The Vegetable Patch

Cover details
Author's Name – Graham Wigginton
Design start date – February 2021
Design completed date January 2023

Design Title
The Vegetable Patch

Design aims / problem to solve
How can we improve the productivity of our Vegetable Patch and our vegetable growing in general?

Design context
We want to grow more fruit and vegetables but we have always been more hit and miss in our approach, therefore this is an opportunity:
To have a productive vegetable patch, that has space for wildlife and a healthy soil with minimum inputs from outside.
For the patch to work for both of us in terms of work load and intensity.
To have a space that we can share with each other, family, friends the poultry and wildlife.

Framework
SADIMET

Tools
Base Maps
McHarg's Exclusion
Client Interview
Now Soon Later
Goals vs Functions
Helps and Limits vs Plants / Animals / Structures
Yes No Maybe
Keep Develop Loose
Functions Elements
Calendar of jobs
Rose Thorns Buds

Ethics and Principles
I have viewed the design through the lens of all three ethics and all of Holmgren's Principles.
In terms of the principles the main ones for the design are:
Observe and Interact
Catch & Store Energy
Obtain a yield
Use & Value Renewable Resources & Services
Produce no waste

Ethic	Goal	Functions
Earth Care	To have a productive vegetable patch, that has space for wildlife and a healthy soil with minimum inputs from outside.	Produce food. Encourage wildlife. Promote soil health. Reduce unwanted plants. Grow on trees from cuttings or whips. To minimise inputs from outside. To reduce use of mains water. Protect plants from birds and animals.
People Care	For the patch to work for both of us in terms of work load and intensity.	Ease and simplicity. Manageable and pleasurable.
Fair Shares	To have a space that we can share with each other, family, friends the poultry and wildlife.	To create space for being as well as doing. To use the poultry to help maintain the patch.

Design Solution
The design solution has two elements a planting scheme and a vegetable patch layout. I also have a month by months jobs in the garden table.

Evaluation
Date 6 April 2022
The design has a long-term implementation, given the structures to be included, for example the rain water gathering and the potting shed, nevertheless the elements already or partially implemented give me confidence that we have a working system that needs only tweaks. There are things that we will need to include into our annual cycle, such as the ordering of seeds and particularly garlic and onion sets.
One of our concerns was to make the space manageable, which by reducing the number of annual vegetable beds I feel we have done. The design meets the wants identified in the client interview.
One of my great joys is the small birds that live with us on the holding and what I am pleased by is that they and the insects are part of the planning, and although the design is essentially an Earth Care and People Care one it is the Fair Shares ethic in sharing with the birds and insects that gives me greatest pleasure.

Evaluation
Date 6 April 2022
Having spent the summer implementing as much of the design as possible with the ubiquitous evolution through circumstance, there is still more structure to be put in place. Nevertheless, I am happy with the way the beds are and that how we are planning and growing things is improving. Moving towards "ease and simplicity" and "manageable and pleasurable" means that the vegetable patch is moving towards a space where we both will spend time. If I was to choose one success it would be the beans both in growing, cooking and seed saving.

Reflection
Date 6 April 2022
Reflection on my learning:
One of the main things I have learned through this design is the power of long observation and interaction. Although not planned the design has taken over a year and this has given me time to observe and think. It was good to do the sun shade mapping early as this provided a framework for that thinking. I enjoyed doing all the mapping, particularly going to larger scales which placed the vegetable patch in its environment for me.

New tools for me where the No Soon Later, Yes No Maybe and Keep Develop Loose which seemed to fit the situation well, given that this was not a blank canvas and things were already in place. I liked how they supported the implementation plan.

