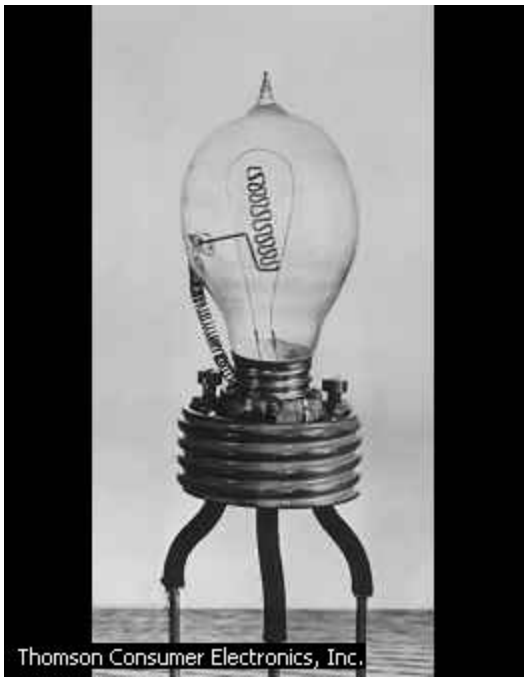
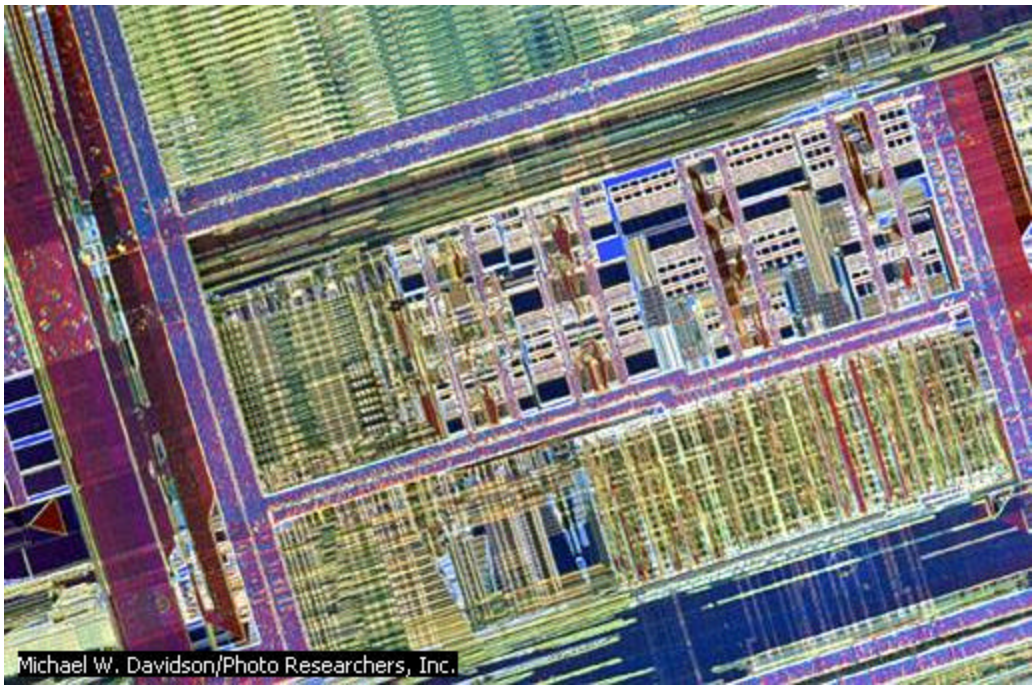
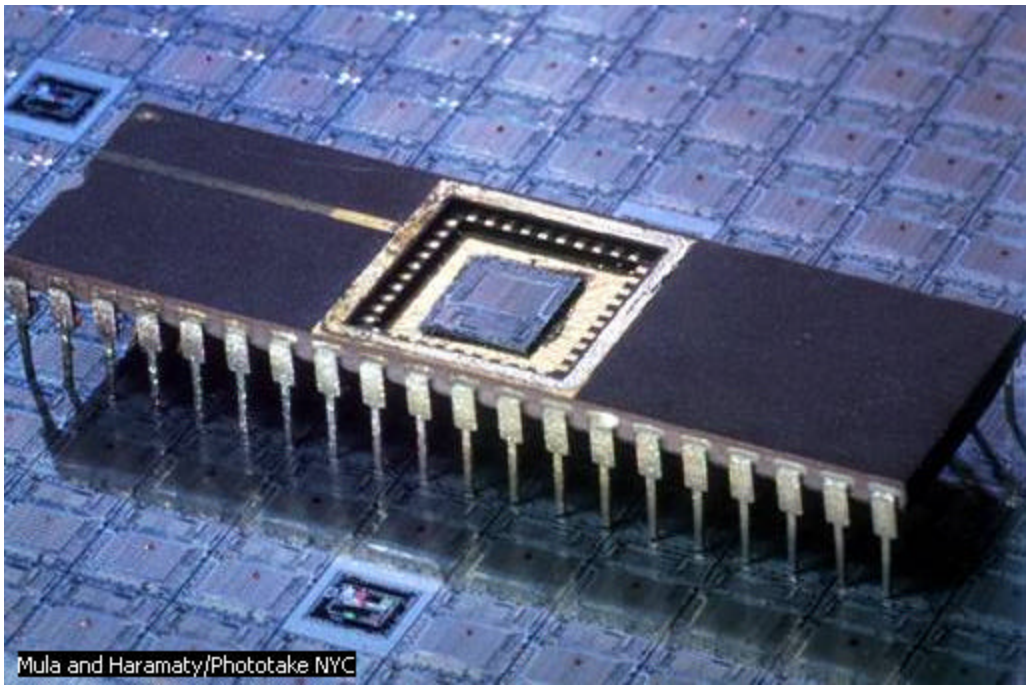
The ENIAC computer had over 18,000 vacuum tubes, and also it had a lot of heat…note the overhead fans.




Michael W. Davidson/Photo Researchers, Inc.


Mula and Haramaty/Phototake NYC

The Pentium CPU still needs to be cooled by heat sinks, cooling fins and fans.

The fabrication of metal objects such as sheet metal and metal beams required very high temperatures and heat loss via “radiation”.

Homes lose or gain heat via “diffusion” of heat.

NCSU solar home stores heat in concrete walls.

Oil pumped from the earth is very hot. Much of the Alaskan pipeline in above frozen “mud”, and therefore, the hot oil may melt the foundation of the pipeline!

During reentry, a swiftly moving shuttle encounters drag from the atmosphere, which generates tremendous heat. To prevent the shuttle from being damaged, heat-resistant tiles cover the whole orbiter. The most vulnerable areas, such as the nose and leading edges of the wings, are covered with reinforced carbon-carbon tiles that can withstand temperatures of up to 1,430° C (2606° F).[1]

Can we predict the temperature of a mass as a function of time and space given some observed initial temperature, and boundary temperatures?