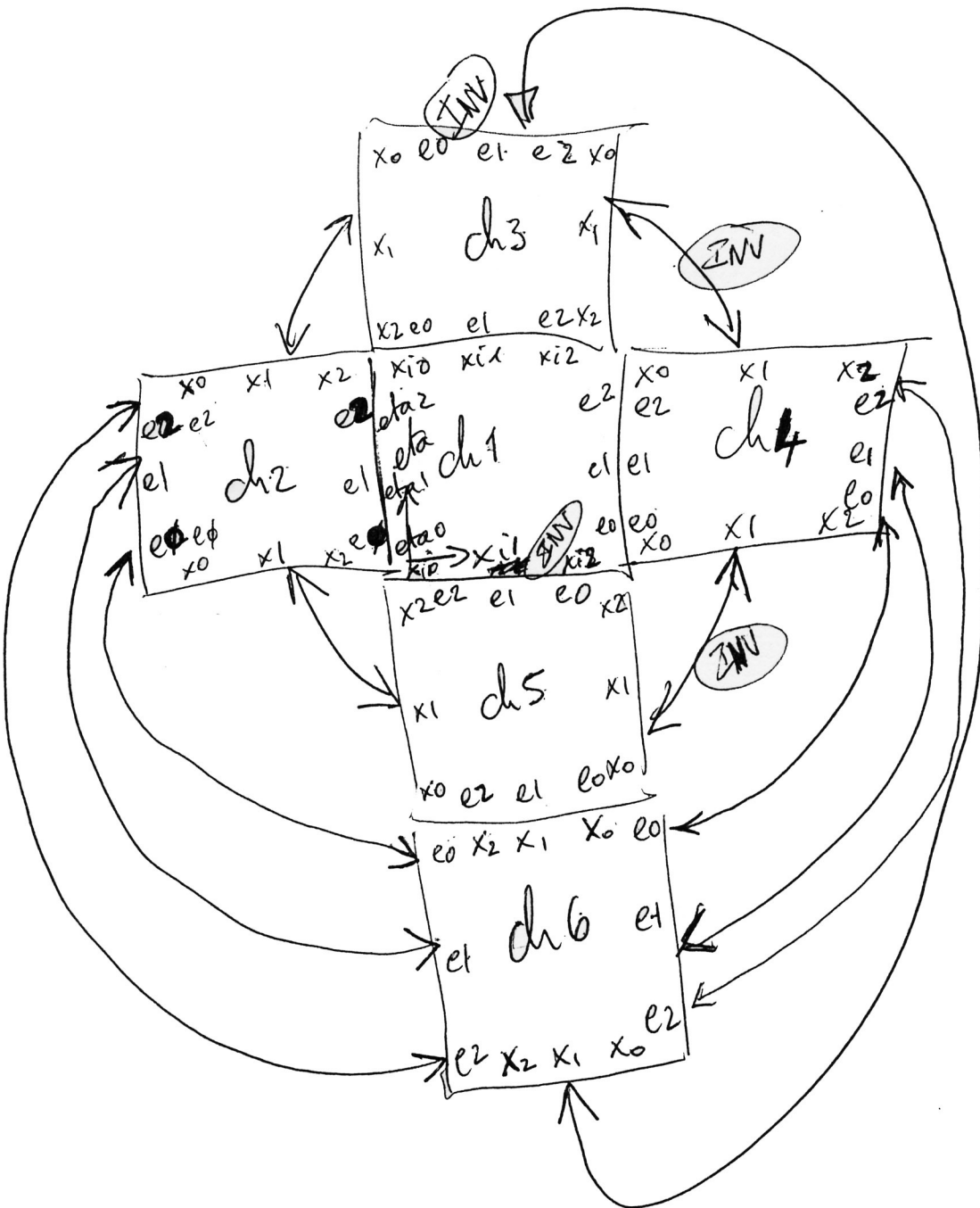
