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EDITORIAL

It has been a year since the celebrations around the 200th anniversary of Mendel's birth. The wave of interest in Mendel has spilt over into this year, which is, of course, extremely gratifying. In her article *Mendel in and After His Time*, Adrienne P. Jessop challenges the position of revisionist historians who cite the work of R. Olby and insist that Mendel's discovery, published in 1866, was not research on heredity but part of the tradition of crossing species. Jessop, however, makes the point that scientific papers are unreliable sources for the original goals and motivations of the author. She compares Mendel's discoveries and their reception to 20th-century scientific discoveries that also did not receive immediate recognition.

In their contribution *Moscow 1955*, Uwe Hoßfeld et al. focus on the period of Lysenkoism. In the summer of 1955, a delegation from the German Democratic Republic (GDR) visited Moscow to look at the All-Union Agricultural Exhibition and meet Trofim D. Lysenko. Among the members of this delegation were Professor Georg Schneider and Dr. Werner Otto from the University of Jena. Numerous surviving archival materials related to this visit contribute to our understanding of the status of Lysenko's teachings in the post-Stalin USSR.

Open discussion is a welcome feature of any scholarly periodical. Wolfgang Bruder here responds with a commentary on Jiří Sekerák's article Mendel's Date of Birth (published in *Folia Mendeliana* 2022/1), in which he formulates his own view on this issue.

In other contributions, the authors discuss the history of the Gregor Mendel Memorial Medal and the collections of the Austrian algologist and Franciscan priest Pius Titius Vendel (1801-1884) in the herbarium of the Augustinian monastery in Staré Brno. In addition, we publish a review of Gregor Mendel - The Scientist (2022) and a report from the unveiling of the new Mendel monument in Brno. In the Chronicle section, we recall Mendel Day 2023, which took place in Wageningen, as well as the award of the Mendel Memorial Medal this year to Peter van Dijk.

Jiří Sekerák

MENDEL IN AND AFTER HIS TIME

ADRIENNE P. JESSOP

Kylepark Crescent, Uddingston, adrienne.jessop@blueyonder.co.uk

ABSTRACT – Revisionist historians argue that Mendel's 1866 paper was not an investigation into heredity, but part of the species hybridising tradition. They note that he refers to hybrids throughout the paper and cites species hybridisers and their results and that his crosses were in line with the hybridising tradition. This article offers alternative interpretations. It points out that scientific papers are not a reliable source for the author's original aims and motivation and draws attention to ways in which Mendel's immediate circumstances must have influenced his choices and interpretations. It compares his discoveries and their reception with scientific breakthroughs in the 20th century that did not follow a straightforward trajectory or receive instant recognition and stresses the difficulty of making scientific choices before a working framework is in place. It considers the role of cells in Mendel's theory, in light of the fact that Mendel was not in a position to anticipate the 20th century subject. Finally, it draws attention to passages in the letters to Nägeli, in which Mendel comes through as an insightful and forward-looking scientist who looked for solutions to problems, rather than simply adding to the compendium of knowledge.

INTRODUCTION

Darwin's 1859 monograph on "The Origin of Species" and Mendel's 1866 "Versuche über Pflanzen-Hybridizen" (Experiments in Plant Hybrids) are the 19th century's most influential contributions to biology. Both have attracted a large amount of secondary literature. But while documentary sources on how Darwin arrived at his theories include extensive unpublished notes and a voluminous correspondence, as well as published books and articles, those for Mendel rely mainly on ten letters to Carl Nageli (professor of Botany in Munich University), some family correspondence that doesn't mention science and a few published papers. It's hardly surprising that there are widely differing views on Mendel's scientific interests and aims.

