

2004-03-25

## The Turk at Paderborn - visiting an event on March 25th, 2004

### Reincarnation of a Marvel



Welcome to the guests by the HNF manager Norbert Ryska within a worthy setting

The evening of March 25th, 2004 at the Paderborn [Heinz Nixdorf MuseumsForum](#) (HNF) was not only a definite highlight for chess historians as the world's largest computer museum presented for the first time an operative reproduction of the Turk to the astonished audience. I found it nice that this "reincarnation" was given a worthy setting - congratulations to the organizer!

After an introduction by the HNF manager, Mr. Norbert Ryska the official speaker of the evening, Prof. Ernst Strouhal from the University of Applied Art in Vienna could get more than 400 spectators in the right mood for the historico-cultural background of this "automaton" and his brilliant creator, the Austrian public servant Wolfgang von Kempelen (1734-1804).

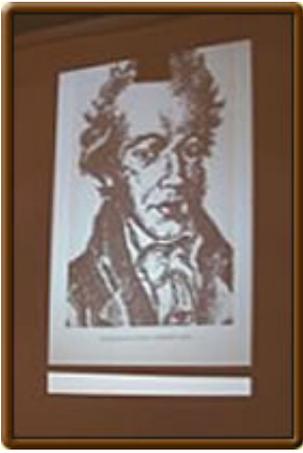
(This lecture is mainly given in KARL issue 4/2002 – thanks to the editorial staff, particularly to our member Johannes Fischer that this article is now to be found in the Internet – see [KARL online](#)).



Ernst Strouhal giving his lecture on an interesting minor figure of history, the Austrian court counsellor Wolfgang von Kempelen (born in Bratislava) and his creations as well as other "androids" of that time.



The Turk ...



... and his architect Wolfgang von Kempelen





The famous trio of androids by the mechanic and clockmaker **Pierre Jaquet-Droz** (1721-07-28 to 1790-11-28) is a real marvel, it was created about 1774 at La Chaux-de-Fonds and is now in the **Musée d'art et d'histoire** at Neuchâtel.

The organ player (picture on the left) simulated breathing and looked in turns at the notes, her hands and the audience. She is able to play five different pieces especially composed for her.

The writer (picture above) is able to write any text of up to 40 characters. The third android, a draughtsman produces four different drawings.

Something more detailed is Henner Schneider in *Wissenschaftliche Grundlagen: reale und abstrakte Automaten*, section

[Die Androiden der Jaquet-Droz](#) (pdf-file; in German only) (source: Internet)

The bilingual website of **Philippe Sayous** is completely devoted to the androids and automatons of the 18th century:

[The androids and artificial animals website](#) (in French/English)



Afterwards the central figure came into action with assistance of Kempelen's servant Anthon (splendidly played by the actor Heiko Grosche- a well-known interpreter of Morgenstern) – this will be shown by several pictures.



The curtain opens, the game will start ...



The actor Heiko Grosche as servant Anthon assists the "Turk" with the following game.



Michael Barz of the Paderborn chess club is sceptically looking at the wild position of the King's Gambit.



The spectators are watching very intently, among them also our webmaster Dr. Ralf Binnewirtz.



Regarding the chess content of the presented game it was more a good joke ...

□ Schachtürke  
 ■ Barz  
 ohne Zeitvorgabe 25.03.2004

1.e4 e5 2.f4 exf4 3.Sf3 Sf6 4.e5 Sh5  
 5.Le2 g5 6.0-0 Sc6 Diagramm

	a	b	c	d	e	f	g	h	
8	♠		♠	♠	♠	♠		♠	8
7	♠	♠	♠					♠	7
6			♠						6
5				♠			♠		5
4						♠			4
3						♠			3
2	♠	♠	♠	♠	♠	♠	♠	♠	2
1	♠	♠	♠	♠	♠	♠	♠	♠	1
	a	b	c	d	e	f	g	h	

