

Notes on the Early History of the Tangram in Germany by Hartmut Walravens

The tangram has become quite popular again after World War II, but few people have bothered to look into the history of the game. Certainly, the classics on the book market by Joost Elffers [1] and Ronald C. Reed [2] give sketches of its origin and development, but for them the game's history is a side issue and the scarcity of sources forced them to make do with what was available and what bibliographies indicated.

Although Elffers cites German and Austrian tangram books with publication dates as early as 1805 and 1810, it is now generally agreed that the earliest tangram books were published in China between 1813 and 1815. Nevertheless, in 1984, Elffers' classic was translated (from German and Dutch) into Chinese [3]. This reminds us of the reintroduction of patchwork, an old European and East Asian technique (probably going back to the patched Buddhist monks robes), into Europe and Japan after World War II.

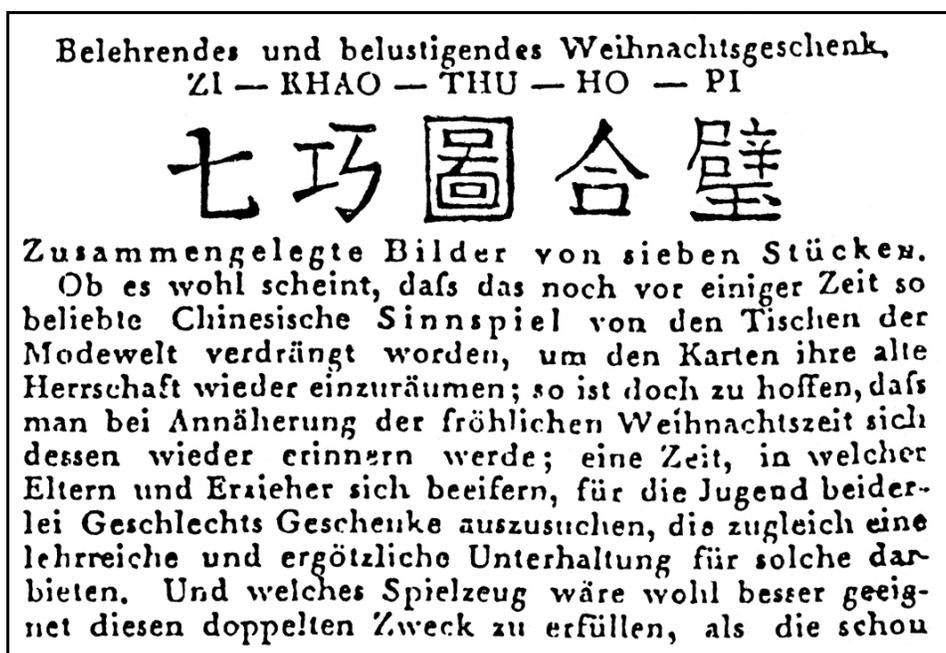


Figure 1. Tangram advertisement from *Berlinische Zeitung*, 1822

Firm ground is provided only by the recent publication of *The Tangram Book* by Jerry Slocum [4]. It gives reliable surveys of publications by countries and includes bibliographic records with holdings information or other references. With regard to Germany, we learn that the high time of the tangram was apparently the period 1818 to 1820 when a remarkable number of books were published, usually based on English material but often presented in German,

English and French for marketing reasons. We know very little about the publishers and editors of the game in Germany. For this reason it may be interesting to offer some information on two early efforts to popularise tangram.

An early tangram advertisement

My colleague, Dr. Rainer Schwarz (Berlin), was kind enough to bring to my attention the advertisement shown in Figure 1, which was published in *Berlinische Zeitung* in December 1822 [5].

Following is the English translation of the advertisement:

Instructive and amusing Christmas present.

ZI – KHAO – THU – HO – PI

七巧圖合璧

(*Qiqiao tu hebi*)

Composing pictures from seven pieces.