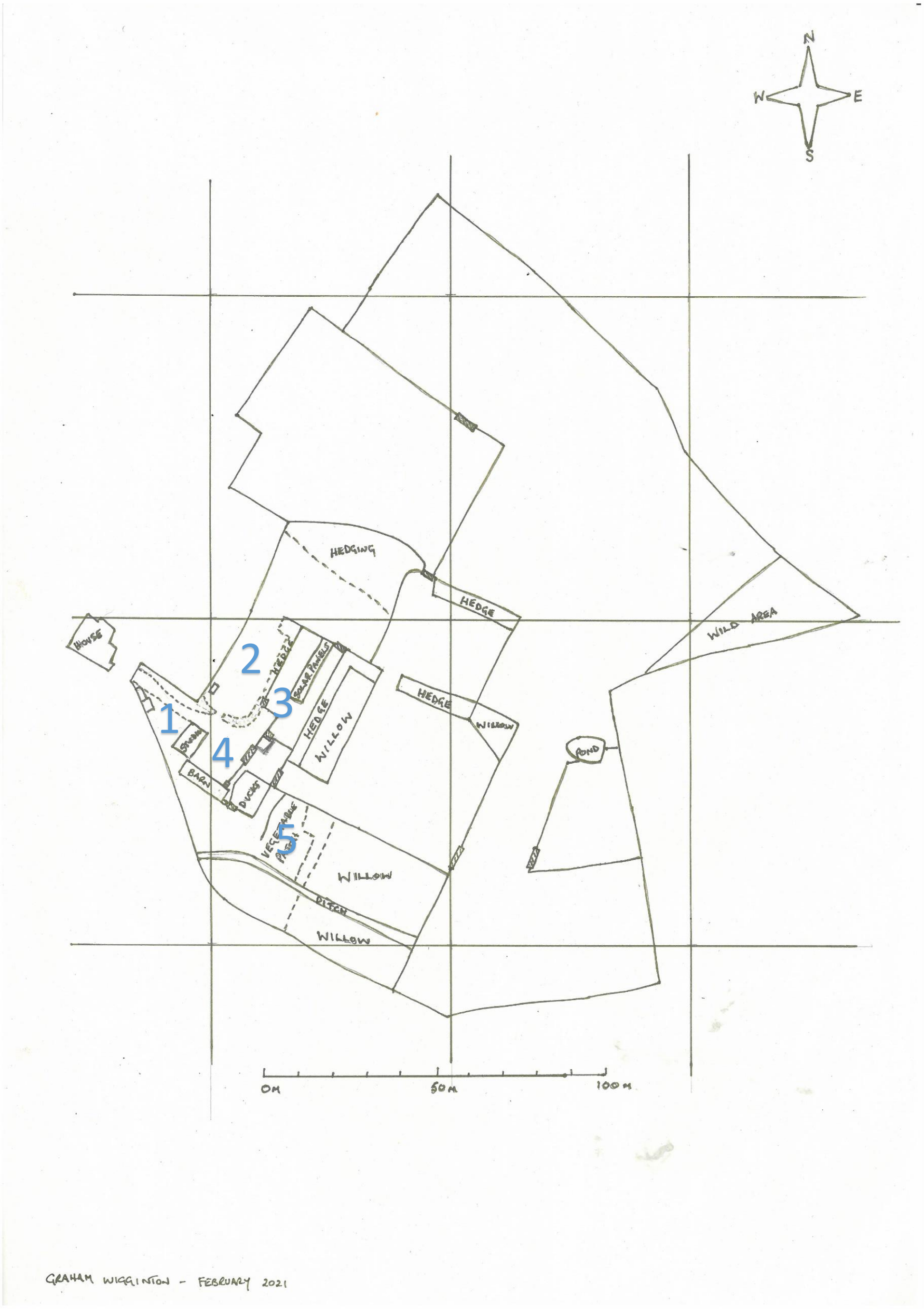
Reflection

Date 1 January 2023

Looking back over using the design over 2022, I will certainly re-use the “monitoring success” table as a way to keep growing records. Also adding in the Month-by-Month Jobs was helpful in terms of learning the maintenance of the berries and in the short term when we should be ordering garlic, onions, potatoes. Also adding the thinking behind both the location of the vegetable patch, through the McHarg Exclusion analysis, a new tool for me, and the removal of the ash and willow trees was helpful in terms explaining the reasoning for decisions.

- **Survey**

Base Map entire holding showing location of vegetable patch in relation to house and the small holding. Showing areas considered for a vegetable patch.



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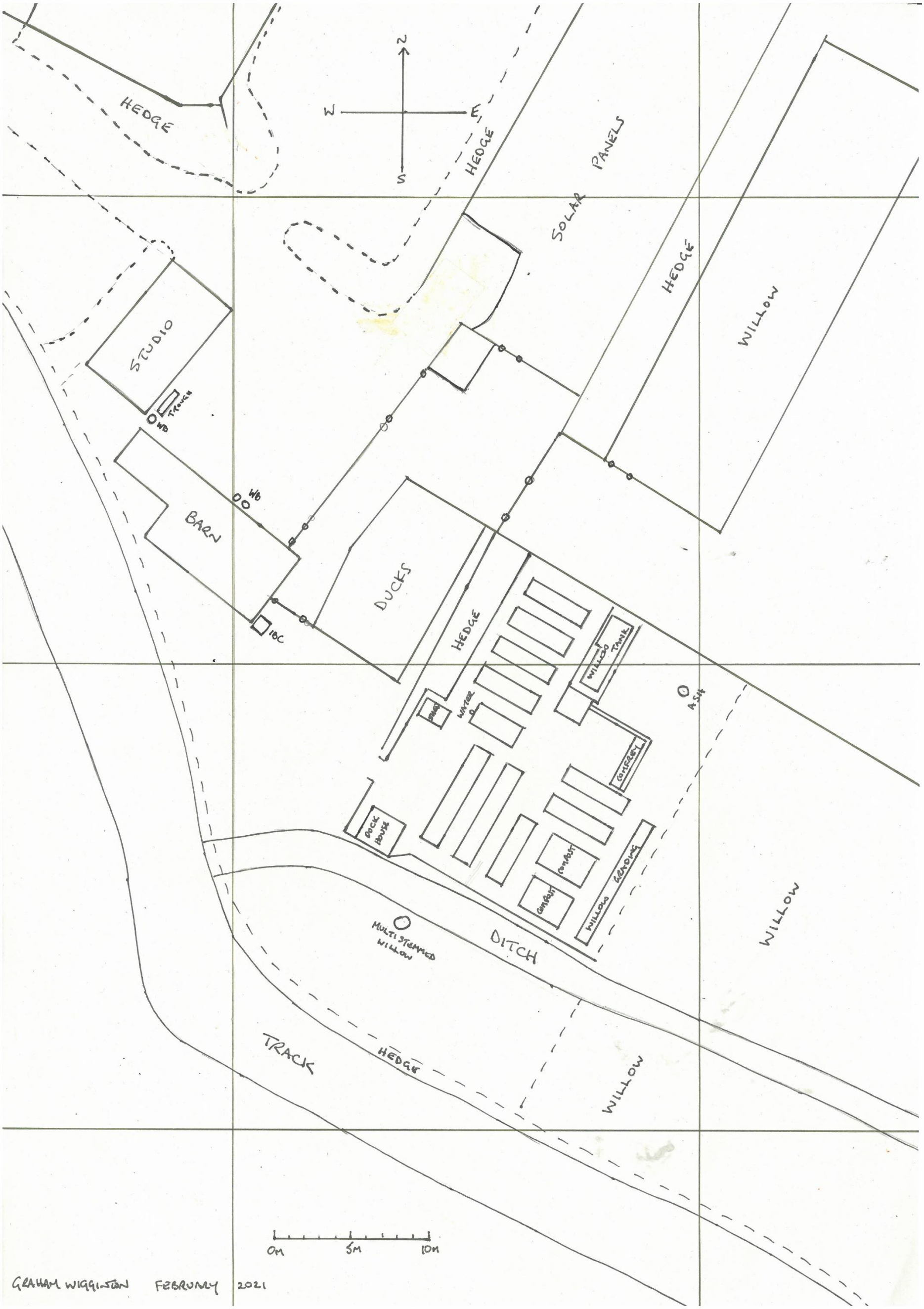
McHarg Exclusion Analysis of considered locations of the vegetable patch:

Map Location	Description	Positives	Exclusion Reasons	Plans?
1	Garden / lawn	Closest to the house.	Difficult to fence off to keep out sheep, dogs etc. Used for sitting out and socialising.	Keep as lawn / social area. Shed-office.
2	Adjacent to neighbours	Next closest to the house.	Overlooked by neighbours. Apple trees already planted. Shaded by hedges.	Orchard / forest garden?
3	Solar Panels	Unused area.	Would not want to shade solar panels.	Grazing area for more geese?
4	Outside Studio and Barn	Area often visited. Near donkeys for compost. Sheltered by buildings.	Would need raised beds as in old concrete yard. Area used for socialising. Shaded in the afternoon by buildings.	Raised beds and possible greenhouse location? Social area / fire pit? Growing plants that require regular attention (seedlings) and those that are used daily, e.g., salads?
5	Beyond the Barn	Away from potential animal incursion. Virgin area. Compost bins away from social areas. Not overlooked. Not used for socialising.	Some shading. Furthest away. Not on a route to anywhere else.	Vegetable patch.

