Chinese, Japanese, Russian, and Roman Abaci

Inadequate collection databases

2nd edition

Many museums have online collection databases. This is particularly true of the US and the UK. Unfortunately, there are still important institutions whose collection databases are currently not accessible online: e.g. the Deutsches Museum in Munich, the Heinz Nixdorf Museumsforum in Paderborn, the Arithmeum in Bonn. There are considerable differences in the informative value of the respective entries. Sometimes the information is quite detailed, sometimes rather meagre. The description of artifacts is often difficult, especially if there is no documentation. Experience shows that many entries are quite incorrect and that technical terms are sometimes wrong. When visiting museums, you may also be surprised to discover that objects are displayed incorrectly so that they cannot be used. And they are incorrectly represented in databases. This is illustrated here by two examples, the abacus (bead frame, counting frame, counting board) and the replica of Wilhelm Schickard's calculating clock. The Chinese, Japanese, Russian, and Roman arithmetical frames are shown partly correctly and partly incorrectly. The illustrations are taken from the respective collection databases.

1. Abacus

a) Correct representation

Chinese Abacus (Suanpan)

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Japanese Abacus (Soroban)

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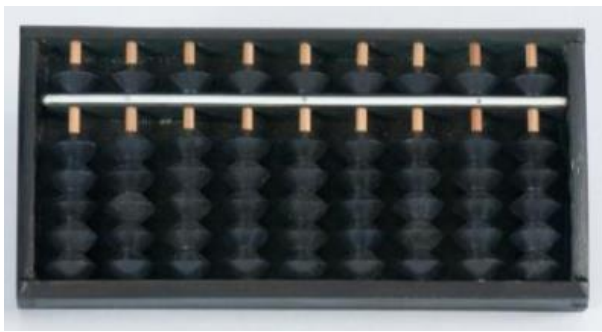

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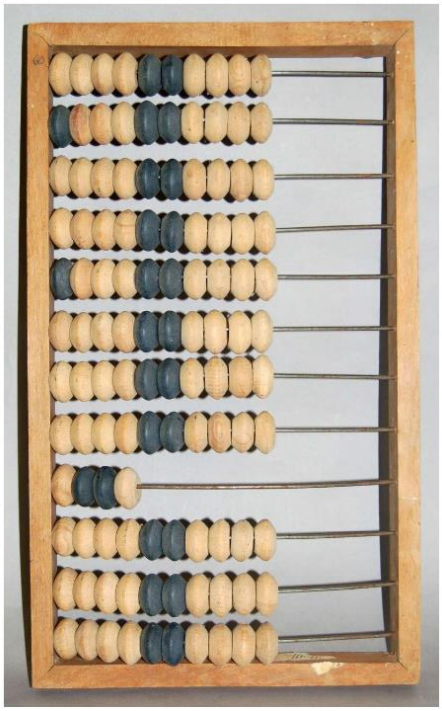
Russian Abacus (Schoty)



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School Abacus

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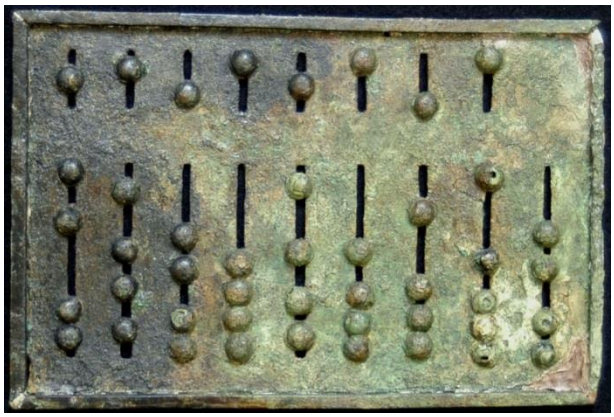
Roman Hand Abacus



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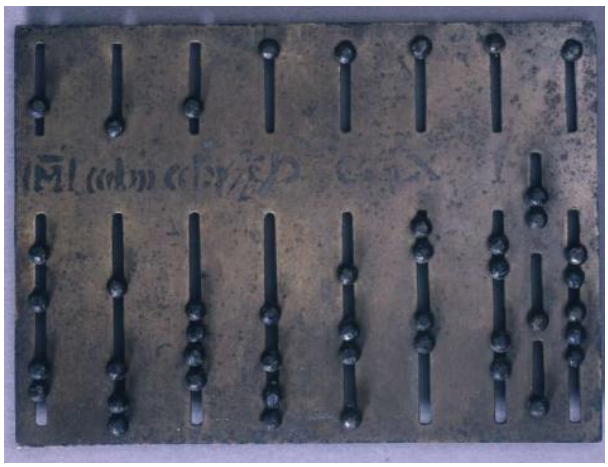
Dipartimento soprintendenza per i beni e le attivita culturali,
Archivi Patrimonio archeologico. picture: L. Berriat



