Vegetables and Vegetable Garden in North-West Europe. Their History as Shown by 15th to 18th Century Paintings

Abstract

The origin of the family and market vegetable gardens in northwest Europe is discussed. Already at an early time man collected wild plants as food or for other purposes. Later he collected ruderal, nitrophilous plants to eat fresh or boiled. Many ruderal plants are the ancestors of our vegetables. They were protected from damage by animals. Later their growth was promoted to increase their yield stability.

Sources such as miniatures in manuscripts, made in the 14th to 16th centuries, and paintings, made in the 16th to 18th centuries depict many vegetables, but rarely a vegetable garden. On paintings some forms of vegetables are depicted which are not described in contemporaneous herbals and garden books. Hence, paintings and descriptions are complementary and should both, in addition to archaeobotanical data, be consulted when studying the history of vegetables and vegetable gardens.

Origin of vegetable gardens and vegetables

Originally, man collected wild plants to use as food or for other purposes. As soon as men settled down (semi) permanently, ruderal, nitrophilous plants invaded this habitat. Among them were plants which could be eaten as vegetables. Examples are young plants of stinging nettles (*Urtica dioica* and *U. urens*), *Lactuca* sp., garden cress (*Lepidium sativum*) and species belonging to the Chenopodiaceae. Primitive forms of vegetables which, at present, have been developed into two forms, such as the leafy spinach beet and the beetroot, were and in some countries still are harvested and eaten as whole plants.

Later on, man started to protect the sites where these protovegetables were growing. From the protovegetable garden the vegetable garden gradually developed. Although (dated) archaeological records indicate the presence of

plant remains of vegetables in certain periods (e.g. Bakels, 1991), it is often not known whether these remains derive from wild, ruderal plants or protovegetables.

Vegetable gardens were present near temples in Sumeria (Sanders, 1952; Leech, 1982). Old Egyptian frescoes show us gardens with onion (*Allium cepa*), leek (*A.porrum*) and maybe lettuce (*Lactuca sativa*) (von Fischer-Benzon, 1894; Keimer, 1924). Jashemski (1979) refers to the vegetables asparagus, faba bean, cabbage (cauliflower), artichokes, chickpea, lettuce, leek, onions, beets, peas, and sprouts, which were grown in the Pompei area at 79 A.D. The term sprouts is not defined; it cannot be brussels sprout as this vegetable originated much later.

For a discussion of the various influential Greek and Roman authors, and medieval persons such as Charlemagne, Walahfrid Strabo, Hildegard von Bingen, Albertus Magnus, Petrus de Crescentiis and Konrad von Megenberg. I refer to the treatises by von Fischer-Benzon (1894), Harvey (1981), Leech (1982) and Vogellehner (1984). These are also important for information about influential gardens such as the garden of the Saint Gallen monastery and the often updated book Theatrum Sanitatis, which originally was written in the 11th century (Pazzini and Pirani, 1980). The depictions in Theatrum Sanitatis do not show true vegetable gardens.

Five centuries of Roman civilisation very likely led to the introduction of vegetables like cole crops (*Brassica oleracea*), onions, leek and parsnip in NorthWest Europe (Lindemans, 1952).

In general, it is suggested that vegetable gardens started to develop around abbeys and monasteries. However, these gardens have been recorded in the archives of these religious houses. The same is true for the gardens of castles, curtisses and other administrative centres. But farmers, smallholders, citizens and « the man in the street » must have grown vegetables and thus, possessed a vegetable garden. They are occasionally mentioned in sales documents.

Lindemans (1952) mentioned that the assortments of vegetables from gardens of a monastery, a castle, a family, a market gardener or a farmer were different. This is not surprising. Each grower chose those vegetables for which he or she had a need. This is still the case.

Sanger (1952) indicates that around 1300-1400 in the Netherlands the vegetables sold on markets were onion, leek, garlic and peas. This means that at that time either cabbages were not grown or not traded. Later this small assortment was augmented. Apparently vegetable gardens in Great Britain were limited in number and in size as this country imported vegetables from the continent in the 14th century and later. In the period 1560-70 a start was made by immigrants from the Low Countries (Roach,

1964). Some 200 years later vegetable growing in Great Britain was still underdeveloped in the eyes of Giacomo Castelvetro, an Italian living in Great Britain in the beginning of the 17th century. He complained about the lack of vegetables on the menus of the rich people (Riley, 1989). By writing an informatory paper on the delights of vegetables he hoped to promote vegetable cultivation, but his treatise was, as a historical document, first published in 1989 (Riley, 1989).

