THE PERSONAL EQUATION OF GARDENING
IN THE
POTSDAM AREA

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INTRODUCTION

This paper is the product of fieldwork conducted over the summer months of 1976. The primary concern of this fieldwork was to uncover and analyse a feature of American culture that is usually taken for granted by sociologists and economists, the home garden.

This paper will examine the following four topics: land use and technology, the production and use of surplus, dependence on and affinity with the land, and the world view of the gardeners. I shall show that many considerations enter into a gardener's decision of how much land and technology to use, how much surplus to produce, and what to do with it. It appears also that gardening is an immensely sociable enterprise and has important personal meanings and rewards for the gardener.

There was no attempt made in this study to sample the community but merely to investigate the complexities of the subject preliminary to planning a larger research project in the future. Nevertheless, several types of Potsdam residents have contributed to this study as informants. The informants interviewed were all immigrants within the last forty years to the Potsdam, New York area. The majority of the informants were associated in some way with the colleges of the area and were highly educated, many with advance degrees. Some informants, however, had nothing to do with the schools and had not even completed grammar school.
Land Use and Technology

Gardening, or horticulture, has for thousands of years served man as a means of obtaining food. Working within the framework of his technology man has sought to influence nature toward this end. Obtaining food for immediate consumption was only one side of the coin; the other was the acquisition of surplus and the development of a larger, more complex society.

From digging sticks to rototillers, man's garden-related technology has progressed, helping him to obtain surplus. This surplus may be seen as both a cause and an effect of this technological progress. It is a cause in that surplus freed an artisan class to produce ever more sophisticated tools for growing crops. It is an effect in that these better tools further insured and increased the surplus.

The desire to produce surplus is manifest in our informants' stated goal of maximizing their harvest from a given amount of land. They are aware, of course, that surplus production is dependent upon the sophistication of the technology, the quality of land and seed, and the amount of labor invested. What is interesting is that surplus is also obviously affected by the amount of land used, yet gardeners who might maximize all their other resources vary greatly in deciding how much land to till. For example, two gardeners, A and B, might have equal food needs. Gardener A with 20 acres of arable land may only cultivate 2 acres, (1/10 of total arable land), and this only thinly and meet his food needs. Gardener B with only 3/4 acres of arable land may cultivate 1/4 acres, (1/3 of total
arable land) intensively and still meet his food needs. So here is introduced the variable of individuality, a very complex variable composed of perceived need, ambition, whim, and just about anything else that could distinguish one gardening personality from another.

To further illustrate this personal factor in the gardening equation, let us elaborate on our above example. Even though the gardeners' nutritional requirements are the same, gardener B cultivating 1/3 of his total land, or 1/4 acres, harvests enough to last through the winter; whereas, gardener A cultivating 1/10 of total land, or 2 acres, does not have enough to last through winter. Clearly the personal factor in the home gardener's calculations for gardening behavior has a mammoth influence. Perhaps even more than commercial farmers, home gardeners manipulate each of the terms in the following equation according to whims or ill-defined objectives:

\[ \text{Lands} + \text{materials} + \text{labor} + \text{technology} \rightarrow \text{garden produce.} \]

**Production and Use of Surplus**

Though consumption is the primary reason for gardening, all gardeners interviewed produce a certain amount of surplus. This surplus is due to the very high level of technology available to them. Surplus allows a gardener to store, can, freeze, or dry enough for the winter. Immediate requirements are consumed, but surplus can be squirreled away for the vegetable-poor winter.

Here an equation, modified from an article by Orans (Orans 1968:207), may serve to define surplus:
Surplus = Net Yield - Minimal Immediate Consumption Requirement where Net Yield is total harvestable produce after garden-related pests such as racoons, birds, insects, and diseases have taken their toll. Minimal Immediate Consumption is the amount harvested and consumed while fresh by the immediate family.

Now that surplus has been defined and one use of surplus, winter preserves, has been introduced, let us consider some of the other ways surplus is used.

The most common use of surplus is bestowal on a friend or neighbor. This recipient is usually not a gardener and the gift is received as more than just food, but as a bit of personalized, nurtured nature, which is how it was given. There is no nutritional loss or felt sacrifice by the giver.

