

# Making, Materiality & Power



*Practitioner Suggestions Considering Material Culture & Rightful presence in Practice*

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Learning from sustainability enactment When designing for making experiences that would support minoritized youth in seeding and establishing a Rightful Presence in Making, consider the following three points:

Minoritized youth already engage in the practice of making in their everyday lives, with family and in communities. They may think about these practices as “creating”, “repairing”, “hacking”, “make-doing”, “recycling”, if not “making”. The important point to keep in mind is that most youth have some ideas and experiences relevant to making, and to actively and continually invite their ideas and experiences to inform both how (the processes of making), what (the artifacts youth desire to make), where they want the artifact (spaces related to the intended function of the artifact) and for whom they are making (who the artifact is intended for). Be open to youth ideas and reasons for both what and how they want to make, why, for whom, and use youth input to be as flexible as possible in planning and facilitation decisions. Questions to keep in mind and to engage youth in conversation with might include:

- a. Are there any concerns or people we have in mind for making something that might be helpful to these concerns/people?
  - b. What are some ideas you have about what you might want to make/create, and for whom?
  - c. What do you hope your created artifact would be able to do?
  - d. Who are some people we might talk to or invite into our making sessions that would be helpful for our making projects that we have identified?
1. *What kinds of projects, in what stages, are put to use where, and for what purposes at the makerspace or community spaces?*

To build a youth-centered, community-focused culture in a makerspace/making program, we need to consider how the space would look like and feel, to youth. The makerspace needs to be where youth feel that they rightfully belong, where

they are not the “guests” in this space. One way to support youth in establishing a rightful presence in the makerspace is to populate the space physically, with their ideas and their work, in various stages of completion. These might include rough paper sketch ups of ideas pinned on the wall, photographs of youth at various stages of the making processes, shelves to house their continued work, shelves to display prototypes that did not work but that were important to the iterative making process. Physically, the makerspaces should have youths’ made and making “stuff”, literally. These materials physically claim space for youth, signaling that this is their space because their things are here, reminiscent of how youth have stuff in their bedrooms/home.

Also consider where and how youths’ made artifacts might be put to work, and for whom. If youth make for a community space (e.g., the little Free STEM library for the community youth club), as the facilitator, you will need to negotiate with community members who have the power to authorize the made artifact being placed at the desired location. When youth make for community, the artifacts often need to be located in a more public space than the makerspace. Questions to keep in mind and to engage youth in conversation with might include:

- a. For whom are you making this artifact, who would use it and where should it be?
  - b. Who do we need to talk to, to facilitate placing the made artifact where you want it to be?
  - c. How do we check on how your artifact is working in the way you intended, in that location?
  - d. What should we think about in terms of maintaining (upkeep, repair, sustainability of made artifact) your artifact in that location as it is being used?
  - e. Whose help might we need to do so?
2. *The range of materials made available during the making process and what they might mean to youth,*

Materials are not benign -they hold meanings and associations with them that youth relate to past experiences and encounters with particular materials. For example, some youth may have negative experiences in with particular materials in school science because these materials were not accessible to them while being made available to others. Students may regard these materials, or experiences associated with these materials, negatively on the next encounter. Being aware that youths’ histories and past experiences matter when it comes to how they approach and regard particular materials in making, is important. Building positive relationships with youth can help shift their orientations towards materials to one that is more productive. Having a range of materials as options that could perform the same task – example box cutters, cardboard scissors, craft knives (e.g., xató), pumpkin carving tool -that could all be used to cut corrugated cardboard (a common material in makerspaces), would give youth options, taking into consideration the meanings freighted in materials. Questions to keep in mind and to engage youth in conversation with might include:

- a. Have you used this tool/material before? What was your experience with

- it? Who did you use the tool with and what were you doing? Do you have a story to tell me about your experiences with this tool/material?
- b. Do you have a preference regarding which tool/material you might use? Do you want to try all of them out and have a test run?
  - c. Are there any tools/materials you could think of that is currently not here but that we could look into procuring, that might work better for you?
3. *How youth interact with which materials, to make what kinds of artifacts, why and for whom.*

To help minoritized youth establish a Rightful Presence in making, we need to pay attention to how physical materials can be imbued with power that incline or repel youth, based on their prior experiences with such materials that are often related to systemic injustices youth endured and continue to endure as a result of identity markers that trigger such injustices (youth of color, youth from low-income backgrounds, queer youth, immigrant youth, for example). By explicitly paying attention to the material culture of a makerspace/making program, we can more intentionally work towards justice with youth in and through rightful presence establishing youth making.