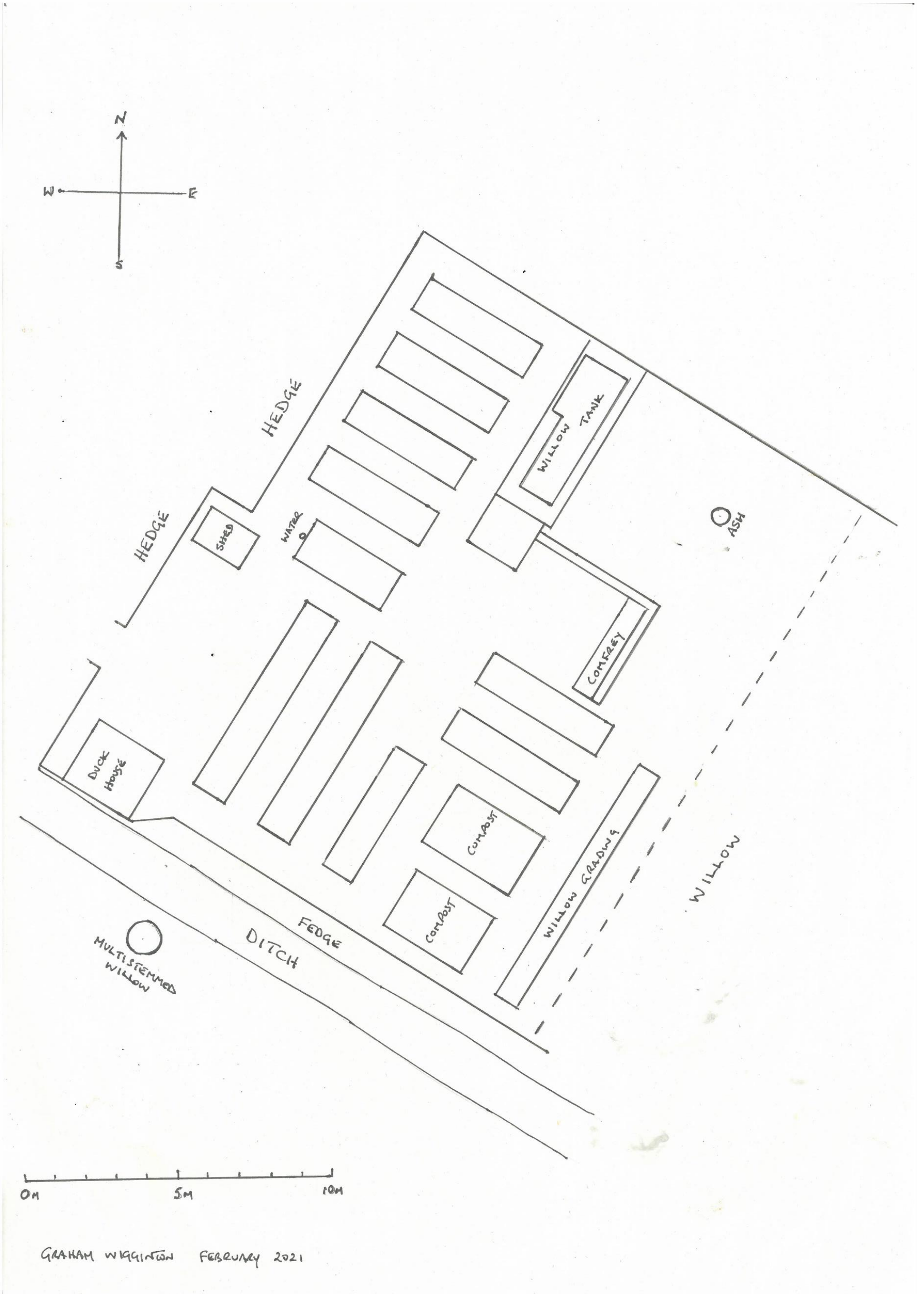
Map showing contours

The far field, at the north end of the smallholding has a steady slope to the east-south-east of 6°. On the south side the ground is level between the house and the lawn, there is then a slope down to the studio, after which the ground is quite level until beyond the willow beds when it then slopes down towards the pond.

Base map showing vegetable patch and studio



Base map of vegetable patch



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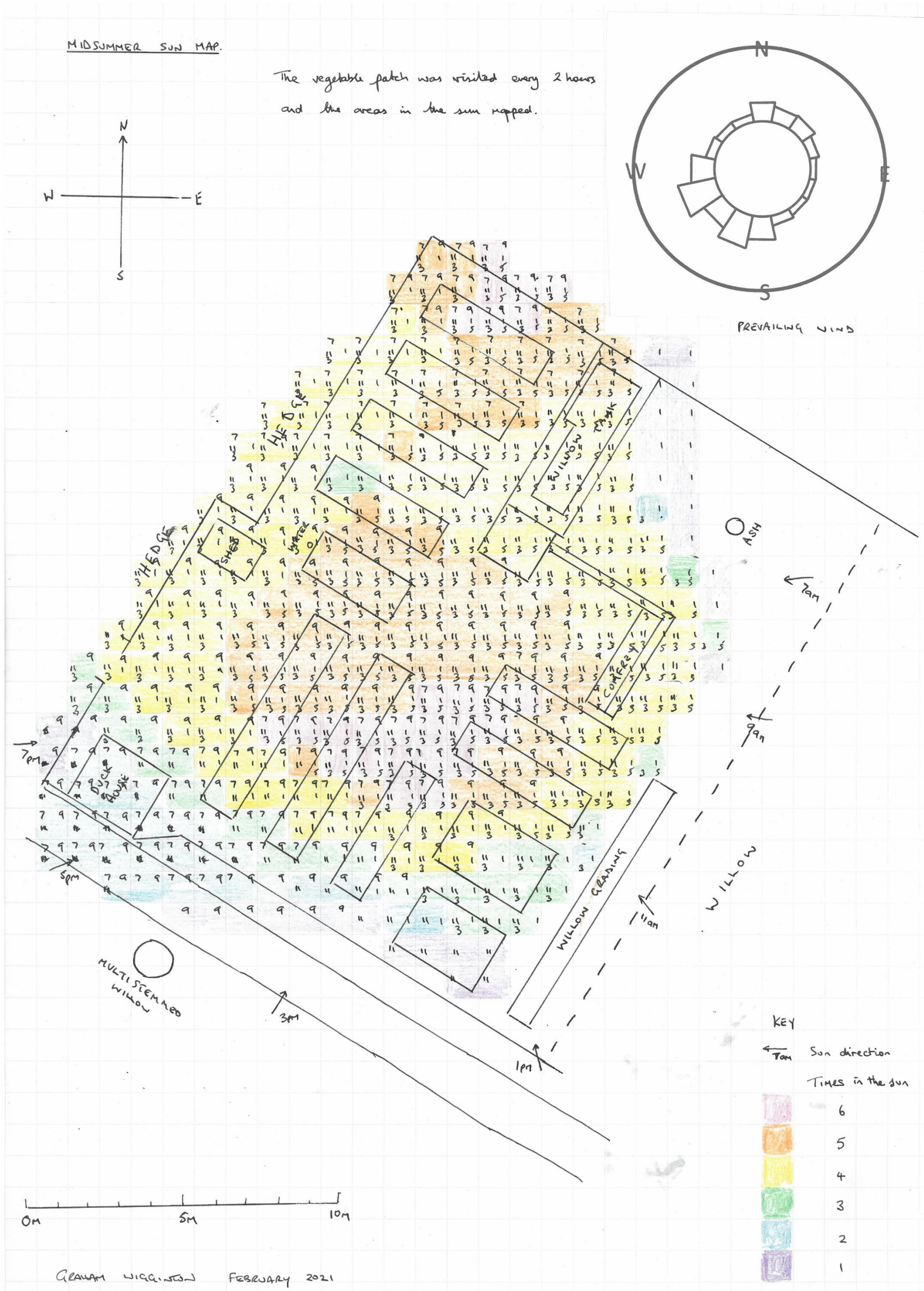
Vegetable patch – sunshine mid-summer and prevailing wind



