flakes" (1972, p.58).

Also, you state, "There is little doubt that the worker can control the bending of flakes or blades, for we have the surface evidence proof on bifacially flaked artifacts that have been ripple-flaked over a curved surface from one lateral edge to the other" (1968, p.472).

On the one hand, by "bending" you are making reference to a particular kind of deformation of flakes that occurs during the process of flake removal. This kind of deformation is formally called bending or flexure in mechanics theory. At Calgary, Rick Faulkner was referring to this kind of deformation by the unusual term "flexion", and he demonstrated it with a rubber eraser. Because of the different elastic properties of rubber and obsidians and cherts, the former exhibits more bending than the latter under similar conditions. But all real materials, including all cherts, flints and obsidians, do exhibit bending under the appropriate conditions (some materials just a little and others "quite a bit", depending on the conditions,etc.). You have yourself given an excellent demonstration in your 1968 American Antiquity paper (p.475) that obsidian blades can bend during their removal. ... So, bending in mechanics involves a change of curvature due to some applied forces. In other words, due to bending a straight piece of material would become curved - as, for example, a plastic ruler or a rubber eraser when the appropriate forces are applied. Also, if we have a piece of material that is initially curved, such as a curved stick of wood, it would become more curved due to a bending deformation under the appropriate forces. Thus, bending is associated with a change in curvature. The initial curved shape (of a curved stick, for instance) may have nothing to do with bending deformation. The terms "bend" (e.g., there is a "bend" in the road), or "bent" or "deformed" (e.g., a stick is"bent" or "deformed"), as they are used commonly, may have nothing to do with the deformation known as bending in mechanics theory.

In removing a flake along a curved surface of a preform, the flake is subjected to a change of curvature due to bending during its detachment. That is, it would become either more curved or less curved, compared to its shape after it has been removed. The change of curvature that occurred during flake removal (due to forces causing the bending deformation) would not be observable after the flake is detached, as long as the ventral flake surface matches the surface of the negative flake scar. (And the bending deformation in flaking would usually be too small, I expect, to be detected without special measuring devices.) The matching of these two surfaces, by the way, tends to support the argument that the deformations involved in flintworking are, at least for the most part, elastic (and not inelastic).

On the other hand, by "bending" in your writings you have also made reference to just certain geometry or curvature of flakes. In this case, since reference is made to just geometry or curvature - and not to changes in geometry or curvature - there is no reference necessarily to bending deformation (as the term is used in mechanics theory). In this sense of the term "bending", you are really using it in the sense as, for instance, in saying that a road

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