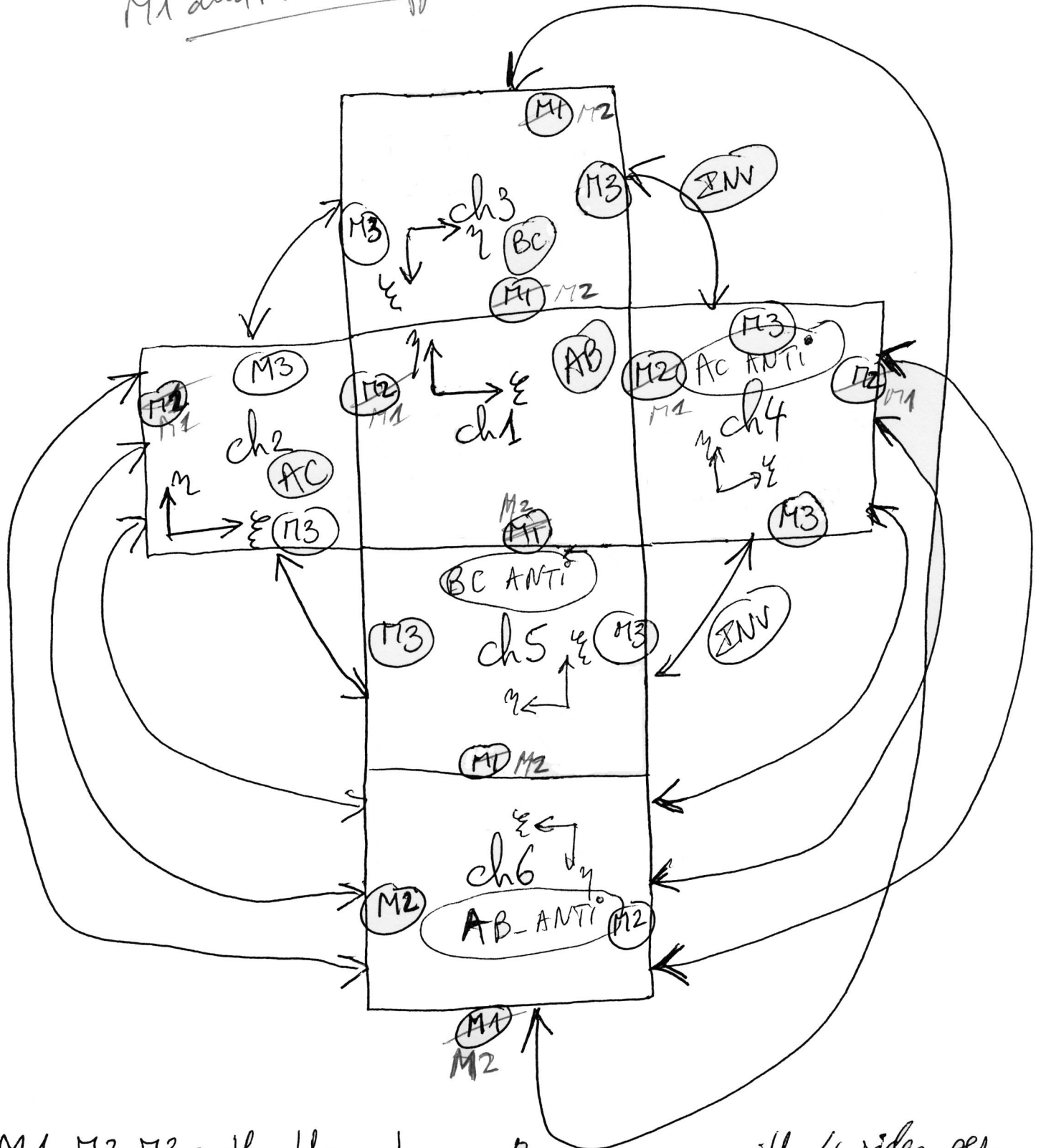