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b)Incorrect representation

Chinese Abacus

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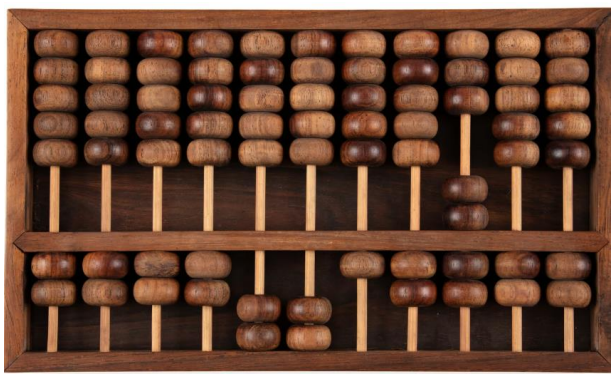

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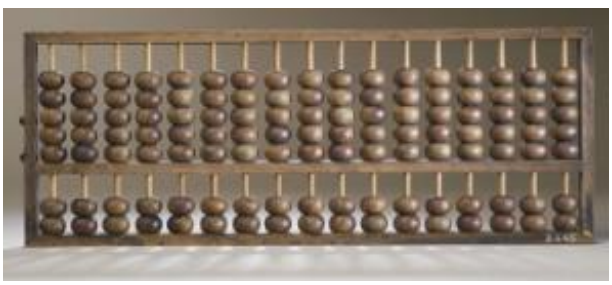

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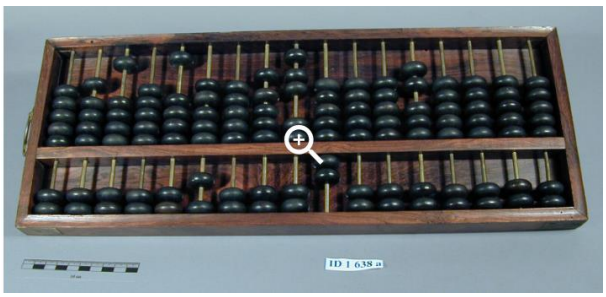

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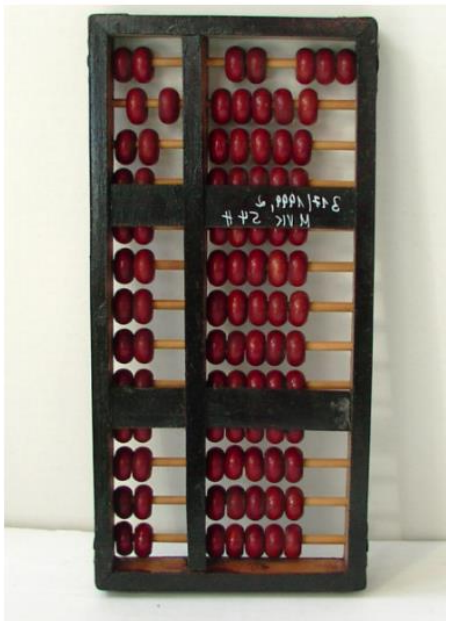

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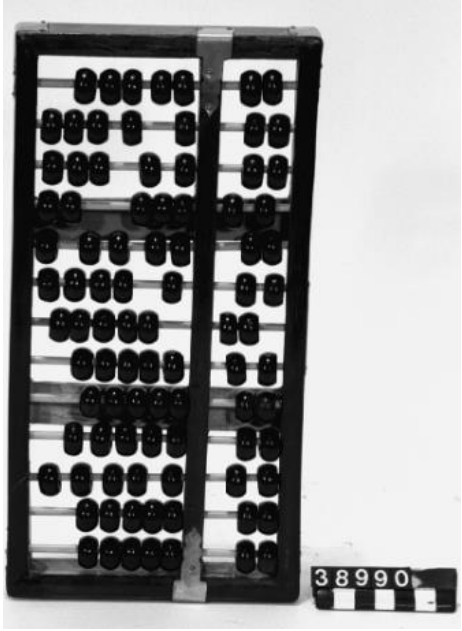