Geneticists see Mendel as having founded their subject, although his results and conclusions were not recognised until his paper, henceforth referred to as "the Versuche", was rediscovered 35 years after publication. However, science historians claim that geneticists use the wisdom of hindsight to give Mendel's text meanings that are not in fact there and that Mendel had not been studying heredity at all, but hybridisation, which was a major botanical interest during the 19th century. According to this view, he had not been a founder but a 19th century forbear (BRANNIGAN 1979; CORCOS and MONAGHAN 1992; OLBY 1979).

The first two sections of the article review hybridisation and variation as perceived in the 19th and early 20th centuries. The sections on Mendel's "Introduction and Discussion", his "Choices" and his "Explanation to the Brno Natural History Society" consider how his immediate circumstances could have influenced what he chose to include in the Versuche,

MOSCOW 1955 VISITING TROFIM D. LYSENKO AT THE V. I. LENIN ACADEMY OF AGRICULTURAL SCIENCES

UWE HOßFELD

Friedrich-Schiller-Universität Jena, Fakultät für Biowissenschaften, Institut für Zoologie
und Evolutionsforschung, Arbeitsgruppe Biologiedidaktik, Am Steiger 3, Bienenhaus, 07743 Jena,
uwe.hossfeld@uni-jena.de

MICHAL V. SIMUNEK

Institute of Contemporary History, The Czech Academy of Sciences, Puškinovo nám. 9,
160 00 Prague 6, simunek@usd.cas.cz

GEORGY S. LEVIT

Friedrich-Schiller-Universität Jena, Fakultät für Biowissenschaften, Institut für Zoologie
und Evolutionsforschung, Arbeitsgruppe Biologiedidaktik, Am Steiger 3, Bienenhaus, 07743 Jena

ABSTRACT - From July 27 to August 14, 1955, a delegation of the German Democratic Republic (GDR) traveled to Moscow to visit the All-Union Agricultural Exhibition, as well as the workplace and memorial site of the pomologist Iwan V. Michurin (1855–1935). During this trip, the delegation had an opportunity to talk with Trofim D. Lysenko (1898–1976) at the Lenin All-Union Academy of Agricultural Sciences. Professor Georg Schneider (1909–1970) and Dr. Werner Otto (1899–1969) from the University of Jena were among the members of this delegation. Numerous archival materials, including a 34-page official travel report, a portfolio of 270 black-and-white photographs, and a box of slides, were donated by the Otto family from Töppeln in Thuringia (Germany). These archival materials contribute to the understanding of the status of Lysenko's doctrine in the post-Stalinist USSR.

1. LYSENKO AND HIS DOCTRINE

Ukrainian-born agronomist Trofim D. Lysenko (1898–1976) became well known in the Soviet Union of the 1930s for his research on *Jarowization* (the cold treatment of seeds to stimulate germination), which made it possible to sow grain in the spring instead of the previous fall. This made it theoretically possible to use the cold northern parts of the Soviet Union for agriculture. Building on this early success, Lysenko developed his anti-Mendelian theories over the next decades. His ideas were totally at odds with what was known about genetics at this time because of his proposal that acquired characters could be inherited. This notion first became known as so-called Michurinist-biology, named after the horticulturalist and pomologist Iwan W. Michurin (1855–1935), and later as so-called Creative Darwinism (творческий дарвинизм). By the 1930s, Lysenko had already won Stalin's support. This support helped him become president of the Lenin Academy of Agricultural Sciences (VASKhNIL) in 1938 and director of the Department of Genetics at the USSR Academy of Sciences in 1940.

THE ALGAE COLLECTION IN GREGOR MENDEL'S HERBARIUM*

*THE COLLECTIONS OF THE AUSTRIAN ALGOLOGIST AND FRANCISCAN PRIEST
PIUS TITUS VENDEL (1801-1884) IN THE HERBARIUM OF THE AUGUSTINIAN
MONASTRY IN STARÉ BRNO*

