

A rohonci kód [The Rohonc Code]. By Benedek Láng. Budapest: Jaffa, 2011. 227 pp.

If there is anything that makes a scholar get out of his armchair and pace his room like a man possessed, chewing on the stem of his glasses or pulling at his beard, murmuring to himself and going through the whole gamut of emotions from optimistic outbursts to utter despair, then it is one of the well-kept secrets of history, an undecipherable text or unbreakable linguistic code. No historian who believed these writing systems to be absolutely unbreakable would take his chance and dedicate a huge amount of his time, money and energies into trying to decipher them. He must have the itchy feeling that he might be the one who finds the missing clue, puts the pieces of the jigsaw into a coherent whole and either breaks the code or proves that it is, indeed, unbreakable.

There are a number of such long known but hitherto undeciphered puzzles in historical research, from the Linear A writing system of ancient Crete and the Rongorongo writing of Easter Island, through the pictorial codes of the Voynich manuscript to the nineteenth-century Beale ciphers. People with very different backgrounds, scholars with an interest in the codes' historical context, amateur code breakers, experts employed by intelligence agencies, mathematicians, linguists, treasure-hunters and many more have attempted to unveil their mysteries. While the efforts may be heroic, the rewards are often meager. Many famous or ill-famed codes have turned out to be forgeries, (dirty) tricks played on contemporaries and later generations for riches and fame, an intellectual challenge taken a tiny bit too far.

While all of these cryptic writing systems have received intense scholarly interest and been the subjects of large numbers of studies and monographs, a similarly intriguing and undeciphered code had to wait a long time before getting the attention it deserved. The Rohonc code is contained in a 450-page codex, a richly illustrated book with long sequences of ciphers handwritten on 10 × 12 cm paper sheets. It derives its name from the Castle of Rohonc (now Rechnitz, Austria) one of the aristocratic residencies of the Batthyány family, who accumulated an unmatched collection of over 30,000 books there, many of which—the codex in question included—ended up in the library of the Hungarian Academy of Sciences in 1838. The Batthyánys had always been known for their bibliophilia, and their passion for collecting caused them to acquire books from the most diverse sources. It is therefore almost impossible to know where this particular codex came from.

After the codex passed to the library of the Hungarian Academy of Sciences, a few enthusiasts saw in the code some form of ancient Hungarian writing and attempted to decipher it accordingly. When they realized it was not, the codex was discarded as a mere forgery unworthy of a gentleman's attention. And so it largely remained until a fatal encounter with historian Benedek Láng some time in 2006. How much Láng paced his room rubbing his beard cannot be known for sure, but it seems safe to conclude that the appeal of the Rohonc codex was impossible for him to resist and prompted him to engage in years of research. The result is a monograph that both educates and entertains.

Láng starts with an overview of the nineteenth century, which was undeniably a golden age for forgers, particularly those specializing in documents of historical interest. There were many ambitious attempts to fill awkward gaps in the big narrative of small nations and produce examples of greatness of mind and culture, testimonies promoting the cause of people who felt deprived of historical justice. Hungary had a particularly rich pool of well-qualified and even well-known historical and literary scholars who indulged in forays to the dark side and became expert forgers. Such was their skill that some of their alleged products are still sometimes thought to be authentic. Two notable examples are Kálmán Thaly (1839–1909) and Sámuel Literáti Nemes (1794–1842): one because of his peculiar duplicity, being a historian who took great pains to save original documents from decay but at the same time a forger who created historical letters and “old military songs” in the style of eighteenth-century anti-Habsburg movements; the other because of his (possible) connection to the codex of Rohonc.¹

Literáti Nemes was an antiquarian who worked for many of Hungary's best-known contemporary booklovers. He brought to light a great number of fantastic items, but was not averse to supplying his clients with exquisite forgeries. Some of these he made himself, others he probably only passed on to unsuspecting enthusiasts. These forgeries, twenty-three altogether, are now kept in the National Széchényi Library in Budapest.² They include old maps, diplomas, Hungarian language prayers from the eleventh century and many richly illustrated genealogies and chronicles. Some are better than others, and interestingly, despite firm evidence to the contrary, there still are a few amateur historians who believe in

1 Ágnes R. Várkonyi, *Thaly Kálmán és történetírása* [Kálmán Thaly and his History Writing] (Budapest: Akadémiai, 1961); Ákos Kelecsényi, “Egy magyar régiségkereskedő a 19. században. Literáti Nemes Sámuel (1794–1842)” [A Hungarian Nineteenth-Century Book Collector, Samuel Literati Nemes], *Az Országos Széchényi Könyvtár Évkönyve 1972* (Budapest: OSZK, 1975), 307–27.

