

XXXII IAHS – Ground Around Family House

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Abstract

Considering different treatment of a soil around house, natural, cultural and agricultural, very often family house garden has been used for vegetable growing. Some particular food demands were supplied with own production nearby own house. Through several examples in different times and locations, a character of vegetable garden is illustrated.

Utility, need for own food production, agriculture on own house lot, might be treated both as romantic, poetical, support of naturalistic way of living, and as a sign of low class position in society. Aesthetics of vegetable garden is often considered inferior to a decorative park-like garden. "*It is useful but not picturesque*", and that is why it should be hidden somewhere on the site outside of main views. Economical analyses shows that, if value of own work is not counted, there are some savings, but nothing spectacular. Through presented examples, different sizes of vegetable garden areas were given. Very unexpected and puzzling proposal is from the US book-1981.

Green revolution, a fantastic growth of agriculture and food production, decreased the importance of vegetable garden to the level of functional needlessness in developed country. If it appears somewhere, it is only hobby and recreation.

Ground around family house is to be treated in cultivated park-like way or if possible, for bigger lots, to save it in its natural shape.

1 Introduction

Great amount of habitable soil is covered with areas of family houses. The treatment of that terrain might be quite different, depending on many circumstances. Geographical, climatic, historic, sociological, cultural etc. characteristics are producing specific environments. Garden around family house has many purposes, to be shown, to be used and to be maintained.

Position of house in natural environment with saving of existing topography and vegetation is certainly a good attitude, but larger parcels of land are needed for that. In urban and suburban space, soil should be cultivated either in the way of natural décor or in a way of some food production.

Garden is extension of house and it gives information and feeling about status, character and profile of inhabitant. It serves for different activities in the open, for rest, play and recreation in cooperation with inside function. Once, it is more utilitarian, useful for everyday living, as vegetable garden, some fruit-trees or orchard on the site. In that case garden serves for production of food supplies.

Some of three types of soil treatment and ground appearance around family house (natural, "cultural" /park like/ and agricultural) will be chosen depending on context, space and time, sociological circumstances, user status, economical power, topography and size of site.

This paper analyzes the situation when vegetable gardens are besides own houses on the site and try to answer if that supports an idea of sustainable development?

2 Illustrative examples

Following examples give rough information about position of vegetable gardens in recent hundred years.

2.1 Croatian castles XVI-XIX

In the area of about 1000 sq km on the north of Croatia, there have been more than 90 castles from XVI-XIX century. They are characterized by respectable architecture (baroque, classicism, historicism), very representative parks around, and many of them had vegetable (utility, kitchen) gardens and orchards. Being in autonomous, self-sufficient economy and concerning bigger number people on the estate, these gardens are quite large.



Figure 1: Lužnica Castle, Croatia XVIII century - "kitchen garden" is northwest

2.2 Thirties –Western countries

Until WW2 an idea and practice of utility garden besides house was still actual even in the most developed western countries.

2.2.1 Germany

According to the idealistic nazi-socialistic model of living in Germany in the thirties, dwelling for majority of people should be in family houses with utility gardens.

/Several reasons were pointed: a) after work in factory or office, one could work on his own land and produce enough food for his family-very animating after bad period of crisis and hunger 1929/33, b) children will work with their parents and from being very young, they will get used on work and discipline, c) *Blut und Boden* ideology and deep feeling for German soil (A. Hitler: "Never forget the utmost right on the world, the right on the soil that one wants to work on" and "the most divine sacrifice is blood given for that soil"). Promotion of that thinking were in model settlements. One was

on the outskirts of Berlin, in 1937. Housing lots were 1000 sq m (20mx50m) with very precise plan of seeding and growing useful plants. Inhabitants had domestic animals, not as pets, but for the food (pigs, goats, poultry, rabbits) and because of animal compost for utility garden. Houses of course were in *Heimat* style.