PAVLÍNA PONČÍKOVÁ

Centrum Mendelianum Musei Moraviae, Brno, pponcikova@mzm.cz

ABSTRACT - Book-bound Medieval and Renaissance herbaria were used to describe medicinal plants and their effects. Since the 17th century, the sense concept of herbaria gradually evolved to the present-day concept of collections of whole or parts of plants used for a range of study purposes. Herbarium items consisted of loose leaves, these being easier to handle. The efforts of the 18th and 19th centuries were to systematize the plant and animal kingdoms. Everything was being put in order. At that time, herbaria were the best tools for teaching and preserving plants. The creation of herbaria was also a favourite pastime of many amateur and professional botanists. As a result, their scope, quality, and focus varied considerably. Old herbaria often have a greater historical importance than biological, as they often lack necessary data. Unfortunately, this also applies to the last known state of the collection known as J. G. Mendel's herbarium, which presents more question than answers. It deserves attention more because of its association with the figure of the eminent naturalist than because of its actual form and content.

The so-called Gregor Mendel herbarium contains 20 items created by Father Pius Titius Vendel in the 1850s. This army chaplain and member of the Franciscan Order created many extensive collections of algae herbarium specimens. These can be found in museums and scientific institutions throughout the former Austro-Hungarian Empire. In the mid-19th century, he also supplied schools and other institutions with these specimens.¹

The second part of this article focuses on the personality and activities of this algologist and a more detailed description of the items in his collections in the Staré Brno monastery.

Aurelius Antonius Thaler (*13 June 1796 - †21 June 1843), a member of the Augustinian Order, is considered to be the creator of the monastery herbarium, but he died before Mendel arrived at the monastery in the autumn of 1843.² After Thaler, the herbarium was in the care of Matouš Klácel. Although we know little about its focus, method of creation or form, several specimens from Thaler's herbarium have survived and are now part of the herbarium items. It is difficult to state today how extensive the herbarium in the monastery

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HISTORY OF THE MENDEL MEMORIAL MEDAL*

JIŘÍ SEKERÁK

Centrum Mendelianum Musei Moraviae, Brno, jsekerak@mzm.cz

ABSTRACT – The Mendel Memorial Medal is a unique annual award given to an internationally recognized figure for his or her contribution to the scientific and cultural legacy of Gregor Mendel and genetics. Past recipients of this award have included Nobel prize winners, outstanding researchers, pioneers in genetics, molecular biology, and the history of biology and genetics, as well as other eminent scientists. Last year saw the thirtieth anniversary of the start of the regular awarding of this medal. Its origin, however, goes back much deeper and is firmly linked to the tradition of developing Mendel's scientific legacy at the Mendelianum of the Moravian Museum in Brno. The establishment of this memorial to Gregor Mendel was the result of pre-war efforts and the full rehabilitation of Mendel's scientific work. The facilities of the Moravian Museum have proven to be extremely beneficial for stable historical-scientific research in a state-established institution with a long tradition directly built on the research programme from Mendel's time in the Agricultural Society. The history of the creation and presentation of the Mendel Memorial Medal can be divided into two basic phases. These closely reflect the wider political and social development in Czechoslovakia and subsequently in the Czech Republic.

In August 1965, under the auspices of the Genetics Section of the International Union of Biological Sciences (IUBS), the Czechoslovak Commission of UNESCO, and the International Atomic Energy Agency (IAEA), the historically important *International Memorial Symposium G. Mendel* was held in Brno to coincide with the 100th anniversary of the publication of Mendel's discovery. On this special occasion, the Mendelianum of the Moravian Museum was inaugurated as the Gregor Mendel Memorial. The Mendelianum was responsible for the collection and documentation of Mendel's personality.¹

These events symbolically ended the period of so-called Lysenkoism in then Czechoslovakia,² which for a time (1948–1965) condemned genetics and Mendelism to the position of a persecuted so-called “bourgeois pseudoscience”. In this context, it should be emphasized that the 1953 discovery of the structure of DNA and the subsequent development of molecular biology, which eventually led to a gradual decline in Lysenkoism and professional discussions with geneticists throughout the Soviet Bloc, had a significant positive impact on this development. Geneticists in Czechoslovakia at the time increasingly demanded not only the return of genetic research to schools and scientific institutions but also the scientific and social rehabilitation of Mendel as the founder of genetics. The discovery of the structure of DNA therefore undoubtedly had a significant impact in this field too.³

