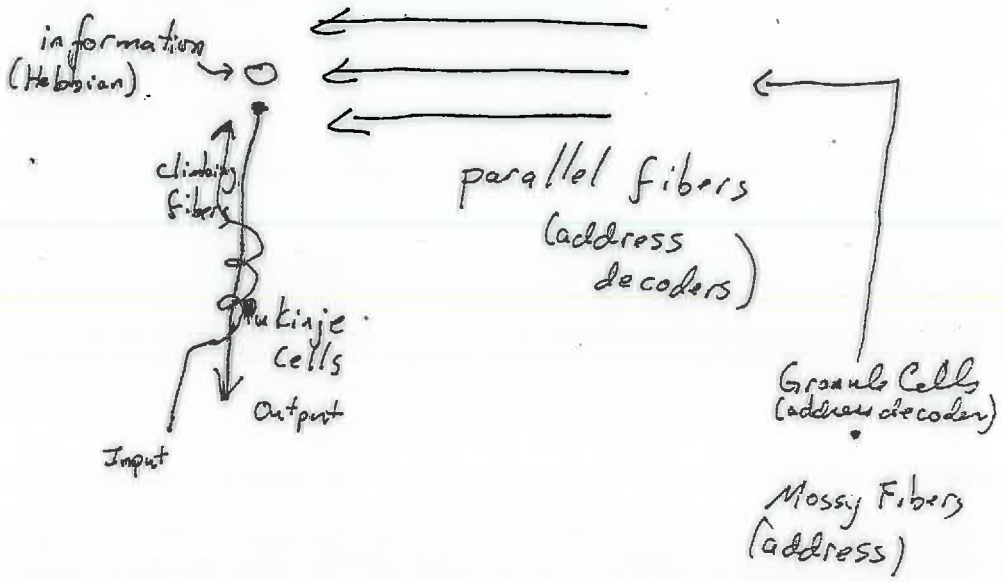
Biological Feasibility (= Biologically Non-Ridiculous (?.

- argument from physical grounds
- SDM thought of as possible (naive) model for cerebellum (Marr, 1969; Kanerva, 1984)



- Cerebellum known to be related to fine motor control (timing)
- TSDM adds timing
  (Timing by noise; or noise equivalent induced perhaps by basket cells or golgi cells.)
- So perhaps (?) TSDM can help explain storage and retrieval of fine motor control.

