

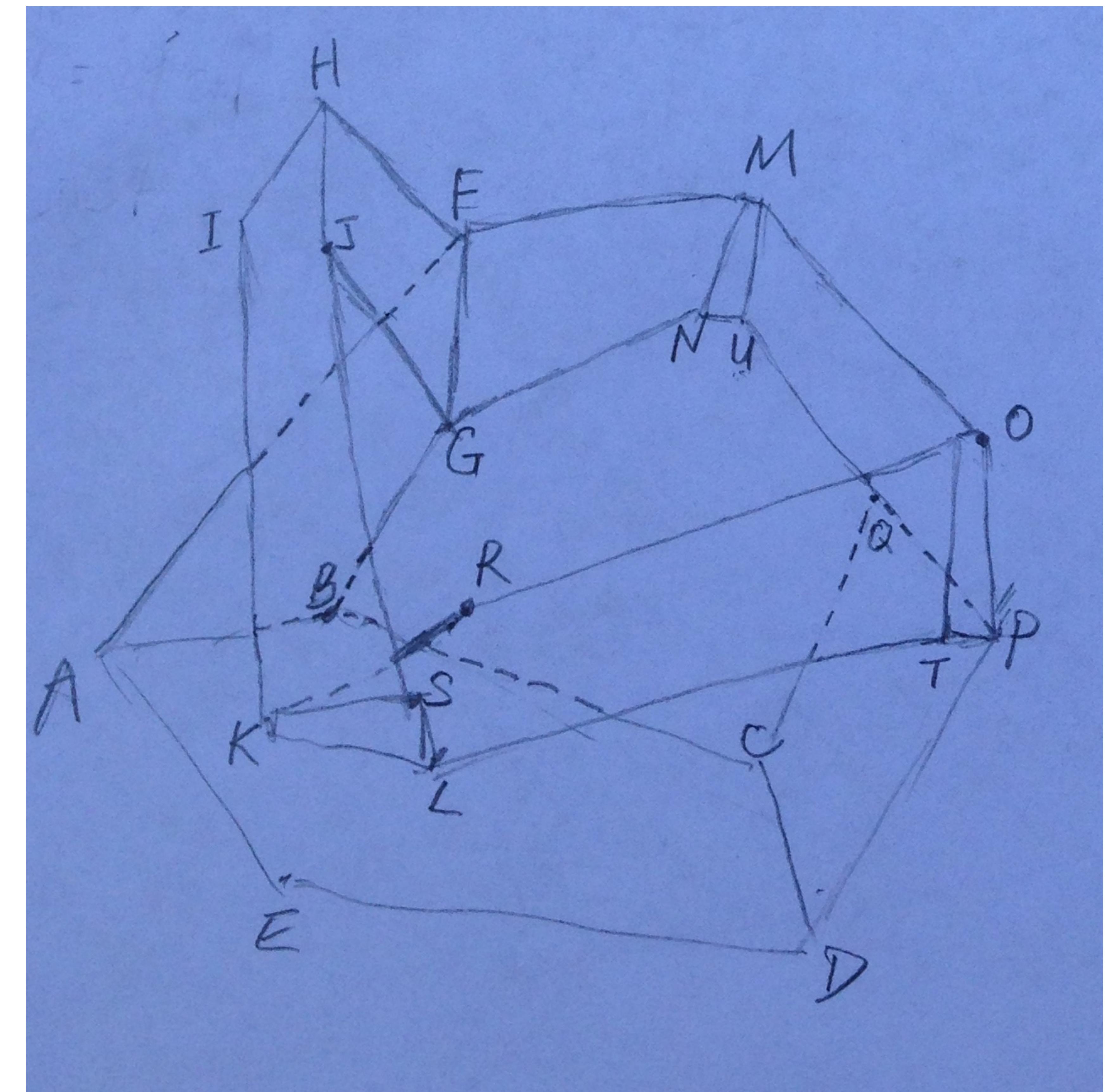


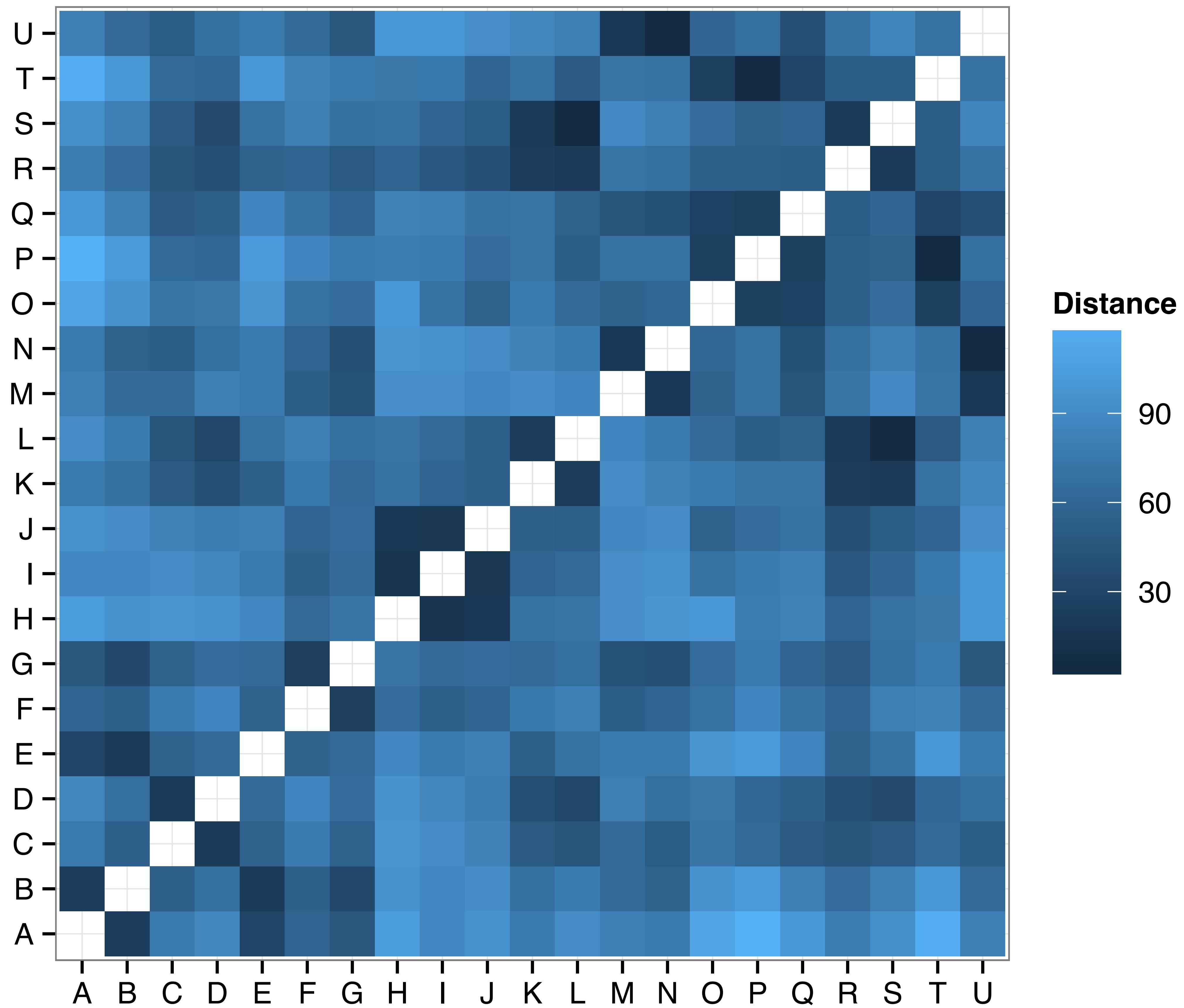
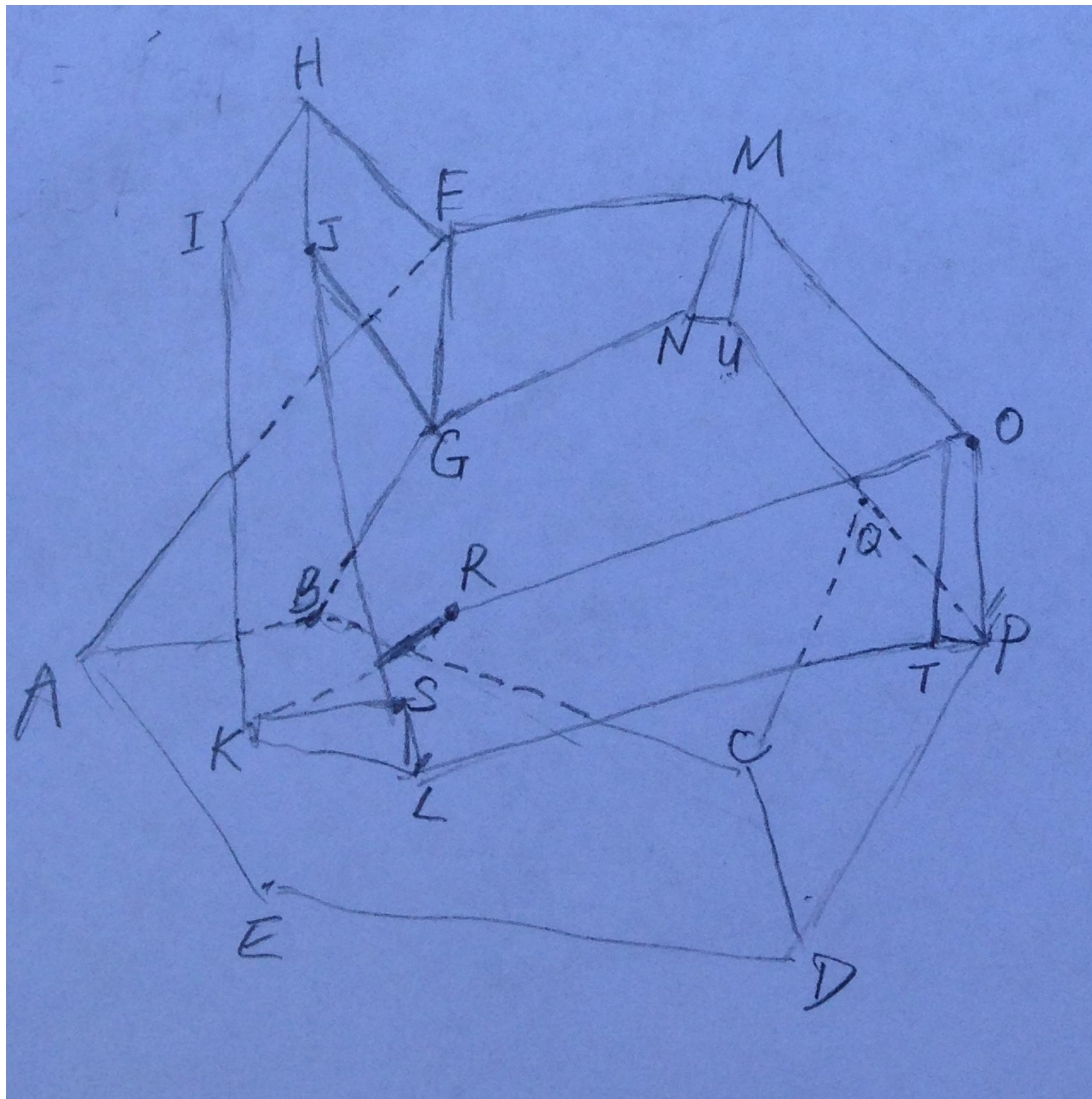
We took photos of one
of the arrangements,
from different angles



