Things to consider

when looking for what respond to in a context, and for writing design pattern descriptions? Sources vary. A preliminary listing.

I. Forces list - from Sep 2015 JLH report on the pattern of "home" work w/ Helmut Lietner

We had each use our own methods to write a general "pattern of home" to compare

– see: http://synapse9.com/_PLref/PLAST-II/Skype18Oct15-Helmut&Jessie.pdf

A. Interacting relationships, natural & conceptual

- recognized roles and regions of unknowns
- periods of stability and change
- nested, interior and external organization
- emergent & emerging properties and transformations
- limits and influences openings

B. For all the domains you find

1. economic values and dependencies

- services provided and their quality
- diversity of roles and uses
- roles in society

2. material relationships

- inputs, losses and outputs
- spatial and structural design
  - quality, resilience and versatility
  - assembly and maintenance

3. human relationships

- social & personal

- family, neighborhoods & cultural
- organizational & economic

  a) *learning and communicating*

- transparencies and blind spots
- grounding of language in common reality
- personal, institutional, corporate
- social, political, cross cultural

  b) *conceptual values and relationships*

- beauty and resilience
- grounding and reproducibility

  c) *environmental relationships"* -

- neighborhoods and ecologies
- shifts, tipping points, thresholds and transformations

In practice: the forces that you study would be described in the pattern, the others to be considered as open issues

II. Tools for Seeing Nature Work

The chapter list from the 1999 Seeing Nature (Paul Krafel) from Green Books. It's something of personal labor of love, so maybe good for novices to observing the working systems that surround us, lacking the barriers of professional lingo and the slant of theory, and might trigger more immediate experiences perhaps. I've paraphrased the author's sense of each chapter.

A very nice collection, all in all, though missing some to follow up (or needing a few more chapters for the author to cover later), as the various steps beyond richly observing what is, to observing what is becoming and going.   There are the tipping points in the most quiet and undisturbed of places, *where beginning begins*. There are those at the peaks of rapid energy release where the systems the bursts of production either *lose their grip and fly apart* or *vent the excess and turn toward securing their designs*, to emerge as stable new forms, marking the time of birth for every new form.

A. The fit

1.   I searched for a rock to throw into the canyon, and was amazed at how thoroughly the nearby desert had been picked clean, so there were no rocks to throw.

B. Seeing animals as individuals

1.   I opened my eyes to a red fox sitting twenty yards away, attentively observing me

C. Seeing through the eyes of animals

1.   I have two eyes, but there are thousands of other eyes in most places seeing the world from different perspectives.

D. Edges Dissolve into Gradients

1.   There's an edge between the deep blue of the sky above changes to the whitish blue near the horizon, but if I focus on that edge it disappears.

E. The gradients of converging water

1.   I planned to walk from a trail along one river to a trail along another, and found there were impassible mountains between, suddenly realizing they were connected

F. The edges of balance

1.   As I watched the water skipper drift toward the little waterfall it seemed sure to be swept over, but it skipped back up to the quiet water and started to drift back down again.

G. The tracks of change

1.   Small piles of half eaten dandelion buds were found on logs in the forest, where chipmunks went to eat the ripe seed laden half

H. Seeing further into the 4th dimension

1.   Not until evening when all the carpet of buttercups were staring me in the face did I realize what was happening as the arctic tundra came to life

I. Spirals of change

1.   Searching for evidence of the intermediate stages, discovering the litter on the ground was layered with them.

J. Walking

1.   Each tiny lesson changes thoughts and leads to new experiences and new lessons

K. The world expands

1.   No wind blew on that mid-September day. Birds had migrated, ground squirrels were hibernating, on fox passed by on its way to lower elevations

L. Sitting

1.   It's only when I stopped that I notice the whole world is in motion around me

M. The two levels

1.   The swirling motion of the little stream seemed to revert to slow motion, as my gaze turned to watching a stick floating in the water

N. The rule of flow

1.   Observing the depth of flows makes them seem to be results of the bottlenecks in the flows

O. Invisible flows

1.   Changing scale in one thing, changes all the relationships between other things in its environment, to where there would be too many things to respond to.

P. Time lags

1. A child in a tub, pouring water in a cup, is mystified that it still overflows when trying to stop it as the level reaches the top, not expecting the delay.

Q. Cycles

1. Reciprocity, reciprocal motion, moving both ways

R. The flow of Energy

1. The rippling of the harvest energy changing form as it passes along the food chain

S. Cases of Shifting Balance

1. 14 explorations of connection & discovery

T. Going Deeper

1. Watching a self-conscious consciousness.

III. "Guiding Patterns of Naturally Occurring Design"

These are taken from the tables of contents of these two major papers introducing the practice of recognizing natural forces and designs as a pattern language science, the titles linked to the papers

Blog Post: http://synapse9.com/signals/2015/06/23/pattern-language-for-object-oriented-science-at-purplsoc/

A. "Elements" Contents
http://www.synapse9.com/_PLref/@2015_PURPLSOC-JLHfinalpub.pdf

1. The dual paradigm
2. The Natural Process of Design
3. Elemental forms of "Homes"
4. Steps of Natural Pattern Study
    a) Perception
    b) Architecture
    c) Practice
    d) Exploration
5. Mining Patterns Of Transformations
    a) The Emerging Phrase "Pattern Language"
    b) Big Data

    c) Locating Centers by Their Boundaries
    d) Following the energy
6. 3.3. Pattern Writing Templates
7. 3.4. Great Repositories for Natural Patterns
    a) Cultures as Stores of Natural Patterns
    b) Natural Language as a Pattern Repository
    c) Individuality as a Repository of Unique Designs
    d) Alexander's 15 Principles
8. Natural Patterns of Learning
9. An "Object Oriented Science"

B. "Mining Living Quality" Contents
http://www.synapse9.com/_PLref/@2015_PLoP-JLHfinalpub.pdf

1. Mining Connections for Living Quality
2. For Pattern Illustrating
    a) Center words and Working words
    b) Discussion
3. Mining New Software Patterns "by Learning from the Trenches"
    a) The Approach
    b) Scheduling
    c) Software Archeology.

4. Learning between program and performance
5. Background and Theory
    a) General overview
    b) Building on Alexander, Jacobs, Goodwin
    c) Brief summary of methods
6. Great Pattern Repositories
    a) Human Culture
    b) Pattern search
    c) Stages of Growth
    d) Habitations
    e) Natural Language