Aftermath of the IM2014 Meeting in Delft

After the successful IM2014 Meeting on Historical Calculating Instruments in Delft, the Netherlands, 5-6 September 2014, we would like to draw your attention to the vast and widely varying information and knowledge that has been presented in the live sessions, and

which is preserved in the IM2014 Proceedings and its companion CD. Below you will find how you can obtain copies from our remaining stock. First the summaries of the twelve papers that were presented at IM2014:

1. ALRO Calculating Disc for Optical Ray Tracing

Otto van Poelje reports on a new-found ALRO desktop-sized disc from 1939; this disc turned out to have been designed for *van Leer's Optische Industrie* (later renamed *de Oude Delft*) for geometrical optical *ray tracing* calculations in lens design, according to a computing scheme designed by T. Smith in the 1920's.



2. A "mystery" PTT Slide Rule from the Netherlands Jerry McCarthy analyses and explains the scales of the NL PTT rule, based on the assumption that a number of parallel 6000 Ω loads are connected to one cable of given length. The paper ends with recently acquired information that the slide rule was not used in the telephone network, but in the PTT's "draadomroep" network – distributing radio station and studio broadcasts over cables to passive loudspeakers at subscribers' homes.

- 3. **Turning and sliding in the spinning and weaving factory with the LOGA discs** *Nico Smallenburg* gives the details of the LOGA *30 Rtx* scales for calculating yarn numbers, weight and length units in the wool, cotton and linen spinning industry. For the weaving factory the LOGA interference thread counter could measure thread compactness, and the LOGA *30 TxC* disc was used for relations between the end product's width, length, weight, and the maximum number of threads in the machine, the yarn number and the yarn loss.
- 4. Extreme Sliding Base Jumping with the Radix 2/10 Binary/Decimal Slide Rule Colin Tombeur describes his design – and the production at his home – of a logarithmic slide rule based on the binary number system. On a ten times 39 cm long scale, one can convert between binary and decimal values from 1 to 1024, and do multiplications or divisions in either decimal or binary.
- 5. Old Computing & New Generations teaching slide rules and other historical calculating instruments at schools and fairs Nicola Marras reports on his extensive experience in explaining arithmetic and calculating machines to school children using basic concepts and simple models in a dynamic and fascinating performance – using for example paperclip cursors or paper E6B's for Time-Speed-Distance. His one-liners are fascinating.
- 6. The Ross Precision Computer Types I & II A New Perspective *Edwin Chamberlain* describes two successive versions of these long spiral-scale discs and the history of their maker. Both versions use a radial slide rule to determine spiral positions, and have an unwound scale length of circa 9 meter.
- 7. **FUJI Circling the World with Straight Slide Rules** *Jose Fernández* has catalogued a large number of slide rules by *Fuji*, sold under their own or by a reseller's name. His paper gives the company's history, shows pictures, describes distinctive aspects of Fuji rules, and even mentions rules looking like Fuji's but not being Fuji. The Proceedings' companion CD contains his full Fuji catalogue as attachment.
- 8. Maximator Valorect A New but Unsuccessful Treatment of Logarithms with a Digital Adder

Stephan Weiss reveals how the Valorect, a special version of an addiator, has been

provided by maker Kübler with a *logarithmic graphical table* to allow multiplications and divisions, next to the regular additions and subtractions of the *addiator*.

9. Graphic Logarithmic Tables: – A Picture Should Be Worth A Million Numbers *David Rance* shows how regular logarithmic tables can be represented to advantage as dual scales with log values and opposite anti-log values. His attachment gives ten examples of published graphic log tables.

10. NuPuBest and EFluBest

Andries de Man describes different kinds of toolboxes to model forces and their deforming effects in structural analysis. *Meccano*-like beam and fixture construction elements are used to build an abstract model of the structure to be analysed, and effects can be seen graphically or measured: for example zero moment positions using a curvature meter, that can be used as input for further analysis.

11. How to Draw a Logarithmic Curve

Stefan Drechsler & Barbara Haeberlin give an overview of historical drawing instruments to produce special mathematical curves such as conchoids, cycloids, tractrixes, culminating in Suardi's mechanical construction to draw a logarithmic curve.

12. Milling numbers - Discovering the Millionaire Calculator

Dirk Rietveld shares with the reader his experiences in discovering the *Millionaire* mechanical calculator and its inner construction with the brass multiplication table block. The full cycle of a single multiplication movement is revealed in text and figures.

The Proceedings end with descriptions of 12 "One of a Kind" slide rules, for example a *Thornton* and a *Casella* slide rule with "mystery" scales, a new D&P disc in brass with trig scales (never seen before), a metal disc (45 cm diameter, 6 kg) by *Gebrüder Fromme* for interest calculations, and more.

How to get copies of Proceedings and/or CD?

The printed Proceedings book of 185 pages in paperback includes the IM2014 CD, and can be ordered for 40 Euro each, excluding shipping.

- Details of costs of the Proceedings + CD:
- 40.- euro without shipping, payment in cash
- 45.- euro shipping by letter post to the Netherlands, payment by bank transfer (IBAN/BIC)
- 50.- euro shipping by letter post to EU (European Union), payment by IBAN/BIC
- 52.- euro shipping by letter post outside the EU, payment by PayPal

The IM2014 CD contains all the papers in the Proceedings plus the complete FUJI Catalogue, in a single PDF file with easy navigation by mouse clicks.

Details of costs of the CD only:

10.- euro without or with shipping anywhere worldwide, payment by IBAN or PayPal

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