Chick Cochlea Dissection Method

Step 1: After proper euthanasia, remove head.

Step 2: Insert tips of scissors beneath skin along the side of the head so as to clip through the canal of the external ear on each side of the head. Pull skin off by everti

Step 3: Remove lower jaw (this can best be done by pulling off with force (it’s gross, but the best way)) or with scissors. (the worst is over).

Step 4: Place the head on a flat surface and use a single-edge razor blade to cut away the bone and tissues down to the tympanum as shown.
Step 5: Use a dissection microscope from here on. Using the beak as a "handle" tilt head to look at the cut surface. Use Dumont Type AA or slightly blunted Dumont #5 forceps to remove bone that runs between the oval and the round windows.

Step 6: After you have removed the tympanic membrane and the columella (=single ossicle that is the stapes equivalent in birds), then the bone that runs between to oval window and the round window the opening should look like this:

Step 7: When you've become oriented begin breaking away the bone from the dorsal and posterior sides of the opening left by the round and oval window. The best way seems to be inserting the tip of the forceps under the edge of the bone just slightly then prying up that bone to get a small fragment to break free.
The trick is to try to break off only small bits of bone at a time and then progressively enlarge the opening by breaking more and more bone away. It's good to make the opening large dorsally and posteriorly, but a bit of expansion anteriorly and a bit ventrally can be helpful too.

Good luck!