Although it seems that the Chinese Mind Game (*Chinesische Sinnspiel*), recently so well beloved, has been ousted from fashionable tables to allow card games their old dominance, it may nevertheless be hoped that with the advent of the merry Christmas tide people will remember it once again. This is a time when parents and educators strive to choose presents for young people of both sexes, presents, which provide entertainment both instructive and amusing. And what better toy to fulfil this double purpose than the Chinese puzzles mentioned above? Boys who are not yet familiar with the sciences will derive from it the ability of serious thinking, and without realising it themselves will gain preparation for the study of mathematics; experience has shown that this game greatly facilitates the study of this discipline. Those to whom geometry is completely foreign will find material for sufficient, ever-renewed, entertainment in the endless diversity of analysis and composition offered by the seven pieces that make up the game. Young ladies, who often amaze men with their mental capacity and their unique ability to quickly connect ideas, will find in this game the means to develop even further their delicate talent for detecting difficulties; and the rich gift of invention with which nature has particularly endowed them will become even more pronounced in fanciful pictures and compositions.

The editor of this game sees no better proof that his edition is the only one of genuine Chinese origin than to provide its Chinese title, as he has done at the beginning of this announcement, just as it appears on the original Chinese copy, which is unique in Europe and in his possession; all the original figures have been used, then many others added to create the collection which the editor now presents to the esteemed public.

It consists of twelve plates and three hundred figures; gradually the admirable diversity of compositions becomes even more evident, as an attentive observer will find among the figures accurate sketches of many animate and inanimate objects.

Seven little tablets whose shape and relationship is similar to those mentioned above, in a mahogany box along with descriptions and drawings of 300 figures, are available for one Reichsthaler in the following art stores, stationery stores and bookshops: in Berlin, at P.A. Gamet, Brüderstraße; – F. Selke, formerly Barbiez, Schleusenbrücke No. 15; – in Dresden, antiquary Hultgren, esq., New Market No. 741; – in Leipzig, at Fried. Fleischer.

This gives us a precise date (Christmas 1822), confirming that the game was actually published and was available at the mentioned stores. The reference to the Chinese Mind Game, a prior tangram publication, agrees with Slocum's statement that the high tide of tangram in Germany was from 1818 to 1820.

The mark of a Chinese scholar

But there is another angle to it. Uncommon for newspaper advertisements in those days, the actual Chinese characters are given, and not even in a mutilated way. That would mean that the unknown editor who claimed to have the original Chinese book of problems seems to have known Chinese. There were very few people in Europe at that time with this kind of language command, mainly in France where in 1814 the first chair of Chinese was established at the Collège de France and the physician Jean Pierre Abel-Rémusat was appointed its first occupant. So who was this anonymous person?

The transliteration used gives us a lead: *zi* would have been impossible in English or French as a rendering of *qi* “seven”; but it qualifies as a proper transcription in German and Russian. Now we have a scholar who was self-taught in Chinese, but became a member of the St. Petersburg Academy of Sciences and accompanied the abortive Golovkin embassy to China: Julius Klaproth (1783-1835) from Berlin [6]. Klaproth, who won the protection of the Humboldt brothers and thus of the Berlin court, was appointed Professor of Asian Languages at the newly established university at Bonn in 1816 but was permitted to settle in Paris to follow his research interests. There he started, with Abel-Rémusat and other Orientalists, the Société Asiatique (1822) and became a prolific writer (more than 300 publications) and awed critic. By the way, Klaproth was the son of a famous father: Martin Heinrich Klaproth (1743-1817), chemist and pharmacist who discovered no less than four chemical elements, among them uranium.

It is also worth noting that the transcription contains a flaw: the character *qiao* 巧 “skillful, ingenious” is rendered “khao” (kao 攷 “to check, to investigate”) instead of “khiao”. This is easily explained as both characters are very similar and can easily be confused, but more about this later...

A princely discovery

The story goes on, however. My colleague Helga Keller, formerly of the Berlin State Library, found a little book from the former library of the Prussian royal household, a manuscript dedicated to the Prussian crown prince. The book is titled *Zy khaò thû ho py* (*Qiqiao tu heb*), and the dedication is signed by its translator, Julius Klaproth. Figure 2 shows the first two pages of the book.