Types of gardens

Gardens to produce vegetables may be divided into family (or domestic) gardens of which the vegetable products are used for home use, and market gardens, of which the vegetable products are mainly sold in markets, whereas a small part is used at home. The term family garden is from the French (jardin familiar) and Italian languages (orto familiare).

Vegetable gardens are often named kitchen garden, but although vegetables are grown in a kitchen garden, other crops are cultivated too. For instance, Van der Groen (1669) divided a kitchen garden into four square or rectangular sections. In section 1 brassicas and root crops should be grown, in section 2 salad plants, in section 3 medicinal herbs, and in section 4 aromatic herbs (Oldenburger-Ebbers, 1988). Ornamental plants are missing. Some gardeners followed Van der Groen's advice ; others, identically as it is found today, grew the various crops, including ornamentals, and even the plants of a crop intermingled in the garden. Large scale cultivation was not possible. This must have been done on areas where more space was available than in a kitchen garden. It is not always possible to classify a crop into a certain class as vegetable, as several crops could be used as a vegetable or a medicinal plant, while fetish/religious plants and medicinal plants often have beautiful flowers and were, later, also grown as ornamental plants. The same is true for dye plants.

Sources

A study of the history of the vegetable garden is hampered by lack of sources. For instance in the various books and journals on garden history, which I consulted, we find an abundance of information on ornamental gardens. As kitchen gardens, like the ornamental gardens, are home gardens and therefore are situated near the houses these gardens are better studied than vegetable gardens. On old maps we often find indications of the apple orchards and vineyards. But there is rarely an indication of a vegetable garden, although a great number of them certainly must have existed.

One wonders why vegetable gardens were rarely marked on old maps. And why have only a few scientists paid attention to the history of vegetable gardens ? Were these gardens too common and too vulgar ? Do researchers believe that no honour is gained by studying vegetable gardens ?

The lack of studies of vegetable gardens is also marked by the almost complete absence of pictures of vegetable gardens. I know of only one miniature in a manuscript showing a vegetable garden. This is a garden with palm cabbages (*Brassica oleracea* var. *palmifolia*) (B. Brenninkmeijer-de Rooij, pers. comm. referring to an illumination by Gherardo and Monte di Giovanni di Miniato (del Fora), in a copy of Pliny's Natural History, Venice (1476), Bodleian Library, Oxford). This type of cabbage is still grown in the Siena district and probably other areas in Italy.

Painters of miniatures were certainly interested in nature as they often painted garden activities, ornamental plants and their flowers, and fruit trees and their fruits. Occasionally they also painted vegetables such as the pods and flowers of peas (*Pisum sativum*), and even the South America kidney bean (*Phaseolus vulgaris*) (the last one in: *Le livre d'heures d'Anne de Bretagne*, dated ca 1508 (Camus, 1894). So the common bean was already known in Europe some 16 years after the discovery of the Americas. More examples are: (1) asparagus (*Asparagus officinale*) (J. Aarts, pers. comm. 1987, referring to The Book of Hours of Philip of Cleve, dated ca 1485, Kon. Bibl. Albert I, Brussels ms IV 40). However, the paintings of the many plants are probably made by Joris Hoefnagel (Antwerp 1542-Prague ? 1600); (2) pods of the faba bean (D.O. Wijnands, pers. comm. 1989, referring to Model Book of Calligraphy, written by Georg Bocskay, 1561-1562, also illustrated by Joris Hoefnagel, The J. Paul Getty Museum, Santa Monica ms 20).

Many miniatures, paintings, and other illustrations show garden activities. We see men and women preparing the land for sowing and planting, or men are planting or pruning trees, but a true vegetable garden is rarely seen.

The near lack of pictures of vegetable gardens in manuscripts is also true for paintings of the 16th to 18th centuries, from Flanders and the Netherlands (Zeven, 1983; Zeven and Brandenburg, 1986), and also elsewhere (Spain, see Jordan, 1985). Enormous quantities of vegetables can be seen on paintings of market stalls, but the garden where they were grown is rarely depicted.

