

# Agriculture-based Product Design

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'Global' thinking may overlook the diversity between people in different communities (Kim et al 2006). According to Leinbach (2002:3), design should no longer be seen as a styling shape or just an art object but products should be designed and produced with appropriate features. They include cultural aspects and elements of localisation which could provide a more competitive edge in the market. Rodriguez et al. (2006) have suggested that in creating products for current emerging markets, designers should develop deeper understanding about the needs and context of the people using them.

Product manufacturers and designers have to understand elements from local environment. They also need to know how products respond and are being used in a local context in order to meet their product's goals.

Additionally, form would combine with colour, texture, shape, style, layout and ideation forming the "formal properties" of a design. Products are not only required to be technically functioning but also are well integrated with other affective elements in design. They include touch, feel and taste which are linked to human life, memories, social and culture. These elements of design form the main thrusts in implementing design practice and thinking in the final year of these industrial design students' projects.

The following design exercise was designed to stress on experimenting with practical design forms that are relevant with current technology while accommodating agriculture-related consumer needs. By experiencing a systematic approach in developing good design quality products, students were exposed to methods for exploring their design ideas and enhancing their skills and thinking in this exercise.

The initial study began with students exploring potential areas or issues that required design improvements and opportunities for new agricultural product development. This basic anthropological experience had enabled them to identify new possibilities in developing novel products. Students learnt about systematic research techniques and developing relevant analytical skills. They would then propose a relevant technology and focused on certain target market's needs during their design development stages. These design exercises incorporated basic manufacturing knowledge in terms of materials selection, fabrication process and sustainable values relating to local agricultural contemporary design issues.

In the Malaysian context of developing product and discussing local design agenda, various problems are encountered in exporting local goods internationally. This is especially in promoting tropical fruits. Local versions of 'Fruit Packaging' and 'Fruit Opener tools' are two examples that emerged from the designers' social engagement experience with the local agriculture developers and their surroundings. The incompatibility of adapting universal tools in assisting local fruit lovers to enjoy delicious tropical fruits have driven the initial study for these two projects.

The use of mock ups to study the forms and shapes has contributed to exciting design development for these projects. It allowed interesting experimental problem solving that stemmed from the design exercise. The use of inappropriate tools available in the market to open 'the hard and spiky' shelled local fruit *durian* could lead users to other problematic areas such as ergonomics, hygienic and other safety-related issues.