

BAREFOOT ARCHITECT
JO PETRONI

Listen to Your Land

Your very first steps in mindfully designing your
sustainable home

BIO-CLIMATISM, PERMACULTURE,
MINDFULNESS AND LOVE

By Jo's Epistolary at
jopetroni.substack.com

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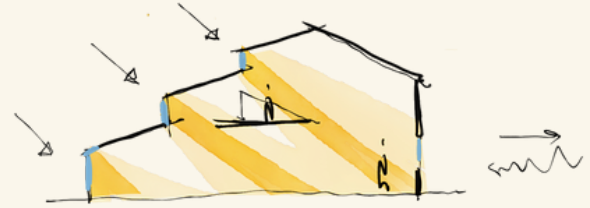
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ABOUT THE AUTHOR

I help non-architects get back to the basics of what makes a good home.

*I was two when I showed people around my dad's construction site saying
"Look! 'tiffull!".*

*Later I developed a habit of peering into people's houses
to check out the layouts and deco.*

*How they matched the people living in there,
how the rooms fit together.*

*Today I peer into people's houses as they design them,
as we design them.*

*We find, together, those elements that make it theirs,
that layout that keeps fresh even with the passing of time.*

INTRO

What if what I write isn't for you? What if you don't find it helpful? What if all I get back is a void, silent and awkward? This is what's racing through my mind as I write this course, as I try and give shape to these ideas. There are people out there who know there is a better way to make homes. I know there are.

But do they really need me? The internet is so big that I might just be another needle in a haystack of needles.

In the almost infinite space of the internet, of the world, there are people I can help.

I just have to bridge the gap.

Find my way to them.

To you.

If I have reached you that means I've made it. So please, along the way, guide me on how I can better guide you. This way, the haystack will become a bubble, a space for both you and me to grow together.

How we build our homes matters both to us and the environment. Sustainable homes are meant for people and nature to thrive together. This course is meant as a guide for you to dream up your own beautiful, healthy, sustainable and affordable home.

It was initially meant in the shape of a step by step email tutorial to get you through the basics of design, reading the site and establishing your true needs. Now it has become an e-book and it will hopefully very soon become a full-fledged course, hosted on the substack page of [Jo's Epistolary](#). If you are so into the idea of this course that you want to preorder or something, write to me at jo@permarchitecture.net and I'll put you on the early-bird list. There is no early-bird list, but I'll make it up just for you.

Our homes are the backdrop of our lives.

WHERE?

My dad really really wanted a stainless steel stove in his countryside cottage. It looked so silly when he finally put it in, shiny metal surrounded by handmade wooden spoons.

Many people start their house project with a clear idea about **what** they want to build. We fall into this trap of visualizing the house regardless of **where** it will be. Some may have the dream of building a round-shaped house for example. Yet their land is on a steep slope. Or an **Earthship in cold climate**. Or a log cabin in the tropics. You get the picture. We all have these images of the coolest house we could get, the embodiment of our future perfect life, perfect in their bubble. Then we hopelessly try to fit them onto the reality of our land and our lives.

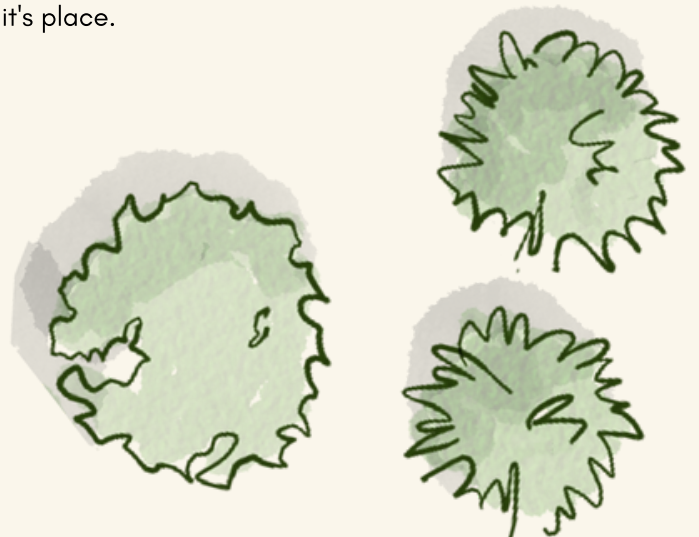
We should also **listen to what the land** has to say about all that.

The land gives us cues about the way to go. Its constrictions invite us to work with them instead of against them. Sloped terrain invites to build in terraces and along the contour lines, maybe on more than one level. Flat terrain invites large expanses that make you feel grounded.

Having a bit of height gives comfort to our **ancestral brains**. We seek an outlook on the plains around us. Having our backs turned against the hill also tells us we are safe. Gives us a type of safety that the top of the hill doesn't.

In the next pages we'll go through the steps to go after having settled for a land to build on. Empty your mind of those images you had of the perfect house.

Let's dream up YOUR perfect house, anchored in it's place.



GOOD QUESTIONS FIRST

Question your site. Read it. Get a deep sense of it, a true sense. You will probably need more than one visit to get a real grip, **so take your time**.

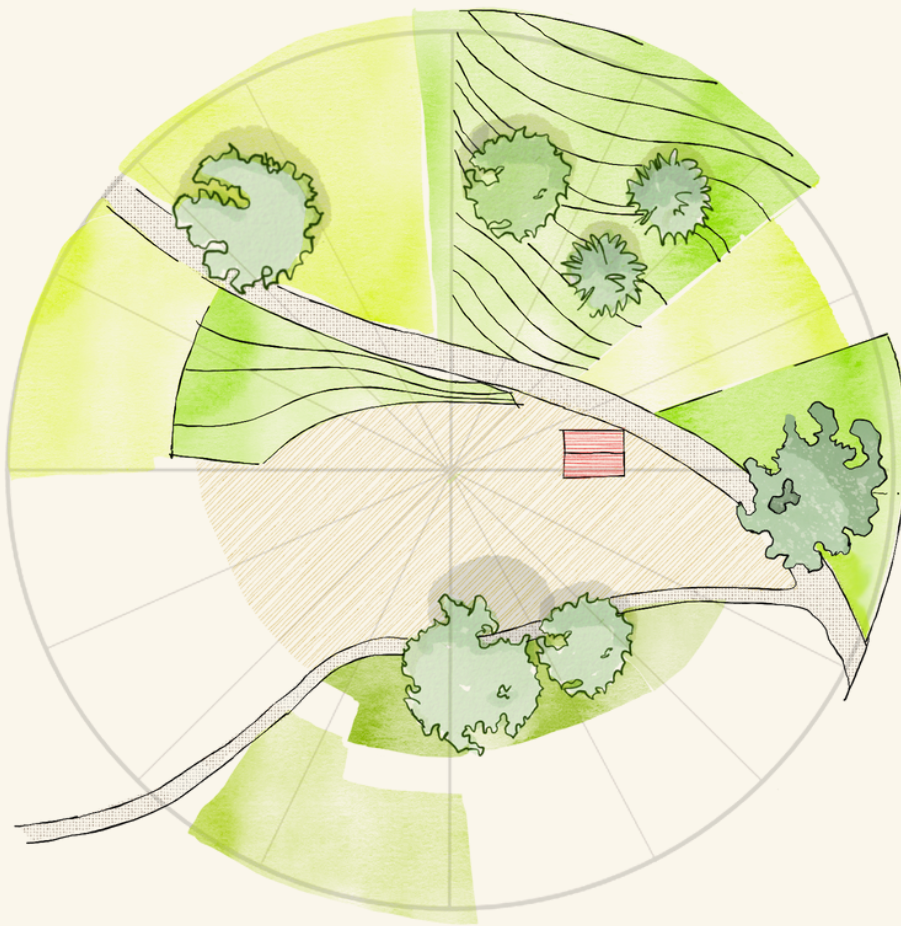
In the first chapter we will go through the first concrete step: the practical questions, and putting all of it on paper.

For the time being, **take a walk** through the place you want to build on. Feel the feel of the site. The wind, the noises.

