wrocław is always recalled by Roman very warmly. During his visits to this city, he often re-visited places he had remembered from his youth: the tenement house on Pereca Square, the high school building, and the Saint Elisabeth Church, he went to on Sundays, where Holy Masses were still celebrated by German priests until the end of 1940s.

Following the family tradition, Roman transmitted his passion for geosciences to one of his two sons, Krzysztof, who, although started his professional work as a biologist, soon turned part of his interests into geophysics.

## How the Teisseyre family settled in Poland

The Teisseyres are a family with French roots, with a long and complicated history. The family tradition connects the family roots with the environs of Toulouse, a big city in southwestern France. As a protoplast of the family, Armand Tesseyre (according to the spelling in the Middle Ages) is considered. He worked as a rural teacher and a medical doctor in a small

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village and was a member of a religious movement of the Cathars. The protoplast of the Polish branch of this family was Louis Stanislaw de Teisseyre, the son of a captain of the guard of a younger brother of the French king Louis XVI, who then became the French king Louis XVIII, and a French noble, Maria Bonnal de Ganges.

Louis Stanislaw was born in 1789, the year of outbreak of the Great French Revolution, which changed the history of the family. Louis de Teisseyre, the father of Louis Stanislaw, who was a declared "royalist" (a person who supported the overthrown king Louis XVI), was killed by revolutionists. The only keepsake saved from this time is a wool armband with three royal bourbon lilies sawn by a silver thread and the inscription: Fidelite et Constance Pour Dieu et Roi ("Constancy and Faithfulness to God and King") (Fig. 1). The four-year-old son Louis Stanislaw with his mother had to escape from the terror of the Revolution. With a group of French refugees, they came to Vienna in Austria and finally to Kraków (which was part of Austria at that time), where they settled around 1795. Maria had not married again; she lived and provided education to her son using the money she got from selling the goods she had brought from France. She also got support from Polish princess de Ligne-Potocka, with whom she was a friend even before the French Revolution.



Fig. 1. The wool band that was worn during the French Revolution, probably till 1793, by Louis de Teisseyre (Roman's grand-grand-grand-grandfather).

Louis Stanislaw completed studies at the Jagiellonian University in Kraków, receiving the title of magister scholarum (school teacher) in French language. The teacher's job was a source of support for him and his family. He was married to Maria Hladik of Czech nationality, and they got eight children. In order to be able to support such a large family, he had to move from one city in Galicia to another, looking for a well-paid job as a teacher of French. Finally, in 1837 he was employed as a Professor at the High School in Brody (today in Ukraine). He died in this city in 1841 and was buried there.

Out of his eight children, only the third oldest son, Henryk, got a large family of ten kids. Henryk is remembered in the history of the family Teisseyre as an extraordinary person, who played a predominating role in its later history (Fig. 2). He was born in 1826 in Wieliczka (a small city close to Kraków). Skillful, early got used to hard and independent work, and in 1844 he became a student at the Technical Department of the Imperial Technical Academy in Lwów (in 1844–1877 it was the name of the later Technical University in Lwów). He studied railway construction engineering. In 1848 he participated in the People's Spring Revolution as a mem



Fig. 2. Henryk Teisseyre – Roman's grand-grandfather.

ber of an Academic Legion of the National Guard. As a punishment for participation in the Revolution, he had to join the Austrian army for long-term service. Thanks to his proficiency as a railway engineer and fluency in German and French, he was given the chance to terminate the military service already after eight years as an officer of engineering. He designed and supervised the construction of railway tracks in central and northern Galicia, among others, of the railway line Lwów–Tarnów. Then he got married. His first wife was Julia de Belina Węgierska, with whom he had got six children. Among this outspring there was Wawrzyniec, who later became a world-famous geologist, protoplast of the "geological line" in the family Teisseyre. Taking into account Henryk's job, the family had to frequently move from town to town in Galicia (Wieliczka, Tarnopol, Kraków, Lwów).

