

# The Language of the Shepherds

## A Pattern Language for Shepherding

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Many of us have submitted patterns to our colleagues for feedback prior to a writers' workshop or other type of review. In fact, at PLoP conferences, all submissions are subjected to shepherding before they are evaluated for acceptance. Unfortunately, the quality of shepherding varies widely. Some people receive extremely helpful comments, but others receive only cursory remarks, and a "Looks good" endorsement.

Yet shepherding can be a very powerful tool for improving patterns. It can go well beyond hints for grammar and usage, even to the heart of the work being shepherded. In fact, shepherding can turn a paper about a solution into a pattern. But it requires more than a casual reading by the shepherd; it requires attention, and actions such as the ones described in the patterns below.

These patterns have been gleaned from significant experience with shepherding, both as a shepherd and as a "sheep". This experience is augmented with experience in giving and receiving feedback for non-pattern technical works, from teaching, and from observing. The patterns should help you become a better shepherd, both in a formal pattern shepherding setting and in other situations.

### ***Setting the Stage***

Imagine that you have agreed to be a shepherd for an upcoming PLoP. Obviously, you have had some experience with shepherding; at the very least, you have been a "sheep" yourself. You know what it feels like. In addition, you know about patterns. You have an idea of what makes up a good pattern. Ideally, you have been to writers' workshops, perhaps at a PLoP.

You just received mail from the program chair informing you of your shepherding assignment. She notes that you have not quite a month before the final papers are due, so you need to start soon. So you immediately take a look at the paper you have been assigned. As you read it, you recognize your responsibility – your help may make the difference between acceptance and rejection. And you want to do the best job for the author that you can. Now what?

It is likely that you will run across several of the problems described below. Of course, since you are up on the latest pattern literature, you have read these patterns, and are ready to apply them to help the author improve the work.

### ***A Map of the Patterns***

The patterns here can be grouped into two major categories. There are patterns which describe the shepherding process itself; the tactics of shepherding. These patterns are as follows:

1. *Immediate Start*: How to get shepherding off on the right foot.
2. *The Shepherd Knows the Sheep*: How to establish a productive relationship between you and the author.
3. *Author as Owner*: How to keep from writing the pattern for the author.
4. *Interlaced Comments*: How to help the author understand and act on your comments.
5. *Big Picture*: How to grasp the gist of the pattern right off the bat.

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6. *Forces Define Problem*: How to understand the problem at a deeper level.

The shepherding process is essentially a reviewing process, as is the writers' workshop. Therefore, it should come as no surprise that these patterns are closely tied to "A Pattern Language for Writers' Workshops,"<sup>1</sup> Selected patterns will be referenced with thumbnails, and will be noted as Workshop patterns.

Since shepherding is all about improving the pattern itself, the second group of patterns deals with aspects of the pattern itself. These are areas that the shepherd should look closely at, as they tend to be troublesome. Therefore, there is often great potential for improvement in these areas. Interestingly, it isn't easy to separate these two groups of patterns. In fact, the first two patterns in the following list are the same patterns as the last two in the preceding list! In other words, if you apply one of these with the intent of helping yourself shepherd, you are automatically helping improve the pattern itself. Conversely, if you apply one of those two patterns with the goal of helping improve the pattern, you are making life easier for yourself as a shepherd.

1. *Big Picture*: How to make the essence of a pattern immediately clear to the reader.
2. *Forces Define Problem*: How to strengthen the problem.
3. *Matching Problem and Solution*: How to ensure that the pattern really is pattern-ish.
4. *Convincing Solution*: How to make the pattern believable.
5. *Balanced Context*: How to help get the pattern at the right scope.
6. *War Stories*: How to make the pattern flow.
7. *Form Follows Function*: How to put new form around a pattern.
8. *Small Patterns*: How to keep patterns easily understandable.