Your instincts are going to pick up a ton of information. **What you notice is important**. It matters simply because you noticed it. So don't shrug those tiny elements that pop out. Keep note of them. Some might be hard to define. Verbal expression is not the priority here though. What matters is **non-verbal understanding** of what makes the place a place.

I'm glad you're taking this course.

THE START



If you only have one hour to visit the site, it can help to have a checklist. Luckily enough, I have a checklist right [here](#). It's a pdf guide made in such a way that you for sure won't miss anything when going on your site visit. You can print it out and scribble on it. If not, don't worry, and read on.

A DIAGRAM

When you will have gathered all your information (all the details are bellow), it will be time to put stuff on paper. You'll need a large piece of paper (preferably at least A3). Get a Base Map like a Google Satellite view for example. A contour map can also be useful, as well as the property limits. But even starting out blank is fine.

Permaculture and architecture have a very useful tool for this type of site-reading called "Sector Analysis". It consists of placing the defining element of the site as sectors (slices) of a circle, the center of the circle being your intended build area. What we'll do is a riff on that.

WHAT YOU'LL BE NEEDING

You can draw on top of any of the maps or plans you have, but drawing directly on paper is better, because you don't really need scale. You need a diagram. So start with a circle like the one in the next page and draw on top of that. (You can find a starter circle at the end of the [Checklist.pdf](#)) Keep the **North facing upwards**, like on Google maps. Draw a big circle around the whole terrain. The main building area should end up somewhere in the middle of the circle. If it's not obvious where you will place your building yet, don't worry, a general view of the site will do just fine.

You'll need a lot of colored pencils, liners and pens, and paper. Optionally you can get some tracing paper.

No need for exact measures

What we're building here is a diagram. You don't need to be super precise. You only need to add your elements and understand the way they relate to one another.

My area is too big!

If the area is too big to handle, try selecting an area that better fits your purpose. What doesn't fit the circle but still has bearing on the project, you can add on the sides.

For example, I have a faraway road that makes noise. I can hear it from some places on the land, not everywhere. Since it doesn't fit my map, I added it as a **general direction** (in purple on the image). Then I colored the areas where the noise was heard most. (Though I don't know what noises will sound like from the second floor of my future house)

Adding all my stuff

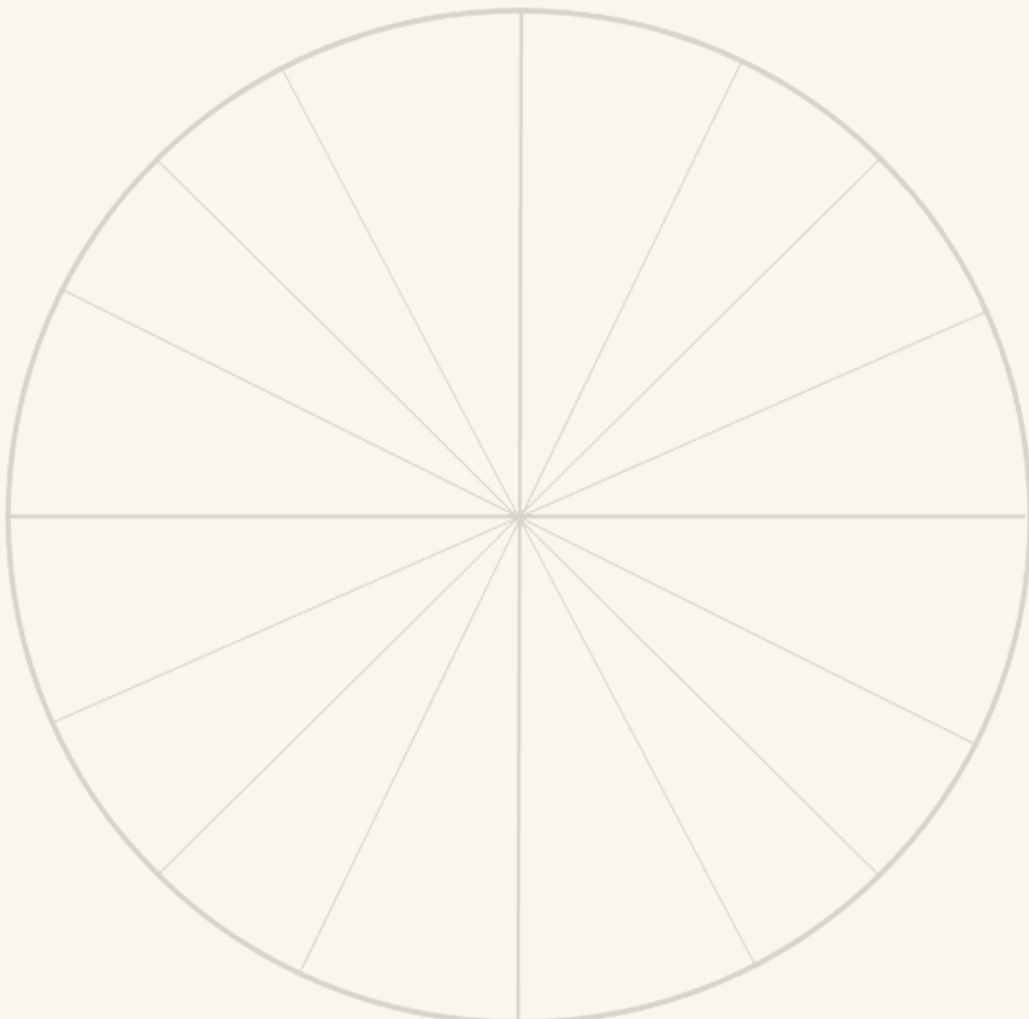
You can then start adding the many natural elements of the site first. You can start placing the sun's path on the south half of the circle, the dominant wind direction on a north-north-west slice (so up and to the left of the paper) maybe, and a beautiful view angle on a large east slice.