This nongardening recipient may reciprocate goods such as pies or personal favors, but nothing is expected. To expect compensation for such a personal thing would be to cheapen its nature. To make use of an analogy: the ritually sacred would be polluted by the commercial, contractual, and profane.

This aspect of giving to non-gardeners is important, especially in the light of the fact that in western civilization we have developed the notion toward specialization that it takes someone of a like nature or talent to fully appreciate one's skills or avocations. For example, it takes a construction engineer to fully appreciate the structural stress of a suspension bridge, and it takes an auto mechanic to fully appreciate the working mechanisms of an internal combustion engine. However, this notion is not applied to gardening, for to give a
vegetable product to a gardener who already possesses it would be as one informant so aptly put it, "like carrying coal to Newcastl...

Giving crops to gardeners does occur, but only in certain situations. If one individual's cucumbers are "in" that is, ripe for picking, before another's then that individual may give some to the other, who at a later date would reciprocate. Also, two or more gardeners may exchange crops that each perhaps intentionally, had not cultivated, thus setting up a loose network of reciprocal exchange. This network is loose in the sense that any individual may end the relationship simply by failing to reciprocate.

Another form of giving which also occurs between gardeners is the bestowing or exchanging of seedlings. These seedlings are grown before the planting season and are propagated usually in window boxes, though other techniques are employed, (e. g., special fluorescent light setups or sealed bags filled with fertilizer). This bestowing or exchanging is also of surplus, though because it is given to other gardeners and is not really a product of their labors, it is given in much the same way two doctors would give patient referrals - clinically. The rationale behind this giving or exchange of seedlings among gardeners is expressed as, "it would be a shame to have to throw them away", and "I couldn't just kill them after they started to grow".

What is apparent throughout this process of producing surplus, whether it be vegetables or seedlings, is that gardeners do not calculate so as not to produce extra.

Some surplus, like seedlings, is not edible, but unlike seedlings is a product of a gardener's labor and the sense of
affinity between gardener and garden. Runners from strawberry plants are such a surplus, given away for the above reason of the value of life. Friends and neighbors are targets for this surplus though often other outlets are also relied on because the surplus is vast. These other outlets include acquaintances, strangers who learn of the surplus by word of mouth, or by reading posters on bulletin boards or notices in the classified section of the newspaper placed by the surplus burdened gardener.

Bestowing surplus in this sociable way is the most common means of its disposal. This is made especially clear in light of the fact that although all informants gave surplus away, not all informants preserved surplus; that is, canned, froze, or dried it.

Surplus is given not only to friends, neighbors, acquaintances, and strangers, but also to kinsmen, such as married children, who are not gardening. In many instances this means of allocating surplus is something like (as one informant termed it) a "care package". The gift is intended as very practical assistance and is prompted by a sense of love and parental duty.

Surplus is also donated to the Potsdam Food Co-op, to church fairs, and to charities. Besides helping to raise money for these organizations, this bestowal of surplus helps to fulfill one's civic and benevolent role as a contributing community member.

Surplus is also used as payment for services such as plowing or tilling. This payment is not contractual and is seen as a favor the gardener is bestowing upon the individual who performs the service as a neighborly gesture.
Thus we see surplus used to fulfill one's communal and familial obligations, to socialize with friends and kinsmen, to pay one's moral debts, and of course, to feed people. This is illustrated in the following paradigm:

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<thead>
<tr>
<th>Surplus</th>
<th>Preserving, (canning, freezing, drying)</th>
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<tr>
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<td>Bestowing, (friends and neighbors)</td>
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<td>Reciprocal Exchange</td>
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<td>Familial Responsibility</td>
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<td>Communal Responsibility</td>
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<td>Payment of Services Rendered</td>
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<tr>
<td>Seedlings/Cuttings</td>
<td>Bestowing (friends and neighbors)</td>
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<td>Impersonal Bestowal</td>
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The following schematic network of an actual informant illustrates the complexities of garden input and output, encompassing not only the tangible, such as money, produce, and labor, but also the intangible, such as pleasure, information, and sociability. The center hub represents the informant hereon to be referred to as Mr. W, and the arrows represent the flow of the tangible and intangible commodities.