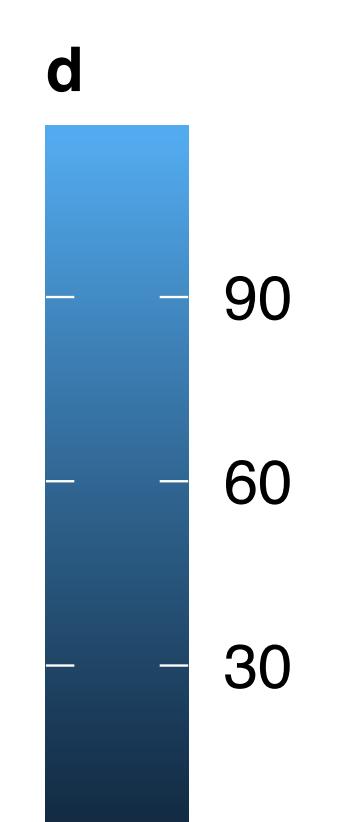
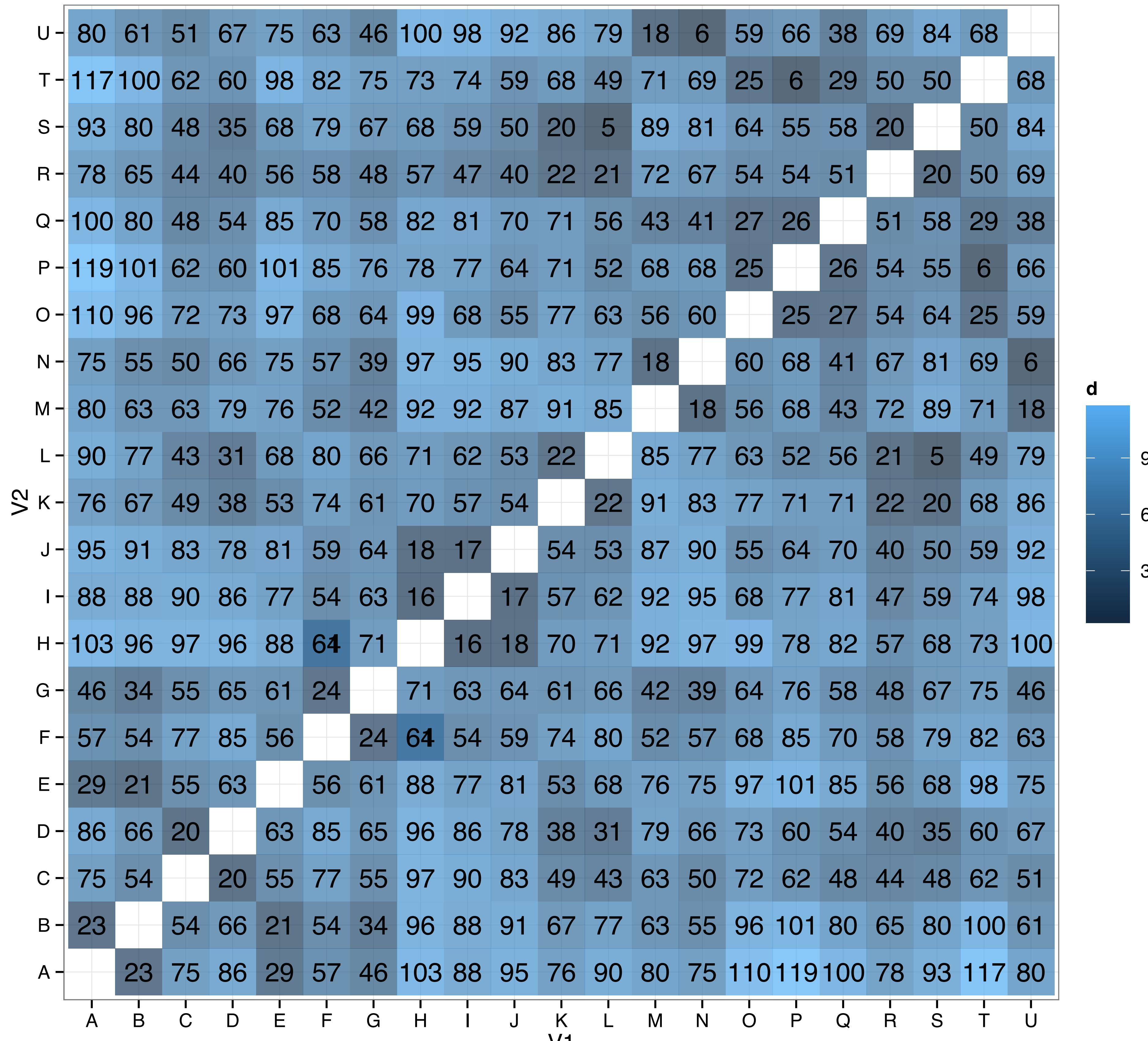


These photos allowed us to sketch the sculpture, and label the vertices like a regular sort of geometric shape

