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## SHORT COMMUNICATIONS

The Romantic Myth about the Antiquity of Folk Botanical Knowledge and Its Fall: Józef Rostafiński's Case

#### Piotr Köhler

Institute of Botany, The Jagiellonian University Kopernika 27, 31-501 Kraków, Poland E-mail: piotr.kohler@uj.edu.pl

### Introduction

Biologists may have a set of opinions prevalent in their lifetime. But as a result of their own research, they can demonstrate that some of those opinions are fallacious. This brings about a change in their approach to such views. If researchers do not provide detailed description (e.g., in letters or memoirs) of the shifts in their views, it is difficult to reconstruct the causes and the course of such changes. Some ideas outlive the epoch in which they are widely advocated. They are attractive enough to be shared by at least some scientists also in the generation that follows. One of such ideas was the Romantic view that on the basis of nineteenth-century folk superstitions (beliefs) it is possible to reconstruct ancient pre-Christian knowledge about plants. Among the few Polish botanists active during that epoch it is hard to find those making direct references to the idea of Romanticism in their works. One of the botanists who looked for traces of ancient pre-Christian knowledge in contemporary folk beliefs and customs was Józef Rostafiński.

# Józef Rostafiński and his views on the origin of folk botanical knowledge

Józef Rostafiński (1850-1928) was born in Warsaw in 1850. He spent his childhood in Kłódno near Warsaw. In the years 1866–1869 he studied at Warsaw University. He was a student of Edward Strasburger (1844–1912), who later became one of the greatest botanists. After the closure of the university (1869), Strasburger moved to Germany and Rostafiński followed him. In Jena he studied under Strasburger and Ernst Haeckel (1834-1919), an outstanding zoologist and evolutionist, in Halle—under Hermann zu Solms-Laubach (1842–1915), an eminent palaeobotanist and morphologist, and Anton de Bary (1831–1888), an outstanding microbiologist and mycologist, and finally—under the latter in Straßburg (now Strasbourg, France). In 1873, Rostafiński obtained his doctorate at Straßburg University. Two years later, he became a *Dozent* at that university. From 1876 on, Rostafiński worked at the Jagiellonian University in Kraków (Galicia, Austria-Hungary, present-day Poland). From 1878, he was a professor of botany there. He began his scientific activity with floristics and taxonomy of cryptogams. Then he became interested in the history of botany (Zemanek, 2000). He was elected a member of all three classes of the Academy of Sciences and Letters in Kraków (Köhler, 2002). In the extensive record of his scientific publications, totalling 573, a few are devoted to the history of the popular knowledge of flora (Köhler, 2014).

Rostafiński left neither diaries nor other documents that could facilitate recreating his beliefs on the antiquity of folk botanical knowledge. The only reliable source is his publications with his comments. By means of these, one can endeavour to reconstruct the consecutive stages of the evolution of his view on folk botanical knowledge.

In one of his earliest works, *Noc świętojańska i kwiat paproci* ('Midsummer night and the flower of the fern'), Rostafiński explicitly showed his belief, stating as follows:

Only the peasantry have retained the ideas and customs of their distant ancestors, while the part of the population being under the influence of mental cultivation [education] have lost them entirely. Therefore, folklore tradition is nothing but a living chronicle that sometimes tells us about ancient ideas, which was passed down from mouth to mouth for many generations, and took on a fabulous form. In the same way, folk customs that

in the majority of cases go back to pagan times have the same significance. In order to explain folk myths surrounding the fern, we have to go back to the days when this legend came into being, that is to the pre-historic era, in order to recreate the beliefs and views regarding the natural world of pagan Slavdom. The history of those times has only been written in the recent decades of this century, and two types of material were used in order to do so. Critical analysis of folk legends and comparative linguistic studies. [...] This research allows us to delve into the character, customs, degree of education, lifestyle, facilities, social views and the natural environment of pagan Slavs.<sup>1</sup> (Rostafiński, 1879, pp. 18–19)

The young, only 29-year-old, Rostafiński carried out such a reconstruction of the original version of the ancient myth in the abovementioned work Noc świętojańska i kwiat paproci. In his times, numerous celebrations and folk beliefs were connected with midsummer night. They included, among others, building bonfires, throwing garlands into rivers or searching for the flower of the fern in dense forests at midnight. This flower was supposed to blossom shortly before midnight and to be small and very shiny (or glimmering). Whoever discovered it became endowed with knowledge on future events and on places where treasures were buried. According to Rostafiński's interpretation, this myth includes original folk knowledge connecting the flower with the sun. As no blossoming species of ferns were observed during the whole year, people assumed that to blossom they need a longer period of exposure to the sun than other plants, among which some blossom as early as at the beginning of spring. Thus, they concluded, ferns should blossom after the longest day of the year—that is, after receiving the greatest amount of solar light. The miraculous properties of the flower of the fern, which appear in the myth, were assumed to be later additions.

