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[Mechanical Computation & Abstract Weaving: Old Story] 🧵□

Walking in the south of France (Pézenas), I was surprised, while visiting an old private mansion with medieval architecture intended to promote the arts and crafts, to find myself in front of a Jacquard loom (1801).

The correspondence with the "computer" is obvious:

1. Use of "binary" punch cards to automate a complex task, like the first electronic computers: hole/no hole = 1/0 (Boolean binary logic).

2. "Weaving": Ada Lovelace, the first algorithmic programmer, spoke of programming as "weaving algebraic patterns".

3. Data storage and processing, etc.

It is worth noting that the industrial introduction of Jacquard looms gave rise to a violent reaction from the fabric workers: it is the "Canuts revolt", which we find with more magnitude in the later English "Luddite revolt".

Both were violently repressed by the dominant powers

It is also very interesting, in a more epistemological way, to note that the *parallel and distributed* connectionist models (ANN/PDP) are analyzed and simulated mathematically thanks to linear algebra, i.e. *matrix* algebra, a weaving of abstract numbers.

Last, the relation between weaving and the construction of a "reality" is a very old theme that we can find in many ancient traditions (in Egypt for example)
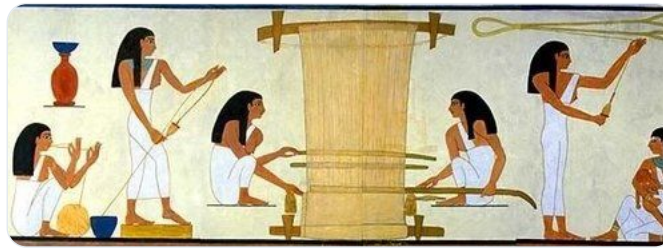
Weaving / drawing "Patterns which connect" (Bateson), isn't it what we are currently doing?

Meta-Threading with PDP linguistic models (pattern detectors):

https://www.perplexity.ai/search/what-relation-can-you-draw-bet-Wyk0KW8MTlWYIBTzyH2p1Q

@threadreaderapp unroll

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