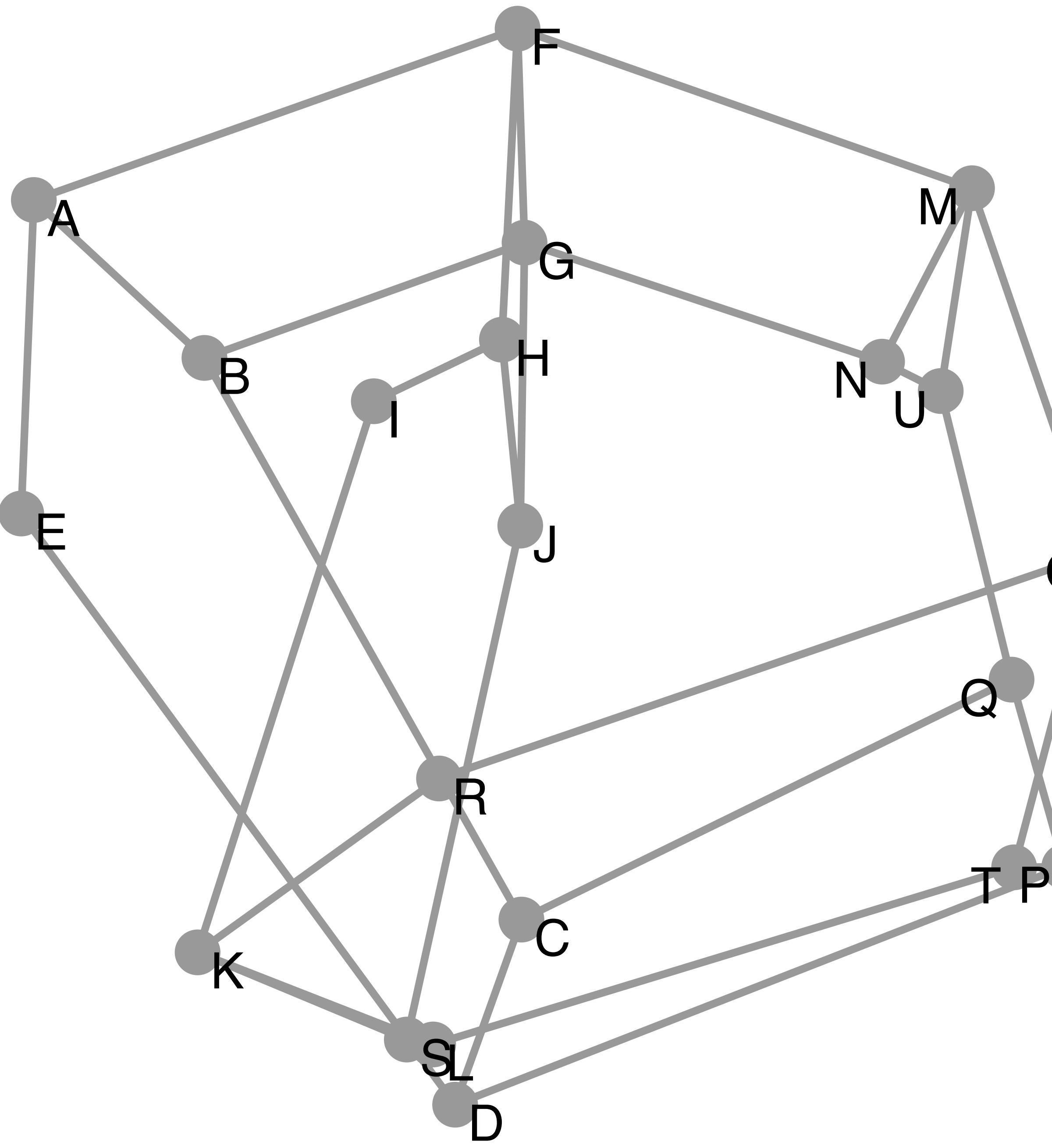




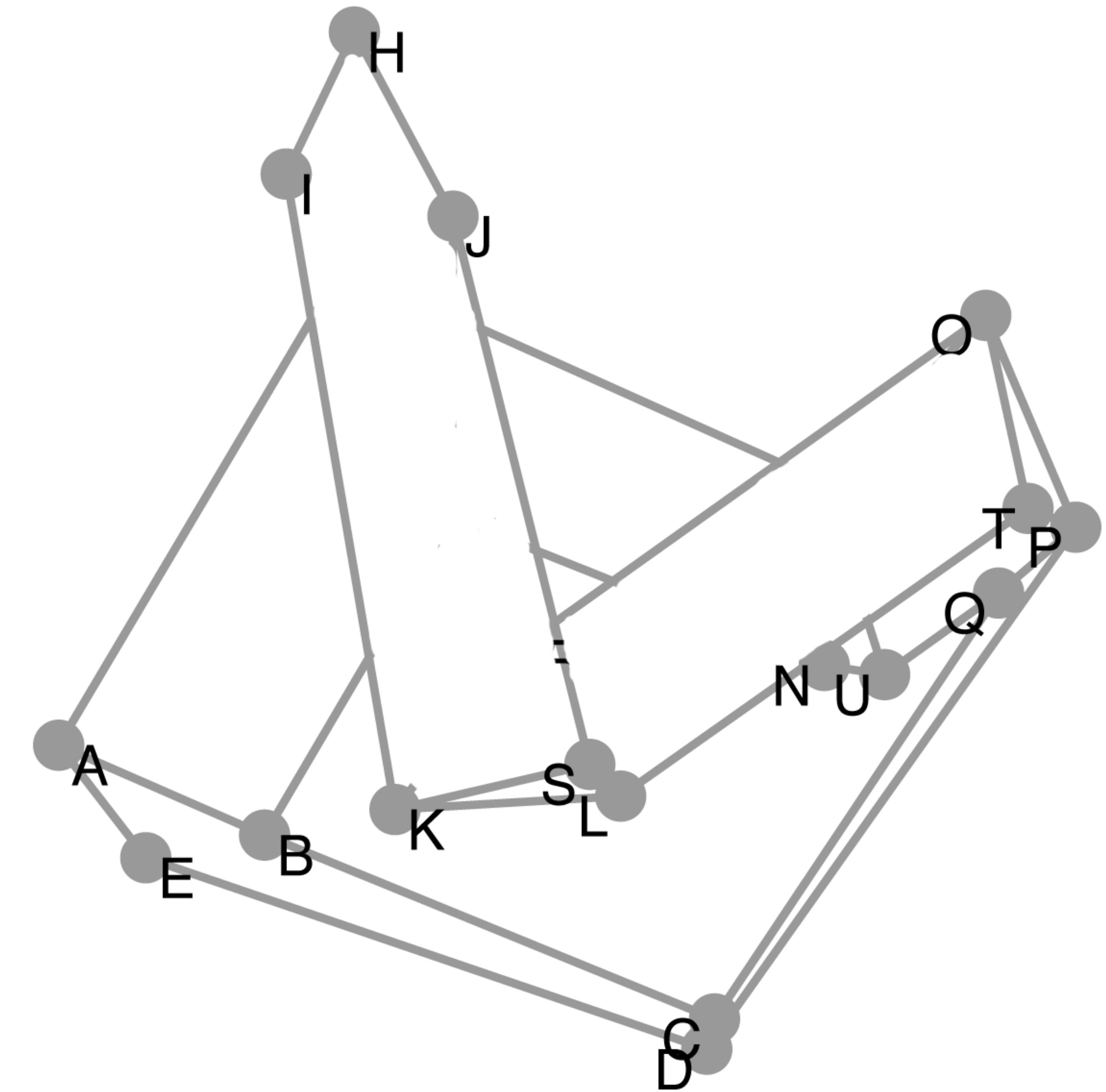
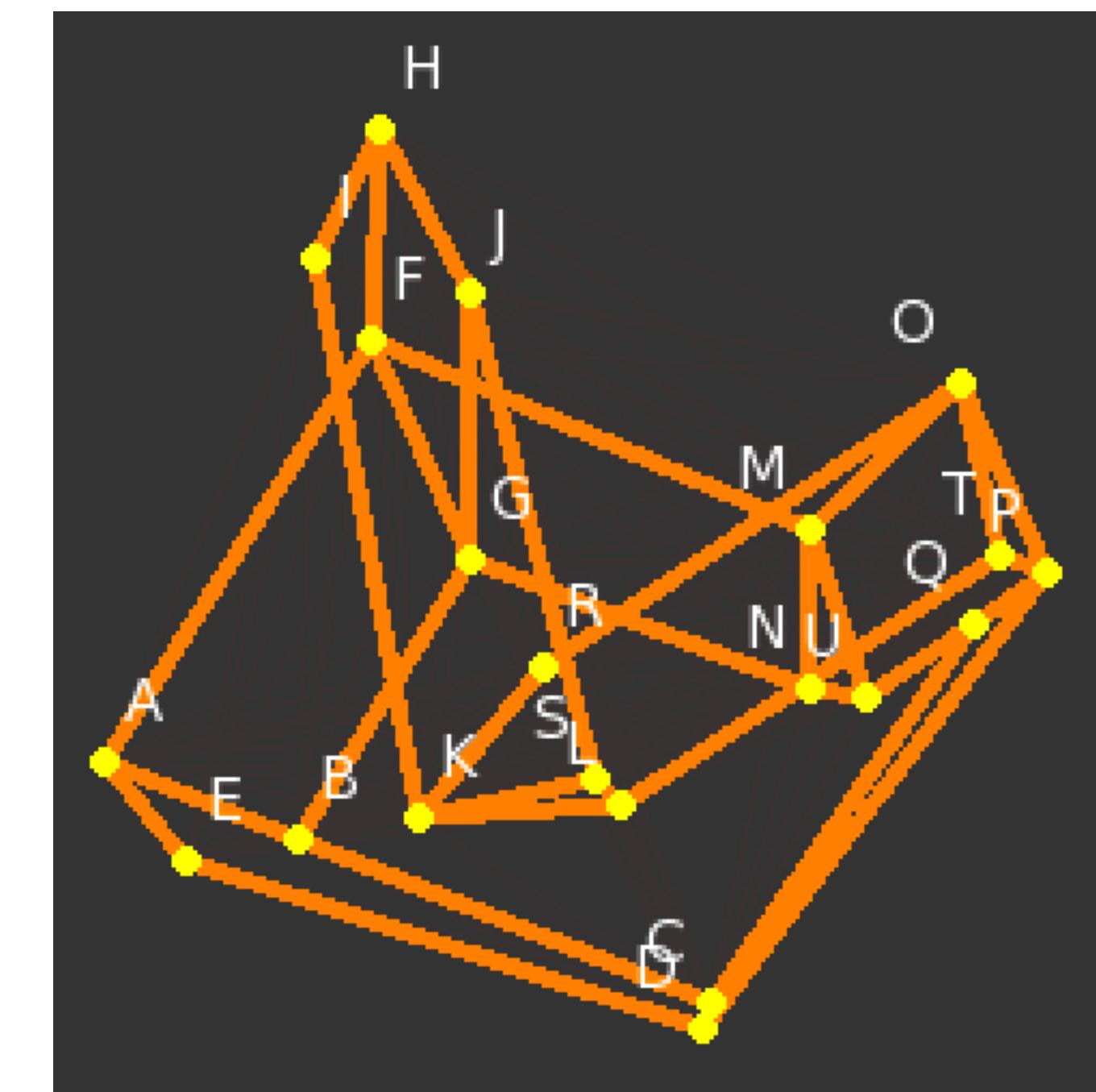
We measured the distance from each vertex to all