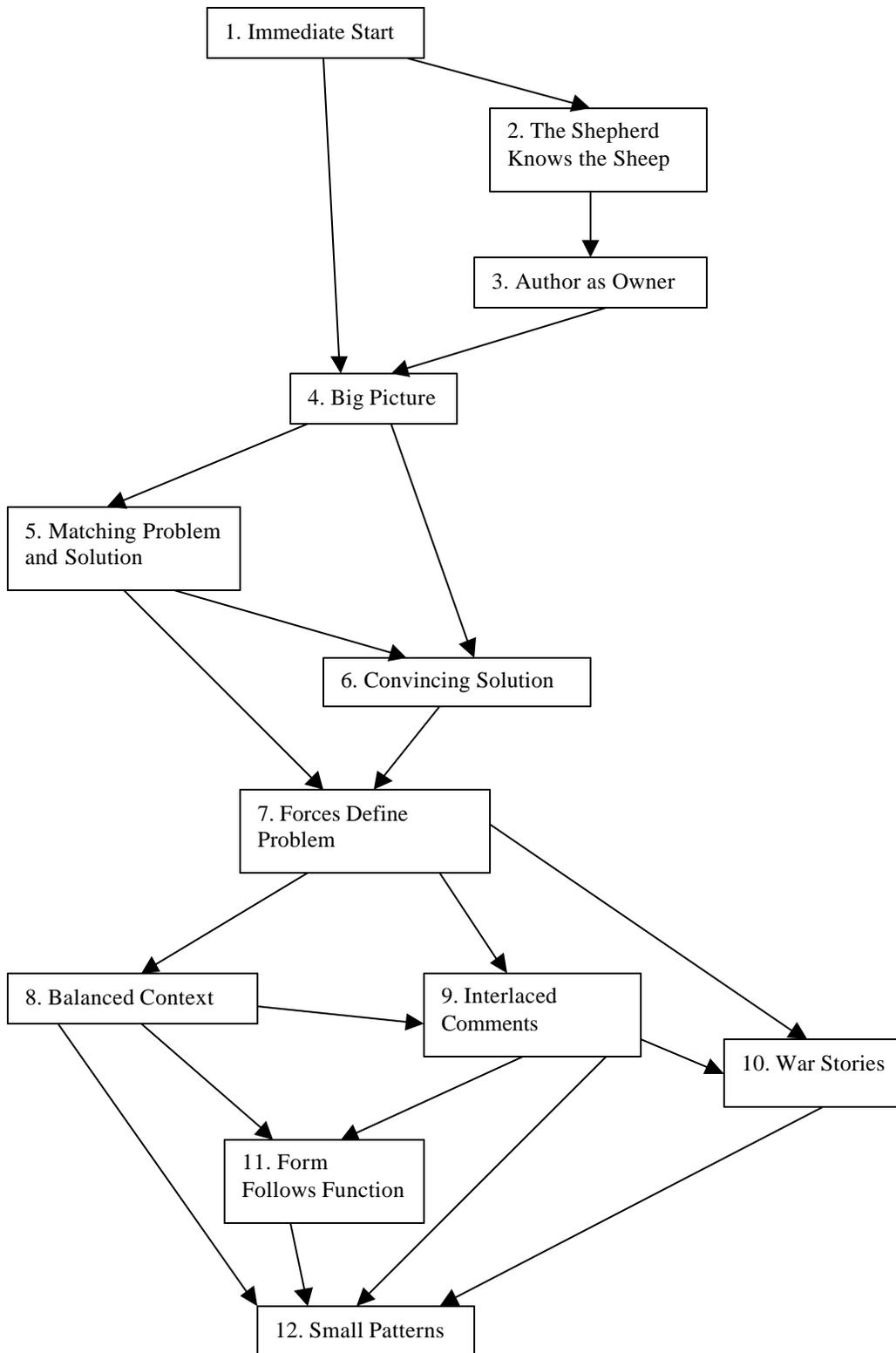
These patterns look more at content. They relate to patterns in "A Pattern Language for Pattern Writing."<sup>2</sup> These will be referred to as Pattern Writing Patterns.

During the course of shepherding, one tends to use more of the tactical patterns initially, but then the two groups tend to get pretty mixed. Here is a picture of all the patterns, showing the rough order in which they might be applied. An arrow from one pattern to another indicates that the first pattern helps set the stage for use of the second.

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<sup>1</sup> Coplien, James: "A Pattern Language for Writers' Workshops," in *Pattern Languages of Program Design-4*, Addison-Wesley, Reading MA, 1999, pages to be determined.

<sup>2</sup> Mezaros, Gerard, and James Doble: "A Pattern Language for Pattern Writing," in *Pattern Languages of Program Design-3*, Addison-Wesley, Reading MA, 1998, pages 529-574.