2 National Széchényi Library, Fol. Hung. 1365/1 and 2.

their authenticity, largely because they would support one or another airy theory, such as the linguistic kinship between Hungarian and Sumeric.

It is important to note, however, that all these forgeries were short, a couple of pages at best. Even though Literáti Nemes' alleged involvement in the appearance of the Rohonc codex certainly casts the shadow of suspicion over its originality, Láng warns that the sheer size of this work sets it apart from the other well-known forgeries associated with Literáti Nemes. Nonetheless, such was the magnitude of the scandals and the wave of disappointment surrounding the documents which Literáti Nemes sold to various clients that the Rohonc codex was too easily assumed to be another of his mischiefs.

The Rohonc codex stands out from other hitherto undeciphered codices by its plainness: it contains no rich, colorful illustrations, indeed its pictures are almost primitive, as if radiating certain piety, and the codes are not especially decorative (unlike those in the Voynich manuscript, for instance). If it is a forgery, it must have been difficult to sell as something precious, and the immense efforts of the forger (he wrote 446 pages, after all) may not have been financially rewarding. All these aspects lend weight to the idea that the codex of Rohonc is not a forgery.

But before revealing any potentially conclusive evidence, Láng goes through the fascinating and occasionally almost ludicrous theories which have been associated with the code. From the Hungarian engineer who simply “read” the characters of the two pages of the codex at his disposal as an Ancient Hungarian prayer (he was not discouraged when it turned out that he held the pages upside down), through the even more far-fetched “reading” of the Romanian archaeologist who dedicated twenty years and a massive volume to deciphering the codex (without realizing she had read the characters in the wrong direction), to the Sanskrit kinship theory, one thing is common: they all serve different ideologies, each heavily loaded with historical-political implications, desires, grudges and ambitions. Other, less biased attempts at deciphering the code did not reach a solution but developed a promising methodology and offered more help for future attempts.

After this overview of his predecessors' work, Láng tells his own story: how he approached the problem, and what he discovered. From down-to-earth physical examination methods, especially those directed at the watermarks, he found that the paper of the Rohonc codex was made in Northern Italy—Vicenza or Udine—in the mid-sixteenth century, although Láng is cautious about narrowing down the time and place it was made. He further analyses the paper, the ink, the type of pen used to write the codes, and the hand(s) which wrote the lines. With the help of an

international expert, Joe Nickell, he draws the cautious conclusion that the writing is probably not (much) later than the paper itself, and goes right to left. There is no obvious indicator of the text being a forgery. Still, the possibility remains that the sixteenth-century paper remained unused, unwritten for centuries, possibly lying low in the Batthyánys' enormous library, and so Láng determines the *terminus ante quem* as 1838 and the *terminus post quem* as 1530.

A close examination puts the possible number of characters at between 120 and 150, but the final figure is still to be determined. The difficulty lies in the fact that there is no punctuation, one does not know where one word or sentence ends and where the next begins. Neither can the presence of a natural or artificial language behind the codes be determined, and if it is a natural language, which one it could be. One is left with more questions than answers, but Láng reminds the reader that whatever the motivation for the making of the codex, and whether or not it contains a natural, shorthand or perfect language, the goal is clear: cryptanalysis and code-breaking.

Finding little to go on in the codes, the author turns to the 84 peculiar images in the codex. Some of these are relatively easy to recognize: they tell stories from the life of Christ, among them the Annunciation, the Three Magi with the Star of Bethlehem, Christ before Pilate, and so on. Others, however, are less obvious. An art-history analysis of the images—based on the types of churches and buildings, the distorted gothic shapes—suggests that they were drawn in the sixteenth or seventeenth centuries; they also have a marked East European tinge. It may thus be possible to narrow down the potential languages associated with the codes (assuming that we are dealing with a natural language) to Latin, German, Hungarian, South Slavic and Romanian.

Láng then goes on to try and identify “cribs” in the text, starting from the short inscriptions in the images. The frequent repetition of certain figures, Christ included, under the same set of codes suggests some promise for this line of attack, but the breakthrough is yet to come. Similar conclusions regarding these inscriptions have recently been reached by other workers. Gábor Tokai and Levente Zoltán Király seem to have produced the most convincing results thus far, and their ongoing work is more than promising. It seems then that the codes of Rohonc conceal notions rather than letters, character strings refer to words, but single characters do not correspond to single sounds.³

3 Gábor Tokai, “Az első lépések a Rohonci-kódex megfejtéséhez” [The First Steps Toward an Undeciphering of the Rohonc Codex], *Élet és Tudomány* 55–56, no. 52–53 (2010), no. 2 (2011): 1675–78, 50–53; Levente Zoltán Király, “Struktúrák a Rohonci-kódex szövegében. Helyzetjelentés egy amatőr

If the author's partial conclusions are true, then we are dealing with a Biblical text of some sorts. This throws up some very exciting possibilities, such as an apocryphal text written for and by a sect like the Bogumils, but something like a Book of Hours, a much more widespread form at the time, is more likely. The fact that the text runs from right to left could indicate the influence of Hebrew or Arabic/Turkish languages. But what is that text? Who encrypted it? Why and for whom? So many are the possibilities in the colorful East European scenario that the question remains open for the time being.