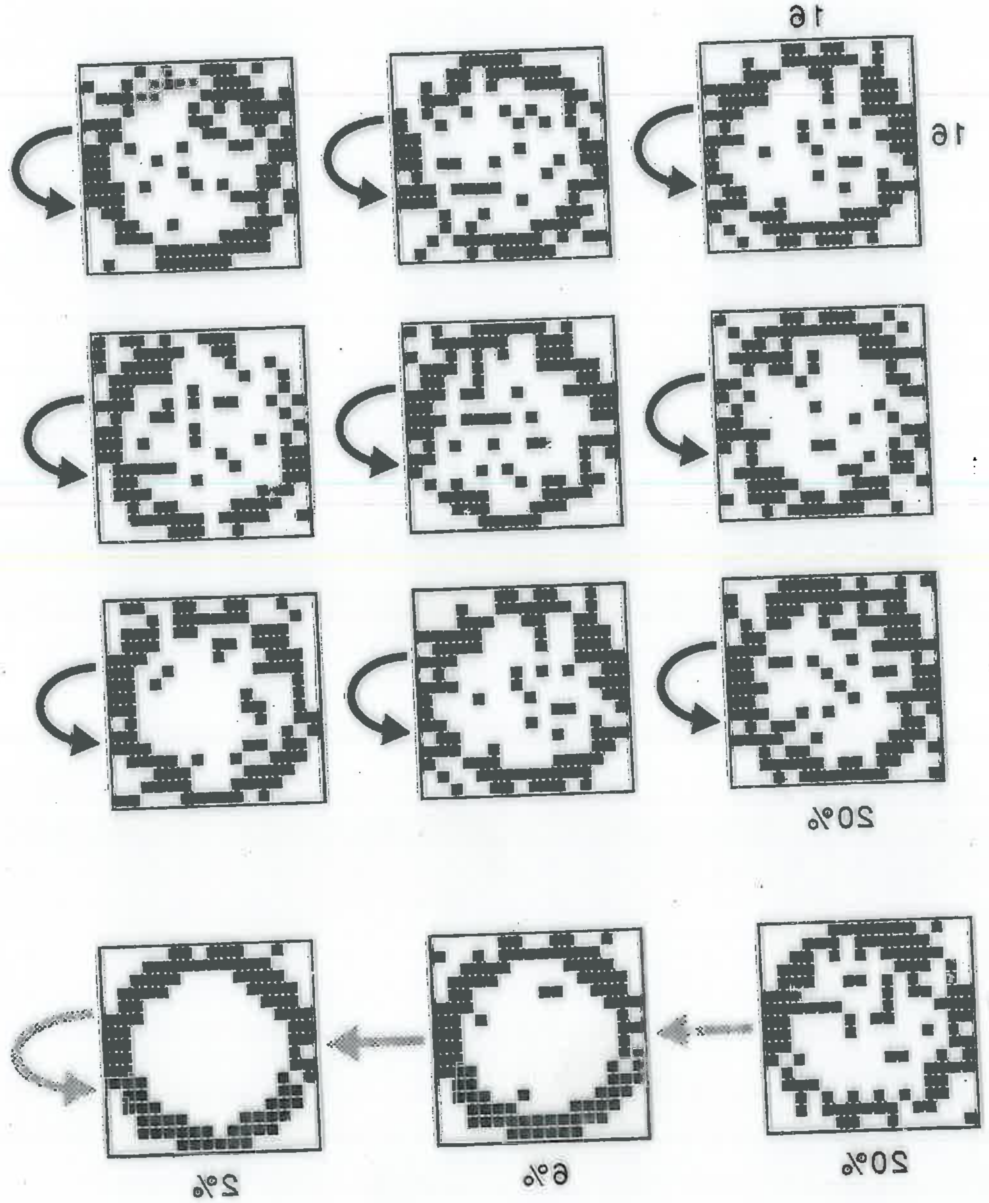