Dedication: “Sr. Königlichen Hoheit dem Kronprinzen von Preußen allerunterthänigst gewidmet vom Übersetzer.” (“To His Royal Highness, the Crown Prince of Prussia, dedicated most humbly by the translator.”) Stamp: “Königliche Haus-Bibliothek, Berlin” Title page: “七巧圖合璧 *Zy Zy khaò thû ho py*. Aus sieben Stücken künstlich zusammengelegte Bilder. Nach der im Jahre 1814 in China erschienenen Ausgabe, aus dem Chinesischen übersetzt von J. H. Klaproth. Februar 1819.” (“Pictures artfully put together from seven pieces. Translated from the Chinese by J. H. Klaproth from the edition published in China in 1814. February 1819.”) Stamp: “F. W.” [Friedrich Wilhelm]

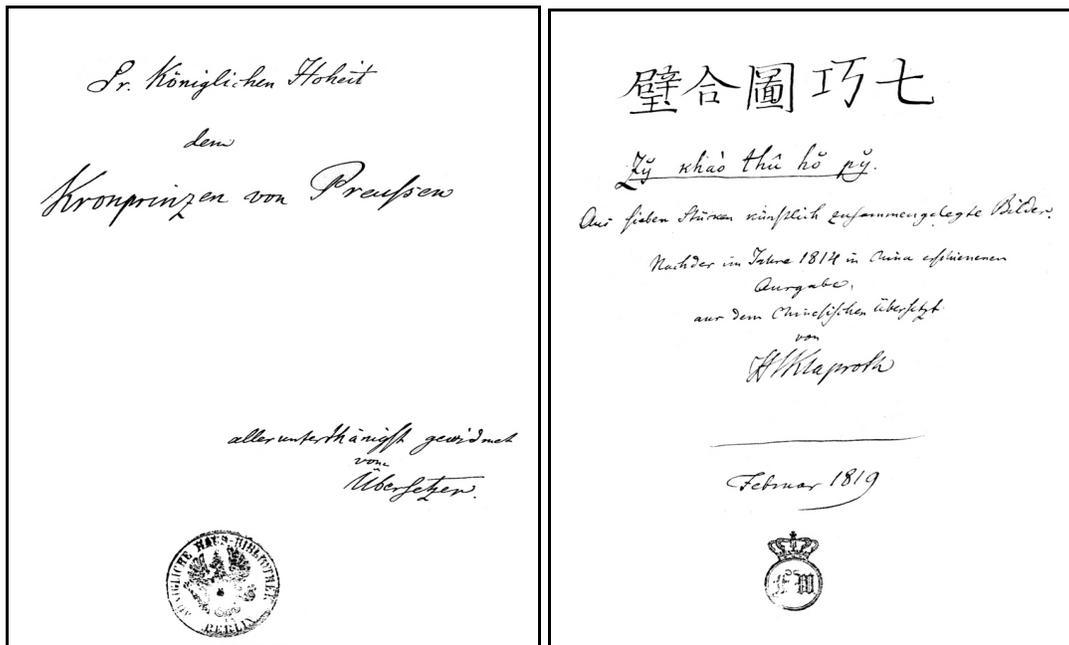
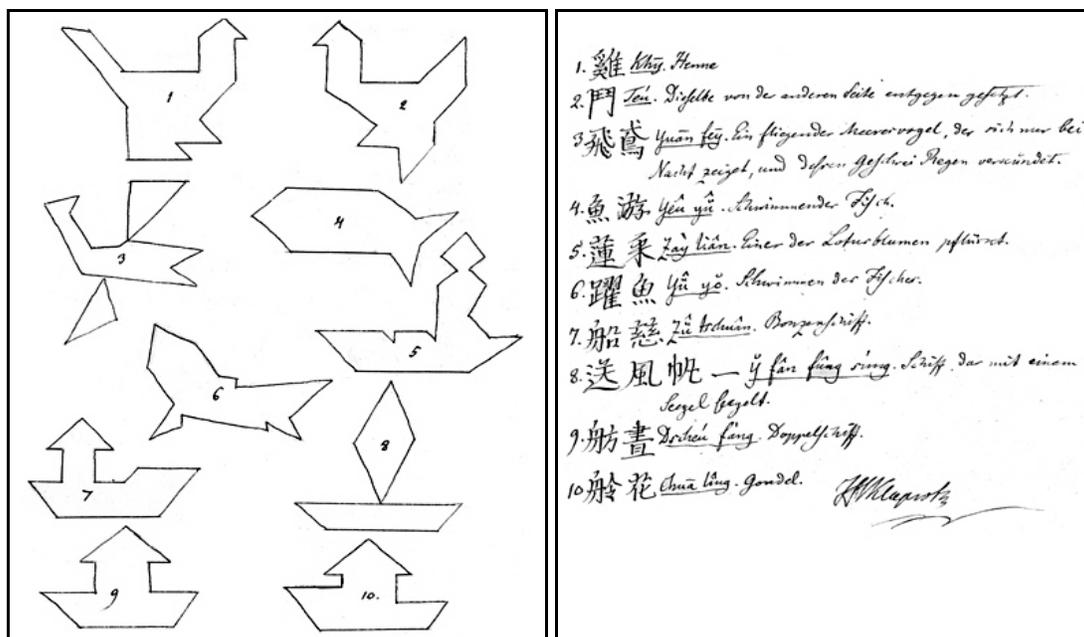


