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ABSTRACT

Experimentation and innovation are universal food production strategies based upon the psychological desire for satisfaction and potential for long term security that may help explain the prehistoric origins of food production in North America. Allen W. Johnson (1972) found that innovation was globally pervasive and adaptive within traditional agricultural communities, despite a general belief by mid-twentieth century scholars that experimentation carried too high an economic risk for populations that are economically dependent upon agricultural production. This study examines modern gardening practices in North America to test the hypothesis that agricultural experimentation is a human adaptive strategy. The study demonstrates that gardeners find satisfaction in growing their own food; therefore, they continue gardening despite poor harvests and the lack of economic benefit. All of the study participants engaged in some innovation and experimentation, had ancestors that gardened, and taught their children to garden, lending support to the ideas that food production is culturally transmitted and that food production in North America may have resulted from human experimentation.



Figure 1 –Fieldwork Site, Woodstock, Georgia

GARDEN PHILOSOPHY

“Simple, easy, green.”
 “Let’s try it and see what happens.”
 “There’s always room for one more.”
 “If it grows, eat it!”

Their philosophies varied considerably (see above), but all of the study participants reported receiving satisfaction from their gardening activities. One participant stated that gardening was “almost spiritual.” The garden is a confluence of life flowing between plants, people and other animals, and the environment. The ideas expressed in these philosophies demonstrate the emphasis modern gardeners, regardless of demographic background, place upon experimentation.

METHODOLOGY

Case control sampling was used to locate potential research participants (Bernard 2006:194). Participation was limited to individuals over eighteen years of age able to speak, understand, and read English that live in North America and self-identify as engaging in gardening. Consent included approval for the use of audio and visual recording devices, although field notes were taken as well (Bernard 2006:227-232, 387-450). Interviews were recorded using an Olympus VN-4100PC digital voice recorder and photographs were taken by the researcher using a Nikon Coolpix P500 digital camera.

Self-identified modern gardeners were asked twenty questions about their gardening experiences and for basic demographic information. This was accomplished using three methods of eliciting information. Seven potential study participants were emailed a survey, two of which were returned. Two study participants were interviewed in person and two by telephone. One session of participant observation was also conducted alongside a gardener as the means of gathering evidence (Bernard 2006:342-386).

The participant observation was difficult to arrange for this project because most of the available study period did not coincide with the local growing season. This is because the academic year was designed to facilitate farming (Cooper, et al. 2003:2). Local inhabitants typically wait until two weeks after Easter to plant, so the researcher had to wait until the spring equinox to engage in participant observation.

HORTICULTURE AS A NORTH AMERICAN SUBSISTENCE STRATEGY DEMOGRAPHIC DATA							
State of Residence	Gender	Age	Ethnicity	Religion	Marital Status	Education	Occupation
Alabama	Female	52	Native	Native	Married	High School	Case Manager / Counselor in Training
California	Female	53	White / American Indian	Taoist	Married	Bachelor Degree	Landscape Architect / Graduate Student
Georgia	Female	23	White	Agnostic	Single	Some College	Student
Georgia	Male	38	White	Spiritual, but not religious	Single	Some College	Sales / Chief Executive Officer
Georgia	Female	50	White	Christian	Divorced	Bachelor Degree	Unemployed
Georgia	Female	51	White	Believe in God	Divorced / Widowed	Some Technical School	Primary School Food Service Manager
Maryland	Female	33	Hispanic	NA	Married	Bachelor Degree	Nurse / Graduate Student

Table 1 – Diversity in Research Study Participant Demographics

RESULTS

The research study participants were a very diverse group of people (Table 1): one male and six females ranging in age from 23-53 and self-identifying as white, Hispanic, and Native American. Four participants were from Georgia, one from Alabama, one from Maryland, and one from California. All of the participants had parents or grandparents that gardened or had a farm and all that had children had taught them to garden. The participants had been gardening for 3-50 years and represented all levels of gardening knowledge and experience. Each participant spent about 4-24 hours a week gardening and all reported that their gardening was enjoyable and satisfying, although only one participant received economic benefit.

Every participant grew a wide variety of vegetables, fruits, and nuts (Table 2). All of the participants experimented with different plants and different varieties of plants as well as changing techniques, sometimes in very innovative ways.

Participant observation, the hallmark of anthropology, was used to determine the effort expended by one of the gardeners. Six of the participants reported a commitment to organic gardening, so one local organic gardener was selected for participant observation (Figure 1). Six hours were spent preparing a raised bed for planting (Figures 2 & 3) and learning about organic gardening practices, including rainwater collection (Figure 4), composting (Figure 5), and using a cat to reduce pests (Figure 6). The soil was analyzed and determined to be excellent as evidenced by earthworms per square foot. Weeds were pulled and screened to conserve the soil. The weeds were then added to a compost pile to be recycled back into nutrient-rich soil.



Figure 2 – Raised Bed Before Participant Observation



Figure 3 – Prepared Bed After Participant Observation

Most Commonly Grown Food Plants		
Plant	No. of Gardeners	States
Beans	6	CA, GA, MD
Cucumbers	6	AL, CA, GA, MD
Peppers	6	AL, CA, GA, MD
Tomatoes	6	CA, GA, MD
Squash	5	CA, GA, MD
Herbs	4	AL, GA
Melons	4	AL, CA, GA, MD
Lettuce	3	CA, GA, MD

Table 2 – Food Plants Grown by Research Study Participants

DISCUSSION AND CONCLUSION

Every participant found gardening psychologically rewarding despite the fact that only one participant received any economic reward. Additionally, participant observation demonstrated that time and energy costs are too high for food production to be profitable.

The hypothesis that agricultural experimentation is a human adaptive strategy tested true because every study participant engaged in experimental gardening, as did the cultural transmission of gardening evidenced by the reported multi-generational gardening within families, lending credibility to the argument that experimentation led to the prehistoric cultivation of food plants.



Figure 4 – Rain Barrels



Figure 5 – Composting System



Figure 6 – Skipper

CREDITS

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