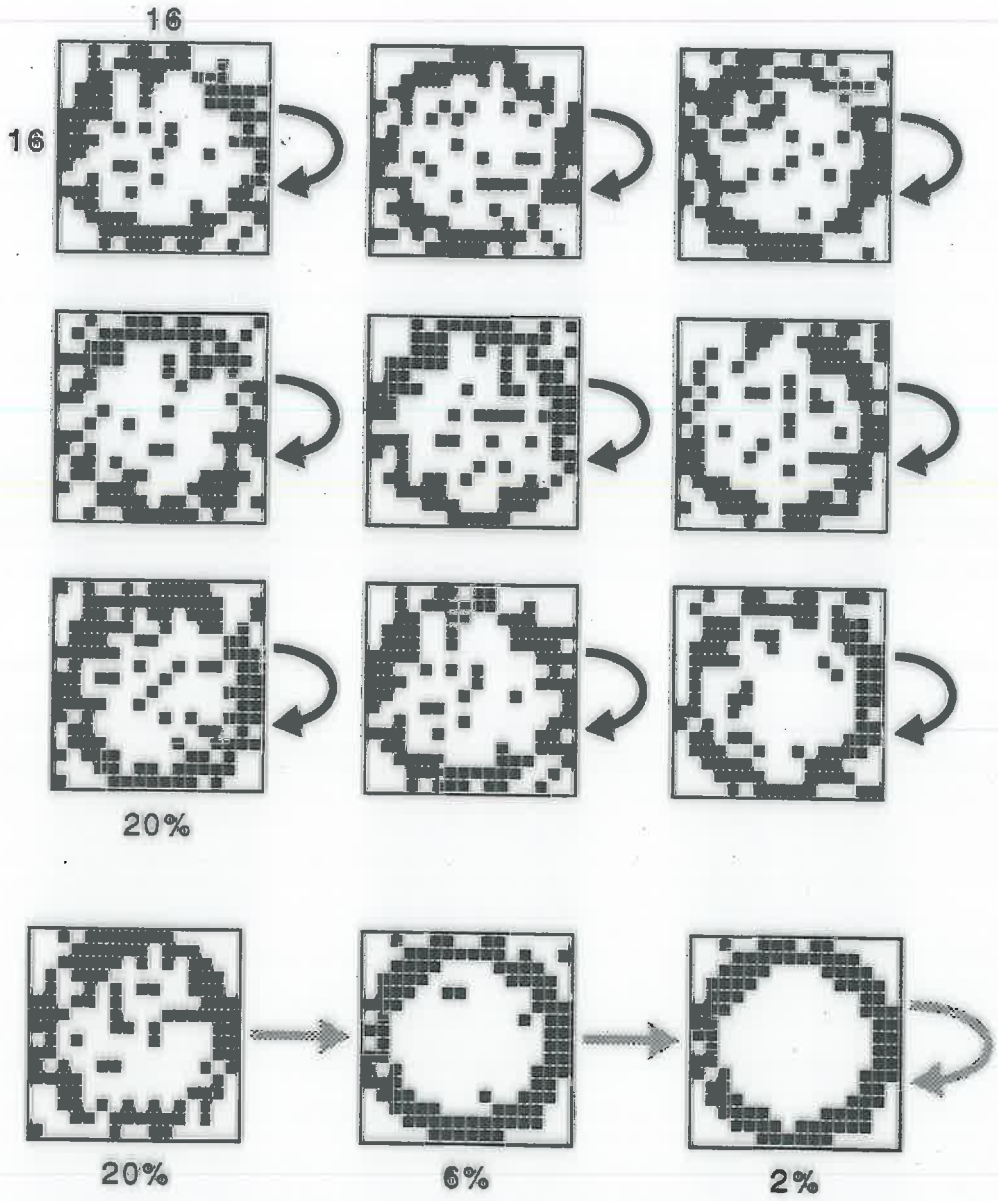