Causes of absence

One could wonder about the causes of near absence of depictions of vegetable gardens. The main cause is probably what man prefers: paintings of a beautiful, ornamental garden.

As archival records and depictions show that vegetables have been cultivated and marketed, vegetable gardens must have existed. And as indicated, such gardens must have been within and near towns and villages

(Sangers, 1952). Many coloured town plans of the 16th and 17th century show green areas near and further away from the houses. An example is the town plan of Nijmegen, the Netherlands (Nijmeegs Museum « Commanderie van St. Jan ») by Hendrik Feltman (ca 1610-1670), dated 1668/9 on which green areas must include vegetable gardens. Seventeenth and 18th century archival sales records of Wageningen often refer to the sale of a « hof », i.e. vegetable garden. Willerding (1987) also indicated that a painting of Göttingen City, Germany of 1642 shows vegetable gardens in the area between the outer and inner walls.

Another cause for the absence of vegetable gardens in cities may be economical. The affluence of some cities attracted newcomers. The land within the city walls become more and more expensive. A better price for the land could be obtained from rents of walled-in houses, etc. than from growing vegetables. Secondly, due to the wealth of the inhabitants the cultivation of vegetables in a family garden was not needed as vegetables could be bought on vegetable markets. As soon as one could afford it less vegetables were grown, whereas more herbs, ornamentals and plants of curiosity were cultivated. The vegetable garden was gradually converted into an ornamental garden (De Herdt, 1990). An example is given by Koch (1988) who described for the City of Deventer in 1500 that a new owner converted the vegetable garden of his house into a kitchen garden. Within a year he died and the next owner used the garden for a new shed to keep three or four cows. Artists, who were attracted to work in rich cities, probably did not observe true vegetable gardens in their neighbourhood and therefore, did not paint them.

History of vegetables in The Netherlands

In Dutch archival records vegetable gardens are named « tuin » or « hof ». A « tuin » is a small fenced in area. « Tuin » and the English word « town » are related. A « hof » is a garden. In or near cities we find toponyms as « Koolhof » and the plural « Koolhoven » meaning cabbage garden(s). Lindemans (1952) gave toponyms as « Koollocht » and « Spruithof ». He referred to a record of 1429 which indicated that the farmer should have « coellochten met roeden coele, beetcoelen ende met persine » (cabbage gardens with red cabbages (*Brassica oleracea*), beetcoelen (probably *Brassica rapa*) and with parsley (*Petroselinum crispum*). Streets, for instance in Amsterdam and Hoorn, are named « Warmoesstraat », also referring to the vegetable gardens located there before. « Moes » means broth of vegetables or fruits, but also cole crop, which must have been the main crop of such broth. Hence, a « moestuin » in Dutch could be a cabbage garden or, as it is at present, a vegetable garden.

Paintings as documents for the history of vegetables

Banga (1963a, 1963b) was probably the first who used a large number of paintings for the documentation of the development of a cultivated crop. He indicated that paintings by various artists made in the first two decades of the 17th century for the first time showed (pale) orange-yellow carrots: the first artist was J. Wttewael who painted at Utrecht, the Netherlands in 1618 a painting named « A woman selling vegetables » (Centraal Museum, Utrecht). According to Banga (1963a, 1963b) no earlier paintings with orange carrots are available either in the Netherlands or in other countries. He concluded that the carotene carrot is a colour mutant of the yellow carrot and that the first palatable orange types were obtained in the Netherlands in the beginning of the 17th century. However, Harvey (1981) reported that The Bury St Edmunds herbal of c 1120 (Oxford, MS. Bodley 130, f.23v) has a naturalistic picture of a carrot plant with an orange-coloured root.

There are many paintings with vegetables made in Flanders, the Netherlands and other countries. Examples are given by Zeven and Brandenburg (1986) and by Jordan (1985). A painting by Giulio Carpioni (1613-1679) depicted at Vicenza, Italy in 1650 shows two potato tubers. At that time only andigena potato (*Solanum andigena*) was available in Europe. A painting by Francisco Herrera « El Mozo » (1612-1685) (« Bodegon de ranas y marisca », Provincial Museum, Pontevedra, Galicia, Spain) shows four multilocular tomato fruits. Examples of other paintings with multilocular tomato fruits are from Felix Bosseli (Piacenza 1670-1732) (« Stillife with celery ») and by Carlo Magini (Fano 1720-1806) (« Stillife with a basket ») (both in Museum Nijenhuis, Heino, the Netherlands).