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REPORTS AND COMMENTS:**MAY THE MENDEL MONUMENT IN BRNO HELP GREGOR JOHANN MENDEL
TO COME OUT OF THE SHADOW OF CHARLES DARWIN**

NILS CHR. STENSETH

Centre for Ecological and Evolutionary Synthesis, Department of Biosciences,
University of Oslo, Norway, n.c.stenseth@mn.uio.no

On February 2, 2023 I participated in the unveiling of the new Mendel Monument in Brno - just outside the garden to the Augustinian monastery where Gregor Johan Mendel worked and lived - and did his pioneering experiment which led to the birth of genetics. Besides participating in the unveiling (Fig. 1 and 2) I gave a short speech putting Mendel into a broader biological context. Here is my speech.¹

Dear Friends of Mendel, Ladies and Gentlemen,

I am Nils Chr. Stenseth, professor of ecology and evolution at the University of Oslo. Gregor Johann Mendel is a great hero of mine.

In many cities around the world, there are amazing sculptures in parks and other public places.

Although I've seen many statues depicting famous scientists, I've never seen anything like this fantastic and artistic expression of a groundbreaking discovery in the field of natural sciences. This we only find in Brno - very nicely representing Gregor Johann Mendel's three laws of genetics - with a ratio of 9:3:3:12 for the different appearances of the peas.

Thanks to the artist Jaromír Gargulak for making such a fantastic piece of art - a piece including important scientific details as just mentioned.

I am honored to have been part of the jury selecting the winning monument.

Let this Mendel monument help explain to students, as well as international and national visitors and citizens of Brno, the groundbreaking discoveries of Mendel - and also be an inspiration in their own endeavors.

Citizens of Brno ought to be very proud of having fostered such a great scientist as Gregor Johann Mendel.

Unfortunately, Mendel has for too long been in the shadow of Darwin.

We should never forget though that Mendel provided the mechanism which made Darwin's theory of natural selection work.

Mendel and Darwin are clearly two equal giants.

Let last year's many Mendel-celebrations - and this Mendel Monument - make Gregor Johann Mendel come out of the shadow of Charles Darwin.

As I've already said, they are indeed both equals!

Congratulations to the City of Brno with this fantastic Mendel Monument.

COMMENT ON:

JIRÍ SEKERÁK: MENDEL'S DATE OF BIRTH. FOLIA MENDELIANA 58/1, 2022,
page 63.

My comment refers to a curious reading error (“Kath. Taufmann”) in the church book entry, from which the author, as well as the authors J. Klein, N. Klein and Van der Pas cited by him, draw far-reaching conclusions. However, if one looks at the entire church register (Matrik), it is not difficult to see that this is the name of the midwife, which was written also in the same way in many other birth entries.

Furthermore, I note that there is no objective reason to believe the family's claims regarding Mendel's birth date, which arose decades after the birth, more than two official documents with the same wording. Based on my intensive study of the lifestyles of the people of Mendel's country, I try to give a plausible explanation for the subsequent change of Mendel's date of birth:

1. According to the entry in the church book of the parish of Groß Petersdorf by priest Johann Schreiber, Johann Mendel was born on July 20, 1822 in Heinzendorf No. 58 and baptized on the same day. His parents were Anton Mendel, farmer and Rosina, daughter of Martin Schwirtlich, gardener. The godparents were Karl Kuntscher, farmer and Julianna Walzel, farmer's wife. They confirmed the correctness of the entry by three crosses each. The midwife was Kath[arina] Teichmann, No. 35 [Groß Petersdorf].