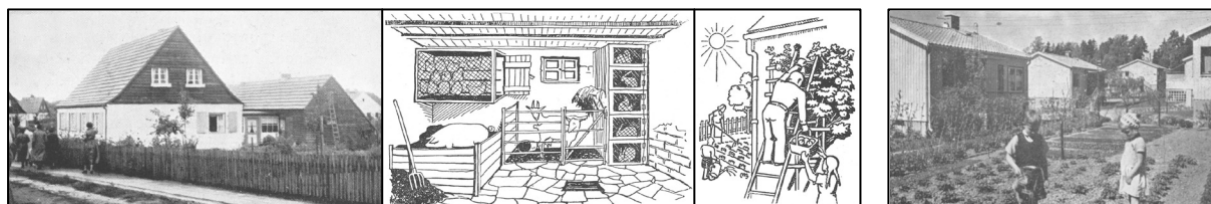


Figure 2: Suburban house, Berlin suburb 1937. with utility garden all around
Figure 3: Swedish example from '30s

2.2.2 Freidorf (CH)

A possibility of having chickens, ducks and rabbits are allowed, while *‘the goats and pigs were forbidden’* in the Freidorf settlement near Basel, in 1921. row-houses of about 150 dwelling units had *“vegetable gardens (Gemusegartens) for daily kitchen needs”*. It says that at the 1920s, a rural model was presented even in an urban area of, nowadays highly developed Switzerland.

2.2.3 Le Corbusier

Although all villas of Le Corbusier are completely dedicated to the art, his clients were rich and of specific professions, and none one of the house gives hint that some agricultural activity was planed on the site, one drawing from the 1925. speaks a little bit different. The famous Vila Stein-Monce in Garches built for the rich artistic oriented family does not have either utility garden, but the first Le Corbusier s drawing of garden had an area for *“vegetable”* and *“orchard”*. Location by the entrance to the site and walking alongside orchard on the way to the house, show that for Corbusier at that moment aesthetic value of vegetable and orchard was not something to be hidden. It meant that it did not contradict a modern house style. Latter through realization, idea was given up.

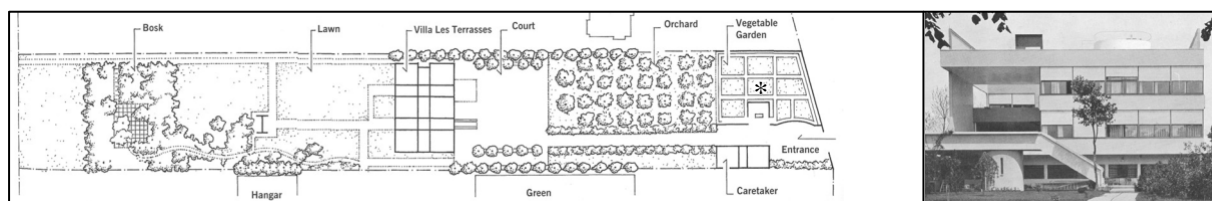


Figure 4: Le Corbusier: Vila Garches 1926. with first layout (non realized) of garden

2.2.4 USA

Some of the family house gardens from '20s and '30s (time around Great Depression) were with piece of utility areas.

Own architect Schindler's house in LA, 1929. had a small vegetable garden of about 120 m2 area in one secluded part of a housing lot of 1800 m2. Several planned gardens around houses that F.L.Wright designed, had some *“vegetable”* marked area. His idealized, but never realized model for decent living in *Usonia* (USA), *“Broadacre city”* from 1932., offered housing lots of one acre (4050 m2) and of a half-acre. Wright imagined that *“the Usonian on his own acreage will grow fruit trees, berry bushes and vegetables”*. It is not precisely specified what would be a size of that vegetable area.

