Complete cone

The aboriginal use of the complete cone is quite uncommon and its intentional makeing has limited distribution and was used in makeing perforations rather than normal tool manufacturing ;. The only factual example is the removing of very minute cones from eraillure flakes at the margins which eliminated drilling. These circular eraillure flakes were recovered in the State of Colima, Mexico by Norman Herrett of Herretts Musemm Twin Falls,Idaho, these specialized flakes appear to have been used in makeing graduated necklas with a hole on each side for stringing. The technique was to make a depression on one side of the flake by abraision and then a micro cone was punched out causing a small hole to be formed. The method may sound very simple, but in reality it is most difficult to do as the force used to remove the cone is very exacting and the least miscalculation will fracture the discoidal rather than remove a cone. I have no evidence of the actual technique used by the Maya in makeing excentrics Eric Thompson the Rize and Fall Of the Maya CiviliaztionPage, Examples in the National Museum of Antropology Mexico, D. F. but the internal flakeing had to be started from either a natural opening, a drilled hole or one made by removing a cone. See fig. Jaguar made by first removing a cone and then enlargeing the perforation. Bracelets from the Calcolithic of Egypt could also have had the initial perforation made by causing a cone to be formed. Experimentally I have perforated lithic material by several techniques, one method is select or make a plain surface and the strike

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a hard sharp blow with a hard percussor having a convex surface on the striking end. The blow/must be projected vertical or at a 90 degree angle to the plain of the percussor surface. The blow will cause a cone to be formed within the lithic material, then a tabular flake is removed parallel to the plain surface. The thickness of the flake should corespond with the depth of the cone fracture. If the thickness of the tabular flake is less than the depth of the cone fracture the cone will remain on the core, while if the thickness be more than the cone fracture then the cone will be removed with the flake. If the cone is removed with the flake then in order to complete the perforation and remove the cone , a punch with a tip no larger than the truncated part of the cone is used to ###### complete the cone fracture. Another# method or methods is to use a hard projectile, projected at a high velocity. Sling shots and air rifels will cause cones tobe formed, but most certainly were not aboriginal techniques. In lue of the air rifle or sling shot, a thin flexiable piece of hard wood was used as a spring. A small hard pebble/was then atached to the working end of the wooden spring by bees wax, pea size the opposite end of the spring was made imobile and the other end of the spring d#####/drawn to give the correct velocity relitive to the thickness of the material and then released. The impact of the pebble will then cause a cone to be removed from the objective piece and a perforation to be made. Shattering is common until# the correct velocity is achieved. For study purposes complete cones can be made by

selecting a flator plain surface #### on the lithic material and then placeing the material to be fractured in sand with the plain surface upward and then striking vertical with a hard hammerstone, the size of the percussor and the velocity that the hammerstone is projected will have to corespond with the size of the objective piece.