How to avoid over-crowding your Diagram

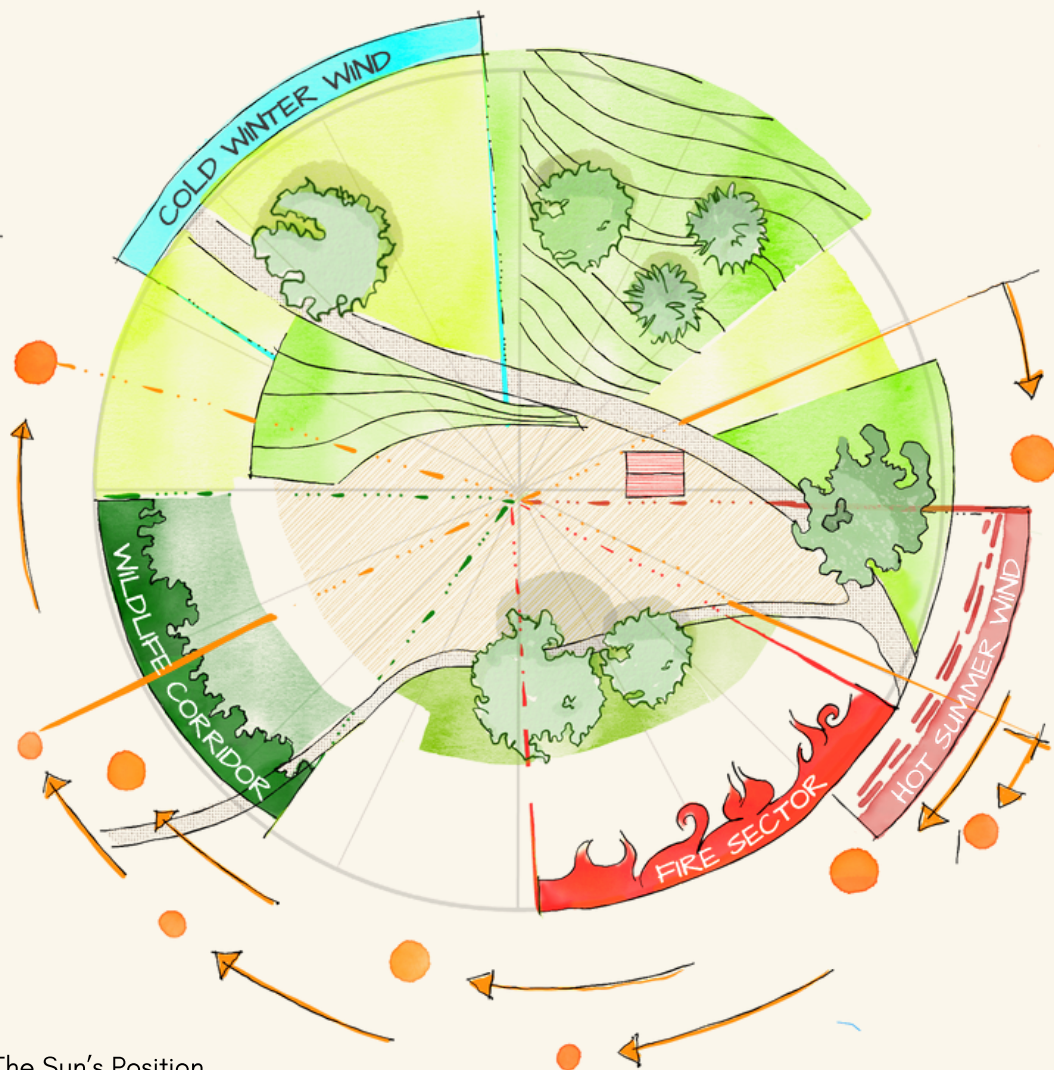
When adding this many elements to a single sheet of paper, it can rapidly get crowded. There are a couple of tricks you can use to avoid that. Using differently colored pencils and pens is a first obvious step in discerning water from wind. The Sun can be placed in yellow, the water in blue etc, all lines intuitively evoking the natural element they depict. Color-coding is best done with translucent markers but keep writing black and thin. Avoid using big black pens, they will quickly fill up your paper. Also avoid using pencil and erasers, they only mess up your paper and all you get is dirty-looking sheets. Another good idea is to use tracing paper to layer your elements. The disadvantage of this method is that you can forget some elements if you don't put all the tracing papers on top of each other. You can mitigate that by sticking the tops of the papers together with tape.

Tablets and gadgets

If you have a tablet, you can definitely use that. You get to choose different layers to draw on and can move and erase stuff as you wish. It does have the disadvantage of being a bit tiny for big areas, so you usually need to zoom around a bit too much for my taste.



ADDING NATURE



- The Sun's Position
- The Wind Direction
- The Energy of Fire
- Wild Animals
- Water
- Water with a vengeance
- Slope
- Landscape profile

THE SUN'S POSITION

If you have placed your base map with the **North facing upwards**, like a Google map, then your South will be facing downward on your paper.

The Sun's location and your latitude inform its angles in the summer and in the winter. The lowering Sun of winter months has a smaller angle than in the summer and it's also shining less bright. Orient your house in a way that allows for **direct sunlight** when and where it is most beneficial.

THE WIND DIRECTION

Generally, in temperate climate areas, you want to **avoid cold winter winds** and **welcome cooling summer breezes**. High winds can be a problem for some sites and hot summer winds can be a problem in others. The cold winds can come from a gully, a large valley, or just straight from the North side of your site. Most weather apps will show you the direction of the wind at any particular time. For **prevailing winds** though, your country may or may not have a database. Look for "prevailing wind" or "wind rose" (it's like our sector map, but with winds).

The ABC surefire way to mitigate a cold wind is to create a vegetation **windbreak**. Using winds to their full potential is also important. Beneficial summer winds can be used across ponds for evaporation as summer cooling, and wind turbines can effectively be placed on a windy site to maximize energy gain.

THE ENERGY OF FIRE

A **Fire danger** sector is becoming more and more precious information to gather. Larger areas are being affected by **wildfires** every year. The destructive powers of fire are becoming a real threat. Knowing what risk your site faces can be a great advantage.

The direction of the hottest summer wind is the main thing to figure out, along with the **thunderstorm** sector (if lightning is known to start fires in the area) and areas with a lot of **flammable material** (in and out of the property) like native vegetation areas, haystacks and pine trees. Some pre-existing elements can act as fire retardants. You can add your own. Roads, stone walls, dams, rivers can help keep fire away from the most important areas of your site.

WILD ANIMALS

This is more of a topic in your **landscape** design, but it can have an influence on the way to position your building. Adding **wildlife corridors** is especially nice for sites that are located either on **old farming land or in large national parks**, but it's so much more useful in **cities**, where critters have so little space. Your site might be visited by anything from hedgehogs to goats to deer to wolves. **Endangered** species are of course of particular importance. If they have a protection status, it's good to keep it in mind when designing. These species might need you to keep a wildlife corridor for them.

Animals that risk being a **nuisance** to your property, like wild boar eating your crops or eagles stealing your chickens might force you to fence in parts of your land. You can keep some elements **closer to the house**, where they are less vulnerable. Keeping a dog is always a good idea, though an eagle might find your Spitz more appetizing than threatening.

A lot of tiny **native** birds and critters can be encouraged to come in to increase the **biodiversity** and balance the ecosystem. Try planting dense shrubs just the way they like them or otherwise reinforcing their habitat. It helps grow biodiversity on your land and control insect infestations.

I have a whole theory about the importance of wildlife in our lives, a sort of biophilic design 3.0. You can read about it in [this substack post](#).



WATER

As with the other elements on our **Site Analysis Diagram**, water is a thing to both **harness and protect against**. In so many corners of the planet, water is a precious thing that we in the modern world have grown accustomed to wasting. We feel entitled to having water pouring out of our pipes whenever we turn the tap on, forgetting the innumerable processes that it goes through to get there and will go through as it disappears down the drain.

Some sort of **water resilience** should be on every new home-builder's mind and there are simple ways to do that. They all begin, of course, with knowing what your site can offer. In the "[Listen to your Land Checklist](#)" (which you can find [here](#)), there are a couple of questions about **water sources** on your land. If you have a continuous water source, like a stream or a fountain, you lucky cookie, that is your starting point. But a lot of water can be harnessed from other, impermanent sources, like rain catchment systems and grey-water management. The main rule here is to get the water that hits your land to **spend as much time** as possible on your land and to be of as much use as possible in the process, whether for crops and garden or for toilet flushing.

Permaculture has a whole arsenal of strategies and tools to achieve the most out of every droplet of water, including my favorite: **building good soil**. A fertile and structured soil can absorb up to ten times more water than your standard agricultural dirt. Placing a water tank and considering a grey-water purification pond are some of the other ideas to float around.

WATER WITH A VENGEANCE

The second aspect of our house's relationship with water is its **destructive power**. Water is a most perverse enemy of buildings, creeping in undetected and wrecking havoc in the hardest to repair ways.

Water weapon number one is **mold**. Humidity in walls from a dripping gutter, lack of ventilation in wet rooms, a frozen pipe inside a wall, the usual suspects and silent killers all use one main tool against you and that tool is mold.

Weapon number two is the easiness with which it **destroys wood structures**, especially composite lumber like OSB or plywood I-joists because of their small dimensions.

Water infiltration in basements and foundation areas can destroy structures in as little as two wet seasons and I have personally seen rain pouring into houses directly through the stone wall because it had been built inside the slope of the hill in a very heavy rain area. I shudder at the memory.

Keeping the house away from big gullies in heavy rain areas and understanding the movement of water when designing your house is smart. **Stay above water**. Having a clear view of what your site has to offer with regards to water management and water damage avoidance is the first step to a good dry house.

ONE MORE THING ON WATER

Water freezes. For building foundations it's important to know the local level of **frost line**. You can look it up online or with your local administration.

Also, water floods. **Flood lines** will show up on your land's papers anyway, but I thought it should be said anyway.

SLOPE

No site is strictly flat and the irregularities of slope impact your placement decisions. Though it is easier and easier today to build on inadequate terrain, it is so much wiser to avoid it.