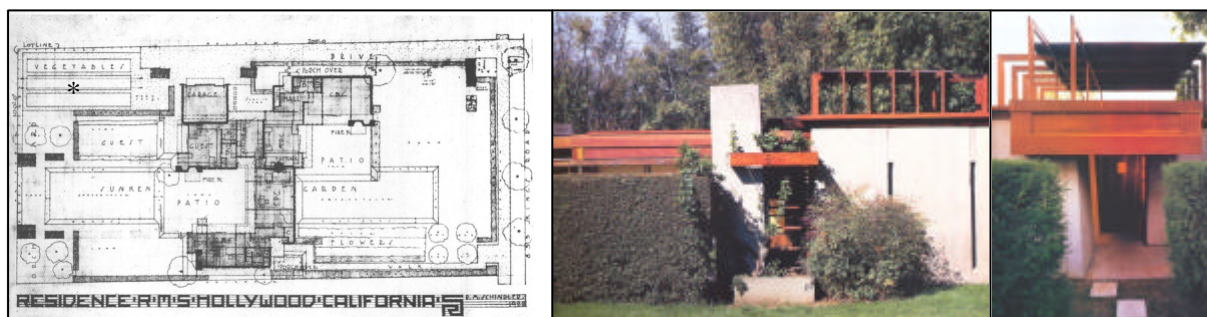


Figure 5: R. Schindler: Own House, LA 1922/9

2.3 Two modern examples

These days in Croatia, vegetable gardens if exist, are mostly connected with province or some suburbs, and with houses that are quite ordinary (populist taste). The family house in Proložac, on contrary, is of noticeable contemporary architectural expression. Ground around that house has grass lawn, tennis court, but also a piece of vegetable garden and orchard. Architect did not plan the garden, but he does not have any objections on work done by owners. They are family of wife medicine doctor, husband professor of literature and kids (three when they move to the house, now-days one). Both of spouses had an experience in agriculture in early childhood.

Housing lot is of 2700 m², vegetable garden is about 200 m², orchard has 40 fruit-trees, and annually there are about 200 kg of vegetable, 400 kg potatoes, 600 kg of fruit and 400 vine grapes. Annual spending in garden is about 600 hours.

Another example is from North Western outskirts of London from '70s.



Figure 6: I. Crnkovic: Proložac House, Croatia 1984.

Figure 7: E. Cullinan: Highgrove housing, London 1977.

3 Socio-symbolic context

Symbolic meaning of utility garden is inferior to the decorative park-like garden because it speaks of the lower status of inhabitant. Vegetable garden is quite demanding and in some phases "dirty" work, too. It might be connected in mind with ex peasant activity, hard work, not very profitable, poor education, no social importance. Ex peasantry had hygienic problems, cattle were nearby, dirt and bad smells were (and still are) a part of soil treatment.

On contrary, as a part of favorable image, these days an utility garden may give feeling of "healthy and natural food", for instance without GMO. (Is it true? All logistics, seeds and protection are industrially prepared, and romantic image of "natural" is doubtful. An amateur activity as well might be inferior to the experienced specialists production). It is a nice feeling about preparing very fresh vegetables right

from the garden – but if some of these articles are going to be saved for latter, then freezing and conservation with additives should be applied.

As a part of a nice feeling about working in garden, lets put here statement of Adolf Loos: *”Now and in future , the piece of land that a man is working on for himself will be the same: an escape to the mother nature, his only fortune and only bless”*. It is doubtful that these days, in the 2004. these sentimental romantic, almost sweet naturalism may correspond to the sentiment of urban population as well of high developed country population.

These days in Croatia, many vegetable gardens are run by working class population, older age and retired, somehow affiliated with their peasant heritage. In some cases, even white-collar professions and intellectuals have vegetable gardens, but that are mostly people with some peasant roots and they had some agricultural experience in their youth age. It is possible to learn about agriculture from books, but there are hardly someone to find in vegetable garden without inherited needed knowledge through family.

Do people like vegetable gardens? In my research (500 questioned) only 9% was in favor of that idea.

4 Aesthetic evaluation

Vegetable garden demands permanent activity about a soil preparation, seeding, watering, maintenance, and it gains a picture of working space. Brown dug soil prepared for seeding is not, for many, a such relive as green grass carpet, flowers and park-like arrangements in garden. In all published presentation of nice houses and villas, vegetable garden is missing – image of beauty is without that piece of garden. Vegetable garden means kind of folk, peasant, farmer beauty.

It is *not picturesque* in modern sense. Professor Strižic speaks of what an architect should be aware of and makes conclusion: *“vegetable garden might be very useful, might be a pleasure for someone working in, but- it is not picturesque”*. That is why it should be located, according to him, in some secluded part of garden. He objected to the Neufert's statement about location on the south (good) part of garden.

Very doubtful aesthetic will be created if people of different attitudes are neighbors. One has vegetable garden and over a fence, next door one has decorative plants – diversity easily makes a chaos.

Natural cycles, annual life of vegetation is noticeable in all gardens. Change process beauty in park-like garden is exciting, artistic and very subjective. In vegetable garden beauty is rationalistic, connected with efficiency (better income means better aesthetic).



Figure 8: Scene from vegetable garden

5 Economical reasons

Often pointed reasons for the contemporary utility garden is recreation and benefit, both for active population and especially for retired people. With a modest but healthy activity, all the people with plenty of free time will feel vital and useful working in garden. Vegetable garden and orchard might be a nice hobby by the end of life.