Henryk died in 1900. He was buried in the Łyczaków Cemetery in Lwów, in a family tomb. The tomb is preserved until now and it is under the care of descendants of Henryk Teisseyre, living in Warsaw and Wrocław.

#### The geological line

**Wawrzyniec**, actually Karol Wawrzyniec, was the third oldest child of Henryk, born in 1860 in Kraków. He was eight years old when his mother died. Because the family had to frequently move from town to town, he attended schools in different cities: Kraków, Lwów, and finally Tarnopol (today in Ukraine), where he got the high school diploma in 1878. At the age of 19, he started studies at the Imperial-Royal University in Vienna and, almost at the same time, at the Mining Academy in Loeben (Austria). In the preserved document of the "absolutorium" (promotion), received in 1882 at the Faculty of Philosophy at the University of Vienna, there are enlisted lectures given by the most famous geologists of that time, including Eduard Suess (tectonics), Melchior Neumayr (paleontology), and Gustav Tschernak (mineralogy). At the same time, he started to work at the Imperial-Royal Institute of Geology in Vienna.

Having got financial support from this Institute, he went on his first research trip to the Ryazan Governorate (Riazan Gubernia, Russia). The result was his first scientific publication, concerning Jurassic stratigraphy of the Central-Russian Platform. The publication was wellreceived by the scientific milieu and this acceptance gave a chance for further donations for his next research trips and next publications. In the beginning, there were mostly paleontological works concerning Jurassic ammonites. Some of the ammonite species described by him are holotypes of leading genres for Jurassic deposits of central Russia. The results were published in Polish, German, French, and Russian in prestigious scientific journals in Vienna, Kraków, and Petersburg. At the same time, in order to deepen his knowledge and get more financial support, he worked at the Department of Mineralogy of the Jagiellonian University, headed by an outstanding mineralogist, Alois Alth. After the death of the mentor, he worked on documentation of paleontological collections at the Courtly Museum of Natural History in Vienna. Skillful, hardworking, and universally educated, he got recognition and academic degrees very soon. At the age of 26, he defended PhD thesis at the Imperial-Royal University in Vienna. The thesis was about Jurassic cephalopods from the Ryazan Governorate in Russia. Already as a young PhD holder, he was admitted to the Vienna Society for Support of Natural Exploration of the East. At the same time, he started cooperation with the Physiographic Commission of the Academy of Learning in Kraków. In 1887 the Commission-donated works on preparation of the Geological Atlas of Galicia, a unique enterprise, were started. Preparation of the map sheets was entrusted to the best geologists-cartographers. Among them was Wawrzyniec, who prepared, within the period from 1886 to 1890, dozens of geological maps together with descriptions, of the eastern part of the Galicia's district Podole.

Wawrzyniec received his habilitation degree from the Jan Kazimierz University in Lwów twice. In 1891 his thesis concerned paleontological matters, and then, in 1907, it was supplemented by general geology results following from geological research done in the Romanian Carpathians. As a recognition for outstanding research works he was awarded by the Śniadecki Fellowship donated by the Academy of Learning. This financial support enabled him to make a scientific trip to France, Germany, Austria, and Switzerland.

After the end of this trip, on the invitation of the Royal Government of Romania, Wawrzyniec joined the investigations of the Tertiary oil-salt formation in Romanian Carpathians, working, for 15 years (until 1910), as an oil geologist and being member of the Research Commission of the Romanian Institute of Geology. He prepared, e.g., geological maps of Moldavia and Wallachia. Simultaneously, he worked on biostratigraphy of the Tertiary, preparing and publishing the first extensive monograph of mollusks of Neogene of Romania, which belongs to basic research works in this area.

At the end of the contract, as a recognition for his accomplishments in the Tertiary research and contribution to the discovery of oil resources in Romania, Wawrzyniec was awarded the highest state decoration of this country – Officer Order of the Romanian Crown, conferred by King Charles I.

