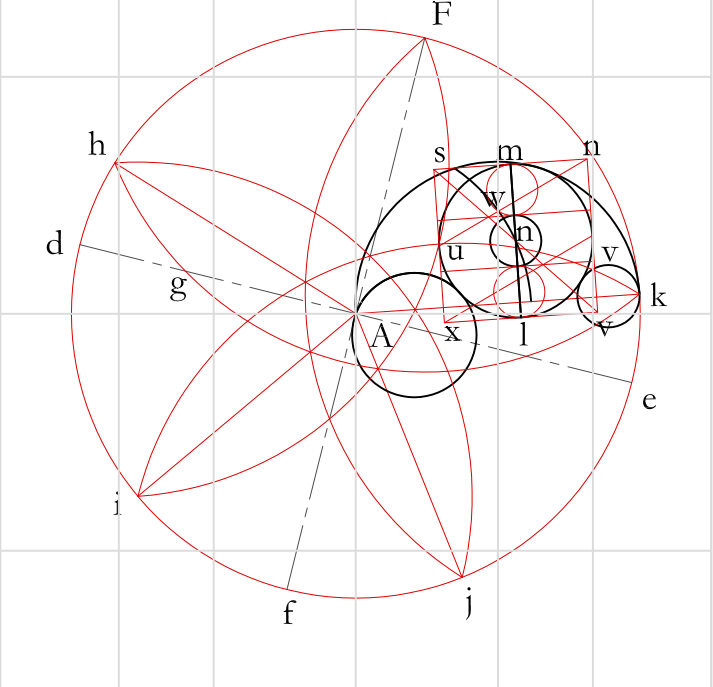


THE BANNER, IN THE PROPORTION OF 3:2, IS RED WITH A STYLIZED, WHITE, FIVE-PETAL "BAUHINIA" FLOWER IN THE CENTER. THE FLOWER FITS INTO A CIRCLE THAT IS 6/10 OF THE WIDTH OF THE BANNER. THE AXIS OF THE FLOWER IS SLIGHTLY OFFSET, AND THE PETALS, SPREADING UNIFORMLY AROUND A CENTER, APPEAR TO ROTATE IN A CLOCKWISE DIRECTION. EACH PETAL CONTAINS A FIVE POINTED STAR AND A CURVING STAMEN-LIKE LINE ROTATING FROM THE CENTER TOWARD THE STAR.

To establish the overall size of the flower, draw the circle A with a radius representing six units. **To locate the rotating stars,** draw a concentric circle with a radius equal to the "golden mean" of the original radius. On line AB, draw two squares with a diagonal AC. With C as the center, draw arc BD, and with A as the center, draw arc AE, locating the point of the "golden mean" on line AB. ($AB/AE = AE/EB$)

To establish the offset of the flower "axis" equal to the diagonal of four squares: On line AF, draw four equal squares with the diagonal AG. AG will be the offset vertical axis of the flower.

The Banner will have a proportion of 3:2, and will be considered 30 units long and 20 units wide. **To locate the width of the Banner,** divide the radius of the circle into three, 2-unit segments. In the upper left quadrant of the original circle, construct square AFHI and draw diagonals AH and FI. Draw a horizontal line JK through the intersection of the diagonals. Draw diagonals KH and AJ crossing GI at the third points, L and M. Draw the horizontal lines NO and PQ through L and M respectively. HO equals 2 units and HQ equals four units. With the center H and a radius HQ, draw the semi-circular arc intersecting an extended IH at R, locating the top of the Banner. With the center I and the radius IR (10 units) draw the semi-circular arc intersecting an extended IH at S, locating the bottom edge of the 20 unit wide Banner. **To establish the length of the Banner,** extend diagonal AH to T and complete square TUVW. Extend line FA to X (on line UV) and locate the mid point Y of UX. With the center at U and the radius UY, draw the semi-circular arc intersecting the extended XU at Z, locating the extreme lower left corner of the Banner. With the center X and the radius XZ, (15 units) draw the semi circular arc locating point a on an extended line ZX. Complete the rectangle abcZ, establishing the width and length of the Banner.

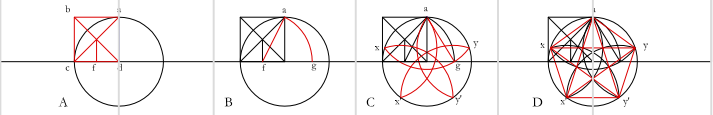


To construct the flower, draw a pentagon on the offset axis GA. Extend vertical axis GA to f on the perimeter of the 6 unit circle and draw the horizontal axis de. With G as the center and Gg as the radius, draw the arc intersecting the circle at h and at k, locating three of the five points of the pentagon. With the center h and the radius hg, draw the arc intersecting the circle at l. Continue with center i and center j and center k, completing the pentagon. To construct the petal, draw line Ak and find the mid-point L. With the center l and the radius lA, draw the arc of its backbone of the first petal.

To construct the serrated edge of the petal, draw line lm perpendicular to Ak, crossing the internal circle at point n. With center n and radius ln, draw the circle tangent to Ak. On line Ak, draw a circle with center o, tangent to circle n and tangent to the original circle. On line Ak, draw a circle with center p tangent to circle n, slightly outside the center.

The diameter of the circle that encloses the star is 1/3 the diameter circle n. The star is located on the intersection of the inner circle at point n. To divide ln into three equal parts, construct square qrst tangent to circle n. Draw diagonals rt and sq and horizontal line uv. Draw diagonals ru and vt crossing sq at points w and x, locating the third points of the diameter lm. With the center at n and the radius nw, draw the circle that will surround the star.

The petals will appear to rotate around a fixed center circle. The fixed center circle is to be 1/2 the diameter of the circle n. The stamens will rotate out from the center of the circle and along the apparent center of the petal. The arc is a part of the circle that passes through the center A and through two adjacent star centers n. The length of this arc is determined by a circle with center A tangent to the circles surrounding the star.



Construct a perfect five pointed star that fits into a 1/3 unit diameter circle
 Draw the circle with its centerlines and construct square Xabc in the upper left quadrant. Find point d at the midpoint of the base of square Xabc by drawing diagonals ca and bx intersecting at the middle of the square. 2. With the center at d, and with a radius of da, construct arc ac intersecting the horizontal axis at c. 3. With the center at a, and with a radius of ac, construct the arcs intersecting the circle at points f and g. With the centers at f and g, construct the arcs locating points f' and g' on the circumference of the circle X. 4. Trace the pentagon aggf'f' and likewise, trace its diagonals ag', af', gf', g'f' and fg' to complete the pentagram.

