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| **Hex Tiles (press molds)**  **Art 140: Ceramics Mr. Kaplan** | Mihrab (Prayer Niche) featuring aniconic designs that are a blend of organic and geometric.  They are royal blue with turquoise and white elements.  Tiles from the Mihrab of the Great Mosque of Isfahan  Originally in Isfahan, Iran.  Currently in the Metropolitan Museum of Art, NY |
| Tiles can be mass produced using a simple press mold. You will create an original tile in a pre-determined shape, but you must avoid **undercuts** or your mold will not work. |

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| A thick slab of clay with a blade cutting around a hexagon template | |  |  |  | | --- | --- | --- | | this side bevels in and won’t work | The template on a cut out piece of clay.  The left side is beveled inward at the bottom which is incorrect.  The right side bevels out ever so slightly at the base, which is correct. | this side bevels out just a hair and will produce a successful mold | | | | |
| Create an even slab that is 1/2 inch thick.  Place a hexagon template on top and cut out the shape. You can also use a hexagon-shaped cutter. | Make sure you have at angle slightly greater than 91o angle between the table and the side of your hexagon. It must not bevel inward. | | | |
| The clay hexagon placed on a tray with the blade double-checking the bevel | Finger smoothing the top corners of the clay hexagon | | | |
| Place your blank hexagon on the tray inside the outline or in a single-tile pan. This is a good time to make sure your sides are still slightly greater than 90o. | Your top edges should not bow out either. It’s Okay if they are rounded, but they can’t be pinched outward. | | | |
| The hexagon with a flattened ball of clay on top | The ball of clay on the clay hexagon starting to be blended by a bladeThe ball of clay being further blended by a finger | | | |
| You can work **additively** to create your design. Avoid undercuts like this. The flattened sphere goes inward and creates an unwanted **undercut**. | To eliminate the **undercut**, blend the bottom of the shape so it flows outward where it meets the tile. | | | |
| ­­­Carvings in the top surface of the hexagon. | The finished prototype with a ring of clay around it | ~OR~ | Aluminum foil pie pan  Hexagon shaped tray | |
| You can work **subtractively**, but still need to avoid undercuts. The channel on the left has a ridge blocking access to its lower parts. The top of the opening needs widened. The channel on the right is free of undercuts. | If it’s on a tray, build a clay reservoir around your tile. Ensure a finger’s width between the tile and the border, and that the reservoir is at least ½ an inch above the tile’s highest point. Your reservoir may share walls with the reservoirs of the other tiles on your tray. Add a thin coat of mold release like murphy’s oil soap. | | | If your tile is inside a pan or tray, add a coat of Vaseline or similar to any visible parts of the pan/tray including the walls and floor. |

Again, you will need to make sure your project is free from **UNDERCUTS**

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| Cross section featuring three protuberances, two of which had undercuts | Cross section featuring three protuberances, none have undercuts |
| The cross-section of this form has undercuts | The cross-section of this form is free of undercuts |

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| Monday+Wednesday | Tuesday+Thursday |
| **03 Hex Tiles A three by three arrangement of interlocking hexagon tiles (decorative)** | | |  8:00-10:30 |  8:00-10:30 |
|  11:00- 1:30 |  11:00- 1:30 |
|  2:00- 4:30 |  |
|  5:00- 7:30 |  5:00- 7:30 |
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| **Craftsmanship** | **ON TARGET 5pts**  My mold is essentially functional. My positives are well finished with only slight marks left from the casting process | **EXCELLENT 10pts**  My mold is highly functional.  My positives are expertly finished and refined. Absolutely no marks are left from the casting process. | | |
| **Radial Symmetry** | **ON TARGET 5pts**  Radial Symmetry is fairly consistent with only 1 or 2 minor deviations. | **EXCELLENT 10pts**  Radial Symmetry is entirely consistent with no noticeable deviations. | | |
| **Checklist** | I completed at least three functional positives. | | | ** 5pt** |
| I roughed up the back of 2 of my tiles to help them adhere to a surface for a mosaic. | | | ** 5pt** |
| I smoothed the back of 1 of my tiles and removed any burrs and/or rough spots. | | | ** 5pt** |
| **Written**  **Critique** | Write a minimum of 1 well developed paragraph with five or more sentences. | | | ** 5pt** |
| In your writing, describe your tiles to someone who couldn’t see or touch them | | | ** 5pt** |
| In your writing, pick what shape would you make your tile if you weren’t limited to a hexagon | | | ** 5pt** |
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| **Total** | | | **\_\_\_\_\_/50pts** | |