Highly sloped land is reluctant to accommodating people or their dwellings. Big machinery and a lot of concrete can always save the day, with palpable effect on the environment. The fact remains that it is more sensible to locate your home away from the hazardously steep hill.

In some occasions, I must admit that a particular **view** might be of such consequence to the whole place that it will be worth perching the castle up on a steep bit. But generally speaking, slope under 5 degrees is the way to go.

If your land is very sloped indeed and no amount of terracing or judicious placement will change that, you might consider going the "**earth-sheltered**" way.

LANDSCAPE PROFILE

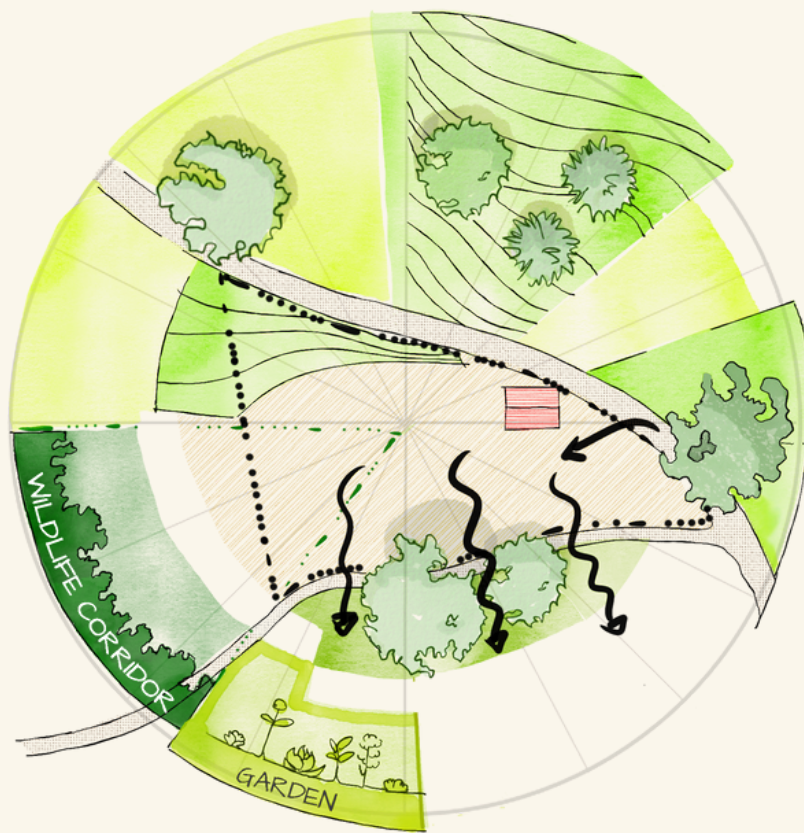
Hill profiles tend to develop an **S-shaped curve** under the constant effect of rainwater flows. The point where the curve changes from convex to concave is called a keyline point. **Keyline design** is a method of land design for soil and water conservation developed by Australian farmer and engineer P.A. Yeomans in the 1950's, and practiced widely throughout Australia ever since. You can find out more [here](#).

Ancient megalithic people of England used to occupy the **ridgeways** of a hill. Now, the tendency of real estate developers is to go down on the **flatlands**. This choice has the enormous inconvenience of placing the dwelling **under the frost line**, and depriving it of the protection of foothill forests and convex slope.

Cold feet and no hat...

The landscape profile also determines the water catchment strategies. Harnessing simple **gravity** can help immensely in water equipment efficiency (which means: "place your water tank **above the house**"). Water is both the main factor for erosion and building degradation and the main resource for human life.

THE SITE



- Circulation
- Limits of the land
- The site's existing elements

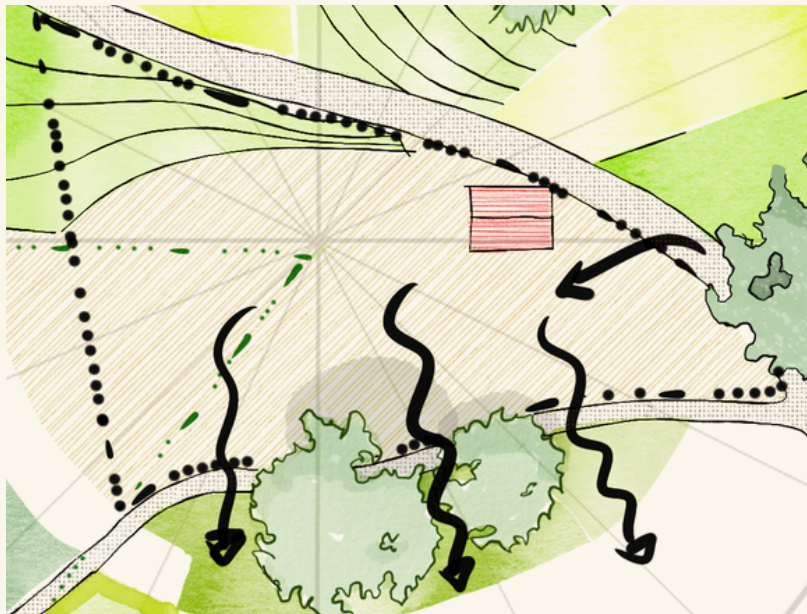
This first list of elements was the "natural elements" category. Next we'll take a look at anthropogenic elements, i.e. man-made.

THE LAND ELEMENTS

This first list of elements was the "natural elements" category. Next we'll take a look at anthropogenic elements, i.e. man-made. First the ones inside the land.

Circulation

The first man-made element to go on the map is the existing **main site access** or the possible access ways and circulation flows. Think big arrows.



Limits of the land

Add the property limit, as clear as you can. Remember, this is a diagram, so it's ok to not be perfect.

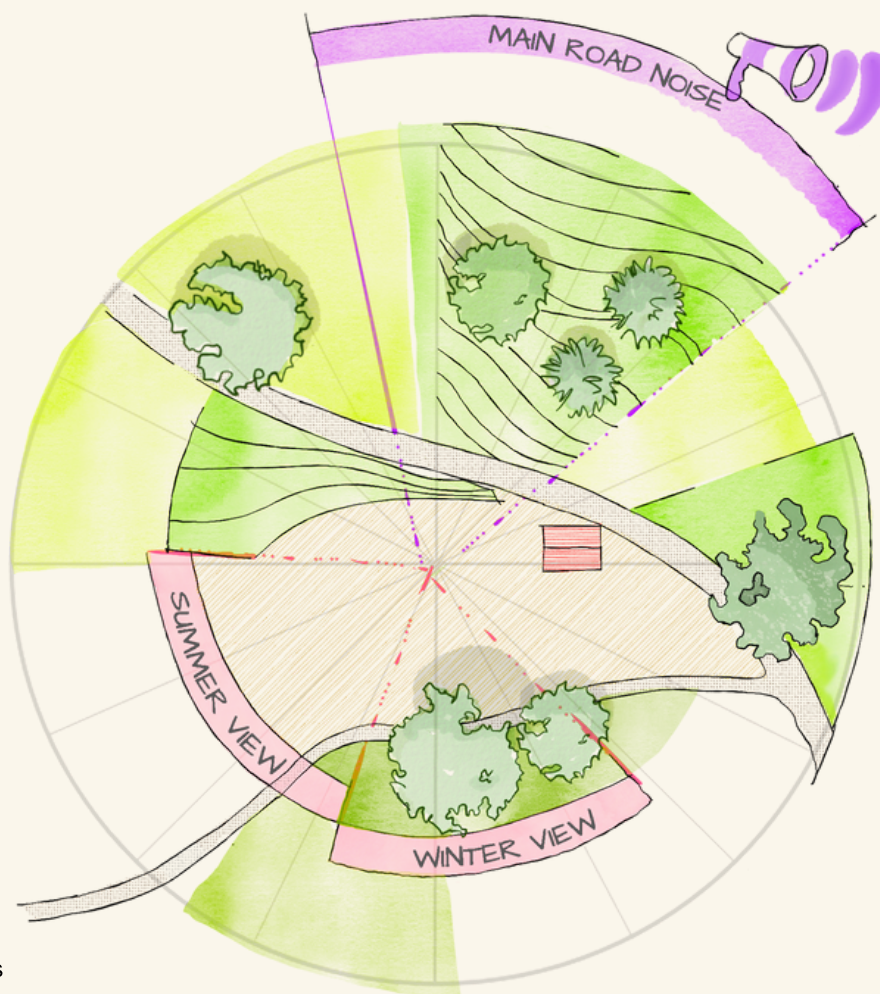
Add the different **transparency** degrees of the property limits. A property limit can be fenced with an opaque structure, hedged, planted or bare.