Figure 2. Dedication and title page of Zy khao thú ho py, translated by Julius Klaproth in 1819

Above all, the little book proves Klaproth's interest in the tangram—he either owned a copy of a tangram book or had access to one, and he translated it in order to win the attention of the crown prince or to thank him and the royal house for their support. The date is noteworthy, for in 1819 interest in the tangram was at its height in Germany. This was the opportunity to prove that Klaproth's Chinese expertise was not only useful to scholars like Wilhelm and Alexander von Humboldt but also had general appeal.

Pages from Klaproth's tangram book

Figure 3 shows a representative pair of pages from Klaproth's manuscript.



1. Hen. 2. The opposite side of the same hen. 3. A flying sea bird which only appears at night and cries out to announce the rain. 4. Swimming fish. 5. Picking lotus flowers. 6. Swimming fish. 7. Fancy ship. 8. Sailboat. 9. Double-facing ship. 10. Gondola.

Figure 3. Zy khao thú ho py, problem set 26

Montucci's *Chinesisches Sinn-Spiel*

Before we return to Klaproth's book—a unique document of early tangram history—let us look at another German tangram publication which was possibly referred to in the 1822 advertisement: *Chinesisches Sinn-Spiel* (*Chinese Mind Game*) [7], by A. Montucci. Slocum describes Montucci as “a Doctor of Law and philologist from Dresden” and also says that about 200 of the 300 problem figures in Montucci's book “were taken from Wallis' *The Fashionable Chinese Puzzle*, and about 100 were newly invented” [8] and that a copy of the third edition of the book, published in Dresden in “[1840?]” and copublished in Berlin and Leipzig, is held by the Mozarteum in Salzburg [9].

What is said about Montucci is quite correct, but there is more to it [10]:

- Montucci lived from 1762 to 1829; therefore the original edition of *Chinesisches Sinn-Spiel* must have been published before 1829. The third edition, however, may well have been published in or around 1840.
- It is not quite clear when Montucci moved from Berlin to Dresden. In December 1817 he was still in Berlin, while in 1819 he was already installed in an apartment in Dresden. Montucci remained a resident of Dresden until 1827.
- The third edition of *Chinesische Sinn-Spiel* was published in Dresden. According to 19th century German publishing practices, this indicates that the first edition had also been published there.
- It is known from Montucci's own library catalogue that he owned a copy of Qiqiao tu [11]: “Edition chinois du jeu très-répandu en Europe, nommé le casse-tête chinois. Deux cahiers, dont l'un donne les figures à faire avec les noms en chinois de ce qu'elles représentent, et le second cahier montre la position des pièces pour chaque figure.” (“Chinese edition of the game widely known in Europe, called Chinese casse-tête. Two fascicles, one of which gives the figures to make along with their Chinese names, and the second shows the position of the pieces for each figure.”)
- On June 10, 1818, the Berlin bookseller Nicolai paid 10 Reichstaler to Montucci “Pour une douzaine du Casse-tête Chinois, connu sous le Nom de *Chinesische Sinn-Spiel*, en Commission à 20 gr. la pièce” [12] (“For a dozen of Chinese Casse-tête, known under the name of *Chinesische Sinn-Spiel*, in commission at 20 *groschen*.”)