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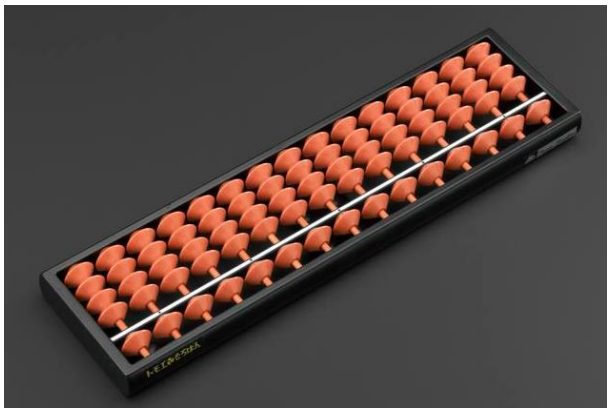
Japanese Abacus



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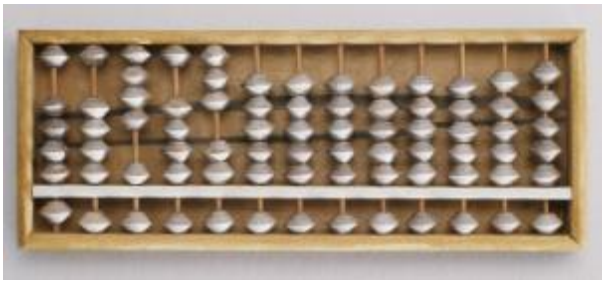

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Russian Abacus

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Roman Hand Abacus (replica)

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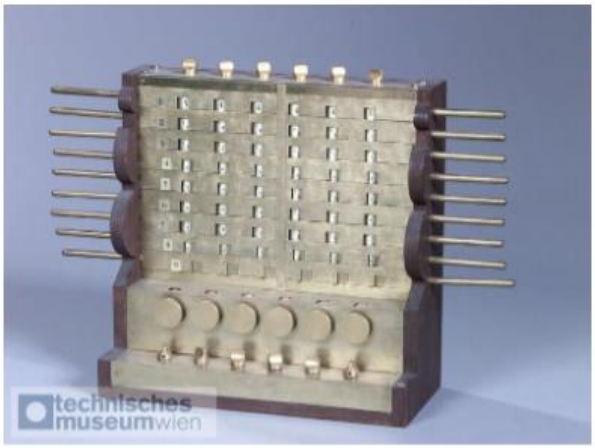
2. Schickard Calculator (replica)
a) Correct representation



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b)Incorrect representation

Schickard Calculator (replica)

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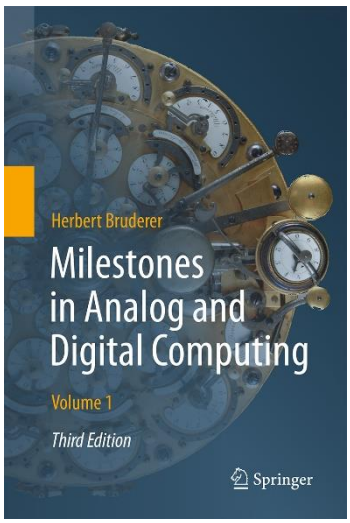
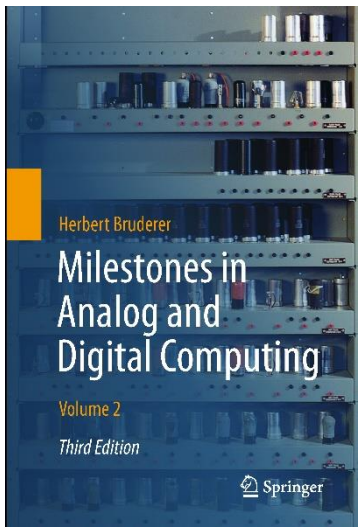
References

Meilensteine der Rechentechnik, De Gruyter, 3. Auflage 2020

Milestones in Analog and Digital Computing, Springer, 3rd edition 2020





Bruderer, Herbert: Meilensteine der Rechentechnik, De Gruyter Oldenbourg, Berlin/Boston, 3. Auflage 2020, Band 1, 970 Seiten, 577 Abbildungen, 114 Tabellen, https://doi.org/10.1515/9783110669664

Bruderer, Herbert: Meilensteine der Rechentechnik, De Gruyter Oldenbourg, Berlin/Boston, 3. Auflage 2020, Band 2, 1055 Seiten, 138 Abbildungen, 37 Tabellen, https://doi.org/10.1515/9783110669671

Bruderer, Herbert: Milestones in Analog and Digital Computing, Springer Nature Switzerland AG, Cham, 3rd edition 2020, 2 volumes, 2113 pages, 715 illustrations, 151 tables, translated from the German by Dr John McMinn, https://doi.org/10.1007/978-3-030-40974-6

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