

Making Permaculture Stronger

by collaboratively identifying and addressing its weaknesses.

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The Exceptional Case of Dave Jacke & Edible Forest Gardens

Posted on [June 6, 2016](#) by [Dan Palmer](#) / [7 Comments](#)

Note: This post is a follow-on from [Christopher Alexander's Neglected Challenge to Permaculture](#)

Chapters Three and Four of [Dave Jacke](#) and [Eric Toensmeier](#)'s *Edible Forest Gardens Volume Two* (2005) contain what is likely the permaculture literature's most systematic and comprehensive presentation of sound design process.

Interestingly, the design process described therein (which Jacke prefers to call *ecological* rather than *permaculture* design process) almost completely avoids [permaculture's dominant view of design as a process of element assembly](#).

Not only is the presentation light on talk of element-assembly, it is remarkably consistent with Christopher Alexander's differentiation-based approach to design.

While this is rare in the permaculture design literature, it shouldn't come as a complete surprise. For one, earlier in the volume Jacke¹ develops the beginnings of an impressive "pattern-language-in-process" for edible forest garden design. This effort is inspired directly by his reading of Alexander's books *The Timeless Way of Building* (1979) and *A Pattern Language* (1977). For another, he writes:

“ [Christopher] Alexander expresses a deep philosophical viewpoint and a specific method of design we find compelling. Our task is not to explain that viewpoint or those methods here” (*Edible Forest Gardens, Volume Two*, p. 63)

Finally, he recently shared (in private conversation) that Alexander's *Notes on the Synthesis of Form* (1964) was a pivotal influence on the development of his thinking around what he calls the *goals articulation* phase of sound design process.²

So it is not surprising, therefore, that you will struggle to find Jacke discussing design in the sense of element assembly. Consider some typical wordings:

“ The first stage of the design phase is the formation of the design concept. The design concept is the ‘big idea’ or organizing notion of the whole design for our site. Our goals statement tells us our mission, and our base map and site analysis and assessment tell us the context within which we will achieve that mission. The design concept defines our vision for achieving that mission in that specific context in its most essential or fundamental aspect. Ideally, all the design details flow from this vision and harmonise with it, support it, and manifest it” (p. 233)

“Schematic design expands the seed of the design concept to see how it manifests in somewhat greater detail...” (p. 233)

Once we have a solid scheme that resolves all the basic design issues, we work at a more detailed level. The detailed-design phase is where we take our chosen scheme and make it more exact, specifying the physical details in harmony with the big picture” (p. 233,)

“Resolve the basic patterns and large-scale issues first” (p. 249)

“...plant placement is one of the last kinds of design choices we make, because it is one of the most detailed decisions” (p. 249)

“Get the big picture right, then work into the more detailed issues” (p. 249)

“...don't get caught up in detailed design until you've settled on the best scheme at a larger scale” (p. 250)

These statements contrast with the quotations [previously shared](#) from Bill Mollison's *The Permaculture Designer's Manual* (1988), Jessi Bloom and Dave Boehnlein's *Practical Permaculture* (2015) and Toby Hemenway's *The Permaculture City* (2015). There any talk about design process is dominated by a diversity of ways of saying that design is a process of starting with elements then assembling them into wholes.

Jacke is clearly coming from a different place with respect to what what sound design actually is. A place resonating effortlessly with statements from Alexander such as:

“ The form will grow gradually as you go through the sequence, beginning as something very loose and amorphous, gradually becoming more and more complicated, more refined and more differentiated. (A Pattern Language, 1977, p. 463)

In effect, as you build each pattern into the design, you will experience a single gestalt that is gradually becoming more and more coherent (A Pattern Language, 1977, p. 464)