The site's existing elements

A plan or a satellite photo can't show you the reality of the site's situation. You are the one who must fill the plan with what you see on the land. **Big trees and existing buildings** are the most important elements to add here, along with sudden changes in slope that you might not be able to see if you don't have a contour map (or don't know how to read one:)).

An existing ruin that you want to keep or the previous owner's vegetable patch can give you precious **clues** about the opportunities of the land. Especially with older elements, ask yourself "Why did these people do that? Is there an unseen reason for choosing a particular location to build or to garden?" Be **thoughtful** in your examination of what others have done before you.

THE OUTSIDE WORLD



Views
Sounds
Neighbors
Nuisances and delights. Miscellaneous

In the previous chapters, we outlined the natural and man-made elements to consider when mindfully designing a house for ourselves. We talked about how to take advantage of the Sun, how to think about water as a friend and an enemy at the same time, and so many other things.

Next we'll munch on another set of ideas to think about, this time coming mostly from the outside of our site.

VIEWS

The **best view** of the whole place should be given **special treatment** in the design process. Either spectacularly shown off from the main terrace or discretely and gradually revealed by shrubbery, the **main directions of vista** should be carefully placed on the Sector Map, just like the other elements, in the shape of a pie slice. You can add an eye next to it, to know what it's about. Like this:



Along with the best views to integrate come the views that you want to **avoid**, like a neighbor's fence or an industrial building on the hill just in front. Those **unavoidable** elements that you would rather not see from the kitchen window every morning can be made invisible or just less in-your-face by either placing a screening element just in front, between you and it, or by not placing vista-oriented spaces where it would be impossible to avoid seeing them. So by designing mindfully in the first place.

After the **unwanted views "out"** there are the **unwanted views "in"** that you want to avert. Minding them in your design as soon as possible is the best way to get rid of snoopy neighbor glances. Streets at eye level with the bathroom and neighbor's barbecue right above the bedroom are easy enough to avoid if you take note of them soon in the Site Analysis phase.

Don't forget that, sometimes, it is just impossible to eliminate all unwanted views from and onto your site. But knowing what you can and cannot do from the beginning can be very helpful.

SOUNDS

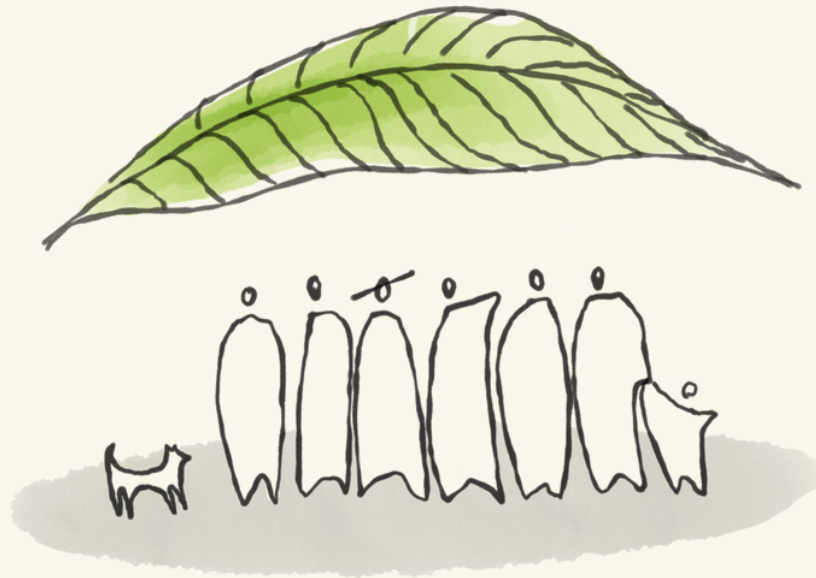
An important element that doesn't show up on maps and plans is the sounds and especially the noises present on a site. It can be a nice surprise to discover that there are birds chirping every morning in the linden tree in front of the house. But you would probably want to know beforehand if it was a stone quarry chirping at 7 in the morning on a Saturday.

The issue of noises is most prevalent in densely populated areas, but even the smallest town or country road can have its own buzz. Placement of the house together with judicious planting of greenery (a food forest, maybe?) can easily avert most inconveniences if the problem is handled from the on-set. Yes, good windows will solve any sound trouble, but that's not the point. Your relationship with the world outside is, and remaining open yet protected is key.

NEIGHBORS

Even if local legislation doesn't force you to align with the neighboring houses, you might want to consider their placement when assigning a spot to your build. Keeping the **spirit of the surroundings** is not only important with regards to nature but with the built environment as well. But do not, and I repeat: Do Not Build Pastiches of the local house, like middle-class Real Estate sites do.

The other aspect is your relationship not with the buildings around you but with the people who inhabit them. Noises, peering glances, smoky barbecues you want to avoid, of course. But all too often, wanting to protect ourselves **we lose community living**, the stuff of civilization. We need each other, in spite of the individualistic society we live in, and it is high time we started coming back together as **belonging** to the same place and time.



NUISANCES AND DELIGHTS.

MISCELLANEOUS

Here come all those elements that stand out in your site but haven't been brought up in the other steps. The place's **peculiarities and quirks**, what defines your plot as its own thing. It might be an enormous bamboo grove or a very large pond, a flock of flamingos that stop by on their migration journey every year like in La Grande Bellezza, or a notable feature of the neighborhood. All of the key characteristics of the site that can be mapped out get their turn now.

In the next chapter I will attack the technical features to consider when designing your own house. They are less poetic and risk ruining some of the fun. But they have to be done. We will talk sewers, local authorities and other such delights.



TECHNICALITIES OF DOOM

-

RISKS AND
OPPORTUNITIES

Legislation
Technology
Mains
Sewer
Soil
Sun

FEEDBACK

You've read all this way. You're now part of the tribe. I need your help.

The feedback you give me is helping me get better at this. How do you like this small course? Where are you at? What issues are you having with your project? This short form takes one minute to fill, but it helps me so much!

TAKE MY ONE MINUTE
SURVEY ABOUT THIS COURSE

In the meantime...

ANOTHER BORING LIST

After having purchased your land, carefully analyzed your site, mindfully drawn up all your diagrams and figured out what you actually want to build, now the time has come for your very first design decision to be made. Ha! No. There are more questions to be asked first!

It might seem obnoxious and pedantic to refrain from making intuitive decisions with your own dream house. Rushed decisions are often blind to many hidden traps that will most certainly be much more costly than the time spent digesting information. So, before taking the first steps into placing your own sustainable new home on the site, here are some additional things to consider.