New communication pattern / no deadlock :



New communication pattern / no deadlock:
with orientation and origin of the local frame

M1 and M2 swapped on March 16, 2004



M1, M2, M3: the three types of messages, with 4 sides per message type (total $4 \times 3 = 12$ messages = 12 sides for the 6 channels)

The three types of messages:

type M1: M2

	chunk	face
msg 1	1	η_{max}
msg 2	1	η_{min}
msg 3	3	ξ_{min}
msg 4	5	ξ_{min}

chunk	face
3	ξ_{max}
5	ξ_{max}
6	η_{max}
6	η_{min}

M1 and M2 swapped on March 17, 2004

type M2: M1

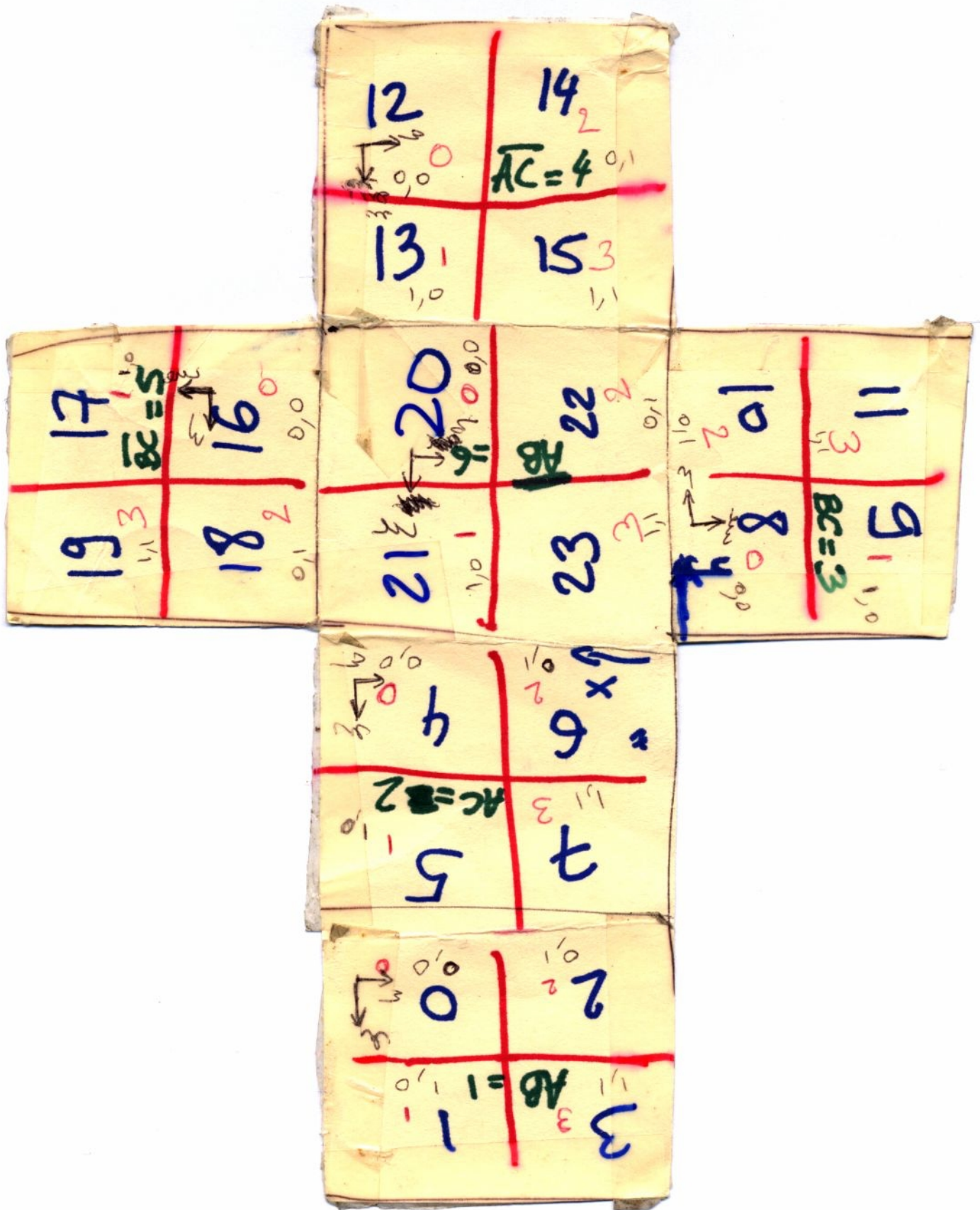
	chunk	face
msg 1	1	ξ_{min}
msg 2	1	ξ_{max}
msg 3	2	ξ_{min}
msg 4	4	ξ_{max}

chunk	face
2	ξ_{max}
4	ξ_{min}
6	ξ_{max}
6	ξ_{min}

type M3:

	chunk	face
msg 1	2	η_{max}
msg 2	2	η_{min}
msg 3	3	η_{max}
msg 4	4	η_{min}

chunk	face
3	η_{min}
5	η_{max}
4	η_{max}
5	η_{min}



The first cubed sphere I built at Harvard in 2000 using scissors and some tape to illustrate the MPI pattern on 24 processors... "cut and paste" the old way...