Figure 2–1. Nine noisy words (20% noise) are stored, and the tenth is used as a retrieval cue.



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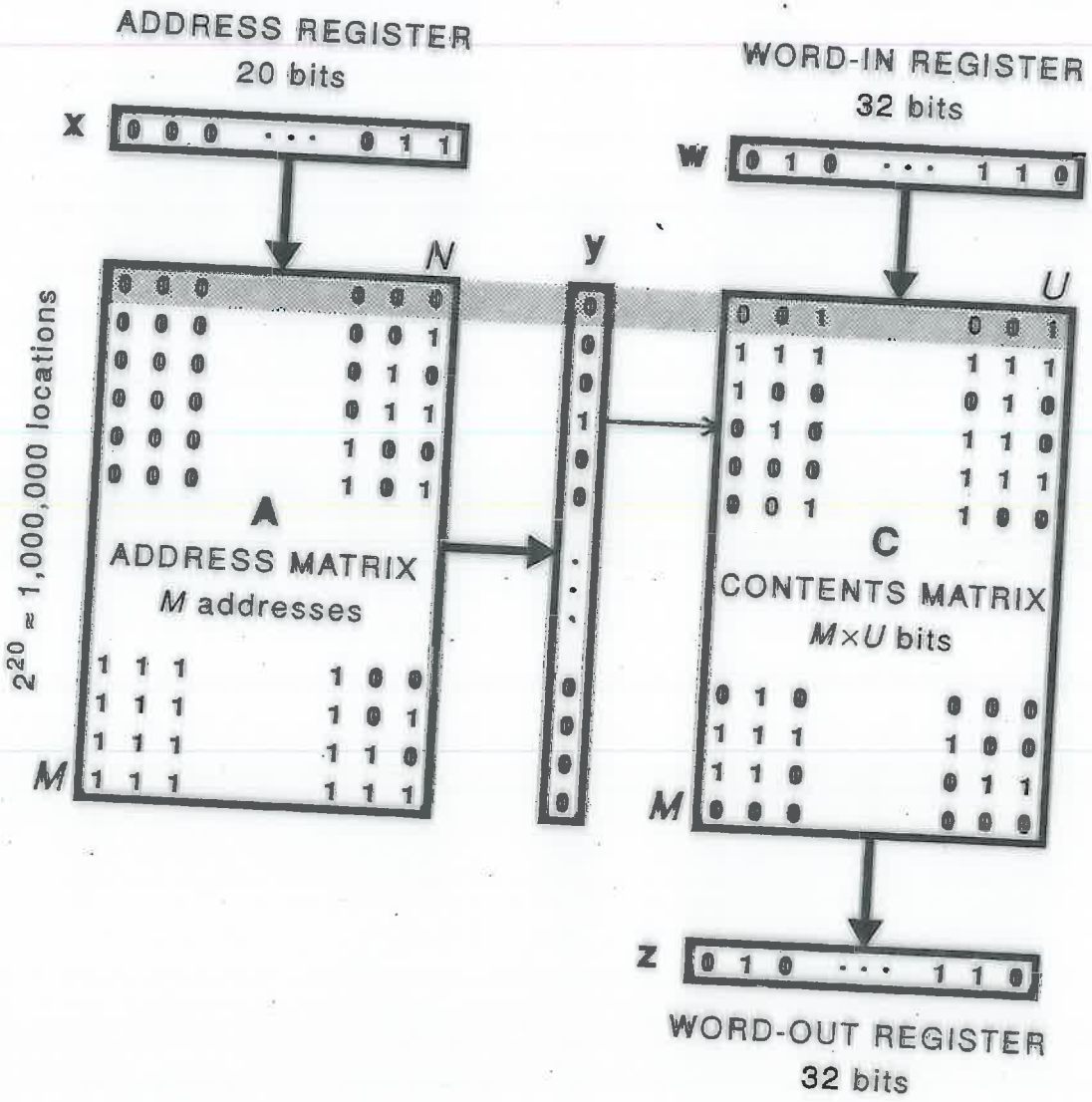