The church book entry is an official document, the accuracy of which is confirmed by two eyewitnesses (Karl Kuntscher and Julianna Walzel). The document is perfectly legible. It offers no starting point for a reinterpretation of the normal course of a baptism at that time: The midwife was present at the birth in the parental home and brought the child accompanied by the godparents on the same day to the parish church of Groß Petersdorf, about 2 km away, where the priest Schreiber baptized the child. The godparents confirmed the entry in the church book by placing three crosses each.

Both the midwife and the two godparents could most likely read and write, as it is known for Mendel's parents too. They had the opportunity to immediately object in case of a mistake. The three crosses were the usual form at that time to acknowledge a written indication in a narrow space.

The child's parents also had no objection to the church book entry, nor to the baptismal certificate issued 12 years later with the same wording. It was not until more than another decade later, probably when Mendel entered the Augustinian monastery as “Pater Gregor”, that the mother introduced the custom of celebrating the birth two days after the official date.

2. On January 6, 1884, Mendel died at the age of 61 years. Until 1902, the public took no notice of Mendel's birthday or the date of his death, but perhaps his relatives and those who regularly had direct dealings with him, e.g. his monastic brothers. Of his close relatives, only his sister Theresa was still alive at that time.

REVIEW

ANNA MATALOVÁ and EVA MATALOVÁ, 2022: GREGOR MENDEL - THE SCIENTIST: Based on Primary Sources 1822-1884. Springer Biographies. ISBN: 978-3-030-98922-4, 304 pages.

The year 2022 was the birth bicentennial of Gregor Johann Mendel (1822–1884), with several important scholarly contributions to commemorate this occasion. Among the most significant of these is the book *Gregor Mendel: The Scientist* by Anna Matalová and Eva Matalová, published by Springer Biographies. The authors are eminently qualified to author such a work. Dr. Anna Matalová has dedicated her entire career to documenting, preserving, and publishing history related to Mendel. She was the first and last assistant to Jaroslav Kříženecký, who established the Mendelianum of the Moravian Museum. Dr. Matalová served as Head of the Mendelianum during an important time, especially when the Mendelianum became increasingly accessible to scholars at the time of the Velvet Revolution. During her long and productive career, she published numerous books and articles on Mendel, organised the International Mendel Forum conferences, promoted establishment of a fund for renovation of Mendel's birthplace and childhood home in Vražné-Hynčice, and facilitated the research of countless scientists and historians. Most importantly, related to this book, she curated hundreds of documents and other ephemera associated with Mendel, many of which are quoted in text and reproduced in photographic images throughout this book. Dr. Eva Matalová is a research scientist at the Institute of Animal Physiology and Genetics of the Czech Academy of Sciences and Professor at the University of Veterinary Sciences in Brno. With her mother, Anna, she has been instrumental in promoting and facilitating scholarly and educational activities at the Mendelianum throughout her career, including the annual Mendel Forum professional conferences, International Mendel Day, and numerous youth activities for students.

This book exhaustively documents Mendel's history like no other. As such, it is an enduring and indispensable resource to scientists, historians, and others interested in Mendel, and will be for years to come. The text is accessible and readable, setting the stage in each chapter for the book's greatest contribution: its massive compilation of images of hundreds of documents and historical photographs from the archives of the Mendelianum and other repositories, many in colour with accompanying texts and explanations. In addition to images of historical documents, the authors also have highlighted photographs of scientific instruments, buildings, and artwork dating to Mendel's life as a scientist and cleric, such as his barometer, telescope, and garden tools, and paintings in the Old Brno Abbey that he commissioned, including old photographs of works no longer in existence. The book consists of seventeen chronological chapters of Mendel's scientific career, beginning with his admission to the Augustinian Order in Old Brno in 1848 when his scientific career began, plus an eighteenth chapter that summarises his life and scientific contributions. Each chapter includes textual explanations of the subject and period, with images of documents, historical photographs, and ephemera associated with the chapter's

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