Finding no satisfying solution based on the content, Láng goes on to approach his text from a more technical/practical angle. The following chapter offers an exciting overview of the secret writing systems known in Western Europe and Hungary: monoalphabetic and polyalphabetic methods and homophonic writing, which was the predominant method until the end of the seventeenth century. These code systems were first applied in diplomatic correspondence and were also widespread in seventeenth-century Hungary: the codes used by György Rákóczi II, Prince of Transylvania, Imre Thököly, Miklós Zrínyi and even Archbishop Péter Pázmány are all examples of homophonic writing. These were by no means easy to break—the code used by Pázmány, for instance, was deciphered only through close collaboration between a historian and a code breaker.⁴ The historian's knowledge of historic facts and faces was crucial in suggesting what names of persons and geographical places the nomenclators could stand for, while the code breaker lent his expertise in cryptography and the mathematical regularities in secret writing.

Cryptography was not the only technique. Stenography was also widely used, and when the table matching characters to words or syllables is missing, the text becomes hard or even impossible to read. The Rohonc code may even be an example of shorthand writing, although its pool of characters seems too complicated and unusual for that.

kutatásról” [Structures in the Text of the Rohonc Codex: A Status Report on an Amateur Research], *Theológiai Szemle* 54, no. 2 (2011): 82–93.

4 Péter Tusor, “Pázmány bíboros olasz rejtjelkulcsa: C.H. Motmann ‘Residente d’Ungheria’: A római magyar agenzia történetéhez” [Cardinal Pázmány's Italian Codebook: C. H. Motmann ‘Residente d’Ungheria’. On the History of the Hungarian Agenzia in Rome], *Hadtörténelmi Közlemények* 116 (2003): 535–81; Zoltán Révay, *Titkosírások. Fejezetek a rejtjelezés történetéből* [Ciphers. Chapters from the History of Cryptology], (Budapest: Zrínyi Katonai Kiadó, 1978); idem, *II. Rákóczi Ferenc és korának rejtjelezése, XVIII. század* [Cryptography of Ferenc Rákóczi II, Prince of Transylvania and His Age] (Budapest: Magyar Néphadsereg Híradó Főnökség Kiadása, 1974).

Returning to the problem of what actual language lies behind the codex of Rohonc, Láng discusses the many efforts at creating (or finding a long-lost) perfect single language, a key to all mysteries, a common ground between cultures and religions, and ponders the possibility that the Rohonc code is one of these. Artificial languages were especially popular at the time it was most probably made, the late sixteenth and seventeenth centuries. Still, the earliest known example of an artificial language project from Hungary is the work of the eighteenth-century Hungarian intellectual vagabond, György Kalmár.⁵

Benedek's highly complex and intellectually challenging tour-de-force concludes with a chapter which, rather than promising a grand breakthrough, a final solution, a fantastic discovery, modestly offers the reader a summary of "what we know for sure, what we are quite sure we know, and what we have no idea about." I will not spoil the pleasure of future readers by giving away the author's conclusions, but I would like to highlight some of the merits of this monograph.

It is unusual for a book on the Hungarian market, combining high erudition (and a digestible amount of endnotes after each chapter) as demanded by academics with a down-to-earth, even entertaining narrative style accessible to general readers. Láng revives a tradition of popularizing science, something snug academics tend to frown on. Having proved enough times his knowledge of sources and methods, he has now made use of them to cater for a much wider audience. In the 1980s, the tradition of renowned academics reaching out to a more general public through popular versions of their scholarly work still flourished in Hungary.⁶

Nonetheless, the book is not for the faint hearted, delving deep into the world of combinatorics, paleography and historical research, although the reader may choose how far to follow the details. The appendices, one with a list of the illustrations in the Rohonc codex and one with a summary of code breaking methods, actually invites the reader to have a go and try for him/herself. And this is one of the great strengths of the book: it does not state unquestionable truths but invites us to think along. Who knows, maybe the final key to the code of Rohonc lies with one of the future readers of Benedek Láng's book.

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⁵ *Præcepta grammatica atque specimina linguae philosophicae, sive universalis* (Berlin: D. Iacobaeer, 1772).

⁶ Many such books were published in the Magyar História (Hungarian History) and the Labirintus (Labyrinth) series.