Figure 2–3. Organization of a random-access memory. The first memory location is shown by shading.

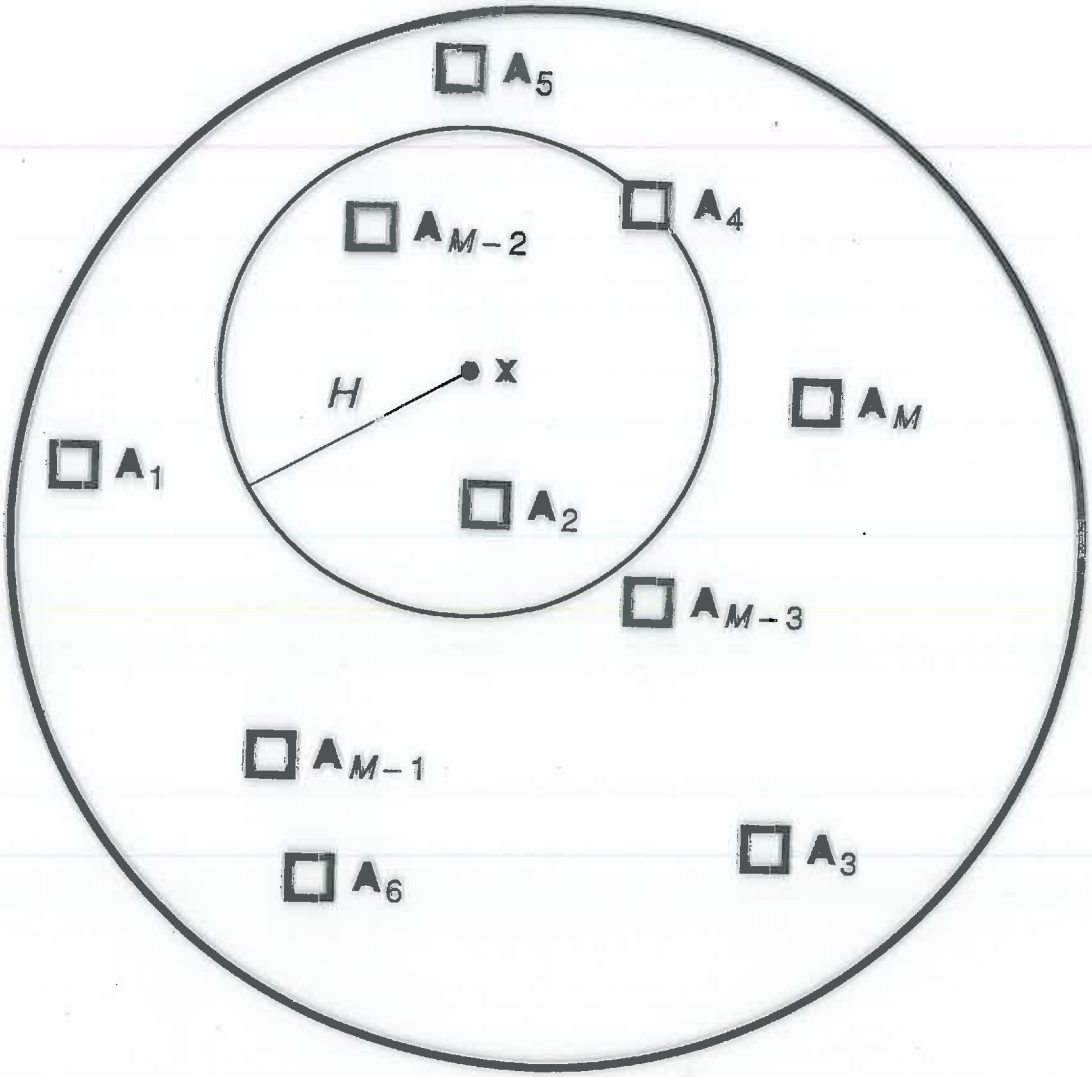

Figure 2–5. Address space, hard locations, and the set activated by x. *H* is the (Hamming) radius of activation.