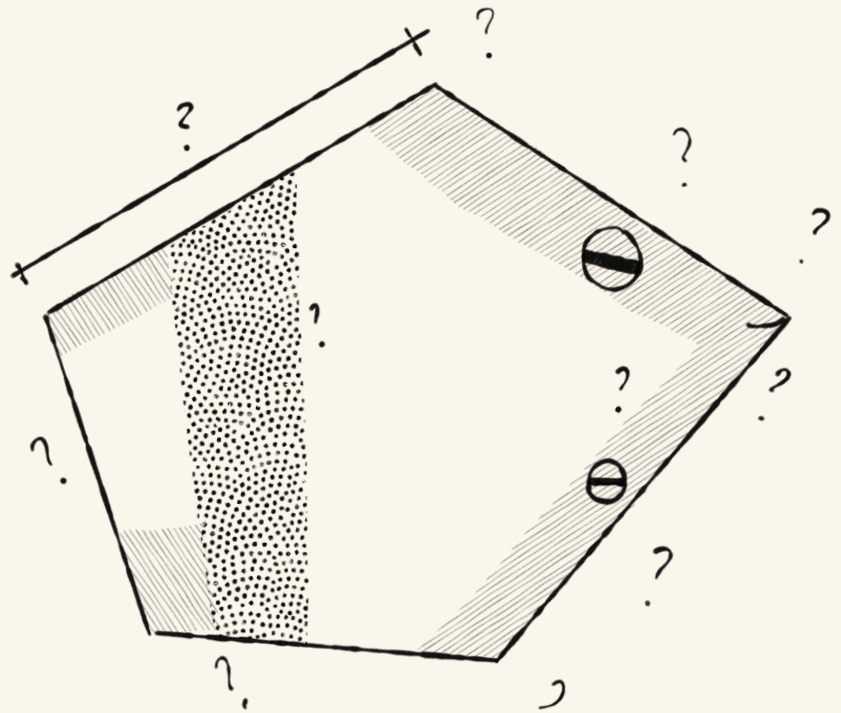
Note: These elements don't really need to be placed on the Sector Map. You can add them as text on the side. Or just write them down on the Checklist here.

LEGISLATION

Disclaimer now: [Permarchitecture](#) is not a website consulting in local construction laws. Neither is [Jo's Epistolary](#). The magic of the internet is that you could be in India or Alaska and I am as able to reach you with the words in this email. Every country has different rules and you need to check with your local authorities before taking any steps.

Some places might **restrict the area** that you can build on, or give you a minimum or maximum **distance to the road** or to the neighbor's house. Some areas might **restrict the total surface** that you can build or the total height. The mayor in your village might be very keen on self-built earthships and tiny houses on wheels, others might not. All of these are crucial first steps in your design process, as they are most of the time... immutable. Don't start building your home foundations only to find out you were supposed to move a meter to the left.

There are a lot of situations where the local legislation will be so constricting that even the basics of the build will have to be adapted. This apparent narrowing of possibilities can also be a catalyst for creativity, so don't be afraid of strict rules in your design.



AVAILABLE TECHNOLOGY

Knowing what **tools** you have at your disposal is primordial. It's not only about what, say, wood you could cut down to use, or if there's an adobe pit you could build from. I'm talking also about what the **local builders** know to do and what they don't. Or if there is a pre-fabricated buildings factory around. If the local craft is geared towards wooden log-cabins, you might consider that as a locally available tool. If there is no internet except for satellite, you might need to note that too.

Also, if in the last years, some new technology has emerged that solves a problem we couldn't solve before, that new technology should be taken into account (with a grain of salt).

MAINS

A lot of information you'll have to gather from the **local authorities**. Neighbors don't know where water pipes are. Electricity is a must, or at least the possibility of it. You can go full **off-grid** these days, and the tech is improving fast. So if new solar systems and cool batteries is your thing, you can build wherever your heart desires.

SEWER

Your local authorities inform you about the mains access for your site, the most important of which is the mighty sewer. You can always get more electric cable, but sewers are to be well thought through. If, for any reason, your site is **not connected** to the public sewers, you have the **rare chance** of taking responsibility for your own "output", by wisely choosing between a septic tank, a composting toilet and a full-on outside loo.

All of these options are to be considered carefully. The placement of every specific feature is probably going to impact the positioning of your house. **Don't place poopoo above the house**. If, on the other hand, you are not granted this fantastic opportunity, all that you have left is the question of being "gravitationally" well-positioned with respect to the communal collecting pipes. Remember, all liquids go down!

SOIL

You cannot build on bad soil. A **geotechnical soil report** is the one that informs you about the building possibilities of a soil and no-one else. You can't tell without digging if you have a sand sink in the middle of your site. You would probably be well advised to avoid placing your house there.

Soil type can impact the **cost** of construction. Once you start digging, you can encounter expensive surprises. So talk to **experts** in the area to know as much as you can about the soil type where you want to build. Some soil types hold water differently than others. Determine if the site is prone to **flooding**. Water damage is a silent killer.

THE SUN. AGAIN

We have already talked about the Sun. It was the first item on the very first chapter. Having a house that lacks Sun exposure in the winter or the afternoons can be heart-sinking. I lived in one for two winters, so I speak from experience. All the **bio-climatic** approach thing is linked to the Sun in all of its states. The very positioning of the house can drastically impact the rest of the house design. It makes it easier or harder to harness the Sun's energy.

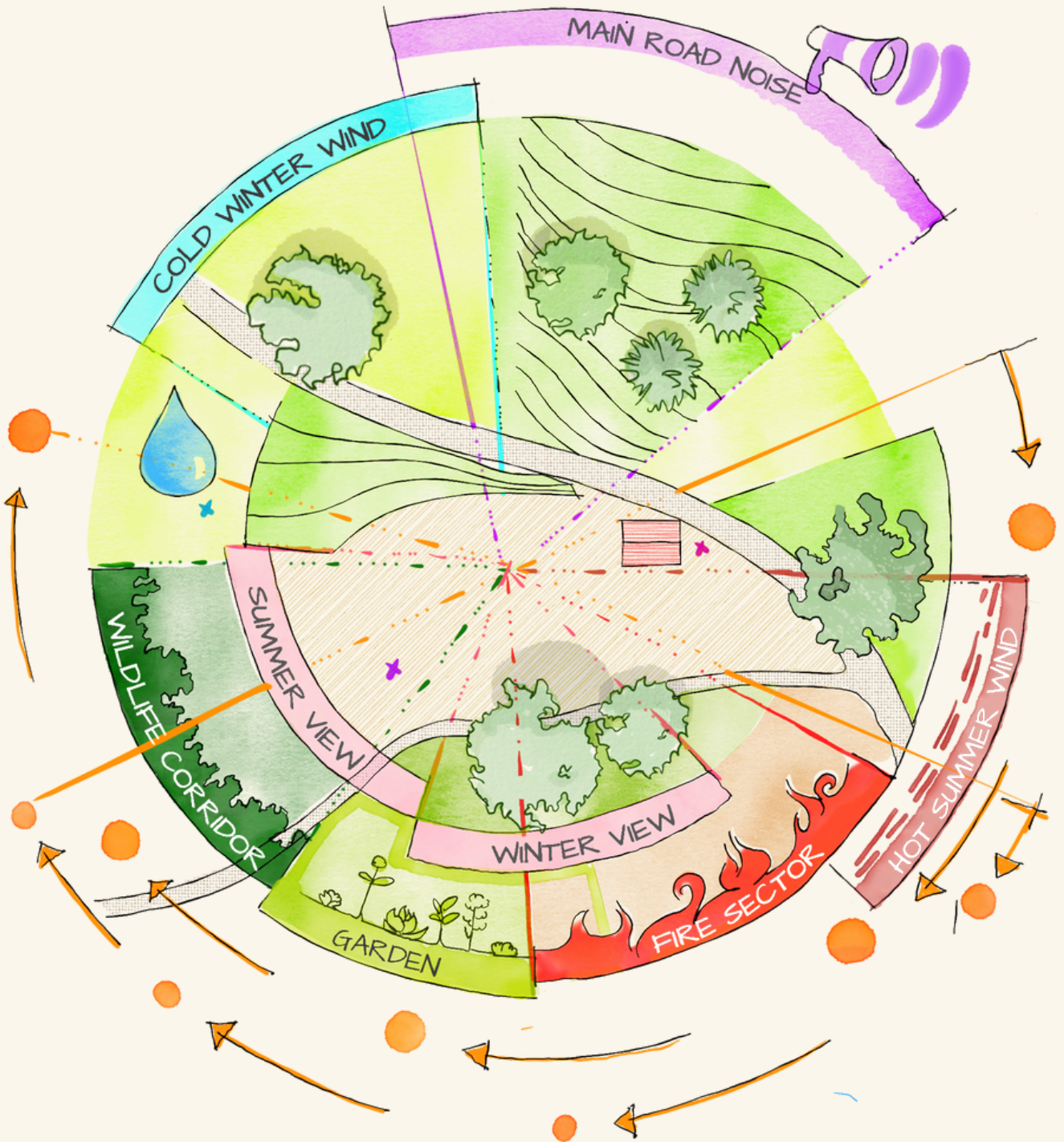
Choosing a **south-facing** plot of land (in a temperate climate) is the least anyone can strive towards in implementing a Sun-smart approach. Not all plots being perfectly oriented however, clever strategies need to be implemented to bypass what a site could be lacking in exposure.