In 1901, in Lwów, Wawrzyniec married Janina Polityńska. The successful marriage gave life to five sons, born between 1902 and 1911 in Lwów; Jerzy, Henryk, Kazimierz (Roman's father), Stanisław, and Andrzej (Fig. 3). All the sons of Janina and Wawrzyniec completed studies at universities in Lwów, choosing various faculties.



Fig. 3. The photo of the family Teisseyre taken in Lwów. Sitting from left to right are Wawrzyniec's sons: Kazimierz (Roman's father), Jerzy, Henryk, Stanisław. Standing behind the children are: Maria (Wawrzyniec's sister) and Wawrzyniec (Roman's grandfather).

In Lwów, starting from 1910, simultaneously with field research work, Wawrzyniec hold the position of full professor, and has been teachings. Firstly, in the Department of Philosophy of the Jan Kazimierz University, he was giving lectures on geology and paleontology. Then, from 1924 until the end of his job activities in the late 1930s, he was associated with the Faculty of Water and Land Engineering at the Technical University in Lwów.

During the first years of independent Poland, Wawrzyniec, as a vice-director of the Polish State Institute of Geology, made a tremendous effort to establish regulations and co-ordination of geological works and to prepare a programme of an organisation of geological works on the territory of the reborn country. General principles and regulations of this programme remain obligatory until today.

The first two decades of the XXth century were a time of Wawrzyniec's intense work on the tectonics of the Carpathians and the Podolian plate. It was the time when his everlasting publications were written, ahead of some currently accepted tectonic concepts concerning the geology of the Podolian plate and the influence of its tectonics on the development of the Carpathian orogeny. He gave proof for the existence of a fault structure of the periphery of the Podolian plate, which he named the "Schody Przypodolskie" ("Stairs next to Podole"). He connected the origin of these "stairs" and their direction with other important, previously discovered, tectonic lines of Europe. Among them was one of the most important structural lines, previously discovered by Alexander Tornquist. The southeastern part of this structure was called by Wawrzyniec "the main line of external rims of Neocarpathian hollow of the Lesser Poland". Nowadays this line is called the Teisseyre–Tornquist line (T–T line).

The scientific achievements of Wawrzyniec were recognised by the scientific milieu. In response to an application of the Senate of Technical University in Lwów, in 1935 the President of Poland, Ignacy Mościcki, conferred to Wawrzyniec Teisseyre the title of an Honorary Professor of this University. He was also an honorary member of many scientific and industrial societies and awarded numerous medals, among them the Commander Cross of the "Polonia Restituta" ("Restored Poland") Medal conferred to Wawrzyniec for "an outstanding scientific work". Wawrzyniec died in Lwów on the 2 April 1939. He was buried on the Łyczaków Cemetery in the family tomb, next to his father, Henryk.

His publications, saved from destruction during World War II, were transported from Lwów to Wrocław at the end of the war by his son, Henryk. After being catalogued and preserved from damage, they were given by the Teisseyre family to the Archives of the University in Wrocław in 1996. Some publications written by Wawrzyniec concerning studies and development of concepts on tectonics of the Podolian Plate and the Carpathians with their foreland were known to Roman, as well as publications written by his son, Henryk, containing results on studies on the tectonic evolution of the Sudetes. More about Wawrzyniec Teisseyre in: Teisseyre B. (1998a).

**Henryk** Jan Juliusz, the second oldest son of Wawrzyniec, inherited the interest in earth sciences from his father. He was born on the 21 March 1903 in Lwów. Henryk began his studies in 1922 at the Department of Chemistry at the Technical University in Lwów. Then he continued studies at the Jan Kazimierz University in Lwów, at two faculties: mathematics-natural sciences (geographic subjects) and philosophy (geological sciences). Yet as a student he became an assistant at the Department of Geography, headed by a world-famous Polish geographer, Professor Eugeniusz Romer. In 1928 he received a Doctor of Philosophy (PhD) title in geography, after having defended the thesis entitled "Top surface of the Carpathians". At this time, he went to Lausanne in Switzerland to deepen his scientific knowledge by studying geology at the university there. His mentor was Professor Maurice Lugeon, a world-famous specialist in tectonics, who created a theory of the nappe structure of the Alps.