7.Sxg5 Dxc5 8.Lxh5 Lc5+ 9.Kh1 Tg8  
 10.Lf3 Sxe5 11.d4 Sxf3 12.Dxf3 Lxd4  
 13.Lxf4 Dg4 14.De4+ Kd8 15.Te1 Lc5  
 16.Sc3 f5 17.Dd5 c6 18.Sb5 d6 19.Sxd6  
 cxd5 20.Sf7+ Kd7 21.Se5+ Kd8 22.Sf7+  
 Kd7 23.Se5+ Kd8 24.Sf7+ Diagramm

	a	b	c	d	e	f	g	h	
8	♠		♠					♠	8
7	♠	♠			♠			♠	7
6									6
5			♠	♠	♠				5
4					♠	♠			4
3									3
2	♠	♠	♠			♠	♠	♠	2
1	♠				♠			♠	1
	a	b	c	d	e	f	g	h	

½-½

The drawn game against the first chairman of the Paderborn Chess Club "Blauer Springer 1926", Mr. Michael W. Barz [1] seemed a bit "artificial" but after all the human being met a "Wiedergänger" [2] of that machine which is supposed to have inspired Cartwright when building his mechanical loom and also Babbage to the conception of his mechanical calculator.

In the year 1770 the "Turk" played his first game before Maria Theresa's very eyes, in 1854 it burned - after a continuous tour all over Europe and the USA - somewhat dusty and forgotten at the (Chinese) Museum in Philadelphia. The inner workings of the chess playing machine were one of the most protected secrets in those days – no philosopher of the Enlightenment, neither the concentrated shrewdness of the Paris Academy (1783) nor Edgar Allan Poe who had observed the Turk in 1835 saw through the brilliant conception of Wolfgang von Kempelen.

[1] Unfortunately we have to inform you that **Michael Wolfgang Barz** was killed in a motorbike accident in August 2004, he was only 41 years old. (RJB, in January, 2005)

[2] "Wiedergänger" = restless ghost of a dead person; an exact English translation seems to be missing, see for example this [forum](#).

But much to faithful Anthon's annoyance the secret should be revealed in Paderborn: afterwards Norbert Ryska, the curator of the HNF, Dr. Stefan Stein and the creator of the Paderborn reconstruction, restorer Bernhard Fromme explained themselves to the audience – at last also the "man in the box", Joachim Schwarzmann, member of the Paderborn chess club was asked to come on stage.



Norbert Ryska interviewing Bernhard Fromme, Dr. Stefan Stein in the background.



An adult could perfectly hide from the eyes of the spectators in this cabinet of walnut – 1.5 m wide, 95 cm high and 90 cm deep – even if the doors were open, a clever mechanism of flaps and movable walls was helpful in this connection. The actor himself – sitting on a set of wheels – could adroitly change his position.



There is a hinged chess board in the interior, with the help of an ingenious mechanism a pantograph transfers by leverage each move made by the operator on the small board up to the left arm of the Turk. Whatever occurred on the large board, i.e. which piece was moved there, could be made out by the man in the box with the aid of descending magnetic pins.



Joachim Schwarzmann (on the right), member of the Paderborn chess club had operated the Turk.



**Picture on the left:**

After the event everyone wanted to know all the details, Dr. Stein – on the right behind the Turk – explained himself to the people. While doing this it became clear what precision the mechanics had to work with, minimal deviations on the board in the box resulted inevitably in "mistakes" on the large board.

**Picture on the right:**

There is neither a dwarf nor a monkey sitting inside the figure – all is based on clever illusions and sound mechanics – but unfortunately it's no real "palaeo-robot".

Including the closing reception in the forum of the museum - we were generously allowed to be guests of the HNF - you can only speak of a very successful event. For the time being the "Turk" will stay in the foyer of the "MuseumsForum" as object of admiration, a video recording will reproduce the scene of the servant Anthon and the chess game.



