

PRESENTATIONS BY NORTH CAROLINA A&T STATE UNIVERSITY STUDENTS

SHANNON CREASON, SENIOR

ABSTRACT – “NATUCULTURE FOR COMMUNITY AND FOOD AND HEALTH”

In 2008 students from NC Agricultural and Technical State University began the process of transforming the outside area surrounding the Biological Engineering building on campus from a human disturbed and unnatural environment into what we call Natuculture (pronounced ‘nā-choo-culture’). The Natuculture model has since been established at 13 Pre-k through high school level institutions as well as 2 community gardens in and around Greensboro, NC.

Natuculture is any human made system that mimics nature in human disturbed landscapes; it is a system that synergizes with and does not oppose nature. Natuculture makes “the unnatural natural” and involves designing biologically engineered systems in urban landscapes that harmonize with nature. Natuculture therefore is not just a garden and in most instances, a garden can even be the opposite of natuculture since a garden connotes several practices that make ‘the natural unnatural’ like tilling, planting of non-native species, and use of artificial chemicals. Aspects of Natuculture include but are not limited to food security and long term sustainability, environmental improvement, and biodiversity.

The application of Natuculture in oasissofas has allowed students to actively participate in engineering by conducting research in areas such as soil quality, water quality, and plant health in conservation and traditional agricultural systems.

INDIA R. JONES, SENIOR

ABSTRACT – “MAGNESIUM AND MAGNESIUM ALLOYS”

The project at Johns Hopkins University consisted of testing magnesium and magnesium alloys, which are lightweight metals with high strength, for use in transportation applications, specifically in automobiles and aircraft. The use of these materials would reduce gas emissions and lower fuel costs.