These data easily lead to the conclusion that Montucci's *Chinesisches Sinn-Spiel* was first published in Dresden in 1818 at the height of the German tangram fashion. He was not dependent on Wallis' book but owned the Chinese original (problems and solutions) and may have used it extensively [13]. This deserves to be investigated.

Who was Montucci, by the way, besides being a lawyer and philologist? Montucci was a native of Siena where he took his doctorate in law but at the same time became infatuated with the study of languages. He worked as an English master, and having made the acquaintance of Josiah Wedgwood (1730-1795), the “porcelain king”, he moved to Great Britain in 1789. He stayed there until 1804 and studied Chinese as well as he could. He designed the idea of compiling and printing a Chinese dictionary (there was none in Europe at that time) and began collecting Chinese dictionaries and having the

characters engraved in wood. He applied to the French government, which was willing to have a Chinese dictionary published. But Joseph Hager (1757-1819), an Orientalist from Milan with little knowledge of Chinese, was invited, not Montucci. When the project failed, the government invited Chrétien Louis Joseph Desguignes (1759-1845) who had spent the years 1783-1797 in China to print Basilio Brollo's manuscript dictionary—which he did but without doing any philological work on it. Montucci went to Berlin in the hope of support from the Prussian government but Napoleon took over Germany, and the Prussian court went into exile. Montucci kept giving language lessons, later also to the royal family, and around 1818 moved to Dresden, all the time continuing the cutting of Chinese type. Finally, after the publication of Morrison's Chinese dictionary [14], he gave up his life's work, sold his Chinese collection and typography to Pope Leo XII, moved back to Siena in 1827, and died there in 1829.

Conclusions

- There was a hitherto unrecorded tangram publication in 1822, which probably goes back to Julius Klaproth.
- Klaproth's handwritten translation of a tangram book, dedicated to the Prussian Crown Prince, still exists and is an early document of scholarly interest in the game.
- The first edition of A. Montucci's *Chinesisches Sinn-Spiel* is to be dated 1818.
- So there were two German tangram books between 1818 and 1822, which were not dependent on previous British editions but went back to the Chinese originals.
- This also proves that tangram was not only a popular pastime but also the object of scholarly work, even if triggered by the hope for some supplementary income.
- The 1822 publication was sold by Gamet, Fleischer and other paper and bookstores, like Montucci's 1818 work. Therefore the question may arise whether Montucci was also behind the 1822 publication. This may be answered in the negative as the title is completely different (while there were two further editions of *Chinesisches Sinn-Spiel*), and the transcription points to Klaproth. That the same publishers, or *commissioners*, were involved just means that they were the major players in the market.

In his postscript Klaproth gives the Chinese terms for the five distinct tangram shapes. He then continues:

According to the Chinese preface of the latest edition of the game, which appeared in China in 1814, it is based on the theory of the right-angled triangle. The first edition contained only one hundred and sixty compositions, and a following one had over two hundred; the present edition adds nearly a hundred more. The publisher did not give his name, but signed the preface simply Sangxia ke, "Guest under the mulberry tree".