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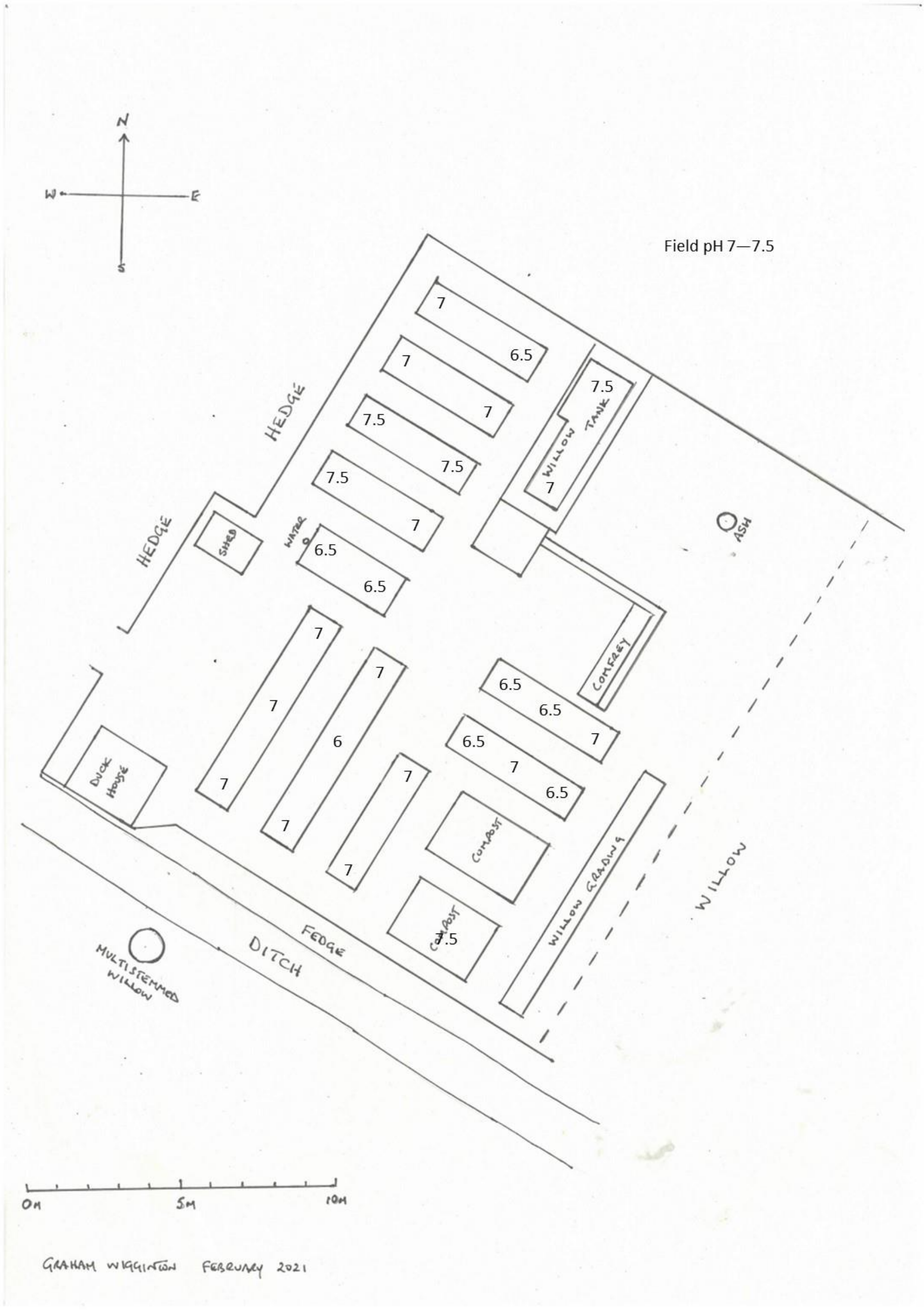
Soil pH:

All of the beds have a pH between 6.5 and 7.5, which is similar to the field.



Moisture
At the end of May I used the moisture meter on a sunny afternoon, having watered the beds the night before. All the beds measured as wet from about 5 cm depth, including the Hügelkultur.
Soil Matrix
Originally the beds were made from top soil from the paths between the beds. This was very heavy clay, which when dried out in the summer would create wide cracks in the beds. This has been regularly mulched with a “lasagne” of rotted donkey muck, cardboard and grass clippings, then covered and left. This has created a more friable substrate. More recently I have been mulching with layers of chipped willow to keep the weeds down. Some of the beds have had filed beans or fodder radish as green manures.

The Soil Jar Test
To carry out the Soil Jar Test, I scraped the top layer of mulch off each bed before taking the sample. All the beds show a very high clay content, with no sand or silt.

Weeds
Being initially field the predominant weeds are buttercup, dock and stinging nettles. There is clump forming grasses and hairy bittercress. Mulching is effective in reducing the weeds, but they can dominate a bed if they are left untended. The difficult areas for weeding are the sides and corners of the beds. The paths can grow up and intertwine into any netting used to protect brassicas from caterpillars. The method we have used to build a tilth is to layer muck, then Cardboard, then grass then cover and leave for a year as a follow bed.
Water
When we built the outbuildings, we had a mains water pipe run to the vegetable patch. Currently there is only the shed with a roof that could be used to collect water. There is an IBC collecting rainwater from the barn roof, but this has a build-up of algae.
Animals
We have chickens, geese and ducks that have access to the vegetable patch. The chickens like to dust bathe in the beds. The ducks paddle over seedlings and the geese, although the eat the grass on the paths also eat the plants, including tree saplings and mature brassicas like kale. In the last two years we have had rabbits come onto the land and they have been digging in the beds.
The donkeys provide us with copious volumes of muck and bedding.
Compost
We have four sources of compost; plant material, kitchen waste, poultry bedding and donkey muck. The kitchen waste goes into bins by the solar panels, this has the advantage of being nearer the house, but away from the growing areas. It is taken once rotten down and added to the compost bays in the vegetable patch. The plant material from the garden is mostly woody and is chipped and used on paths. The poultry bedding and donkey muck, along with plant material from the vegetable patch makes up the majority of the compost made in the vegetable patch. This produces about 3 to 4 cubic metres of compost annually. I don’t turn the heaps, but the addition of fresh donkey muck raises the temperature significantly for a couple of weeks. We also have a number of dustbins next to the compost bays where weeds, for example nettles, docks and buttercups, are “drowned” and added to the heaps.
Structures
Shed: in need of repair, roof needs replacing and it needs to be strengthened. On a concrete base.

