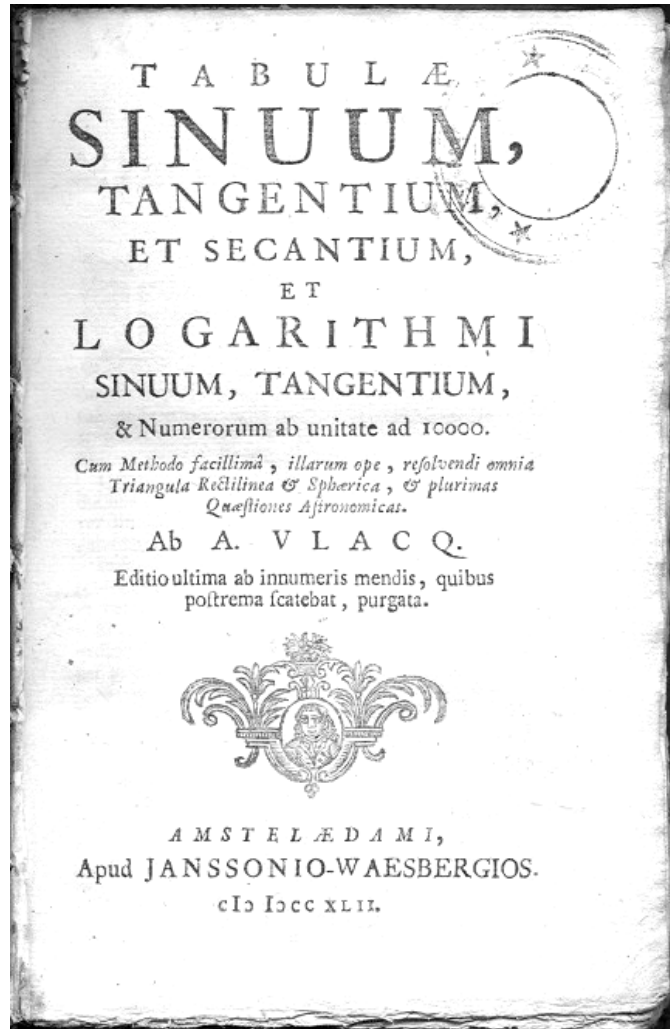


My Special Item - Mein Besonderes Stück:

## Vlacq Table of Logarithms, 1742



Acquired during April 2004 at the Dutch Circle stand in a collectors fair from a retired instrument maker at the Agricultural University of Wageningen.

Shown to the audience of IM2004 on 26 September 2004, according to the following

### **Principles of Collecting:**

***“with the acquisition of a special item, a collector acquires at the same time the responsibilities of its stewardship, to preserve the item well until a proper destination has been found for its next life, to assemble and keep knowledge about the object, and to share this with the community”***

## **Numerous Years of Publication for Vlacq's Log Tables**

(limited scan from Leiden Museums, Bierens de Haan and ZVAB/antiquarian bookhandlers)

<b>1628</b> F-L (Arithm. Log. II)	<b>1706</b> G (10,000)	<b>1808</b> G (10,000)
<b>1636</b> D (10 x 100,000)	<b>1721</b> Chinese Arithm. Log. II	<b>1821</b> G (10,000)
<b>1651</b> F-L (100,000)	<b>1721</b> G (10,000)	
<b>1657</b> D (100,000)	<b>1725</b> G (10,000)	
<b>1658</b> D (7 x 10,000, octavo)	<b>1732</b> G (10,000)	
<b>1661</b> D-F-G-L (10,000)	<b>1738</b> G (10,000)	
<b>1665</b> D-F-G-L (100,000)	<b>1742</b> L (10,000)	
<b>1666</b> F (100,000)	<b>1748</b> G (10,000)	LEGEND
<b>1670</b> F (10,000 postuum)	<b>1757</b> G-L (10,000)	D=Dutch: "Nieuwe Konstige Tafelen ... "
<b>1673</b> G (10,000)	<b>1760</b> F (10,000)	F=French: "Tables de Sinus ... "
<b>1681</b> L (10,000)	<b>1763</b> G (10,000)	G=German: "Tabellen der Sinuum ... "
<b>1683</b> D (10,000)	<b>1768</b> G (10,000)	L=Latin: "Tabulae Sinuum ... "
<b>1689</b> G (10,000)	<b>1775</b> G (10,000)	
<b>1690</b> F (10,000)	<b>1778</b> G (10,000)	
<b>1695</b> G (10,000)	<b>1784</b> L (10,000)	
	<b>1790</b> L (10,000)	

### **Cooperation between Vlacq and de Decker**

<b>Adriaan Vlacq</b>	<b>Ezechieel de Decker</b>
<b>1600</b> born in Gouda	
	<b>1603</b> born in Leiden
	<b>1621</b> moves to Gouda as surveyor & teacher
<b>1624</b> reads Briggs' "Arithm. Log." and starts planning a completer version	
<b>1625</b> , 24/12: obtains copyright for plan	
<b>1625</b> , 17/12: signs partnership contract with D.	
	<b>1626</b> , 4/9: publishes "Nieuwe telkonst part I", and appitiser for part II with the already existing logarithms of the numbers 1 to 10000 and trigs
<b>1626</b> , 31/12: summons D. to calculate part II	
	<b>1627</b> , 2/10: publishes "Nieuwe telkonst part II" "Het Groote Werk": 10 x 100,000 (Rediscovered by Haaften in 1920)
<b>1628</b> publishes French and Latin versions of "Arithm. Log. Part II, extended" (Copper plates for tables used from D.)	
	<b>1631</b> moves to Rotterdam, maritime work
<b>1632</b> opens bookshop in London	
<b>1636</b> prints first "own" version of 1628 Tables	
<b>1642</b> opens bookshop in Paris	
	<b>1647</b> dies in Rotterdam
<b>1648</b> opens bookshop in The Hague	
<b>1667</b> dies in The Hague	

### **Some other thoughts and questions on log tables**

- Hundreds of errors have been reported in the Vlacq tables, presumably in the last digit(s), but largely corrected in newer editions
- Ranges (1-100,000) are better expressed in digit precision (e.g. 4 digits in, by 7 out), which should be "balanced" to each other (Briggs was too precise with 14 digits out)

- Were John Napier's log-tables really practical? With logarithms of sines, the calculation types are very limited: only  $\sin(a) : \sin(b) = \sin(c) : \sin(x)$ , as used in spherical trigonometry
- Who calculated Vlacq's Trig tables? Or was it copied from Edmund Gunter's "Canon Triangularum"? Did Gunter compute these himself?
- Gunter introduced a log-sine with values between 0 and 9.xxxxxxx, based on his assumption of an extremely large angle radius.  
Why did log-sin tables keep this character convention deep into the 20<sup>th</sup> century, long after the sine had been redefined to a radius of unity, resulting actually in a negative log-sine value?

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