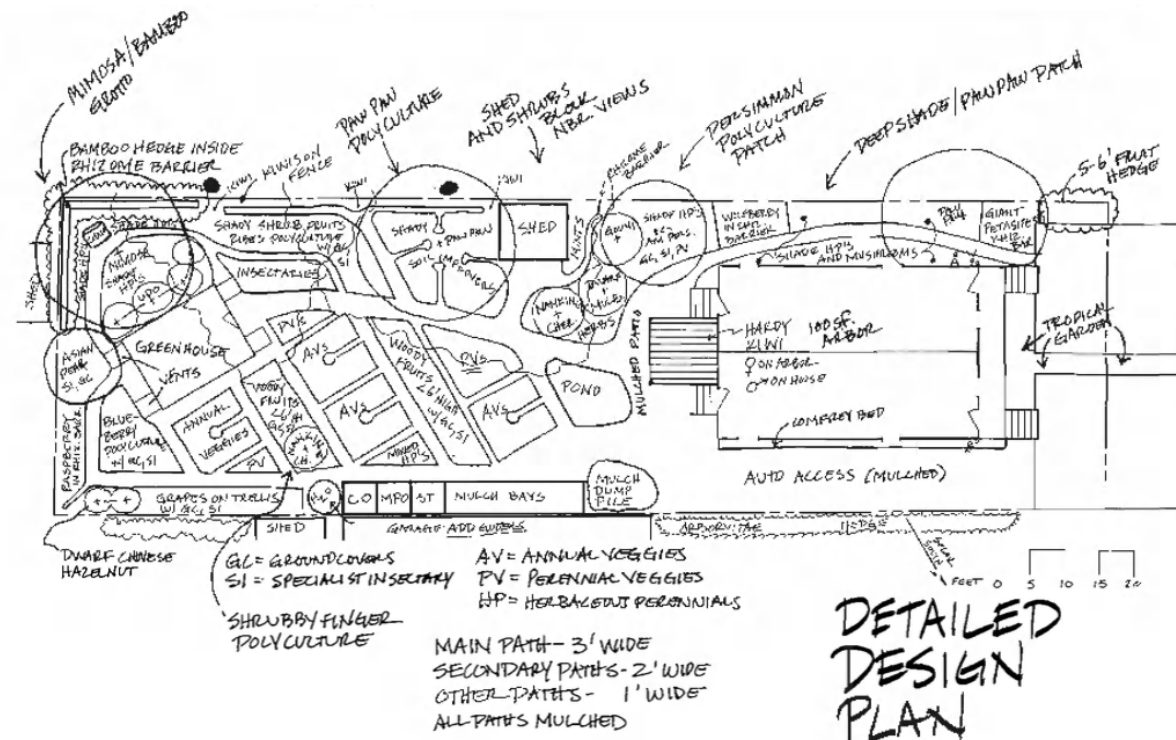
Or, using the words pattern and details:

“ At every level, certain broad patterns get laid down: and the details are squeezed into position to conform to the structure of these broader patterns. Of course, under these circumstances, the details are always slightly different, since they get distorted as they are squeezed into the larger structure already laid down. In a design of this type, one naturally senses that the global patterns are more important than the details, because they dominate the design. Each pattern is given the importance and control over the whole which it deserves in the hierarchy of patterns (A Timeless Way of Building, 1979, p. 384)

Interestingly, Jacke doesn't talk explicitly about design as a process of sequential differentiation as does Alexander. Nonetheless, his approach is fully consistent with this viewpoint. Jacke is consciously moving from wholes-to-parts, from patterns to details.

You can see this visually in the following three progressively more detailed design examples from Edible Forest Gardens (all sketched by Dave Jacke and appearing on pages 261, 263, & 270, respectively):





These diagrams exemplify design when practiced as a process of successively more detailed

differentiation. Of starting with wholes and working toward parts. There is no feeling of bringing in and connecting together elements. There is a feeling of the progressive unfolding or discovery of the design.

Conclusion

Dave Jacke has contributed the most comprehensive, conscious and clear treatment of sound design process yet seen in the permaculture literature. His ecological design process moves primarily from patterns towards details via the sequential differentiation of wholes into parts. This resonates with and indeed was to some degree inspired by the writings of Christopher Alexander (among other influences – see the postscript below).