Initially, Rostafiński was deeply convinced that, on the basis of the nineteenth-century folk rituals, ancient 'pagan' superstitions and beliefs connected with plants might be reconstructed (identified with ancient knowledge). This thesis

The Polish original: "Tylko lud przechowuje wyobrażenia i zwyczaje jakie mieli jego przodkowie przed wiekami, a wykształcona część społeczeństwa pod wpływem umysłowej uprawy, zatraca je w zupełności. Więc podania ludowe są niczym innym jak tylko żyjącą kroniką, która opowiada nam przedzmierzchłe nieraz wyobrażenia, tylko, że przechodząc z ust do ust przez liczne pokolenia, w bajeczne ubrała się formy. Takie same znaczenie mają i zwyczaje ludowe, sięgające większości wypadków, pogańskich jeszcze czasów. Chcąc więc sobie wytłumaczyć mit ludowy o kwiecie paproci, musimy cofnąć się do czasów, kiedy to podanie powstało, a zatem do przedhistorycznej epoki naszych dziejów, aby sobie odtworzyć wyobrażenia i pogląd na przyrodę pogańskiej słowiańszczyzny. Historia tych czasów została spisana dopiero w ostatnich dziesiątkach lat naszego wieku, a do odtworzeni jej dwojakie służyły materiały, tj. krytyczny rozbiór podań ludowych i porównawcze badania językowe. [...] Badania te pozwalają wniknąć w charakter, obyczaje, stopień oświaty, sposób życia, urządzenia społeczne i pogląd na przyrodę pogańskiej słowiańszczyzny."

went back to the Renaissance and Baroque periods in Polish culture and was additionally strengthened in the period of Romanticism. According to its adherents, to which Rostafiński belonged, appropriate scientific methods of analysis of contemporary beliefs, allowing to remove centuries-old deformations, were sufficient to acquire original folk knowledge, in our case—botanical knowledge, in a pure, uncontaminated form. This operation was believed to be similar to the renovation of the paintings of old masters: removing dirt as well as later additions and alterations and, finally, reconstructing the missing fragments. As a result, a painting is obtained in the form in which it was painted.

The enquiry of 1883 was one of the most significant ethnobotanical undertakings of Rostafiński. Its purpose was to collect data necessary to write the history of cultivated plants. Rostafiński still based his ideas on the Romantic assumption that the analysis of contemporary names and folk traditions would enable the researcher to uncover pre-Christian customs and primeval knowledge. This assumption was strongly supported by the authority of de Candolle, who, in his work *Origine des plantes cultivées*, recommended a four-factorial analysis to be applied in the research of the origins of cultivated plants (de Candolle, 1883, pp. 6–22).

The enquiry was addressed to speakers of Polish who, due to their background or profession, had some knowledge of the species of the plants in question, the names peasants used for them, their various applications and the methods of storing them (whole plants, fruits, seeds, etc.) in winter. A questionnaire of the enquiry was written in Polish, and the plant names given as examples were also Polish. Some of the words were borrowings from other languages (e.g., mięta [from Latin mentha], kartofel [from German Kartoffel]). The longest version of the survey consisted of 70 questions concerning about 130 species. Rostafiński hoped to collect extensive material embracing both contemporary and historical use of plants and plant names by the peasantry, as well as information on the application of various groups of plants: industrial, medicinal, dying, ornamental and so on. The deadline for replies was 1 March 1884. Nearly 370 individuals took part in the enquiry and sent about 860 letters. Out of them, 359 letters, sent by 227 correspondents, have survived. Thanks to the enquiry, Rostafiński obtained very rich botanical and linguistic data. The preserved letters contain an impressive number of records (almost 25,800), and the number of plant names used by the peasantry is about 25,300 (Köhler, 1993; 2015). Undoubtedly, Rostafiński simultaneously carried out an analysis of the available historical sources.