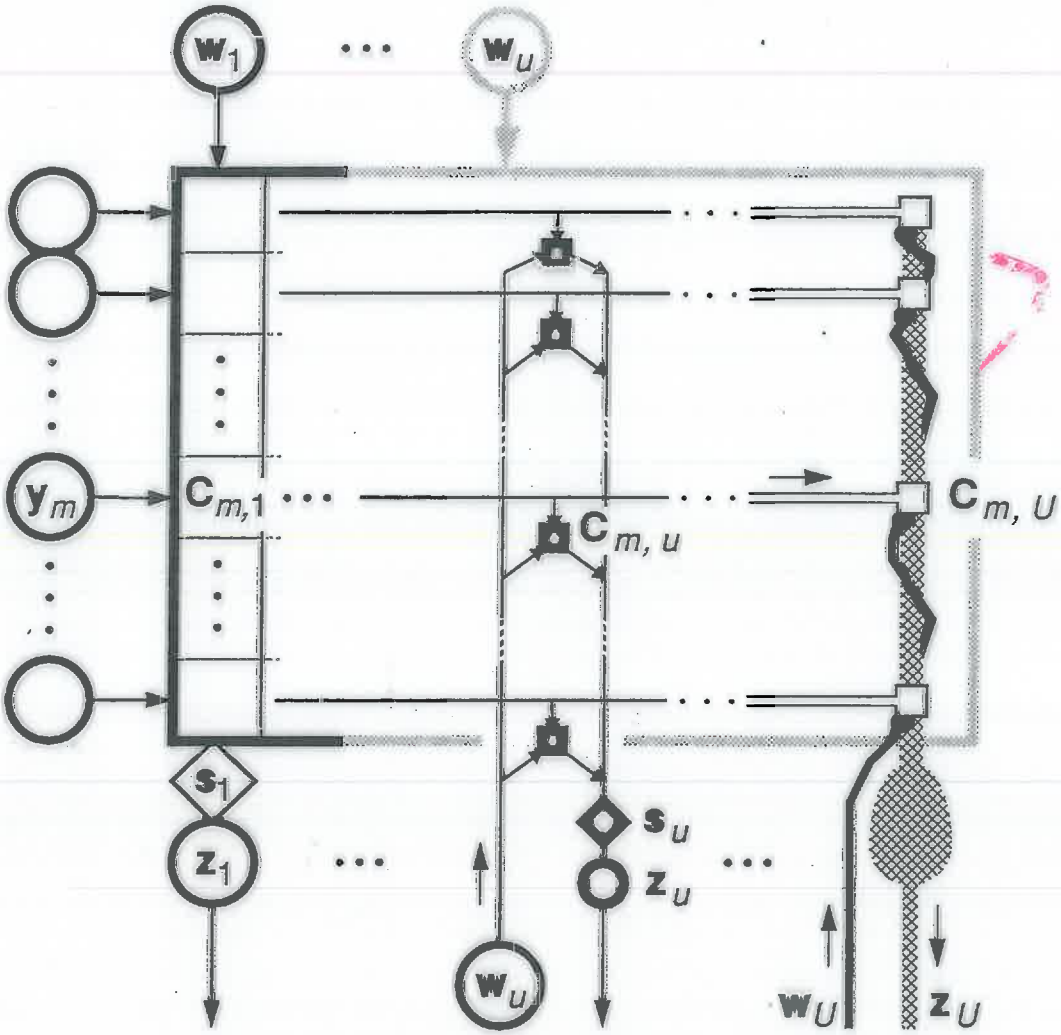

Figure 2–10. Connections to an output neuron. Three output units are shown. The first unit is drawn as a column through the contents matrix C, the middle unit shows the connections explicitly, and the last unit corresponds to Figure 2–11.