others, in centimetres, which can be seen in the heatmap shown, closer vertices are dark blue, far apart are light

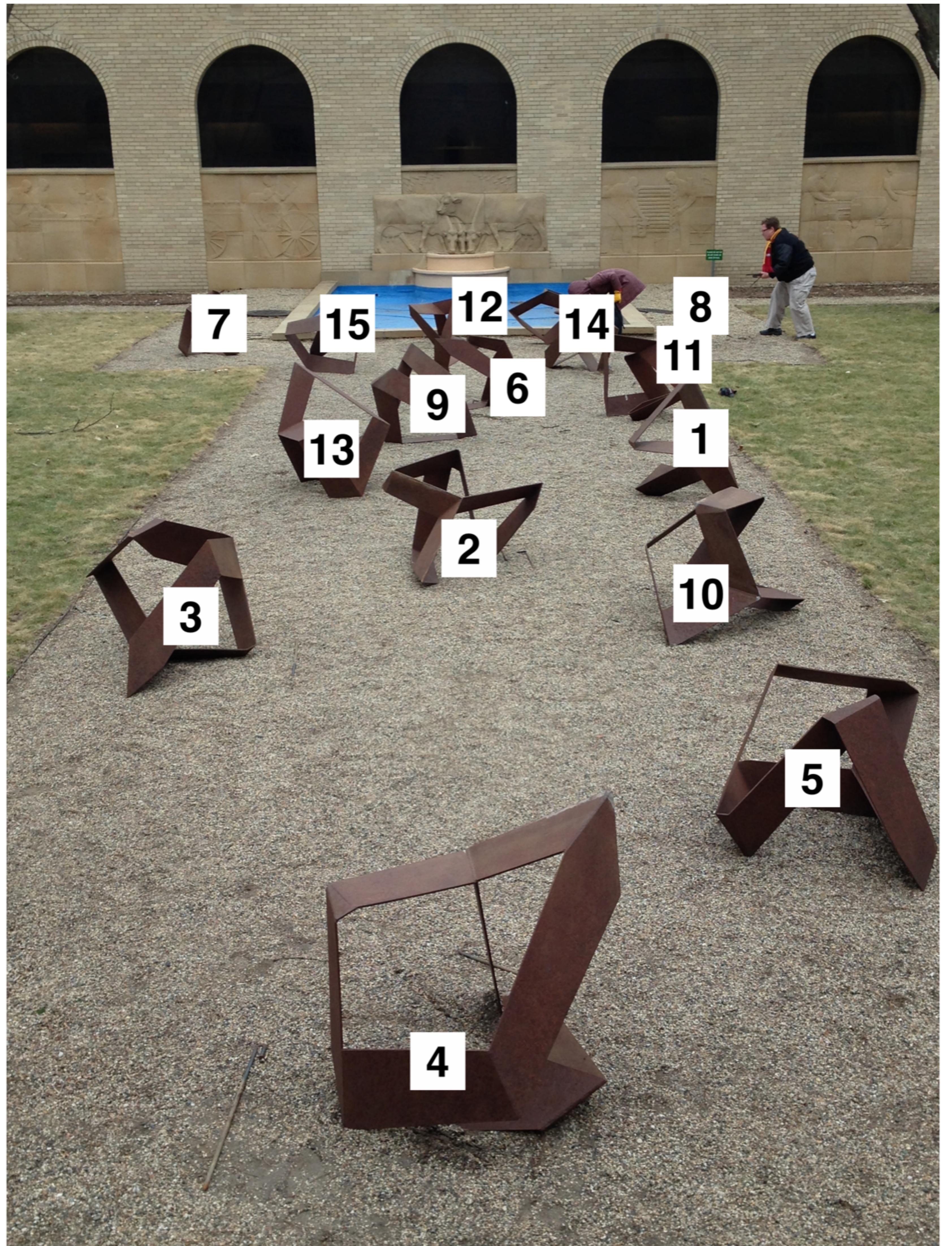


These numbers were passed into a statistical procedure called multidimensional scaling, which essentially “finds a layout of points in 3D which best matches these interplant distances”



Using the freely available software ggobi we could rotate the wire frame diagram to produce all the possible arrangements





The virtual model helped us to systematically describe the unique arrangements of each of the 15 identical sculptures.

The arrangements were labelled according to which vertices and edges were in contact with the floor.

- | | |
|---------------|----------------|
| 1. BC, NU | 9. ABCDE |
| 2. DE, K | 10. AE, IK |
| 3. AF, FM | 11. DPTLS |
| 4. HJS, LT | 12. HIJ, KS |
| 5. FM, FH, MO | 13. PTO, H |
| 6. MOPU | 14. A, MNU |
| 7. CDQP, U | 15. AF, HI, FH |
| 8. KLS, D | |