The preparation of the questionnaire in 1883, especially the questions concerning healing plants, and the replies obtained to the questions, directed Rostafiński's attention to this interesting group of plants in the context of folk beliefs and superstitions connected with them. This resulted in an extensive research on the origin of the aforementioned beliefs and superstitions. When starting the work, Rostafiński was sure that he would be able to demonstrate the primeval nature of folk beliefs concerning plants. However, as he analysed successive works of ancient authors, he realized that "the number of plants which might be treated as known and used by our folk before the introduction of Christianity in Poland was shrinking". The species used by Polish people against rabies can be examples of such plants. On the basis of the information on the plants obtained, Rostafiński concluded that the following species had been used for this purpose: Euphorbia pilosa L., Vincetoxicum officinale L., Gentiana cruciata L., Astragalus glycyphyllos L., Alisma plantago-aquatica L. The same species were recommended against this disease by Pliny the Elder and Dioscorides. This discovery must have shocked Rostafiński and, in consequence, led to a shift in his view on the matter.

Already in 1886, in the first outline of a thesis on the secondary nature (in relation to ancient authors) of folk beliefs in the power of plants, Rostafiński observes:

we are part of the Latin civilization, and its writings come to us and are disseminated in printed materials in the 16<sup>th</sup> century. Herbals are printed in a large number of copies. In every nobleman's house, medicines can be found which, once the herbals have been worn out, become household remedies: tradition passes them from generation to generation, from large manor houses to small ones, to the servants' quarters, to the peasantry. And when among the educated part of the society they are forgotten, and the medicine cabinets disappear, these remedies survive among the commoners and have all the features of being their own genuine remedies. From the commoners, they return along the same pathway to the educated classes. (Rostafiński, 1886)<sup>2</sup>

The Polish original: "należymy do cywilizacji łacińskiej, a pisma jej przychodzą do nas i rozpowszechniają w drukach w XVI w. Zielniki drukują się w licznych wydaniach. Są w każdym szlacheckim domu środki, które, gdy już zielniki się podarły, stają się domowymi—tradycją z pokolenia na pokolenie—z dworów przechodzą do dworków, do oficyn, do ludu. A kiedy potem wśród wykształconego społeczeństwa pamięć o nich ginie wraz ze zniknięciem "Apteczek", to żyją jeszcze i dziś wśród ludu i zdają się mieć nieraz wszelkie cechy samorodności. I od ludu znów przechodzą w odwrotnym porządku."

In the end, Rostafiński became convinced that "Christianity and the [Mediterranean and Western] cultures following in its wake completely obliterated the original beliefs of the pagan peasantry". The aforementioned thesis was presented by Rostafiński in his work *Zielnik czarodziejski* ('Magical herbarium') (Rostafiński, 1895, pp. 1–2). This publication contains *ca.* 1,500 superstitions concerning plants and includes data derived from old scientific and medical works. As the offprint of *Zielnik czarodziejski* was issued in 1893 (Köhler, 2004, p. 114), Rostafiński's change in views must have appeared between 1883 and 1886, in the period of his work on the enquiry, and their full crystallization must have occurred prior to 1893. The Romantic thesis on a direct continuation of ancient folk beliefs in modern ones was replaced by a new thesis: ancient beliefs and folk botanical knowledge were completely destroyed by Christianity, which filled the gap with its own knowledge based on ancient Roman (and Greek) writers.

Rostafiński wrote his subsequent works from a new perspective. The first evidence of his new attitude can be found in the 1899 publication *O maku* ('On the poppy'). Here he repeats the claim that the original pagan beliefs of the peasantry were almost totally eliminated by the Catholic Church and that the current Polish folk "superstitions" regarding plants actually originated in monasteries, especially monasteries of the orders that busied themselves with herbal medicine and promoted methods of treatment taken from herbals containing information about plants derived from ancient authors (Rostafiński, 1899, p. 318).