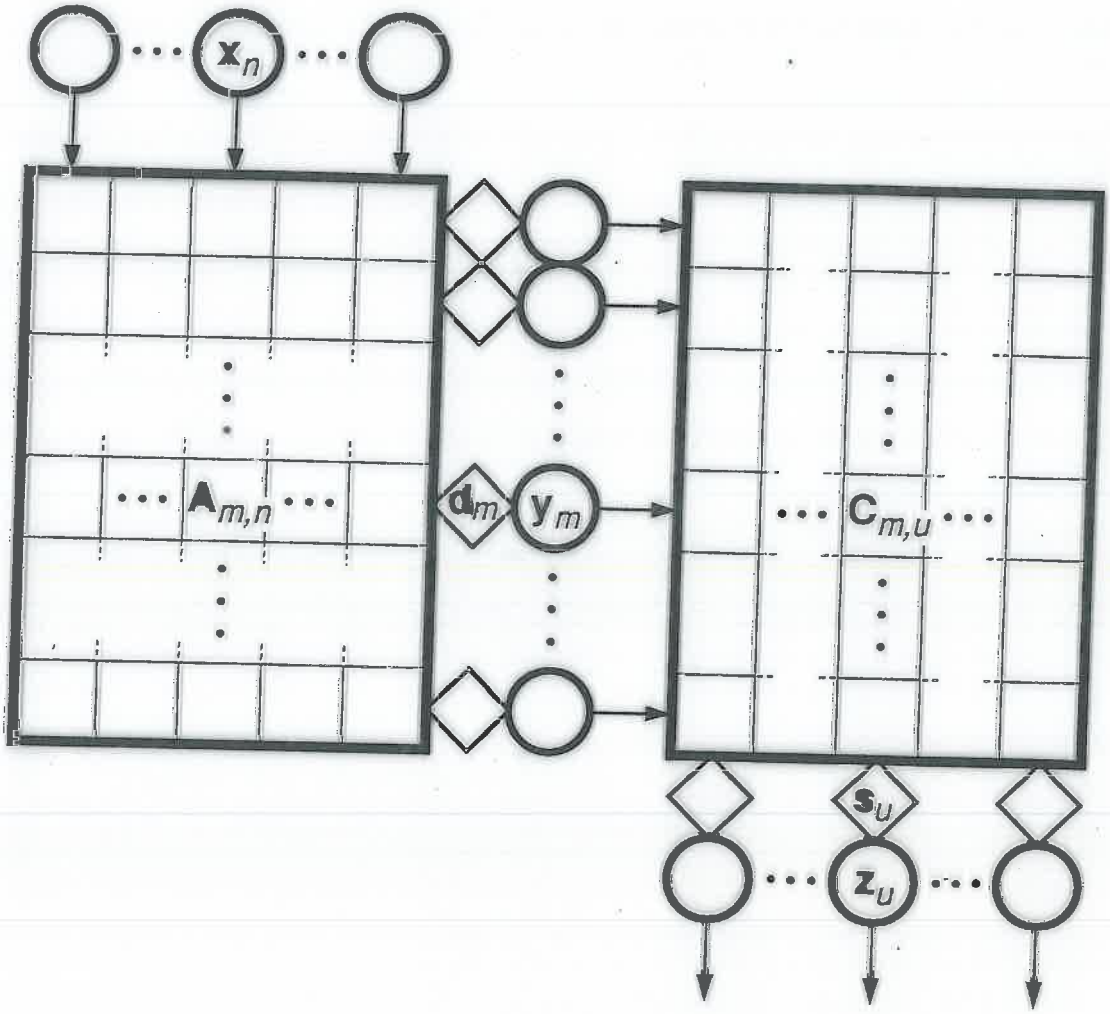

Figure 2–9. Sparse distributed memory as an artificial neural network (Fig. 2–7 redrawn in the style of Fig. 2–4).

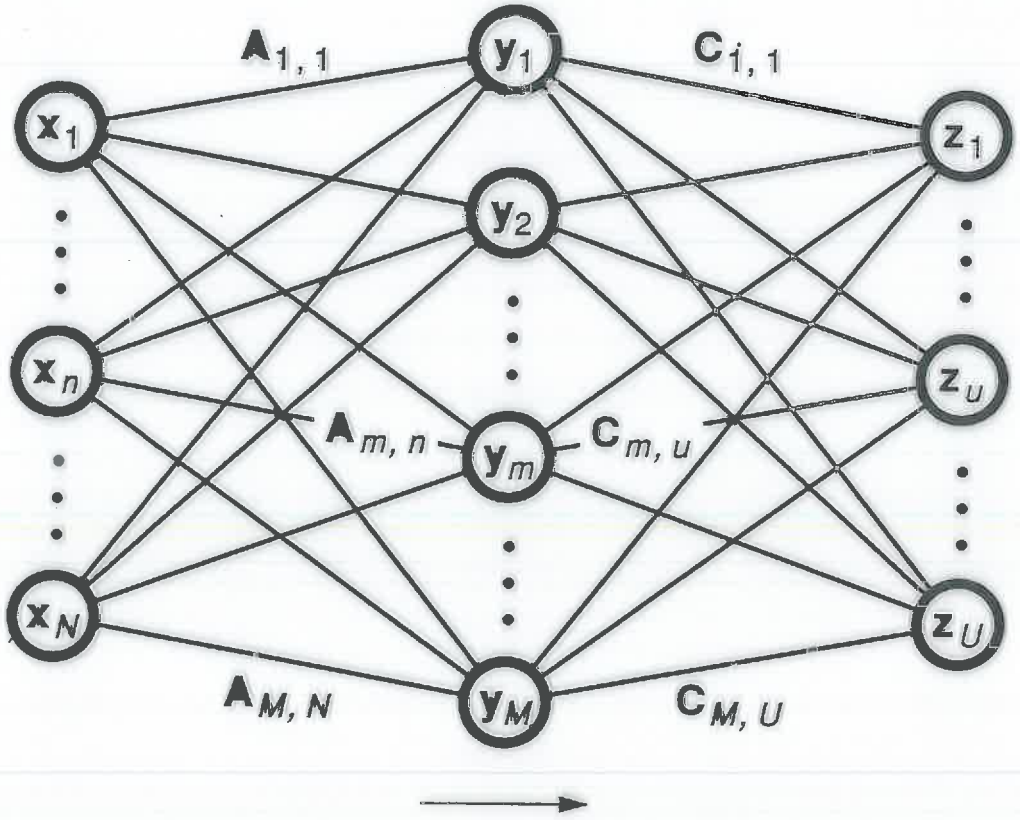

Figure 2–7. Feed-forward artificial neural network.