Another point to make here would be that **local traditional strategies** that worked fine up until fairly recently might start to backfire in the future, due to climate change. Temperate climate strategies like turning towards the sun might mean a lot of expenses in space cooling in the hotter and hotter summers to come. That is, if they are not well considered beforehand.

On this cheery, "doomsday is here, we're all gonna fry" note, let me invite you to read the next chapter.



TA DAA!





DEFINING YOUR HOME NEEDS

First, strip out the unessential
The single most sustainable thing
The questions
The answers. And more questions
Method, Shmethod
Another way
Yet another way

Now we do programming.

Programming is what an architect needs to know about you before he starts designing.

FIRST, STRIP OUT THE UNESSENTIAL

We live in a culture of **growth**. There is never enough and no one is ever satisfied. Whenever we reach a new step in our lives we immediately look for the next one. We yearn for the more and more and more and don't know when to stop.

New home-builders have a tendency to fall for this and our poor planet is suffering the consequences. We build too big, too wasteful, too permanent.

Self-inquiry can be a tool in the first stages of imagining a future house. Getting over perceived needs and superficial wants, we might just realize we can very well live with less. We could actually be all the happier for it.

THE SINGLE MOST SUSTAINABLE AND AFFORDABLE THING YOU CAN DO THAT NO ONE IS TELLING YOU ABOUT.

The best thing you can do for the planet is something no architect, contractor or realtor will tell you, because it doesn't bring buck. To them. **A smaller home** is cheaper to build, easier to maintain, cheaper to heat, cozier to live in and a lot better for the planet. we all know that.

The second best thing you can do is **think for the future**. A house that gets demolished in twenty years time because it can't adapt to the new context is bad for the planet. And context is changing lightning-fast these days. And concrete doesn't recycle well.

Imagine having a tiny house for yourselves as a young couple, then not having to move when the children come, then not having to move when they leave for school, then not having to leave as you grow old. It needs **foresight** but it can be done.

Multi-functional design and progressively evolving space planning (adaptive reuse if you want) can help you strip away the fluff and reveal the essential. That doesn't mean compromise of comfort and happiness.

This is an exercise in stripping the superficial and **protecting the essential**. Much like the fluff in our minds, the fluff in our homes is keeping us from growing.

THE QUESTIONS

First, **list out everything** you want to have in your new house, including likely lifestyle changes over time. For example, note the fact that you would like a big kitchen with a pantry for stocking up all the preserves you plan to make each autumn, and a summer kitchen to make salads in the summer with tomatoes you grew in the garden. And don't forget the greenhouse. Even though it's technically outside the home, it's position is important to the whole thing. (that is, if you want a greenhouse - no shame if you don't :)...)

The **questions** would sound like: "Where is the garden relative to my summer kitchen and my main kitchen?" "When I come from the veggie patch, arms full of delicious bounty, what would my ideal next step be?" "What time of day would that be? Where would the shade be?" The **answer** could be more words or a line on the diagram or a blob or a new question. No rules.

THE ANSWERS. AND MORE QUESTIONS

By asking all of these questions you slowly define a **general direction** for that particular space.

The summer kitchen would be on the way from the garden, covered, shaded, with a long table and a sink to wash the dirt off directly on the ground, with an outside cooker to avoid heating up the house in the summer when making big dishes for the whole family. It would be close to the pantry and the kitchen to share some of the utensils. There would be enough ventilation to be able to dry onions and garlic after harvest. The big inside kitchen would be big enough to have a small table of four for breakfast (or two, or one, or just two bar stools) and a large stovetop and fridge. (for those of you who want to go the whole permaculture way, maybe a cool cupboard or even a root cellar outside the house).

METHOD, SHMETHOD

There are decisions about efficiency and general home design rules to make. So the kitchen furniture would have a specific **ergonomic standard** dimension. The pantry would best be placed on the north to keep cool and not take away useful sunshine. The door to the dining area would have to open on the outside to be able to come out with a hot dish and the sink would need a space for the many dirty dishes. All of these are what architects do. It takes years to master.

But take it from the words of Juhani Pallasmaa's University professor:

"The talent of imagining human situations is more important for an architect than the gift of fantasizing spaces".

Imagine life in all of it's details. Then describe it.

ANOTHER WAY

A different method of defining the program of your new house project in a more structured but less poetic way is by drawing out a table of functional spaces. The table would have the following headings:

- Use** (a room can and will have more than one uses, so list every function, not just the rooms)
- Person** (who will use that space-function, it can be a member of the family, a friend, a guest)
- Privacy** (for the amount of privacy needed in that space - marked as a percent)
- Space** (for the approximate required space)
- Features** (for any other specific requirements).

I would also add a priority number, to know what you can go without - if need be.

YET ANOTHER WAY

The book *A Pattern Language* by Christopher Alexander tried to define the common, universal **elements** that make living spaces. It is a fascinating book, as an exercise in imagination and space theory, but also in playfulness. It's making a lot of mistakes, yes. But no other book on architecture has been so bold. It is still today one of the best-selling books on architecture. It aims to empower anyone to design and build at any scale by creating a language of the living space derived from timeless entities they called patterns. I think as a new home-design enthusiast, you owe it to yourself to go through this marvel of a book. It can be a good start for a program as well.

After having **listed out** all of your functions, patterns, spaces, or whatever else you called them, you can start combing through them, imagining the flow of spaces and uses, leaving out what seems superfluous, leaning into the ones that seem to take shape and have meaning. When you are comfortable with the program, you can move to the next step: **Choosing where to build**. Yes, it goes back to the previous step. There's a lot of that in architecture. This back and forth, constant revision, change, scratch and start all over. It's frustrating until you learn to see all the steps are, in fact, one. I digress.





PUTTING IT ALL TOGETHER

The big questions
Design Approaches
Permaculture design principles
Bio-climatic design
Degrowth
Carbon footprint
Self-build approach
Biophilic design

FINALLY

Now is the time to take the information that we have gathered and **put in all together** in hope that some directions will emerge if only we ask the right questions :).

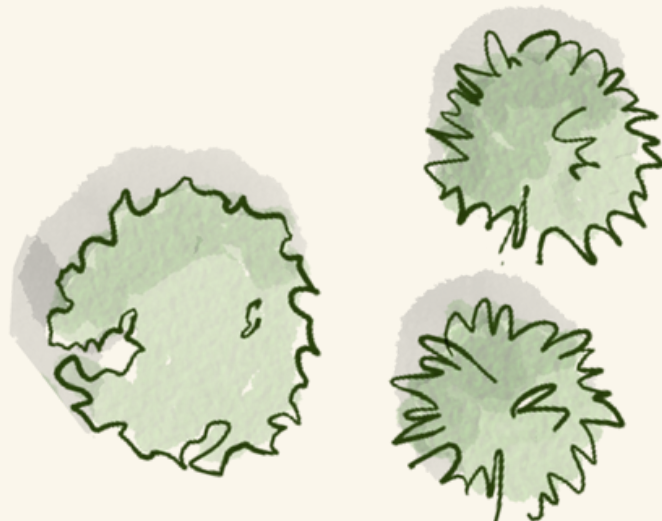
We have **three main sets of information**: what the site gave us through our reading of the land, shown in the **Diagram**, the **Technical** challenges and opportunities and what we wish to achieve, shown in the **Architectural Program**, in the shape of words and ideas.