Duck house: no longer used as a duck house. Is on a concrete base, with walls 2 or 3 blocks high. Has a cement ramp and a ceramic bath. Netting is coming apart. This is now used to store freshly cut willow away from nibbling rabbits.
Willow soaking tank: this is 3 blocks high and 4m by 1 to 1.5 m wide. It did not remain water tight.
The beds are made of either 6in x 1in treated board or used scaffold boards. The treated boards are longer lasting, but there are a lot of boards that need replacing.

Topography and Shelter

The patch is slightly downhill from the donkey stable, so moving muck is easy.
The patch is sheltered by hedges to the west and south and by the willow beds to the east.

"Client Interview" (14 March 2021)

Wants	Works	Doesn't work
Order Vegetables to supplement our diet. Ease and simplicity. Manageable and pleasurable. Smaller rather than bigger. Bush fruit. Greenhouse for tomatoes, chillies etc. A Hügelkultur bed.	Fencing off the chickens and rabbits. The fencing also restricts the number of beds. Using the Moon Calendar (www.rhythmofnature.net) means that we have a planting plan. Flowers on this day, roots on this etc. This provides focus and simplicity for the planting and helps with succession. The location means that there are no distractions, it is only the vegetable patch there. Going there is a deliberate decision. Starting the seedlings off outside the studio as this is a regular visited area and they can be protected at night by being taken into the studio or outhouses.	Fencing in the beds individually means that there needs to be a lot of gates and the edges of the beds are difficult to get at. We need to make a decision to go to the vegetable patch, might mean that we go less often. The shade of the ash tree, the multi-stemmed willow and the fedge.

Now	Soon	Later
Sort the seeds to the moon categories. Roots, Fruit, Flowers and Leaves. Fence off a second area and wood chip the paths. Start off the hügelkultur bed. Top of the cold frame needs replacing for bringing on seedlings. Get rid of the old pea frames.	Temporary cold frame / greenhouse. Temporary fencing that allows the geese in. New / renovate the shed and water collection system.	Fence the whole space. Build a greenhouse. Fruit cage. Perennial vegetables.

- **Analyse**

Ethic	Goal	Functions
Earth Care	To have a productive vegetable patch, that has space for wildlife and a healthy soil with minimum inputs from outside.	Produce food. Encourage wildlife. Promote soil health. Reduce unwanted plants. Grow on trees from cuttings or whips. To minimise inputs from outside. To reduce use of mains water. Protect plants from birds and animals.
People Care	For the patch to work for both of us in terms of work load and intensity.	Ease and simplicity. Manageable and pleasurable.
Fair Shares	To have a space that we can share with each other, family, friends the poultry and wildlife.	To create space for being as well as doing. To use the poultry to help maintain the patch.

	Helps	Limits
Plants	• Planting by the moon, although is linked to astrology and therefore has no scientific basis, provides a way of approaching the planting in a piecemeal manner and supports succession. For example, if today is a "leaf day" then we will only sow or plant out leaf plants, such as rocket, chard, lettuce. As the season progresses, we can move from planting in modules to planting out from the modules and direct planting in the ground.	• Last year I tried to follow Huw Richards, encouraged by the idea of creating supportive planting groups and overcoming any need for bed rotation. I found this difficult to maintain, as I did not necessarily have the germination rates needed to fill the bed. • The brassicas need to be separate to avoid caterpillar damage.
Animals	• Geese crop the grass on the paths. • Chickens remove pests and create tilth. • Donkeys create muck for mulch.	• Geese and chickens eat the plants. • Chickens grub up seedlings. • Mice eat the peas and beans • Slugs eat the tender plants • Caterpillars eat the brassicas.
Structures	• Have a shed for storing tools. • Willow soaking tank can be made into a hügelkultur. • Raised beds are made. • There is a water tap on site.	• Shed needs a lot of work to ensure is sturdy and dry. • We do not have a sheltered space, green house or potting shed to grow seedlings, this means a lot of carrying in and out of the studio. • When we started the design, we did not have sufficient money to purchase a greenhouse that would meet Cumbrian weather. • When we started the design, we did not have sufficient second-hand glazing units to build a potting shed. • Raised beds may are not in best orientation. Some of the sides needs replacing.

Removal of the ash and willow tree and the fedge.
The removal of established plants is not something I would ideally want to do, but the decision to remove them is a compromise between their contributions and the shade that they create. All three elements have grown since we have moved here.
The fedge was not only shading but impacting on moving around. There are other fedges adjacent in the willow beds and given the area I have planted to willow did not feel that its removal would have a significant impact on the other wildlife.
The willow is a sallow willow and does provide habitat, but being a willow, it will regrow and I can keep it bushy and low, so that any shade is minimal.
The ash tree was the most difficult decision. There is other scrub nearby, mostly hawthorn, so some habitat remains. I cut the timber into short planks and used these as seat around the small holding.
The smaller wood from the ash and the willow were either mulched for paths in the vegetable patch or seasoned for fire wood.

