CROISSANTS

(recipe from Peter Reinhart, Artisan Bread Every Day)

for the detrempe (dough)
4 + 2/3 cup all purpose flour (21 oz / 595 g)
1 + 3/4 tsp. salt (0.4 oz / 11 g)
1/4 cup sugar (2 oz / 56.5 g)
1 Tbs instant yeast (0.33 oz / 9 g)
3/4 cup + 2 Tbs milk (7 oz / 198 g)
1 cup cool water (8 oz / 227 g)
2 Tbs melted butter (1 oz / 28.5 g)

for the butter block: 1 + 1/2 cups cold butter (12 oz / 340 g) 2 Tbs flour (0.57 oz / 16 g)

Make the dough (*detempre*) by whisking the flour, salt, sugar and yeast in a mixing bowl. Pour in the milk and water, then add the butter. Mix with the paddle attachment on the lowest speed for about 1 minute, stop, and check that the dough is shaggy. It should not be too firm as you' d expect from a bread dough. Adjust with a little water or a little flour if too wet. Mix again for a couple of minutes, transfer to a board, form into a ball and refrigerate overnight (or up to 2 days) inside an oiled bowl.

Make the butter block on baking day. Cut the cold butter in 16 pieces, and place them in the bowl of an electric mixer together with the flour. Use the paddle attachment for 1 minute to incorporate the flour into the butter, without allowing it to melt. Transfer the butter/flour to a piece of parchment paper (spray the surface of the paper with a little oil), and form into a 6 x 6 in square, about 1/2 inch thick. Be as precise as you can with the measurement, and try to form it into a neat, straight-edged little package. Cover the square with a plastic wrap and refrigerate for 10 minutes (or longer, if convenient).

Transfer the dough from the fridge to a floured work surface, sprinkle more flour on top, and roll the dough to a rectangle 12.5 inches wide and 6.5 inches long. Square off the edges, try to keep it all straight. The dough should be about 1/2 inch thick. Place the butter block on the left side of the rolled out dough, check that only a border of 1/4 inch is left between the butter and the edge of the dough. If necessary, roll the dough out a little more. Lift the right side of the dough and cover the butter, stretch the dough to cover it all well, and pinch the edges to fully enclose the butter.

Lift each side of the package of dough/butter gently, toss more flour underneath, flour the top again, and gently tap the surface of the package with a rolling pin, to distribute the butter evenly into the four corners. Roll the dough to a rectangle 16 inches wide and 9 inches long. Again you should aim for a 1/2 inch thick dough. Square off the edges as nicely as possible, and fold the dough as a letter in an envelope: fold the right one-third to the left, and the left one-third of the dough to the right. Transfer the dough to a floured baking sheet, and place in the fridge for 20 minutes.

Place the dough again on a floured surface, with the open seam facing away from you and the closed side facing you. Gently roll the dough again to the same dimensions (16 x 9 inches). Fold again in thirds. Let it rest in the fridge for another 20 minutes, and repeat this exact rolling and folding procedure one more time. Let the dough rest 20 minutes more, and get ready for the final rolling and cutting of croissants.

If working the full dough at once, you will need to roll it as a rectangle 24 to 28 inches wide, and 9 inches long. If you prefer, cut the dough in half, and roll it to 12 to 14 inches wide, 9 inches long. Once the dough is fully rolled (about 1/4 inch thick), make marks starting at the left side of the bottom part of the dough, placing a small notch at 4-inch intervals. Repeat the same on the top part of the dough, but start at the 2 inch mark from the left. Use a pizza cutter to cut a line from the left bottom corner of the dough to first notch on the top part of the dough (at the 2 inch point). Go on connecting the marks to cut triangles. When all pieces are separated, cut a 1 inch notch into the bottom center of the triangle base of each piece (that helps the croissant get its curved shape). Spread the bottom as wide as the notch will allow to create wing-like flaps. Start with the flaps and begin rolling up the dough as you would roll a rug. Stretch the pointed end of the triangle as you roll, trying to elongate the dough. Make sure the end of the croissant stretches all the way under it, so that it remains rolled as it rises and bakes.

Place the croissants on a baking sheet lined with parchment paper, and let them rise at room temperature for 2 and a half to 3 hours. Brush the surface with egg wash (1 egg beaten with 1 Tbs water) if desired. Heat the oven to 450 F F (232 C), place the croissants inside, and reduce the temperature immediately to 375 F (190 C). Bake for 15 minutes, rotate the pans, and bake for an additional 15 to 20 minutes, until golden brown on all sides.

Allow the croissants to cool on a rack for 45 minutes to 1 hour.