Printed and painted documentation

Here I will highlight the book by Jan van der Groen (1669), who listed many crops and forms grown in the Netherlands in the 17th century. The crops and types with their old names (some of them are cultivar names) have been identified by D.O. Wijnands (see van der Groen, 1669). In addition to various herbs the following vegetables are described: endive (*Cichorium endivia*); celery (*Apium graveolens*); spinach (*Spinacia oleracea*); radish and winter radish (*Raphanus sativus*); six forms of lettuce (*Lactuca sativa*): yellow « Grosse blonde », brown « Forellenkrop », « small », « knodtsla », « Princekroppen » and « Chaconsesalade »; cos lettuce (*Lactuca sativa*); beetroots (*Beta vulgaris*); yellow carrots (*Daucus carota*); parsnip (*Pastinaca sativa*); chicory (*Cichorium intybus*); dandelion (*Taraxacum officinale*); sugar carrot (*Sium sisarum*); two forms of Swiss chard (*Beta vulgaris*): fine and small; two forms of purslane (*Portulaca oleracea*): big and small (the latter is according to Wijnands the wild form); two forms of lamb's

lettuce (*Valerianella locusta*) : « Grote Noordhollandse » with long leaves and « Volhart » with round leaves ; garden cress (*Lepidium sativum*) ; leek, red and white onions ; three forms of peas (*Pisum sativum*) : sugar peas, « grauwe erwt » and « kroonerwt » ; horse (faba) bean (*Vicia faba*) ; runner bean (*Phaseolus coccineus*) ; four forms of the common bean (*P. vulgaris*) : « Krombecken », « Swarte-pier-heyns-Boonen », « Princesse-Boonen » ; two forms of savoy cabbage : yellow and small green ; white cabbage and red cabbage ; cauliflower ; melons (*Cucumis melo*) ; two forms of cucumber (*C. sativus*) : green and white, gourd (*Cucurbita pepo*) and *C. maxima*.

All the crops, mentioned by Van der Groen are depicted by 17th 18th century painters from Flanders and the Netherlands. But this is not the case for all forms Van der Groen described. I present a few examples. The many colour and shape forms of the carrot, shown by paintings (Banga, 1963a, 1963b) have not been mentioned by Van der Groen. On paintings we find one type of lettuce, while Van der Groen describes several. Van der Groen describes various forms of the common bean, but this crop is rarely depicted. Hence, when studying the history of vegetables one should consult documents and paintings (and, of course, archaeo-botanical remains) to obtain a better knowledge about the forms that existed at any period.

Conclusions

The knowledge of the history of vegetable gardens (family gardens and market gardens) is limited. It is assumed that at first wild « vegetables » were collected and eaten. Either whole, mostly young plants, or parts of them were eaten fresh or boiled.

The difference between vegetables, herbs, medicinal plants, fetish/ ceremonial/religious plants, dye plants and ornamental plants is not a clear one. Many ornamental plants originally were and still are grown as fetish/ ceremonial/religious plants or as medicinal plants.

Vegetable gardens may gradually have developed from sites where ruderal plants occurred. Either the plants invaded naturally, or they derive from plant parts thrown away or from seeds which entered the sites with human faeces. Ruderal plants prefer to grow near campsites and permanent houses, the latter, for instance, of fishermen. At these habitats, useful plants may have been protected from animal damage and, in addition their growth may have been promoted by manuring and watering, and maybe by removing undesirable plants (weeding).

As soon as it was economically possible a family garden was first partly and later completely converted into an ornamental garden. But near the houses kitchen gardens with herbs and medicinal plants will have been kept.

Vegetable gardens have received little attention from illustrators of the 15th to 18th century. They also received little attention from scientists. Causes of this neglect are given. Maybe they were and are too ordinary, whereas ornamentals were preferred by the painter and by the buyer.

Illustrations and written information of vegetables and their forms do not completely overlap. For instance, a 1669 description of garden plants includes some crops and forms which have not been depicted, whereas on paintings some undescribed forms are seen. Hence, in addition to archaebotanical records, both sources should be consulted for a study of the history of vegetables and their gardens.

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