An approach to digital modeling and design exploration through algorithmic methods using specialty software (Rhinoceros + Grasshopper¹) that facilitates development of geometric schemes, form-finding, and structural elements inspired by cultural precedents pertinent to this region.

Over the fall semester the Indigenous Design Collaborative hosted four Saturday workshops involving parametric modeling instruction as a first step towards providing an opportunity for design students to engage with and explore algorithmic design tools and practical geometric thinking as a methodology for vernacular architecture.

**Exploration of Software Tools**
Providing a new perspective through the pursuit of efficiency and meaningful speed-modeling where designers can choose among design parameters for patterning, digital fabrication, rapid prototyping, urban/geographic explorations, structural form-finding, biophilic considerations, among much more. Such exploration is intended to inspire students to take advantage of the modern tools available to depart from conventional 2-dimensional forms and progress towards a comprehensive approach towards design.

**Reinforcing Cultural Design Opportunities**
An attempt to highlight the link between ethnicity, geometry, and design was made to convey a powerful message: there are significant lessons to be learned from distinctive art forms and cultural expressions put forth by those that came before us and shared the impetus of building a place that both considers and venerates this region.

**Expanding Design Student’s Skillset**
The interest shown by participating students to attain a focused course on parametric modeling that may directly or indirectly strengthen their main studio projects is a key aspect of this approach to design. Additionally, this opens the possibility of creating an online repository of examples and tutorials to supplement algorithmic learning through Q & A, blogging, and file databases serving as real-time opportunity and legacy for the next generation.

¹Grasshopper is an algorithmic modeler plug-in for Rhinoceros