Henryk's love for field research and financial needs of his family made him work, for the next 10 years, as an oil geologist preparing excellent geological maps for the well-developing Polish oil industry in the Eastern Carpathians. This work resulted in his habilitation in general geology at the Jagiellonian University in Kraków, in 1936. Then, as an associate Professor, he has given lectures on tectonics. In 1938 he habilitated for the second time at the Jan Kazimierz University in Lwów. This time his topic was the tectonics of the Carpathians and Podole.

The World War II came to Henryk at the time when he started his great scientific achievements. After the war, in March 1945, Henryk and his family left Lwów and Eastern Carpathians forever and became a war refugee. He went to Kraków, then to Poznań before he finally settled in Wrocław. In the spring of 1946, he got an invitation from the Rector of the University and Technical University in Wrocław, Professor Stanisław Kulczyński, to start, since the 1 March this year, the "service at the University and Technical University in Wrocław, at the Department of Natural Sciences". Henryk accepted the invitation and continued the "service" at the University for the next 29 years, until his death in 1975.

Henryk Teisseyre was an initiator of the Polish geological exploration of the Sudetes and systematic geological studies of this area. He also was a co-author of a curriculum for geological studies at the University in Wrocław, a founder of the Lower Silesian Branch of the Polish Geological Institute, a creator of the "Wrocław geological school" in the area of structural geology and a mentor for many famous scientists and university professors in Wrocław.

He also led intensive field research, making excellent geological maps of various parts of the Sudetes. In field research, he was always accompanied by his wife, Julia, in many cases also by their two sons, Juliusz and Andrzej Karol, and by groups of university students, including Roman.

Among many decorations that were conferred to Henryk, there was the highest one that can be given by a University – the Honoris Causa Doctorate (Honorary Doctorate) of the University in Wrocław, conferred as an appreciation of his "outstanding achievements in research, teaching, and organisation".

Professor Henryk Teisseyre died on the 29 October 1975 in Wrocław. He is buried in a family tomb at the Grabiszyński Cemetery in Wrocław. More about Henryk Teisseyre in: Teisseyre (1998b).

**Juliusz** (1933–1991) and **Andrzej** Karol (1938–1991) were sons of Henryk and cousins of Roman, cordially friendly to him. They both continued geological tradition of the Teisseyre family. Born in Lwów, they graduated from the geological faculty at the University in Wrocław in the early 1960s. They performed their research mostly in the Sudetes.

After graduation, Juliusz moved to Warsaw, where he worked in the Laboratory of Petrography at the Department of Geological Sciences, Polish Academy of Sciences. He accomplished the PhD and the habilitation degrees there. The main topic of his research was the tectonics and genesis of metamorphic rocks of the sheath of granite in the Karkonosze mountains (the highest part of the Sudetes). Juliusz died in 1991 and was buried at the cemetery in Turku, Finland, where he lived over the last years of his life.

Contrary to Juliusz, his younger brother Andrzej Karol Teisseyre remained in Wrocław and associated his professional life with the Institute of Geological Sciences at the University. The topics of his geological works evolved over time. His PhD thesis and habilitation were about the sedimentological characteristics of sedimentary rocks and paleogeography of the Lower Carboniferous in the Sudetes. For the rest of his short life, he focused on observations of sedimentological and erosive processes in riverbeds and floodplains of current small mountain rivers in the Sudetes. Cycles of his monographic publications on these topics gave grounds for conferring him the title of full professor at the University of Wrocław. Similarly to his grandfather and father, Andrzej Karol also actively participated in the process of education of young geologists. He was one of the best university lecturers in geological sciences at that time.

Andrzej Karol died in 1991 in Wrocław. He is buried in the family tomb, next to his father and mother, at the Grabiszyński Cemetery in Wrocław.

Translated from Polish by Andrzej Robert Teisseyre

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