Key to Mueller-Ward Model of Cardiac Muscle
(approximate magnification 1500x)

A, B. Surface views of model from opposite sides, showing syncytial arrangement of fibers. Sarcolemmarna partly removed in A. Purkinje cell and three heart muscle cells cut away to level of nuclei in B.

C. View of model from upper end, showing cross section of two Purkinje cells and one heart muscle cell.

D. Lower end of model, showing cross sections of three heart muscle cells, one passing through nucleus.

1. Purkinje cell, showing superficial arrangement of fibrils in B and C
2. Nucleus of Purkinje cell
3. Sarcoplasm (abundant in Purkinje cells, scant in heart muscle cells)
4. Myofibrils (evenly distributed in heart muscle cells, peripheral in Purkinje cells)
5. Nucleus of heart muscle cell
6. Intercalated disks
7. Sarcolemma
8. Area of heart muscle cell with sarcolemmarna removed to show myofibrils
9. Sympathetic nerve fiber
10. Nerve ending on myofibrils
11. Connective tissue, envelops all fibers and serves as a matrix for the nerves and blood vessels.
12. Nucleus of a connective tissue cell
13. Longitudinal vessel of capillary network
14. Capillary loop