We have to ask these three sets of information questions from which our design directions will emerge. What can the site offer us with regard to a particular goal? Does the site agree with what we are trying to achieve? Or is it being reluctant? Can we adapt to its dictates, or can we force it to adapt to ours by bulldozing it to death? (not recommended...) Is there a technical solution that jumps out?

THE BIG QUESTIONS

All these big questions have to be asked. Don't worry, they come and go throughout the **design process** and your design will adapt every time a new question arises. The trick is to detach from the anchor of previous decisions. The choices you have made one moment can and should be erased in another, if new elements join the fun. For the beginning, a general understanding of the space's needs and of the site's ability to house them is all you need.

You can now finally start designing your beautiful, healthy, sustainable and affordable home for yourself and your loved ones. I know you will choose wisely. Don't forget that **no decision is set in stone**. There might be changes in your design later on that open up new possibilities. As in life, keep your eyes open and follow the context to guide you. Adapt to changes as they arise.



DESIGN APPROACHES



Designing your new home will not be easy. There is a lot to take in, a ton of decisions to make, all of them seemingly on the same priority level, tangled together like wool strings. I hope that with a strong first step, guided by this short e-book, you are today better prepared for the challenge.

I'm currently working on a course expanding on this one and going further into the layout design and structural phases, with a touch of sustainable technologies. If you have ideas that might make it easier for me to help you and others like you, I would love to hear from you. Simply contact me at jo@permarchitecture.net with any suggestions or criticism about the course.

In the meantime, I have gathered for you some thoughts on the different approaches that you could use as you advance in your design. Some of them you might already know about, some might be new.

The three pillars of mindful home design are economy, ecology and wellness. Here are some more thoughts on that. Every choice I make gets passed through these three filters. Whenever faced with a decision that doesn't have an obvious answer, you can refer to these filters and to the guidelines outlined in these approaches to get on the right track.

PERMACULTURE DESIGN PRINCIPLES

Born in the glorious 70', permaculture is a whole **philosophy of life**. Written like a thesis and expanded in a book, it defines the universal guidelines of a renewed relationship with nature and society. Adopted by the west as a **pathway to sustainable living**, Australia-specific solutions are taken "as is" and recreated in different contexts. This is the natural human love for a quick fix. But permaculture remains a great tool for design, and with its set principles and varied adaptations, we're beginning to find context-specific solutions.

So starting from there, Permarchitecture focuses mainly on what we call **zone 0** of a permaculture design project, that is, **the house and its immediate surroundings**. The design choices are made with the 12 permaculture design principles in mind. I wrote a whole thesis about the way permarchitecture integrates those principles. It's kinda boring.

BIO-CLIMATIC DESIGN

Heat accumulation in the winter, natural cooling and ventilation in the summer, looking for the sun and avoiding the cold winds, all those little aspects that make a **house comfortable year-round** are extremely site-specific. You are the one who knows the place best and a deep analysis of the site will inevitably lead to the basic layout of the building, naturally rising from the land (I hope, with my guidance).

DEGROWTH

There are **two levels** of degrowth. One is the **societal level**. The other one is the **individual level**. Societal degrowth, the one that economists write papers about, is a political utopia that needs both grassroots and government action. It is based on convincing capitalist societies to give up capitalism. "[Less is more](#)" by Jason Hickel is a recent book that explains the situation (not good).

On an individual level, degrowth is much more **feasible**. It relies on your **personal understanding** of the fact that there is no point in pursuing more and more material, that happiness lies in simpler things and that you have nothing to prove to anyone. At this level, degrowth is easy to do, helpful to nature, and healthy for you. It's a slight change in perspective, followed by determined acting upon.

It's a good friend of minimalist lifestyle.

LOW-TECH

Low-tech home design is all about creating a more **resilient lifestyle** that can weather any storm. By using simple, natural materials and integrating principles of bioclimatic design, it's possible to create a home that's beautiful, sustainable, and easy to maintain and repair.

REVERSIBLE HABITAT

Reversible architecture, "dismountable construction" and "reversible design," seeks to minimize (or eliminate) the **waste that occurs** when buildings no longer serve a vital purpose. This can be done via composting, dismantling, moving or repurposing structures.

SELF-BUILD SELF-REPAIR APPROACH

It is so **empowering** to design your own house. But the ultimate way to get to really own your future home is to actually build it. While it's not for everybody, this approach to home-building can be very gratifying. Permachitecture molds perfectly in the **design workflow** of the self-builder. It try to gives you you the tools you need to realize your vision and guides you in your searches.

BIOPHILIC DESIGN

Biophilic design focuses on human's **innate love of nature**, drawing from the knowledge that we all have a **genetic connection** to the natural world built up over thousands of years. Designing our living spaces with consideration towards this strong bond improves our well-being, enhances clarity and reduces stress.

CARBON FOOTPRINT

It's the buzzword of the century, one of the most used and less understood concepts in recent years. On a political as well as on an individual one, everybody strives to bring their footprint down, nobody really knows how. [Project Drawdown](#) has gathered all the info we need to efficiently **draw our carbon footprints down** in our respective fields. If I managed, through my coaching and my work and my writing, to offset some of that carbon, I would be pretty proud of myself.

The three main directions for managing buildings' carbon footprint in Project Drawdown are: **Enhancing Efficiency, Shifting the Energy Sources, and Addressing Refrigerants**. Some of the tools mentioned on the website are Net-zero buildings, green roofs, alternative refrigerants, Heat recovery systems, etc. You can go into as much detail as you want. The big picture is that the hay-days of consumption are over.

I will stop here, because I could go on forever. And I do, [here](#). So if you want more of this, head to the free newsletter and hit subscribe. Other ideas worth munching on are mindfulness by design (designing for self-betterment), wabi-sabi (loving the imperfect), evolutionary biology and neuroscience (we're still cave-people after all), phenomenology of space (the way a place feels), affordable sustainability (it can be done if we give up the search for the bling). And of course, natural and compostable building materials and healthy indoor spaces.

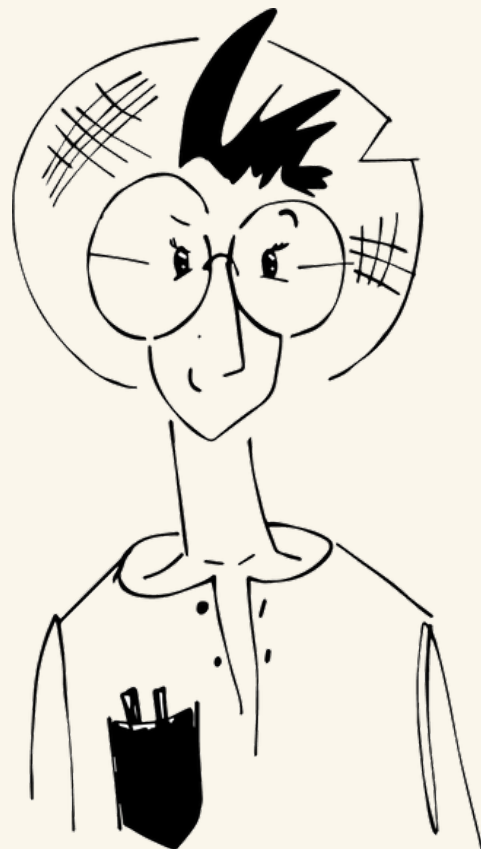
This course is a **starting point** for a full course on the matter, that I am working on. But I need your help. Telling me with honesty what you thought of this will help me figure out the direction and overall format for this new course. So please, take this short (1 min tops!) survey [here](#):

HELP ME WITH THIS SURVEY ABOUT THE COURSE

Check out the [Epistolary](#) for more of this. The course will be hosted there as well. I send a letter every Friday to one of my imaginary friends, Galosh, Laretta and Trivian.

And when you feel you're ready to talk about the design you have in mind, check the availability and [schedule](#) a one-on-one session. I'd love to hear from you.

Now get started dreaming up your home.





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