In the time of crisis and shortage, food from own garden is important support for living. What would be an immediate profit?

Quantities of 150-250 kg of potatoes, 150-250 kg of vegetable /tomato, cabbage, spinach, bean, carrot, cucumber, onion, garlic, / and 150-250 kg of fruit, might be sufficient annual supplies of this kind for average family (of 3-4 members) in Croatia.

If noted annual demands (3x 200 kg) would be presented through money in Croatia, that would be about 600 € Expenses of the same quantities in private utility garden (seed, protection, dirt, water, tools and other auxiliary expenses), not counting value of work, would be about 200€ This ratio 1:3 should be corrected radically. It is less favorable, because of some products lack and surplus of others, makes things worse. All vegetable and fruit from garden cannot be used properly – in the season there are plenty (not all used rationally) and out of season scarcity (needed help of market). An cherry tree can make 50 kg fruit (amount ¼ of annual need) in 10 days. Fruit season in continental areas of Croatia is from May-October, and it is pretty difficult to make a such orchard (on the site of family house!) to serve even that half year.

The best planned seeding and planting cannot be so rational as daily supply on the market. Besides, relying on own vegetable garden and orchard means a less diverse food base and missing many market offers.

6 Size of utility garden

Aside of many single appeared sites either extremely small in some slums or extremely huge in the countryside, lower and upper size for the decent family house site in some settlement might be somewhere in between 225-4050 sq.m.(Tony Garnier, Cite Industrielle, 1903. lots of 15/15 m – F.L.Wight, Broadacre City, 1936.lots of 63/63 m =1 acre)

What would be a size of utility garden?

Ernest Neufert in the '30s recommend vegetable garden size of 60-80 sq m per person, or 300-400 sq m for family. This size is enlarged with 100 sq m for early potato and utility garden is 500 sq m. Another 500 sq m is for the house, utility edifices and yard – all together 1000 sq m. This size partly correspond with idealized model in Germany at that time.

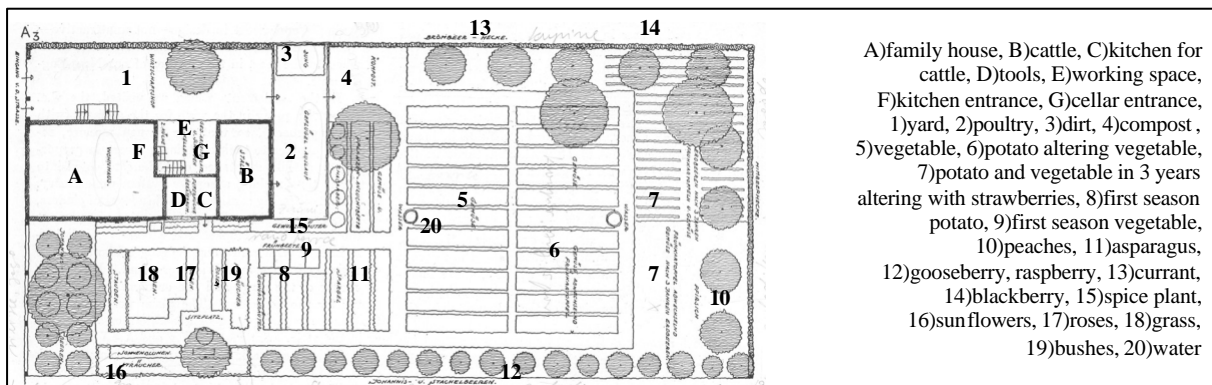


Figure 9: Layout of the Berlin suburb house , 1937

Professor Strižić (Croatia) in 1953. specifies areas of house site. (1) entrance part, (2) dwelling garden, and (3) utility garden. Through analyze of the last one, he gives recommendation: 15 m² per family member-therefore about 60-75 m² for family of 4 or 5. He probably thought of garden as an additional supply with garden vegetable food.

As a complete surprise is Christopher Alexander (USA, 1977.!) recommendation in his book *A Pattern language* (1981. fifth printing). Pattern #177 says: "In a healthy town every family can grow

vegetables for itself. The time is past to think of this as a hobby for enthusiast; it is a fundamental part of human life" With a very strong pledge for connection between us and the land recommendation is "Set aside one piece of land either in the private garden or on common land as a vegetable garden. About one-tenth of an acre is needed for each family of four". About 400 m² for vegetable garden on the household site is very naturalistic and pastoral romantic, but doubtful attitude (USA, '80s?!).