Mr. W was much more involved in gardening than most informants and in fact maintained two exceptionally large plots. One of these was in his backyard near his house and covered 1890 square feet. The second was located on adjoining property and covered 22,500 square feet. This second garden was located on property belonging to a local charitable corporation and Mr. W felt a $15 per year "donation" was in order as a gesture of thanks for the use of their land. Of this second garden the informant himself worked an area of 12,000 square feet and parcelled the
rest out between seven "tenant farmers", each of which contributed $3.00 per year to help cover the donation to the corporation and to help pay for the informant's increased water bill, gasoline for the rototiller, and depletion of the informant's tools, all of which the tenant farmers were welcome to use.

Mr. W subscribed to, and on occasion wrote articles for, "Organic Gardening", the methods of which he practiced. Further, he built 3 food dryers, two of which he gave to his married children. He also had reciprocal arrangements with local farmers and friends, exchanging labor for animal manure to be used as fertilizer.

INPUT-OUTPUT NETWORK OF A HOME GARDENER IN POTSDAM, NEW YORK
Dependance on and Affinity with Land

Sustenance from one's garden, whether that of immediate consumption requirements or that of year-long needs of preserved food, varies in its definition by informants. As previously mentioned, technology and total arable land plus the influence of the complex variable of individuality affect net yield and consequently, surplus. Minimal immediate consumption requirements are influenced not by the above variables but by a person's income and budget. As may be expected, the less the financial income the greater the dependance on net yield and surplus. The sense of "what we don't need, (i.e., minimal immediate consumption requirements and preservable surplus), we'll give away", is practically absent under these latter conditions and is replaced by a notion of recycling: "what we don't eat, the hogs will". Complete personal use of crops in such subsistence cases is the norm, expressed as the ideal of not letting anything go to waste.

It is interesting to note that when dependance on land increases, a gardener's affinity with land decreases. It is my contention that this peculiarity is based on the idiosyncrasy of man to remain detached from what he depends on.

To defend this theory I shall speak in extremes. Certain "Primitive" peoples like the Umor of Nigeria with a high dependancy upon land practice elaborate fertility rites. Since ritual is involved it may be inferred that the Umor view their gardens as not being totally within their control, though definitely within the control of some deity or force which they must propitiate. Thus there is an unequal relation between deity/force and man with man the petitioner of favors through ritual. This
high dependancy on deity/force is associated with an almost fatalistic outlook on the part of man.

At the other extreme, "modern" man, of which my informants will serve as an example, has replaced fertility rites with science and technology. It should be mentioned that none of my informants were even slightly near as dependant upon the soil for sustenance as the Umor. This being the case, it is difficult, if not impossible, to determine if science and technology was the cause which resulted in the abandonment of soil-related ritual and the achievement of low dependency or if low dependency was the cause which resulted in the abandonment of soil-related ritual and the development of science and technology. Whichever the case may be, once science and technology and a lowering of dependency came about, soil-related ritual was on its way out. What has evolved in its place is a psychological identity with nature.

This same variability of dependence on land allows different degrees of affinity to the land. The more dependant a gardener is upon the soil for sustenance the less psychological identity, or affinity, he feels toward it. Conversely, the less dependant he is upon the soil for sustenance, the more psychological identity, or affinity, he feels toward it.

Although certain informants were markedly more dependant upon their gardens than others, none, as previously mentioned, were totally dependant. That is, there is always the supermarket to fall back on. All of the informants stated that they would not want to depend on gardening for a living. They feel that the demands and worry would prevent them from enjoying their labors as they would have to rely on the outcome too heavily to take it
lightly. This, of course, supports my contention that pleasure in gardening varies inversely with dependence upon it.

