People/Plant Interaction: Human Perspectives in Horticulture¹

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Horticulture is a branch of agriculture and as such is primarily concerned with the production of a product, be it fruit, vegetable or ornamental. Horticultural research, applied to improved production methods and product, has resulted in sophisticated control of production and uniformity of product. People seldom enter the purview of horticultural research, except in studies of labor-efficient methods of production or the consumer market.

Though people are not the direct concern of horticulture, horticulture is becoming the concern of an increasing segment of our population. The recent phenomena of bulging enrollments in horticulture courses and rapid expansion of plant sales cause many of us to wonder what is happening. We do not know why the horticultural explosion is happening, and our product-oriented research offers no explanation for us.

Some professionals are aware of the isolation of horticultural research from the mainstream of society and have repeatedly voiced their concern in this column. For example, E. C. Maxie (8) asked, "Where Was A.S.H.S. when The World Went By?" In "Horticultural Science in the Sociosphere", B.E. Day (1) comments, "The answer is that we must clearly recognize that we are part of society, not independent of it... Our science should seek to be useful to society". In "Social Responsibility in Horticultural Research and Teaching", S. H. Wittwer (9) speaking of the massive enrollments in horticulture, asks, "Are we equal to the Challenge? Is there a message? Will we pass up this opportunity? Horticulture for the millions should be our motto". Society has found horticulture, but how does horticulture find its way to society?

The problem, I believe, is one of perspective. With a slight change in emphasis, the traditional viewpoint of horticulture as a process that produces a product will also accommodate societal aspects of horticulture. We begin by examining the human elements of the process — all the thoughts and actions of a person from the time he first decides to produce a crop, through the planning, planting and growing to the harvesting and disposal of his crop.

The horticultural process is carried out by people who are deliberately interacting with plants over a period of time. I say interacting, because the activities of the grower are guided by the responses he observes in the plants. A skilled grower can recognize the first symptoms of nutrient deficiency, water stress, and a host of other symptomatic plant responses. He responds to the observed plant symptoms by adjusting the production regimen to correct the indicated problems. In the process of horticulture, person and plant operate as an integrated system.

We think of the horticultural process as occurring in greenhouses, orchards, farms and perhaps suburban yards and apartment terraces. However, to these sites we must also add urban ghettos, mental hospitals, schools for retarded, prisons, geriatric centers, physical rehabilitation centers. Though in these settings it is more likely to be called gardening rather than horticulture, it is the same process, producing the same products: plants, flowers, vegetables, fruit. However, there is a qualitative difference. In each of these social settings the process of horticulture also helps to alleviate human stress — social, physical, psychological. Horticultural therapy presents endless examples of horticulture aiding in recovery and rehabilitation. Though in these settings it is more likely to be called gardening rather than horticulture, it is the same process, producing the same products: plants, flowers, vegetables, fruit. However, there is a qualitative difference. In each of these social settings the process of horticulture also helps to alleviate human stress — social, physical, psychological. Horticultural therapy presents endless examples of horticulture aiding in recovery and rehabilitation. Reports on gardening in low income areas verify the beneficial influence of gardening on behavior (5, 6, 7).

If the process of horticulture in ghetto areas can "reduce vandalism, give residents a sense of community and pride, increase communication among the alienated so that there is a spontaneous move to alleviate squalor with the result that houses are painted, and a new morale develops in a demoralized neighborhood" (4), then it is indeed already deeply involved in social action. If it can help to reduce recidivism among those released from correctional institutions, to aid in recovery from mental and physical trauma, to help rehabilitate mentally limited individuals, then indeed it is relevant to the social problems of today. These are some of the accomplishments of the process of horticulture, occurring every day in the real world. In each example, it is the human involvement in horticulture that provides social meaning.

How can we gain a clearer view of it? In considering horticulture as an interactive process occurring between two living organisms, person and plant, we have learned how the plant responds, but do we know the ways in which the person responds? What kinds of satisfaction and benefit are found in the process of horticulture? These questions, though removed from the mainstream of present horticultural research, are at the very essence of the social effectiveness of horticulture. Are they important to us?

Recently I visited a well recognized horticulture department on the West Coast, where the chairman and two senior staff members told me that they would gladly provide cultural instructions for gardening in the ghetto or any other setting — but that their concern and interest included only the plants,
not the people growing them. I do not think that this limited viewpoint can ever lead us to understand the social implications of horticulture, nor will it ever encompass the flood of people now becoming involved in horticulture. A humanistic viewpoint which accommodates the interaction of person and plant is needed to help us find the social perspectives in horticulture.

There are signs of movement toward acceptance of a people/plant concept at the university level. Horticultural therapy is offered as a full four-year curriculum in four state universities. The American Horticultural Society People/Plant Program is collaborating with Rachel Kaplan, Professor of Environmental Psychology at the University of Michigan who is working on a major research effort into the kinds of satisfaction and benefits found in gardening. Patrick Horsbrugh, Professor of Architecture at Notre Dame, calls for the concept of "People/Plant Proxemics", recognizing "the continual association of man with plants, not only respecting their effect on his air and food, but particularly those contacts which feed the eye, employ the hand, and sustain the soul...that proximity which is both aesthetic, sensual, and psychological" (2). He believes that if the concept of horticultural therapy is valid for individual benefit, then "it applies, also on the scale of society in general, and to environmental conditions in total" (3).

Today horticulture is alleviating psychological stress. In the hands of a skilled planner or designer it could prevent stress in environments yet to be built.

Can horticulturists see themselves in this broader social context and move toward accepting this new image as part of their discipline? Can horticulturists work with those in the behavioral disciplines to find out why the process is beneficial? Can they work with architects and planners to help them understand the human benefits possible? The questions concerning people/plant interaction will be answered, because the pressures of human needs demand answers. To what degree will horticulture participate in the search? Can we enlarge the area of our horticultural concern to include inherent human benefits?

Society has found horticulture. With a people/plant concept, horticulture can discover new and vital dimensions in society.

Literature Cited