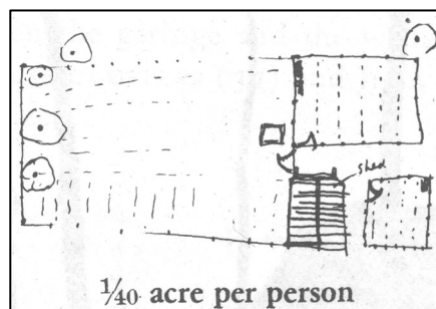
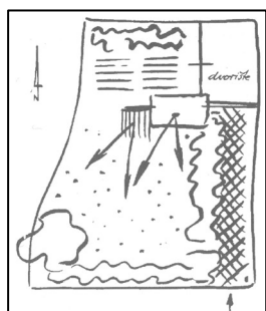


Figure 10: Z. Strižić: Disposition of vegetable garden on the family house site (sketch 1953.)

Figure 11: C. Alexander: "100 sq m per person" – USA, 1981.

With questionnaire data and observation few more vegetable gardens, nowadays in Croatia, and concerning quantities (200+200+200), size would be about 200 m². Some additional inside room for tools, equipment, industrialized compost, etc., as well as small spaces for manipulation and storage of some surplus, are demanded. Because it is not realistic that vegetable and food supply would be completely from own garden, only "hobby production" might be expected (these days in Croatia). For that, the Strižić recommendation from 1953. might still be acceptable. To have an efficient vegetable garden, a proper water supply is needed.

7 Green revolution

Science progress has brought technological revolution in agriculture and those rapid changes in agriculture development are called the "green revolution".

According to the data from the year 1977, about 46.7% of the world population was active in agriculture, but with completely different proportion in developed and undeveloped countries.

In Great Britain it was 2.2%, in the USA it was around 2.5% and over 80% in the undeveloped countries. On the 100 hectares (250 acres) of cultivated agricultural land, there are in the USA 2 agricultural workers. On the same area in India that number comes up to 80, and in Egypt there are 170 workers. (Maybe this thirty years old data has been changed these days, but I believe not radically.)

The industry of food preparation has developed tremendously in the 20th century. By that we mean that the agricultural products are easily conserved, frozen and saved in the household.

In the USA some kind of primitive refrigerators for households appeared in 1882. Only after WWII it became part of the regular household equipment. In Croatia it wasn't until the 60ties, and by the 1970ties we had the freezing box too. Copying big farms in the West, large agricultural socialist farms were founded. As it was industrially supported, food production and consuming became easily available. Nowadays vegetable and fruit all over the world is easily bought on the nearest market place. On the contrary, for instance, most famous Croatian food product "Vegeta" is exported to more than 30 countries on all continents.

Green revolution has brought more efficient and stabile food production, so there is plenty of affordable food. An uneducated or instantly educated amateur can not compete with highly educated professionals, and all devices in an agricultural industries.

8 Conclusion

A fate of vegetable garden depends on context, economy and development of country, sociological circumstances, user status and position in society. These days very few are producing all needed vegetable supplies nearby their house, but some have an utility garden, if house is in suburb or in village (Croatian situation).

Considering all tremendous development of agriculture and food industry, globalization of food products market, rationalization, efficiency of production and diversity of meal consuming – vegetable gardens are doomed to disappear, as fast as total country development is growing.

Ground around family house in contemporary world will be treated more in aesthetic way, keep it natural or park-like and *picturesque* treatment, for leisure, play and joy, and less in utility, agricultural way. In that sense I consider an idea of sustainable development. Good food production, and rational exploitation of soil can be made in best way only if supported with scientific progress and technological improvements. But:

After Roman emperor Diocletian had given up of rule and retired to his palace on the east coast of Adriatic, a bad times for empire came. When he was asked by Roman senators to retake power once again, he (according to saying) answered: *"If you knew what a cabbage I am growing overhere in my garden in Aspalatos, you would never ask me to return to Rome"*.



Figure 12: Planting of cabbage (vegetable garden, Dugi Rat, Croatia, 2002.)

In that way many of today would never change their vegetable gardens for all luxury of supermarket offer.

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