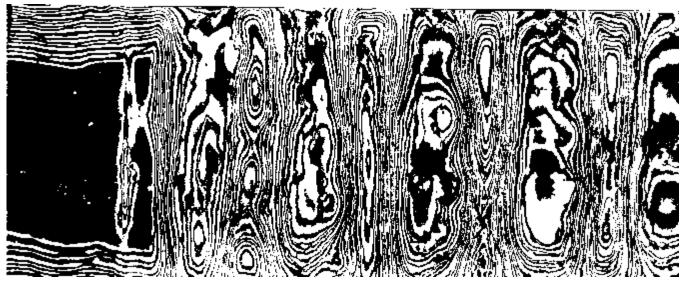
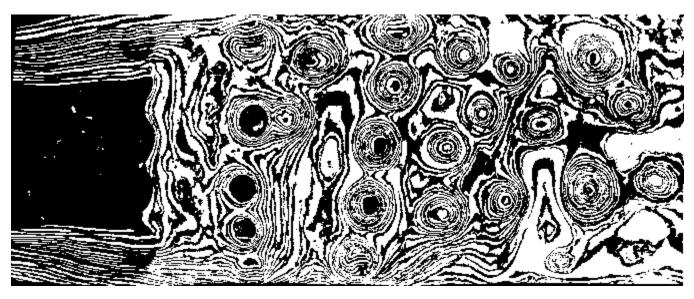


Patterns created by deforming and subsequently grinding laminated sheet



Die formed ladder pattern

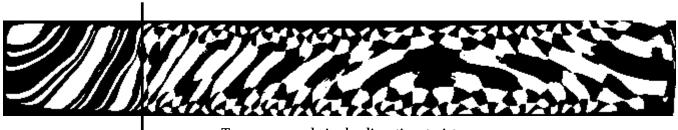


Die formed raindrop pattern

Variations based on a "checkerboard" cross-section



Checkerboard cross section with edges rounded



Taper ground single direction twist



Alternating twist - outside surface view



Alternating twist - step ground view

Variations based upon Twisted Rods



Cross section with edges rounded formed from six rods



Single direction twist - outside view



Single direction twist - step ground view



Composite of four alternately twisted rods - outside view

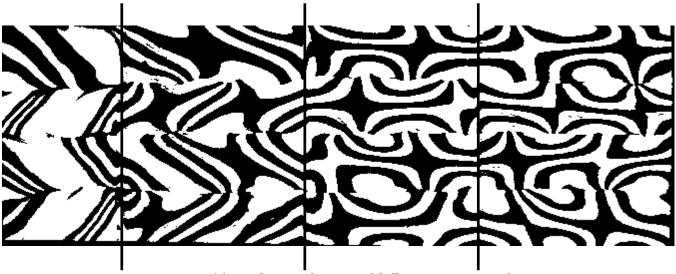


Composite of four alternately twisted rods - step ground view

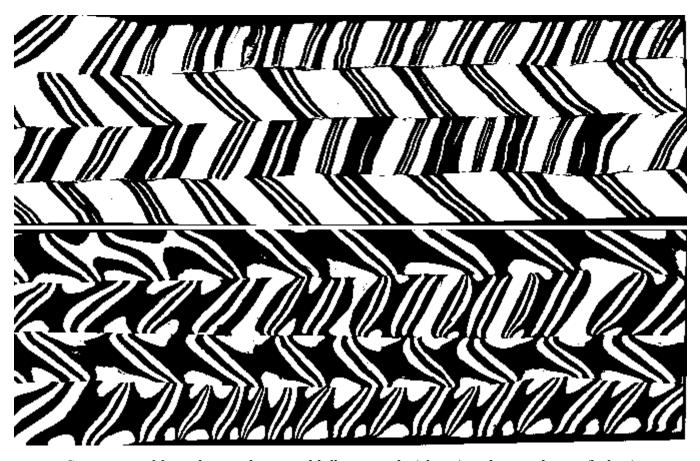
Variations based upon twisted billets



Seven layer billet with black representing steel and white representing iron.

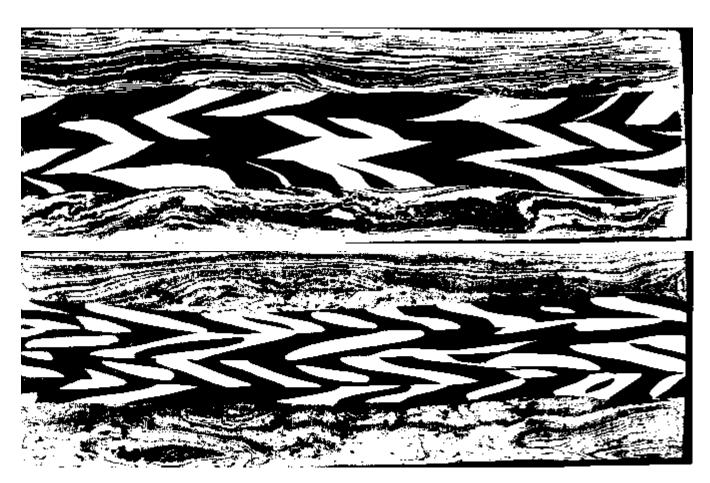


Composite of four alternately twisted billets - step ground view

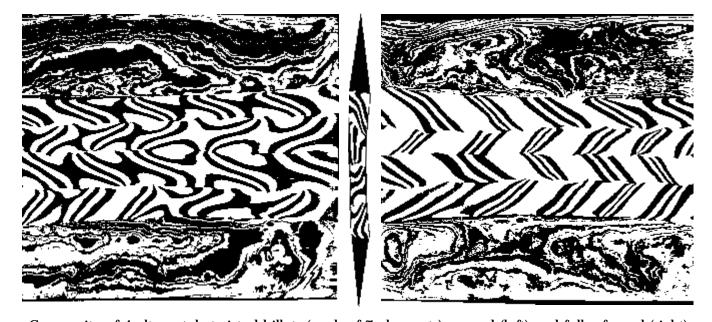


Composite of four alternately twisted billets outside (above) and ground view (below)

Sword Blade Segments

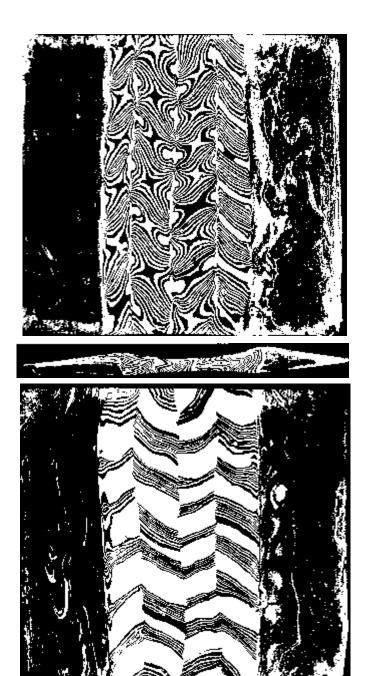


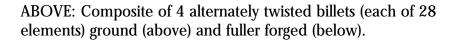
Composite of four alternately twisted rod stacks - fuller forged (above) and ground (below)



Composite of 4 alternately twisted billets (each of 7 elements) ground (left) and fuller forged (right)

Sword Segments





RIGHT: Composite of 4 alternately twisted and interrupted billets (each of 20 elements) ground (above) and fuller forged (below)





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