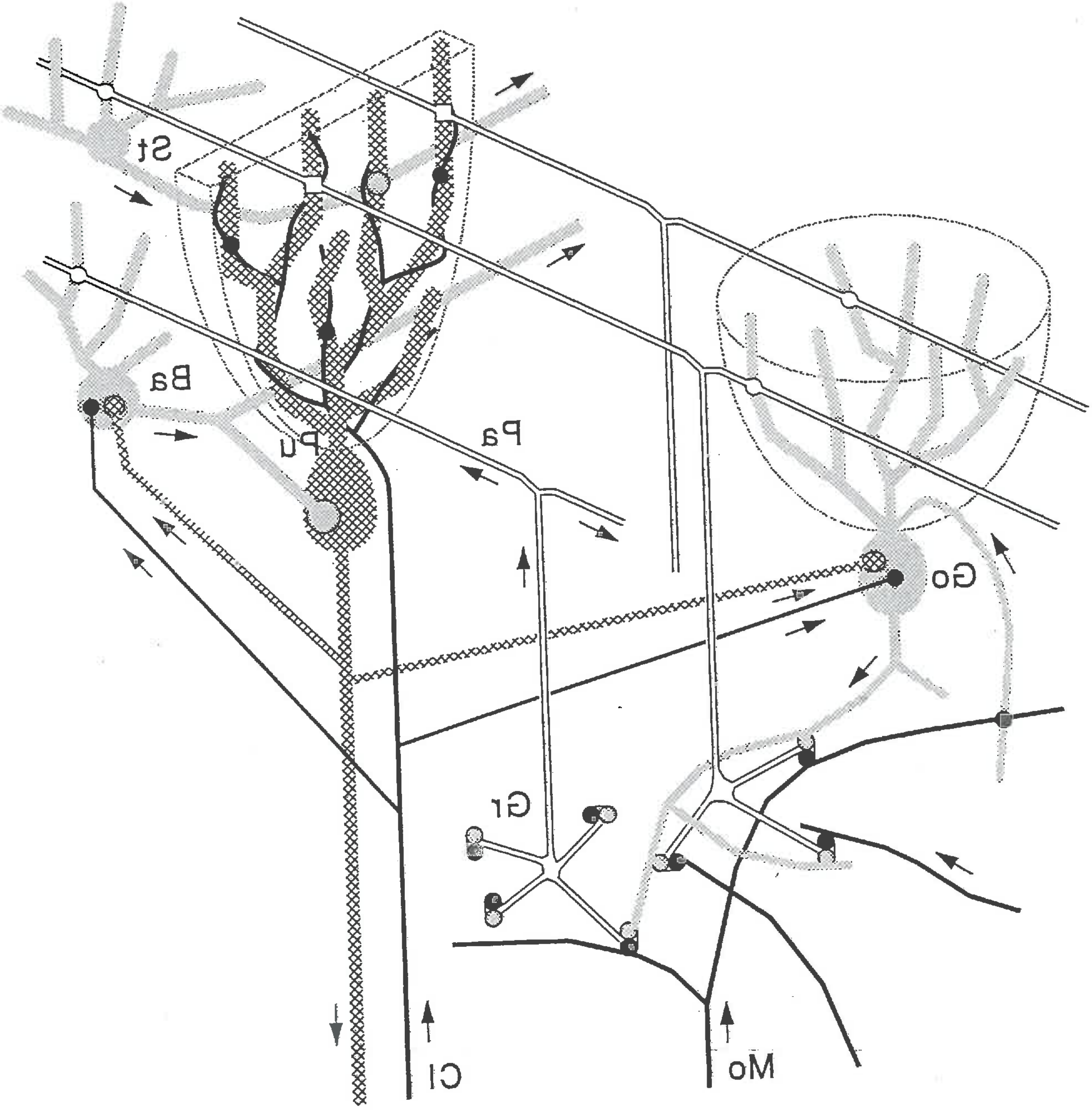

Figure 2–11. Sketch of the cortex of the cerebellum. Ba = basket cell, Cl = climbing fiber (black), Go = Golgi cell, Gr = granule cell, Mo = mossy fiber (black), Pa = Parallel fiber, Pu = Purkinje cell (cross-hatched), St = stellate cell. Synapses are shown with small circles and squares of the axon's "color." Excitatory synapses are black or white; inhibitory synapses are cross-hatched or gray.