In [a recent conversation](#), David Holmgren emphasised the importance of creating design processes that respect and mimic the way in which nature works from patterns to details. To date ([as previously discussed](#)) most writing about permaculture design has been hindered by the culturally dominant, problematic, and self-contradictory belief that conscious design starts with details (or parts) and works toward patterns (or wholes).

A notable exception, Dave Jacke's work deserves respect and attention as an example of a genuinely *ecological* design process, and almost certainly the deepest application of Christopher Alexander's ideas within the permaculture literature to date.

Postscript

Thanks to Dave for his permission to share some of his own (privately emailed) words arising firstly from his response to the post this post follows on from...

“

I have to say, though, that upon reading the [latest post](#) I wonder how much I actually do inhabit the paradigm of Alexander. I have bought into the typical PC design paradigm significantly, too. I don't think I am immune to that perspective. I actually think I combine both. Not sure what I think about that—is that an advantage or not?

When I design polycultures I most often use the “guild build” process where I am literally assembling plants that may never have grown together before and trying to create functional wholes. ... However, the architectural design process of identifying a habitat bubble and differentiating it into patches and then articulating that into patch designs is very clearly aligned with Alexander's approach. And goals articulation is itself a process of acknowledging and attempting to articulate and differentiate the structure of the clients as a whole, in a way, as is site A&A. I think of the design phase as relating those two streams (client and site) to see what patterns emerge from the relationship, which feels aligned with

Alexander's approach also. So it's all an interesting reflection process to hear how you see it and how I fit into it.

and secondly from his response to a draft of today's post (where I asked if he was happy with my presentation of his approach before publishing):

“ You are convincing me that I am more embedded in Alexander's perspective than I thought I was! 😊 Interesting to have me quoted back at myself and have that effect my self-understanding! But I would say that Alexander influenced this reality within myself, as did Walt Cudnohufsky and Don Walker at the Conway School of Landscape Design, AND, perhaps most importantly, my own inner body mind drive/yearning for a sense of wholeness in myself and the world, which is what led me to engage with permaculture in the first place. And also has led me to step away from permaculture per se, by that name, a number of times in my career, because I have gotten fed up with the old paradigm that still runs through much of the movement and culture and practice and literature of permaculture. In any case, writing EFG was part of my long struggle to integrate what I valued from Alexander's work, with the approach of Ian McHarg (which was my initial introduction to conscious ecological design via Design With Nature), with what I learned at CSLD, and with what felt native to my own inner design process. In fact, since EFG has been published and I have been teaching all over the place the last 11 years, I have even more fully integrated all of this and can now see many implications of conscious ecological design process for the growth and development of human beings generally and myself in particular, and how the deep fundamentals of conscious ecological design processes connect directly to solving what I see as the fundamental problems underlying the current cultural crises we face as a species. More on that sometime. It goes far and deep and wide, though, I'll tell you what, and I know I have only begun to plumb the depths and reaches of this interrelationship... I think that starting [the] quest for improving permaculture in the realm of design process is a brilliant place to start, because so much flows from that. So much.

and subsequently...

“ I just should add that a key influence was also Marty Naumann, my undergraduate professor of ecology at Simons Rock Early College. He was a follower of Odum—we used Odom's textbook in my ecology classes. Marty taught systems ecology he did not teach reductionist ecology. He too had an intuitive grasp of holism. He and I resonated very well together. I didn't learn ecological design from him but I learned ecology from him and it rose up in me as I was reading [your posts back-and-forth with Mr. Holmgren](#) that I need to include him as one of my significant influences in developing my design process.