For Ernst Strouhal this was a successful evening, too; evidently he enjoyed the great interest in his publications. At this point we may draw your attention to a new work on the Turk for collectors:



Kempelen - zwei Maschinen by Brigitte Felderer and Ernst Strouhal  
Sonderzahl Verlag 2004 28 pages (Leporello) ISBN 385449209X Price: 29.70 Euro



The Kempelen family had specially arrived from Budapest in order to attend this event at the evening before the 200th dying day of their ancestor.



You'll meet in Paderborn – Hans-Jürgen Fresen from Bochum and Ralf Binnewirtz



KWA members and friends at a relaxed get-together at the end of the event From the left: Michael Höhn, Klaudia Wieschollek, Rolf Schlösser, Dr. Harald Balló, Norbert Fieberg, Hans-Jürgen Fresen, and Dr. Ralf Binnewirtz.

We may point here to a reprint published by Harald Balló in 2002 – [facsimile edition](#) - "Über den Schachspieler des Herrn von Kempelen und dessen Nachbildung" by Freiherr Joseph Friedrich zu Racknitz; the original dates from the year 1789 and describes in a rather authentic way the probable functioning of the "apparent automaton".

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A special exhibition on Kempelen's chess automaton is held from April 3rd to May 31st, 2004 in the Swiss Museum of Games - you will find more details in this [contribution](#) (pdf file; in German only) kindly provided by our member Ulrich Schädler.

In addition to our report we refer subsequently to some interesting articles (partly "online"):

[Schachtürke wieder zum Leben erweckt](#) - at the website of the HNF.

[Von Kempelens Schachautomat](#): Ein Nachbau des Schachtürken in Paderborn (by Ralf Bülow)

From the local and national press:

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26.03.2004 00:05 Uhr



**Geheimnisvoll und genial**

Das HNF hat den Schachtürken zu neuem Leben erweckt

Von Hubertus Hartmann

Paderborn (WA). Der Türke senkt mit einer eckigen Bewegung den Kopf, zieht die schwarze Dame von C3 nach E5 und schlägt den weißen König. Auf der Stirn des Gegners erscheinen Schweißperlen, doch der Türke verzehrt keine Miene. Denn das Schachgenie mit dem Fez ist eine Puppe, ein Mythos, die perfekte Mischung aus Magie und Mechanik. 70 Jahre lang sorg der Schachtürke der Menschen in seinem Bären. Heute ist die erste Schachmaschine der Welt die Sensation im Heinz Nixdorf-Museums-Forum (HNF).

— Westfälisches Volksblatt



— Kölner Stadt-Anzeiger - Nr. 73 (March 26, 2004)



— FAZ March 30, 2004

- [Der Spiegel 13/2004 \(114.4 KiB\)](#)
- [Süddeutsche Zeitung \(March 27/28, 2004\) \(12.9 KiB\)](#)

At ChessBase Spotlights - André Schulz: [Der erste Schachcomputer war keiner](#)

Baron von Kempelens Schach-"Automat" [Automaten und Androiden](#)  
(Excerpt from E. Wenzel Mracek: Simulatum Corpus. Vom künstlichen zum virtuellen Menschen. Graz 2001) (article of 19 pages; a bit hard to load due to the pictures!)

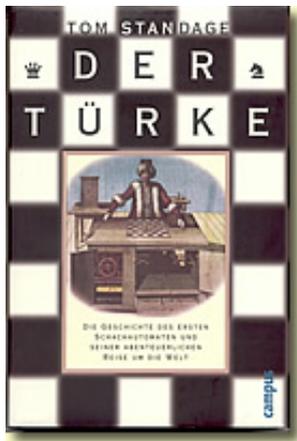
Gerald Giesecke: [Der Türke](#) Künstliche Intelligenz des 18. Jahrhunderts.  
(ZDF - aspekte) Including an interview with Brigitte Felderer and Ernst Strouhal as well as a video on the Turk (with a somewhat too loud musical accompaniment).

