pattern language

Christopher Alexander came up with the pattern language idea in the 1960s.

what is it?

It's a design tool for complex systems, with enough simplicity to allow people to solve small design problems, without losing the connection to the whole. With a complex system (like the global economy), looking at things in little boxes, reductively, won't work. However, there are few practical tools for working holistically. Our brains can't manage a large range of variables at the same time, so we tend to see things, and work, in reductive ways. Most tools focus on one part of a problem, and ignore the rest. Disciplines like Permaculture, where practitioners design for complexity, without cutting things out, have taken decades to develop, and the community is still small. It's not easy.

History: Christopher Alexander, a professor of architecture, came up with the pattern language idea in the 1960s. He'd been taking apart complex design problems, solving the constituent problems, and arranging the simple solutions as a 'tree'. He used computers to do it and his reputation spread; he was driven by a desire to make beautiful things, but the method he'd been using didn't do it. In 1965 he wrote an essay: *A City is Not a Tree.* A tree is a reductive way of mapping something that looks complicated, but actually, there are only a few parts of the map – trunk, branches, twigs and leaves. The branches can't re-connect to anything once they've branched. He realised that this isn't how real life works. Any component of a complex system performs several roles simultaneously – e.g. a door is a way in and out, a boundary, a place to welcome people and say goodbye, check who's calling, make your house look pretty, allow letters to be delivered, stop intruders – and it does all this even though it's really just a piece of wood. This was going against the grain, and against his previous way of working, but he persevered, developed his ideas, and wrote *A Pattern Language* in 1977, which focuses on architecture (still in its first edition, still selling well).

what are the benefits?

Design can happen in various ways: with a reductivist focus, e.g. minimising costs and maximising profits, or maximising the number of vehicles past a certain point in the shortest time possible; with a top-down, centrally-planned approach; or with an artistic approach, relying on creative people to find solutions. Often, these creatives tweak things so that they get better, in an evolutionary way. Another approach is to let things grow organically from the grassroots – the way most towns were originally built. This grassroots approach has been suppressed by modernity and capitalism, even though medieval Italian towns (say) are among the most beautiful, vibrant places to live, in ways that centrally-planned cities can never be. Pattern language can help recreate the grassroots, organic approach that has served us so well in the past, but now including things like good sanitation, internet etc.

It can help us design an economy without reductively focusing on single metrics like GDP growth. An understanding of the effects of perpetual GDP growth on the biosphere can help us understand that we have to move away from a perpetually-growing economy. Rational design of system components, and understanding the effects on the system of those designs, is crucial at this point in our history, where more irrational design can destroy nature and really harm us. Pattern language can be used to look at everything from 'what is a coin, a token, a voucher, a promise?' etc. to emergent patterns such as 'what is a regenerative economy that doesn't destroy nature or concentrate wealth in very few hands?'.

A Pattern Language, doesn't have to be read from front to back. It can be dipped into, and different sections link to others, like a wiki. In fact, wikis probably wouldn't exist if not for Alexander. Ward Cunningham, inventor of the wiki concept, cited him as a major influence.

Alexander warned against using standard doors, and believed that when the main entrance is located in the right place, other decisions begin to come naturally.

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what can I do?

Pattern language is designed for complex human systems. The economy is a good example, as is architecture; but it can also be used in education, software, governance, meetings - wherever humans want to change things in a complex environment. It's a way to design components of your work in a holistic way. For us, pattern language is a tool for system change – as in replacement, not reform. No component patterns of the new system are dominant or subservient – they're all necessary in their own right.

If you read Alexander's book (and/or the companion volume, *the Timeless Way of Building*, which provides a more emotional, philosophical way into the subject) you'll gain an understanding of systems thinking, and how different elements of a system relate to each other – how patterns contribute to patterns of wider scope, and are made up of patterns of smaller scope. It can help you engage with complex systems confidently; you'll be able to design better doors, buildings, gardens, smallholdings, software, products, energy systems, lessons, meetings, facilitation, governance, businesses, DAOs – anything.

A pattern isn't easy to write, as Alexander admits in the intro to his book. It has to describe the wider patterns that it fits into, but also the smaller patterns that comprise it. Each pattern is knitted into the whole, encouraging you to look both up and down, and trace all the connections. The trick is to look for a set of related patterns that will contribute to the scope of the work at hand. It's not at all about top-down planning. For example, most planned cities are desperate failures (as outlined in *Seeing Like a State*, and in the work of Jane Jacobs). A mosaic / diversity pattern will contain smaller patterns that contribute to it. You may not work at the level of the city – you may work on a particular building, or even a component of a building – but by using a pattern language you'll see how the different patterns are connected and nested. Smaller patterns can be used to build components, then larger patterns will emerge. Good doors are part of good buildings, that are part of good neighbourhoods and cities, which comprise good societies. Nothing is unimportant in a complex system. A pattern isn't a detailed plan – e.g. a pattern describes the characteristics of a good doorway, not the dimensions.

Pattern language has fallen out of favour in architecture, where our flawed economy has encouraged the 'wow factor' for fame / profit, rather than buildings and neighbourhoods that are good for people. But it's used a lot in tech and governance. Group Works (a community of over 200 people) use pattern language to 'bring life to meetings and other gatherings'. The Wise Democracy Project is using pattern language to design better governance. Rob Hopkins, founder of the Transition movement, is inspired by Chris Alexander, and has talked about reframing Transition as a pattern language. You'll find plenty of people in these areas that are happy to talk about patterns they've used in their work.

In the introduction to *A Pattern Language*, Alexander describes the poetry of the language, and warns that it's hard to write poetry from day one. It's a journey - difficult, but rewarding.

resources

- see lowimpact.org/pattern-language for info, courses, links, books, inc.
- Christopher Alexander, *A Pattern Language,* and *The Timeless Way of Building*
- Douglas Schuler, *Liberating Voices*
- patternlanguage.com – to accompany the book
- groupworksdeck.org – using pattern language to bring meetings / gatherings to life
- iwritewordsgood.com/apl/set.htm – Alexander's book, online

Italian hill towns grew organically, without a master plan, and they are today considered among the most beautiful, vibrant, healthy and just livable of places.