References

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Endnotes

1. Dave Jacke wrote the chapters we'll be referring to ↩
2. In his words – “To elucidate more: 1) it helped me understand that form/pattern lies inherent in the design goals, and I need to look for that, and 2) ultimately, after my own design practice and evolutionary processes, it gave me a clearer understanding of how to articulate goals. Somehow. Mysteriously” ↩



Dan Palmer

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7 Comments



Chris Vernon

June 16, 2016 at 12:45 am

I'm with you that differentiation leads to strong design. Two questions stem from that – which hopefully will be considered in due course:

a) Where do breakthroughs come from / How are new responses to patterns conceived?

This could be where design by assembly can be an effective way to come up with new responses to patterns – see to Dave's comment about “guild build”.

b) How do we, as designers, observe and respond to changes to patterns at a given site or climate?

Without maintenance, it could be that people start designing such that Pattern A always leads to Design Element A, which is no better than details to patterns!



Robyn Francis

June 13, 2016 at 6:19 pm

Wow, interesting, I never realised that permaculturists thought of design as simply an assembly of elements, so I'm in shock. Much of what you've put forward here resonates with what I've always taught and practiced as design process, “From Patterns to Details”. First get the big picture patterns in context – starting from bioregion and neighbourhood (geo-physical & social patterns, I've developed my own ESM tool for this), and clarify the strategic plan (vision, aims, objective, values). Then the patterning more immediate external influences (sector analysis) and mapping the patterns within the site itself (site analysis). Here I find Ian McHarg's exclusion overlay process particularly useful as a tool for mapping the ‘higher order’ ecological needs of the site (I call this “listening to the land”) plus other restraints (buffer zones, legislative, planning), which then provides a context to move into conceptual bubble planning, functional analysis, flow patterns & analysis, which lead into spacial patterns and relationship between systems (zonation), then last, but not least the placement and patterning of the individual elements as the design details. Assembling or patterning the relationship of the elements always come last and within the context of the big-picture patterns.



Dan Palmer ★

June 15, 2016 at 11:22 am

Thanks for dropping by Robyn and sorry for the shock ;-). That's a lovely concise description of your authentically holistic patterns-to-details design process and I have long respected your leadership in terms of injecting a degree of substance into permaculture design process that can otherwise be lacking. Won't you please write a book about this? At the least at some point I'd love to talk with you about developing a more detailed outline of your approach, along with a case study of at least one of your projects (I'd love part of this project to become profiling the design processes of permaculture's most experienced designers for others to compare, share, and learn from). Or at the least interview you for a podcast about how your design process has evolved over time and where is at now. Anyways all in good time and cheers and thanks for everything you've done and are doing in this space.

**Jeffrey Gray**

June 10, 2016 at 11:47 am

Because of these posts I came to revisit C. Alexander and that led me to The Battle for the Life and Beauty of the Earth which I've been enjoying. Now I know almost nothing regarding permaculture, farming, and homesteading, but one thing that seemed obvious to me, which relates to this post (and others), is how immersive this process needs to be in order to be done properly. Lots of talking, lots of listening, lots of exploring, lots of investigation by and between designer-clients-land-plants-habitats-animals-etc.

In this context, I see a designer as someone whose job is to not only see through some kind of development with regard to some parcel of land but some kind of development regarding the people living on this land. To literally bring them to the point that they will takeover the the design process. That they become the designers. I think it might even be argued that this is their key purpose.

The other part that seemed obvious to me is that everything C. Alexander proposes is adamantly opposed to how we do things currently.

**Dan Palmer** ★

June 12, 2016 at 10:19 am

Well put Jeffrey and I couldn't agree more with all you say here.

**Nick Ritar**

June 8, 2016 at 6:24 pm

Nice one Dan,

I strongly agree that "Dave Jacke has contributed the most comprehensive, conscious and clear treatment of sound design process yet seen in the permaculture literature. "

When he presented his design process to us in 2103 (when we were hosting him for a series of courses in Australia) it fundamentally changed how we taught design. For the last three years (8 PDCs) Dave's design process has formed the core of the Milkwood course.

I'd like to see more permaculture teachers embrace it.



Dan Palmer ★

June 10, 2016 at 9:22 am

Thanks Nick and ditto!

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