[Die ersten Roboter](#) (The first robots) with numerous links also on v. Kempelen! We would like to point only to two further articles:

Frederic Friedel: Ein Türke spielt Schach, in: Computer-Schach & Spiele 3/1986, p. 14-17

Karsten Bauermeister: Auferstehung des Türken, in: Computer-Schach & Spiele 2/2004, p. 16-17

In closing we would like to give some references to literature on Wolfgang von Kempelen and his "Turk"—unfortunately the nice book from the series "Die bibliophilen Taschenbücher" including a treatise by Marion Faber is completely out of print.



**Tom Standage**

**Der Türke**

Die Geschichte des ersten Schachautomaten und seiner abenteuerlichen Reise um die Welt

Campus Frankfurt 2002; ISBN 3-593-36677-0

(in English: The Turk, The Life and Times of the famous eighteenth-century chess-playing machine; Walker, New York, ISBN 0-8027-1391-2)



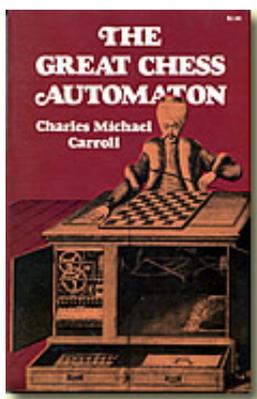
**Der Schachautomat des Baron von Kempelen**

(Reprint "Racknitz", as well as Edgar Allan Poe and Theodor Heuss)

(including an essay by Marion Faber)

Die bibliophilen Taschenbücher Nr. 367

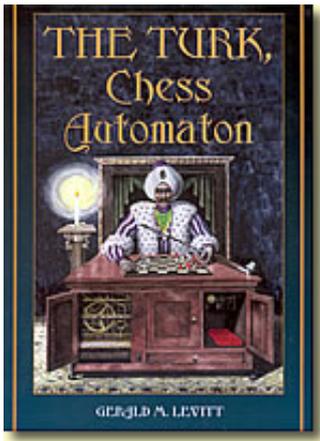
Harenberg Dortmund 1983; ISBN 3-88379-367-1



**Charles Michael Carroll**

**The Great Chess Automaton**

Dover Publications New York, N.Y. 1975 (original publication)



**Gerald M. Levitt**

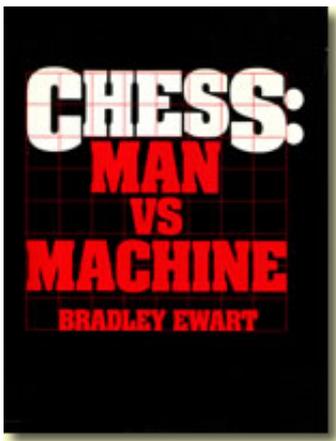
**The Turk, Chess Automaton**

McFarland & Co. Publishers,

Jefferson N.C. 2000

ISBN 0-7864-07778-6

From the literature on chess automatons (generally) the following two items may be selected:



**Bradley Ewart**

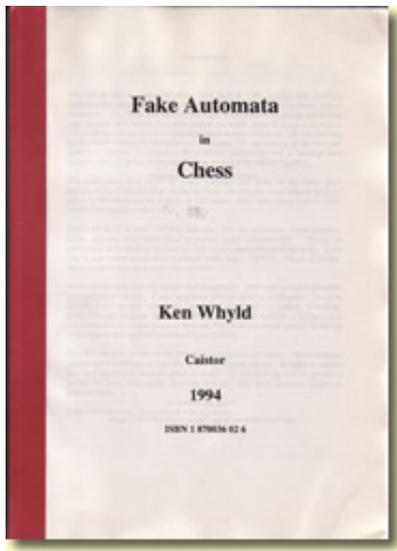
**CHESS: Man vs Machine**

A.S. Barnes & Comp., Inc.

San Diego • New York /

The Tantivy Press, London 1980

ISBN 0-498-02167-X



**Ken Whyld**  
**Fake Automata in Chess**  
Caistor, 1994  
ISBN 1 870036 02 6

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This report was compiled/written by Michael Negele;  
some additions and English translation by Ralf Binnewirtz.