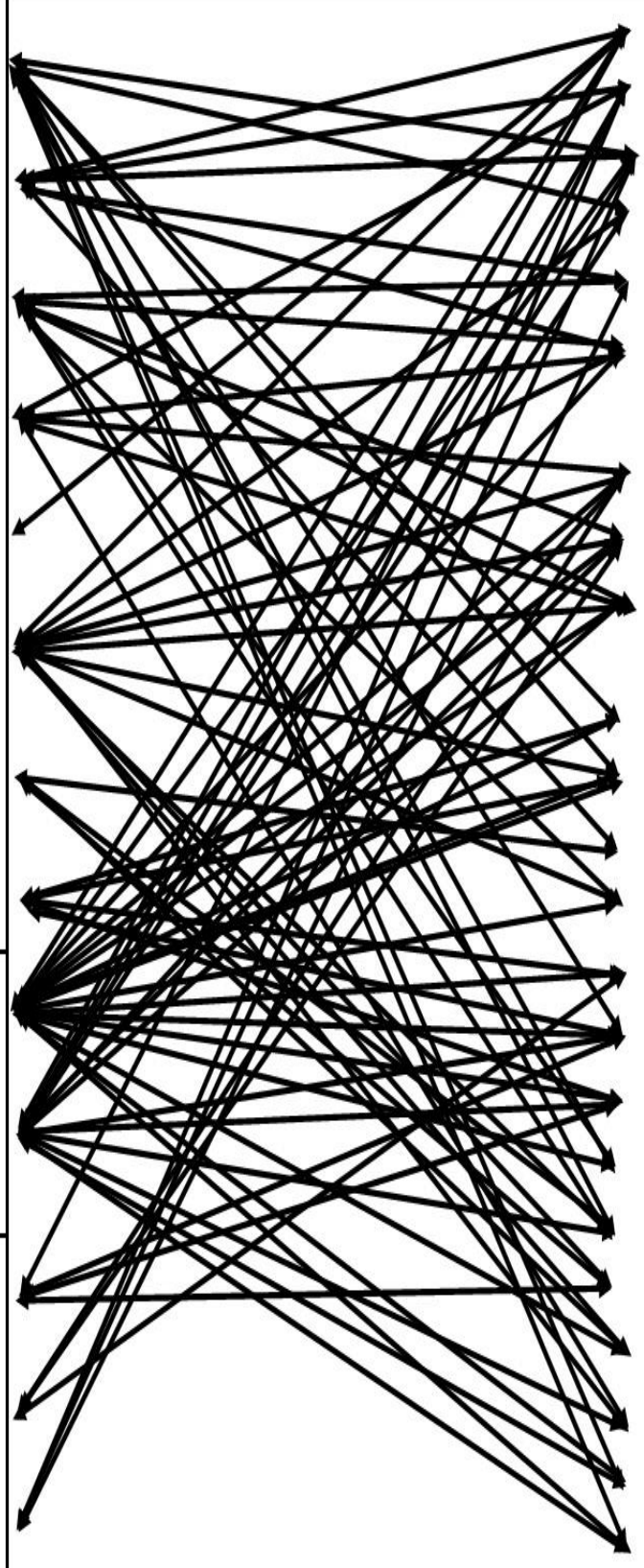
Planting based on success in previous years and interest to grow. New for this year (2022) highlighted.

Yes	Maybe	No
Beetroot	Beans – Climbing French	Brussel Sprouts
Beans – Broad	Beans – Dwarf French	Carrots
Beans - Runner	Beans – Greek Gigantes	Cauliflower
Broccoli – Purple Sprouting	Beans – Cherokee Trail of Tears	Cucumber
Celeriac	Beans – Black Croatian	Cabbage
Celery	Mizuna	Peppers
Courgettes	Mustard	Sweet Corn
Potatoes	Pak Choi	Tomatoes
Florence Fennel		Turnip
Garlic		
Kale		
Kohl Rabi		
Leaf Beet		
Leeks		
Lettuce		
Onion Sets		
Onion - Salad		
Peas		
Pumpkins		
Radish		
Squash		
Spinach		
Wild Rocket		
Wild Garlic		

Structures (March 2022)

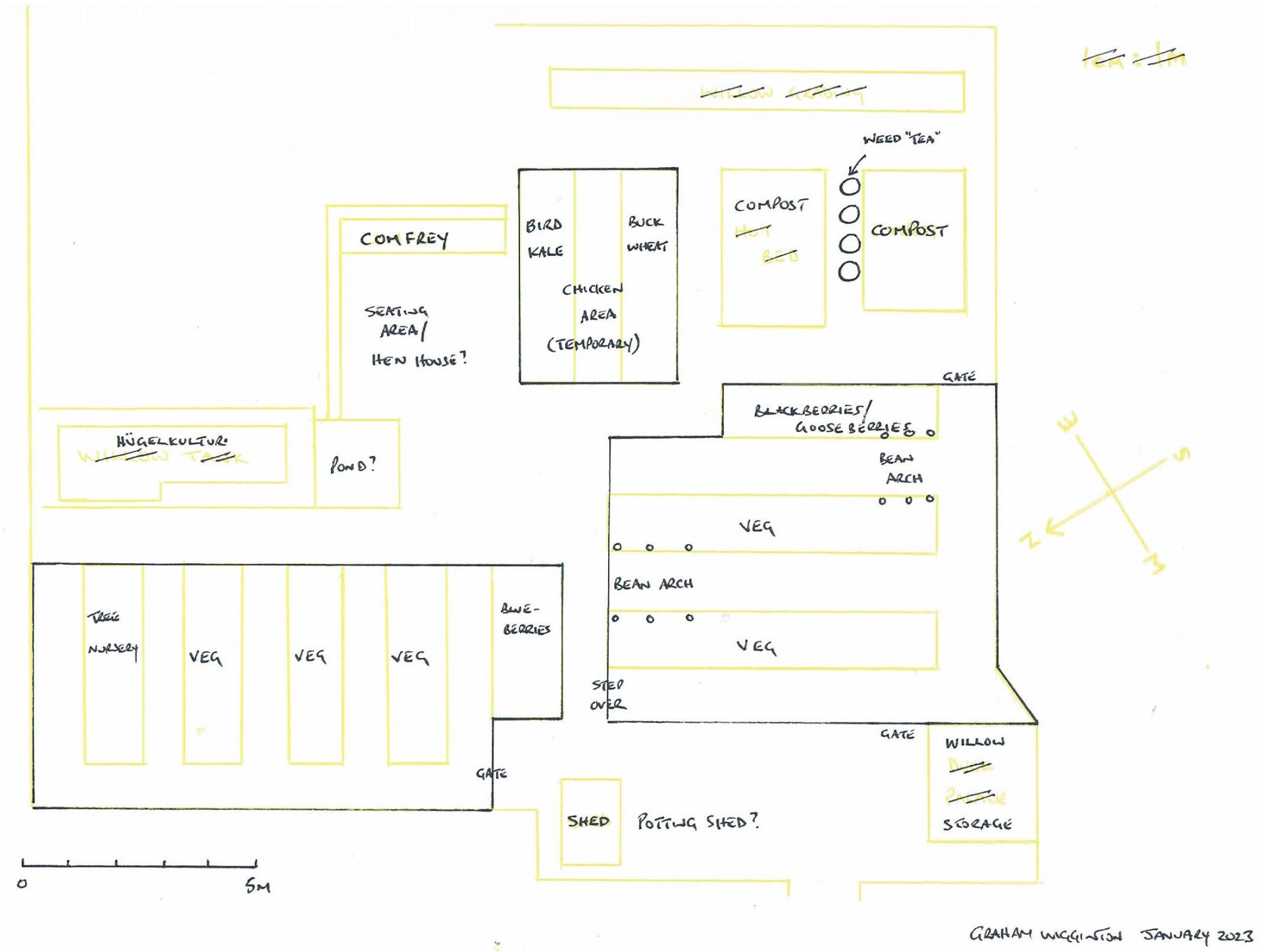
Keep	Develop	Loose
Raised Beds	Renovate the shed	Willow grading area - open to rabbits
Compost Bays	Greenhouse now we have finances	Ash tree
Shed	Potting shed now we have glazing	Multi-stemmed willow
“Duck House” – Willow store away from rabbits	Rain water collection system	Fedge by the ditch
	Pond	
Willow soaking tank – Hügelkultur	Chicken / Geese tractors	
Mains water	Water from Barn roof needs cladding	
	Fences around the beds	

- **Design (solution)**

Ethics	Function		Element
Earth Care	Produce food. Encourage wildlife. Promote soil health. Reduce unwanted plants. Grow on trees from cuttings or whips. To minimise inputs from outside. To reduce use of mains water. Protect plants from birds and animals>		Tree nursery Wild flower beds Fruit bushes Annual veg Comfrey Green manures Geese Chickens Donkeys Fruit cage Slug rings Pond Compost heaps Fencing Potting shed Greenhouse Raised beds Hugelkultur Shelter with roof for rainwater collection IBC Woodchip paths Planting by the moon Planting programme.
People Care	Ease and simplicity. Manageable and pleasurable.		
Fair shares	To create space for being as well as doing. To use the poultry to help maintain the patch. Grow food for birds and insects.		