Four years later, Rostafiński published an entry in the *Encyklopedja Staropolska* ('Old-Polish Encyclopaedia'). He presented a probable sequence of events leading from the *Natural History* by Pliny the Elder—"that mine of the classical world's superstitions," as he called the treatise—to folk beliefs. This sequence, especially when it comes to plants associated with love magic, looks as follows:

Superstitious beliefs regarding plants of love, as in general all superstitions, spread across Europe hand in hand with civilization, not only along literary paths, but oral as well, by contact between the Romans and the conquered barbarians, who took the beliefs from their masters. Those beliefs came to us from the West, and from us, spread further to the East. They reached the educated classes first, and from them, spread to the peasantry. Nowadays, we have no idea how prevalent the diverse superstitions regarding plants were among the educated strata of society

for centuries up until the end of the  $18^{th}$  century. (Rostafiński, 1903, p.  $177)^3$ 

Rostafiński presented a similar sequence of events in one of his last works. The publication deals with customs related to the consecration of plants in Germany and Poland during the feast of the Assumption of the Blessed Virgin Mary (Lat. *Virginis Mariae Assumptio Beatae in coelum*), which is celebrated on 15<sup>th</sup> of August. In Poland, the day is called the Feast of the Herbal Mother of God (Rostafiński, 1922).

It is puzzling why Rostafiński did not accept an alternative explanation of the similarities found between the folk beliefs concerning plants and the information on plants and their properties included in the writings of ancient authors. After all, they might have had the same origin. Ancient authors mentioned contemporary folk uses of plants in their works. Thus, it may also be assumed that the botanical knowledge of native Central-Europeans, as presented by Rostafiński, was a consequence of cross-cultural communication, both in geographical and historical sense: Poles inherited it from their pre-Slavic ancestors, who, in turn, took it from their neighbours. This knowledge might have been confirmed and even reinforced (and not eliminated, as Rostafiński assumed) by the Christian culture and, thus, still enjoyed prestige among the common people in Rostafiński's day.

Nowadays, an issue of folk knowledge being repeated from old herbals is part of an important ethnobotanical debate (Leonti, 2011). Rostafiński noticed this issue more than 100 years ago. But then his observation did not provoke a discussion.

The Polish original: "przesądne wierzenia o roślinach miłośniczych, jak w ogóle wszystkie przesądy, rozchodziły się po Europie wraz z cywilizacją nie tylko drogą literacką, ale także za pośrednictwem ustnego podania, przez zetknięcie się Rzymian z podbitymi barbarzyńcami, którzy je od panów swoich przejmowali. Przesądy te szły do nas od Zachodu, a od nas—dalej na Wschód. Dostawały się najpierw do klas wykształconych, a od nich schodziły do ludu. My dziś nie mamy wyobrażenia, jak najróżnorodniejsze przesądy o roślinach były rozpowszechnione wśród wykształconych warstw społeczeństwa przez całe wieki, aż po koniec XVIII."

### Conclusions

One of the botanists who looked for traces of ancient pre-Christian knowledge in contemporary folk beliefs and customs was Józef Rostafiński. Initially, he believed that, on the basis of the nineteenth-century ceremonies of the peasantry, he would be able to reconstruct ancient 'pagan' superstitions and beliefs connected with plants (identified with ancient knowledge in that field). The key event that made Rostafiński change his view was his study of some data obtained from a survey in 1883. The analysis of many botanical works of ancient, medieval and Renaissance authors brought about a startling modification in Rostafiński's opinion on the origin of what at that time was commonly considered ancient 'pagan' customs and peasant superstitions. Rostafiński, as one of the first researchers in Poland, noted the convergence of beliefs of the Polish peasantry and the content of medieval and Renaissance herbals. This surprising coincidence made Rostafiński adopt a new idea: the beliefs and knowledge concerning plants, widespread among the Polish peasantry, were not of local origin, but were derived from ancient knowledge transmitted by the Christian culture. By analysing Rostafiński's publications, it is possible to establish, quite precisely, that the change in the author's views took place between 1883 and 1886. Rostafiński started to present his new point of view in his writings in 1893. According to this opinion, the beliefs and superstitions of the Polish peasantry concerning plants are not ancient or pre-Christian, but they were adopted together with Christianity. The convergence of these superstitions with the data presented in the works of ancient authors was considered by Rostafiński proof of his new claim. He did not take into consideration a (possible) alternative explanation of that convergence, namely that it might have resulted from the common roots of the folk beliefs about plants and the information provided by the works of ancient authors.

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