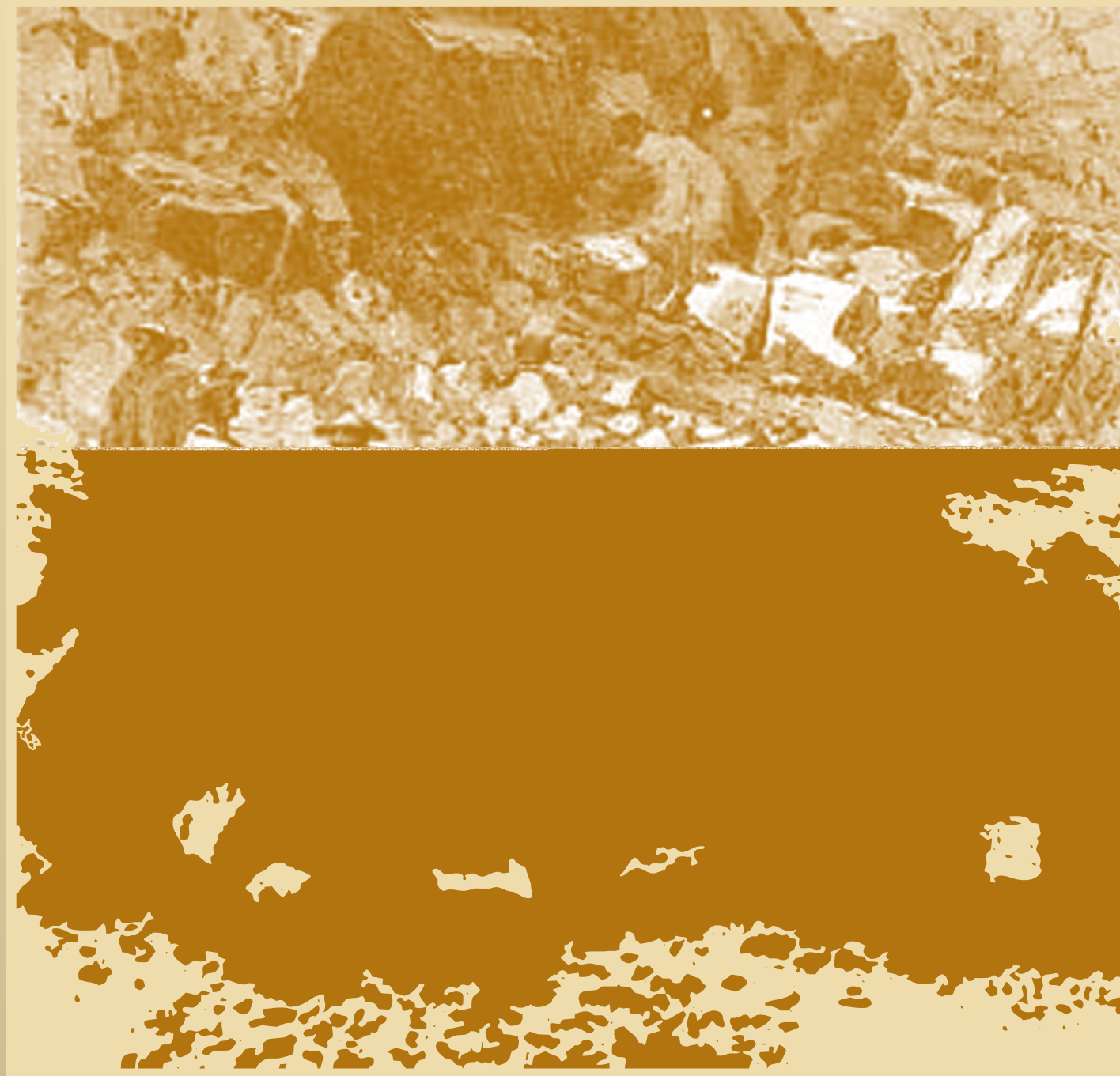


# To Build A Dam

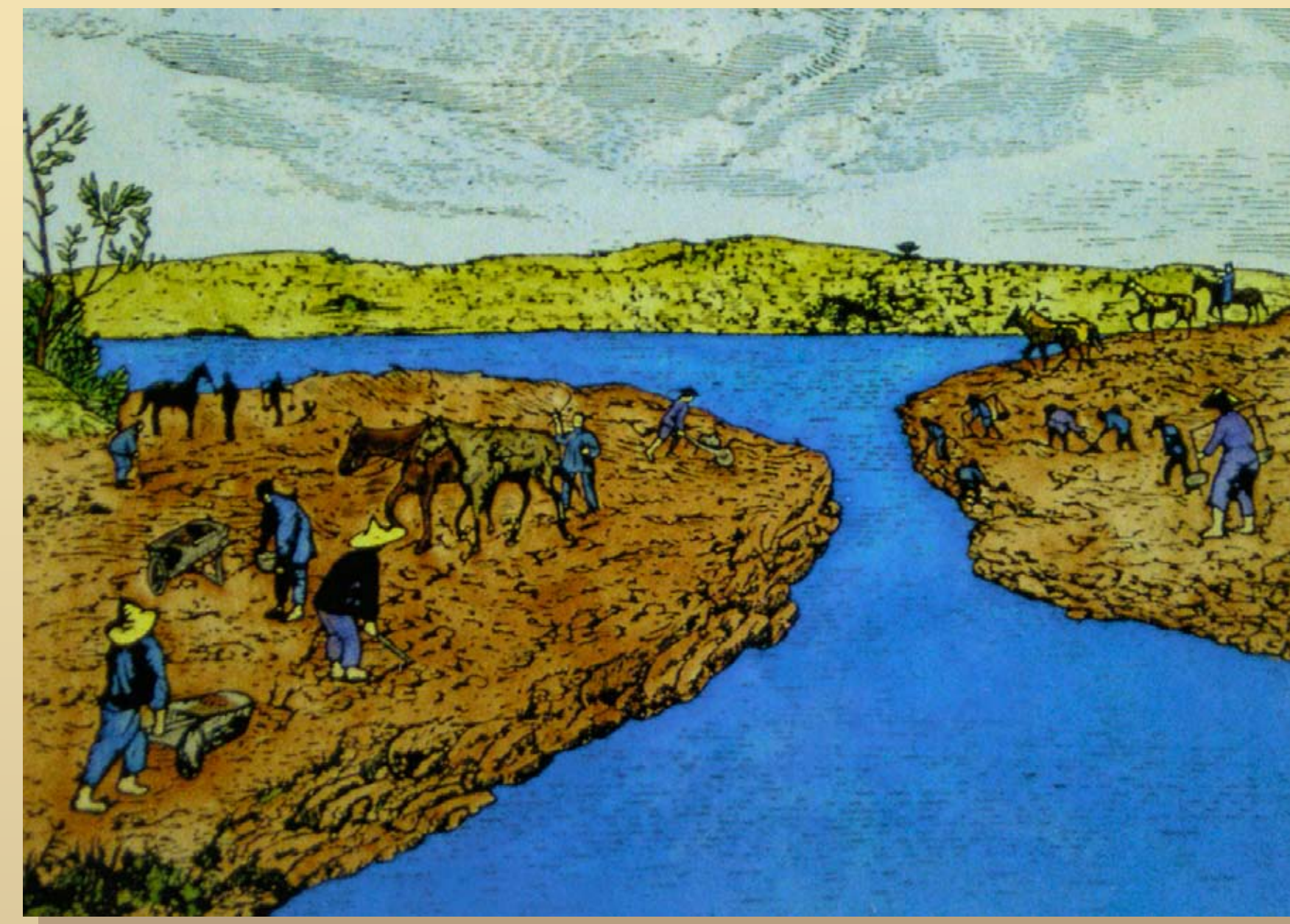
Underneath the lake lies evidence of the dam's construction. The steps on this panel and the next one show how hands and hooves toiled to complete this engineering feat in 1892.

To clear the area to be flooded, workers "grubbed" 333 acres of brush and trees to ensure rotting vegetation would not affect the drinking reservoir.



courtesy of EBMUD

**Tunnel No. 1:** In 1874, laborers dug a spillway tunnel through the rocky hillside to divert San Leandro Creek while constructing the dam. Tunnel No.1 was originally 30 feet above the canyon floor and later delivered water to homes.



**Digging the dam:** To prevent leakage and the creeks' return, laborers dug three trenches, nesting one inside the other. The largest ditch was 900 feet by 150 feet; the second ditch or "puddlepit" was 90 feet from bank to bank and about 140 feet long creek-wise. In the third ditch, laborers constructed three concrete walls and then sealed the trench with concrete grout.

"Historians say Chabot was watching some cattle trample across a muddy creek bottom when he got the idea for the primordial impacting plan."  
Oakland Tribune June 9, 1968.



### **Puddling and Compacting:**

Laborers spread clay and choice material obtained from adjacent areas to fill in the two larger trenches. Water from a steam pump kept the clay wet and workable, and would form puddles giving the second ditch, puddle-pit, its name. Laborers drove gangs of horses across the puddle-pit to compact the layers and create a water resistant surface.

**East Bay**   
Regional Park District  
[www.ebparcs.org](http://www.ebparcs.org)