The planting scheme based on planting by the moon is included in the Appendix.

Final Plan of Vegetable Patch layout:



- **Implement**

Structure Implementation as of March 2022

	Done	Partially Done	To do
Hügelkultur	√		
Tree Nursery	√		
Remove Ash tree	√		
Remove multi-stemmed willow	√		
Remove Fedge	√		
Renovate edges of raised beds		√ Spring – completed by end of 2022.	
Rabbit Fencing		√ Spring – completed by end of 2022	
Remove old Willow Grading Area			√ Spring – completed spring
Wildflower / sunflower beds			√ Spring – one completed spring
Pond			√ Summer – still to do
Greenhouse			√ Summer – still to do
Potting Shed			√ Summer – still to do
Fruit bush beds			√ Autumn – transplanted blueberries, others to do.
Renovate Shed			√ Autumn – completed autumn, but won't last
IBC and Shelter			√ Winter – still to do
Chicken / Geese Tractors			√ Winter – still to do

- **Maintenance Plan**

Month by Month Jobs

	Maintenance	Ordering	Starting to plant and sow
January	Maintenance of fences, sheds, paths. Chipping and cutting willow continues. Laying chipping on paths.	Buy Garlic. Check seed packets and order new.	
February	Cutting willow continues. Remove 1/3 of blackberries and mulch. Prune Gooseberries and mulch. Prune blueberries add leaf-mould.	Buy onion sets and shallots and potatoes	Start sowing broad beans, broccoli and salad onions in pots.
March	Cutting willow continues.		Start sowing dwarf beans, courgettes, peas, fennel, lettuce, leeks and radish. Start planting out onion sets and shallots. Start planting potatoes
April	Cutting willow finishes.		Start sowing sunflowers, pumpkins, squash, kale, leaf beet, mustard, rocket, beetroot, onion seed and kohl rabi.
May			Start sowing beans.
June			Start sowing pakchoi.
July			
August			
September	Start off leaf-mould.		
October	Fill leaf-mould. Chickens and geese clearing the beds.		
November	Fill leaf-mould. Mulching beds. Chipping and cutting willow begins		
December	Chipping and cutting willow continues.		

- **Evaluate**

Monitoring Success

		Planted	Successful?	Comment	Next Year?
Flowers	Sunflower Deep Red	N			
Flowers	Sunflower dwarf	Y	Y	These grew very well, less than a foot tall. I grew them in the hügelkultur which I had to net so the insects and birds could not access them. They were good ground cover.	Plant these in the open.
Flowers	Sunflower Small Yellow	Y	Y	These grew very well in a bed that had had a green manure of rye grass. They grew too tall for the stakes I used and kept needing to be propped up. I grew courgettes and squash beneath them.	Need a substantial support system. Possibly some reinforcing grid at different heights.
Flowers	Sunflower Suntastic	Y	Y		
Fruit	Bean Black Croatian	Y	N	Only one germinated. Grew tall and was blown over. Used willow as supports which became too brittle.	Need better supports. Going to make arches over the paths next year using fence post and water pipe.
Fruit	Bean Greek Gigantes	Y	Y	Grew well and tall also was blown over. Used willow as supports which became too brittle.	
Fruit	Bean Cherokee Trail of Tears	Y	Y		
Fruit	Bean Broad Eleonora	Y	Y	Grew well.	Plant more and for succession.
Fruit	Bean Climbing French Cobra	N			
Fruit	Bean Dwarf French	Y	N	Did not germinate.	
Fruit	Bean Runner Lady Di	Y	Y	Grew well. Almost too productive. Also blew over.	Either plant fewer or harvest and freeze.
Fruit	Courgette Golden Zucchini	Y	Y	Grew well.	
Fruit	Courgette Zucchini	Y	Y	Grew well.	
Fruit	Peas Ezetha's Krombek Blauschok	Y	N	Attacked by mice, did not recover.	Protect more.
Fruit	Peas Kelvedon Wonder	N			
Fruit	Peas Norli	N			
Fruit	Pumpkin Jack be little	Y	Y	Grew well, especially those planted on the compost heap.	Good keeping, one pumpkin does one or two meals.
Fruit	Squash Amoro	Y	Y	Grew well beneath sunflowers.	
Fruit	Squash Uchiki Kuri	Y	Y		
Leaves	Celery Green Utah	N			
Leaves	Florence Fennel Finale	N			
Leaves	Kale Red Winter	Y	Y	Plants from previous years still growing. Planted up a bed with Phacelia for birds.	
Leaves	Leaf Beet Perpetual Spinach	Y	N	Some germination and planted in the hügelkultur that then was netted and got overgrown.	Plant in main beds and wider spacings.
Leaves	Leaf Beet Swiss Chard	Y	N		
Leaves	Lettuce	Y	N		
Leaves	Mustard Purple Frills	Y	N		

Leaves	Pak Choi Tatsoi	Y	N		
Leaves	Rocket	Y	Y	Had new plants in the hügelkultur and older plants in main beds.	Plant more and create a permanent crop in one of the main beds.
Leaves	Spinach Early Prickly Seeded	Y	N	Did not germinate.	
Leaves	Wild Garlic	Y	N	Did not germinate.	
Roots	Beetroot Rhonda	Y	N	Germinated but attacked by mice early and did not recover.	Plant out when larger and stronger.
Roots	Celeriac Prinz	N			
Roots	Garlic	Y	Y	Missed buying, but had some that grew from cloves missed last year. Had a reasonable crop.	Get our act together for buying bulbs.
Roots	Kohl Rabi Azur Star	Y	N	Germinated but attacked by mice early and did not recover.	Plant out when larger and stronger.
Roots	Kohl Rabi Noriko	Y	N		
Roots	Leeks Bandit	Y	Y	Some germination. Had a small crop in the hügelkultur, but were eaten by a rabbit.	Plant out in main beds.
Roots	Onion Carmen Sweet	N			
Roots	Onion Salad White Lisbon	Y	Y	Some germination and planted in the hügelkultur that then was netted and got overgrown.	Plant in main beds and wider spacings.
Roots	Radish	Y	Y	Did well in hügelkultur, grew fast before netting needed.	
Roots	Onion Sets Sturon	Y	Y	Grew well, but in order to have an even planting I broadcast them then planted, as opposed to planting in rows and having some left over. Were impossible to weed and difficult to harvest.	Plant in rows!