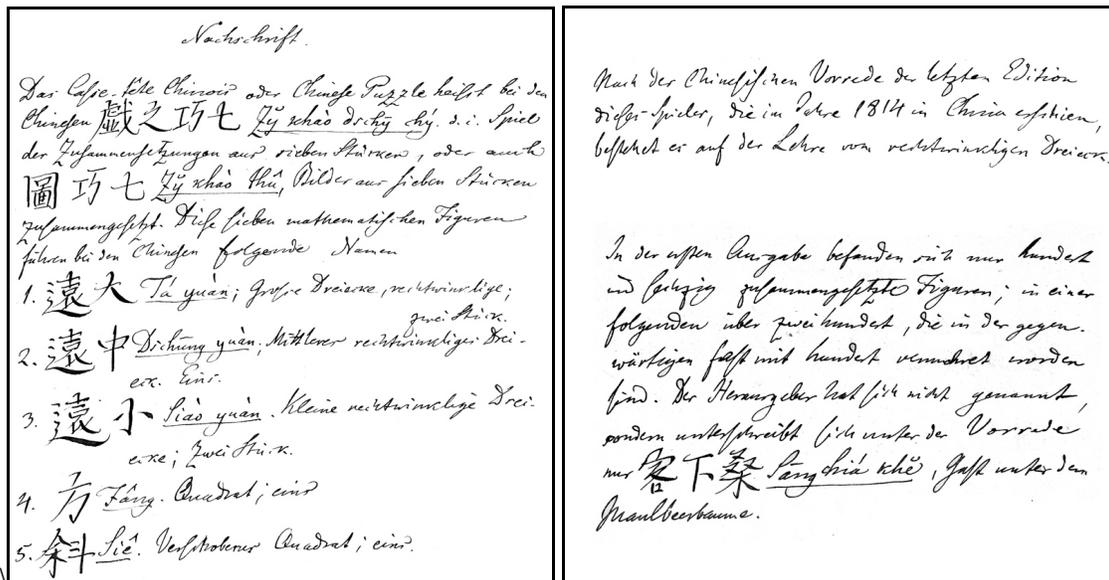


Figure 4. From Klaproth's postscript to *Zy khaò thū ho py*

References

- [1] Joost Elffers, *Tangram: Das alte chinesisches Formenspiel*, DuMont, Köln, 1973.
- [2] Ronald C. Read, *Tangram: 330 Puzzles*, Dover, New York, 1965.
- [3] Joost Elffers, *Qiqiaoban: Zhongguo gulaodi pinban youxi*, Beijing chubanshe, 1984. (Thanks to Dr. Claudius Müller of Munich for making this book available to me.)
- [4] Jerry Slocum, *The Tangram Book*, Sterling, New York, 2003.
- [5] Berlinische Zeitung. 152, December 19, 1822.
- [6] Cf. H. Walravens, Julius Klaproth (1783-1835): *Leben und Werk*, 1999; Julius Klaproth (1783-1835): *Briefe und Dokumente*, 1999; *Zur Geschichte der Ostasienwissenschaften in Europa: Abel Rémusat (1788-1832) und das Umfeld Julius Klaproths (1783-1835)*, 1999; Julius Klaproth (1783-1835): *Briefwechsel mit Gelehrten*, größtenteils aus dem Akademiearchiv in St. Petersburg, 2002. All published by Harrassowitz, Wiesbaden.
- [7] *Chinesisches Sinn-Spiel (Chinese Mind Game)*, A. Montucci, Dresden, P. A. Gamet, Berlin, F. Fleischer, Leipzig, [1840?].
- [8] Slocum, *The Tangram Book*, p. 96.
- [9] *Ibid.* p. 189.
- [10] For details cf. H. Walravens, Antonio Montucci (1762-1829), Lektor der italienischen Sprache, Jurist und gelehrter Sinologe; Joseph Hager (1757-1819), Orientalist und Chinakundiger: zwei Biobibliographien, Bell, Berlin, 1992 [1993].
- [11] No. 58 in his catalogue of Chinese books; cf. Walravens, *op. cit.*, p. 63.
- [12] Cf. Walravens, *op. cit.*, p. 43.
- [13] His copy is preserved in the Vatican Library, Fondo Borgia Cinese, no. 443.5-6. The title is given as Qiqiao tujie, while Montucci's catalogue says Qiqiao tu hebi.
- [14] Dictionary of the Chinese Language, 3 vols., 1815-1823.

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Tangrams probably originated in China in the late 1700's or early 1800's, not thousands of years ago as some have claimed. However, possibly the oldest known dissection puzzle, the "Lokulus of Archimedes" or "Ostomachion" was written about in the 3rd century B.C. Read more about the Ostomachion below in my notes on the Lokulus puzzle.Â One interesting challenge using the standard Tangram set of seven pieces is to build all possible convex geometric figures. (A convex figure is one in which any two points can be connected by a straight line segment which lies entirely within the figure.)Â Slocum debunks Loyd's claims and explores the true history of the Tangram puzzle, based on globe-spanning research.