The World View of Gardeners

Labor in the garden is not considered "work", nor is it considered an expenditure to be counted in garden bookkeeping. By this reasoning home garden produce is very inexpensive. But gardeners do work hard in their garden, investing 12 hours or more per week during the spring and during harvest times. To the economist and commercial farmer, such activity is unquestionably labor, but to the home gardener, it is recreation. In fact, to some home gardeners this work is admittedly therapeutic. Tension is relieved, problems are solved, ideas arise, and enjoyment results. Though gardening clearly contributes economically to the gardener's household consumption unit, it is an activity without work because work is what one gets paid to do, and getting paid for gardening, we have seen, pollutes it. Relatedly, bookkeeping among home gardeners is rare and casually done; the idea of such objective calculations is antithetical to the spirit of gardens.

Whether they viewed their labor as therapeutic or fun, all informants viewed their gardens as a thing of order. Of course, individuals' conceptions of orderliness varied; again the variable of individuality appears to exert a decisive influence.

Most gardeners strive for neat, parallel rows of single species arranged in rectangular plots. The occasional weed or two and certain innovations though would break the pattern. Innovations included black plastic sheets spread along paths and rows to prevent weed and growth, the French technique of planting in wide dispersed rows for even more crop yield on less land, and "tier planting", in which one crop is planted under another to
provide shade and greater yield.

Gardening is imbued with a powerful aesthetic sense of orderliness bordering on a quirk. This aesthetic applies also to the preservation process. One informant reported that after canning, when she saw her counters and kitchen table lined with neat rows of jars of assorted produce, she felt a sense of pride and accomplishment. She further felt it a shame to put the jars away in a cupboard where no one could witness their vast bulk and uniformity.

Neatness in the garden is the desired result of a definite motivation common among gardeners, of "making order out of chaos." Informants who possess this feeling of pride and identity with their gardens have what may be called a religious awareness about their gardens. The cosmos is reflected in miniature in these plots of turned, nurtured soil, where order prevails and man dictates the cosmos' actions. There are no discrepancies here, no one to seriously threaten their authority. Gardeners are for all intents and purposes the supreme being who is responsible for the well-being and safe-keeping of the gardens' inhabitants, striking down foe with biodegradable lightning and raining down manna from heaven in the form of chemical fertilizer and compost. Here is the ontology of the individual, here is a personalized, self-made and maintained Garden of Eden, complete with snake as foe, which must be defeated. The garden is therefore the reflection of self, an art work in loam and chlorophyll, a self-portrait on the miniature cosmos.

This psychology of gardeners is learned from childhood and developed throughout life. All gardeners or their spouses were exposed as children by their parents to gardening. This exposure
in childhood had different effects on gardeners of different sexes. After this childhood exposure to gardening, women maintained window boxes and potted plants when garden plots were not available. Crop yield under these circumstances was minimal, and so it may be inferred that economics played an infinitesimal role in the women's primary desire to garden. This minor role of economics for women gardeners continues even after establishing their full size gardens. The religious awareness and the enjoyment aspects seem to be important motivations for women gardeners. Nutrition, wholesomeness and economics are secondary concerns.

On the other hand, male gardeners who were exposed to gardening as children usually dropped the tradition entirely, only to return upon acquiring a family. Informants stated that their return to gardening was prompted by economic concerns, such as saving money and helping to feed a family. Again, as with the women, wholesomeness and nutrition were secondary. At some time throughout men's gardening experience economics as a primary motive was replaced by the religio-therapeutic, though nutrition and wholesomeness retained their positions of secondary importance. Economics shifts to third place as a stated objective.

Conclusion

In conclusion, it should be noted that all informants hold that gardening:

1. feels good, 2. tastes good, 3. is good for you, 4. saves money.

Though there are certain things that set gardeners apart as individuals, there are also factors that bring them together. The main unifying factors are: the use of surplus in familial and communal interaction, psychological identity and affinity
with land, enjoyment derived from laboring in their gardens, and a sense of pride in their accomplishments.

Throughout this paper the personal factor of the individual gardener has been a key factor in the gardening process. I have stressed that this personal factor, this variable of individuality, influences land use in general, the distribution and use of surplus, communal and familial obligations, psychological identity with land, the sense of the aesthetic, and to a certain extent, dependance on land.
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