Observe & Interact	This design has been a long process, involving observation initially and through the process of partial implementation. The sun mapping was particularly useful in identifying the causes of shade as well as thinking about how to allocate the beds. As a place that I go to regularly it is one of the areas of the holding that I interact with most and therefore spend time thinking about solutions. For example, the burgeoning rabbit population. 10 Years ago, we had no rabbits, now they are rife, hence the need to fence off the vegetable beds.
Catch & Store Energy	The inter-relationship between the sun and the growing plants is essential catching and storing energy. If I can set up a rain catching system this will also fit in well with this principle as would using the chickens and geese to manage the beds and paths. I have used some green manures and want to do more of this, instead of covering the beds for the winter. The phacelia is very successful. I was unsure about the rye grass as these left large stems, but when cut down and mulched they produced a good bed for growing the sunflowers, courgettes and squash. I want to try buckwheat next year along with the phacelia and kale for birds.
Obtain a yield	The Vegetable patch has a variety of yields, fruit and vegetables, gardening pleasure and satisfaction of eating the produce, a place of calm and shelter, a place for birds, insects and animals. It is a place of sensory, emotional, physical and cognitive immersion.
Apply Self regulation & accept feedback	The design itself has been a process of problem solving and meeting both our needs. The space itself has provided feedback in terms of how it needs to work, given the constraints it has, for example by defining the sunny areas. The animals are also providing feedback, I am currently having to come up with a solution to the rabbit who found the hügelkultur an ideal place to make a warren!
Use & Value Renewable Resources & Services	Resources from outside the vegetable patch: donkey bedding, hay and haylage for making compost. Tap water. Seeds. Cardboard for mulch. We use hay and haylage from local farms and seeds from organic suppliers. Resources from inside: Soil, wildlife, comfrey and nettles for compost, weeds soaked in barrels or water for compost and nutrient tea, rain water, cuttings, saved seeds, perennial plants.
Produce no waste	The resources from outside the vegetable patch, except tap water and seeds, are all on their second use. The wood chip for the paths and for mulching comes from the willow beds.
Design from patterns to details	In this design I have looked at the present pattern of the vegetable patch and considered the patterns of use of the space by other living things, in order to inform what different areas should be. Our pattern of raising seedlings will mean that the greenhouse will need to be near to the studio as this is a much more visited area than the vegetable patch and so the daily care of them can be more easily managed.
Integrate rather than segregate	I have included space for wildlife and for the chickens and geese. I have yet to find a space for the rabbits. They are my “Too many slugs not enough ducks” problem. I have yet to complete the sentence “Too many rabbits not enough …”.
Use slow & small solutions	I have spent over a year considering the space, identifying some things that needed to be done early, for example managing the shade of the trees and the fedge and fencing off the beds from the chickens, geese and rabbits and left others for example the greenhouse, potting shed or the rain water collection system, which are much larger projects in terms of materials and time to a later date.
Use & Value Diversity	Although I struggled to follow Huw Richards “Veg in one bed” planting regimes we do mix up the planting, for example last year we had broad beans, peas, lettuce, radish, beetroot, garlic and onions all in the same bed, without detriment. This gave us some understory to the taller beans and peas.
Use edges & value the marginal	By having wild flower areas and a pond area in the garden I hope that we will be able to share the space with other species.
Creatively Use & respond to change	We have used structures that we have embodied our energy as well as energy of materials for more than one purpose, for example the willow tank, was originally a duck house and pen and is now the hügelkultur. The Duck house is now the willow store, although at one point, pre-rabbit, it was a possible potting shed. The rabbits have been a catalyst for change and required creative thinking and use of resources.

Wants	Achieved?
Order.	The reduction in beds for annual vegetables and designation for wild flowers, tree nursery and fruit bushes has created a more defined structure to the space.
Vegetables to supplement our diet.	Focusing on growing what we know grows will increase our cropping. I now have a small recipe book with recipes for the pumpkin, squash and beans. I have been using the Cherokee beans, which are small, instead of lentils.
Ease and simplicity.	The planting by the moon process makes the idea of succession manageable and enforces only sowing a few seeds at a time. I have saved some beans for planting next year and shared them with friends. Fencing beyond the paths has opened up the space.
Manageable and pleasurable.	The reduction in annual vegetable beds has created a feeling of manageability and the wildflower beds adds to the pleasure of insects and birds.
Smaller rather than bigger.	The fencing off of the two growing areas gives a further feeling of manageability as the spaces appear smaller.
Bush fruit.	Having defined beds for the bush fruit means that we will now go ahead and plant some bushes, we have some blueberries, for example that are struggling in pots for the want of somewhere permanent for them.
Greenhouse for tomatoes, chillies etc.	This is something we have wanted for bringing on seedlings that is not inside the studio, having decided that it needs to be nearer to the studio and having the finances now means that this is something we can now move forward on. This has been put on hold as I have been giving time to helping my daughter build her tiny house.
A Hügelkultur bed.	The hügelkultur bed is in place, it just needs the rabbit to move out!

- **Tweak (Things still to do (January 2023))**

	Roses	Thorns	Buds
Earth Care	Creating a raised bed out of the algae ridden IBC. Create a willow cutting and chipping routine. Gooseberry and blackberry bushes to source and plant. Grow more broad beans and leeks.	Managing the chickens and geese through periods of avian flu. I have created an enclosed area across the beds I had identified for growing for the birds. Given are chickens are rescue ones this does not sit comfortably. Also, I had hoped the planting for the birds would self-seed. I am not sure if heavy chicken "action" will affect this. Leaves were not successful this year, need to plant out when bigger and stronger. Similarly, beetroot, kohl rabi and salad onions.	I wish to develop my knowledge of forest gardening and perennial guilds. I have looked at what I can under plant the blueberries with and am looking at potatoes, mustard and shallots because of the acidity. Planting the beans in arches over the paths I hope will create a more effective vertical structure to the beds. I want to think more deeply about mulching and growing throughout the year.
People Care	New potting shed. Once H has moved her tiny house develop the area outside the studio – a new plan of its own to include a greenhouse. Plant the onions in rows!		Create a seating area?
Fair Share	Chicken and geese tractors still to do. Potting shed to have water collection. Supports for sunflowers. Next growing design is a forest garden where the apple trees are.	Easily removable fencing for the hügelkultur. Protect pea plants from the mice until they are larger. Work out effective means of netting brassicas so can be easily accessible.	Creation of a pond, possibly from half of an IBC. Would need exit for animals.