# The Patterns

## 1. *Immediate Start*

When you receive a pattern to shepherd, you have an unknown amount of work ahead of you. Pattern languages have different levels of maturity and quality, not to mention size. **The amount and type of work varies widely, and it's pretty hard to predict.**

It can help if you know the author. You may have a better idea of what to expect from the pattern. However, different works from the same author will require different amounts of shepherding, sometimes widely different amounts.

Actually, most patterns need a fair amount of work when they come in for shepherding. One reason for this is that the shepherd may well be the first real “outsider” to examine the work closely. **And it takes someone who is removed from the pattern to really see the strengths and weaknesses of the pattern.**

**However, shepherding is a volunteer activity. Shepherds have real jobs too.** So there is often little extra time for activities such as shepherding.

*Therefore,*

**Start shepherding – and continue -- immediately.** After all, shepherding begins as soon as the shepherd receives the assignment.

**Plan on spending a few minutes at a time over the entire shepherding period.** Budget your time accordingly. Whenever you receive an updated work from the author, respond as quickly as you can, preferably the next day.

Structuring your time with an immediate start and frequent quick responses improves your ability to help the author. The author gets manageable chunks of information, and is able to turn around new versions of the pattern better, because there is enough time to do so.

Some people have difficulty giving small amounts of feedback; they want to send the author all the comments at one time, and be done with it. **But shepherding isn't a one-shot activity. Iterative improvement is key.** If you have this tendency, use “Big Picture” to help organize your shepherding.

What if you naturally procrastinate? **Then commit to the author, as part of, “The Shepherd Knows the Sheep”, to give initial feedback within a couple of days – give a specific date!** This external commitment will motivate you to start early.

A typical consequence is that shepherding takes more effort, but the quality of the shepherding will be much higher. As a shepherd, you must plan for this. Recognize that the time you spend will be well worth it to the author.

## 2. *The Shepherd Knows the Sheep*

One difficulty with shepherding is that there is no assurance that comments you give to the author might be ignored. **Nobody likes to make suggestions and have them ignored. It's really discouraging; in fact, even the possibility that we might be ignored can dampen our shepherding enthusiasm.**

Since most shepherds are also authors, one can follow the Golden Rule – I should respond quickly and positively to my shepherd, and perhaps my author will be responsive to me. But positive example only goes so far; there are no guarantees. **We are dealing with other people, and have no real power over them** This problem is somewhat exacerbated by the fact that most shepherding occurs via email. **The detached and somewhat anonymous nature of email makes it somewhat easy to ignore.** But email is the only practical way to do shepherding.

The author is expecting help through shepherding. But the author will become discouraged if the comments are not helpful. **Some authors may already be disillusioned through previous negative shepherding experiences.**

*Therefore,*

**Initiate a positive relationship with the author right away, and maintain it throughout the shepherding period.** You are, in essence, establishing a *Safe Setting*<sup>3</sup> for the author.

To begin, contact the author as soon as you start shepherding. Tell the author something about yourself. Ideally, you should have been a pattern author yourself (see *Workshop Comprises Authors*<sup>4</sup>.) **Above all, commit to provide some initial comments about the work in two or three days.** Then follow through.

Maintain the personal relationship over time. Make sure the author knows that you are trying to help. **Don't forget to give positive reinforcement as well as suggestions for improvement.** Try to give *Positive Feedback First*<sup>5</sup>, and finish up each group of suggestions with *Positive Closure*<sup>6</sup>.

An important aspect of a relationship is that both parties understand what the other expects. **Establish ground rules** which encompass what you will do and what you expect the author to do. Include, for example, dates of trips or events that could prevent you from responding quickly. Additionally, you could mention your preferences for email etiquette, if that is important to you.

If you do this, both shepherd and author will be edified by the process. You will build relationships that last beyond the shepherding period, as you build a *Community of Trust*<sup>7</sup>. On one occasion, I worked extensively with an author on his paper. At the following PLoP, the author, knowing of my love of folk music, gave me a CD of folk music from his country as a thank you.

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<sup>3</sup> Writers' Workshop Pattern *Safe Setting*: How to make feedback more open and effective by raising the comfort level, particularly for the author.

<sup>4</sup> Writers' Workshop Pattern *Workshop Comprises Authors*: How to deal with feelings of mistrust for outsiders, those who aren't stake holders, who might throw stones at the work.

<sup>5</sup> Writers' Workshop Pattern *Positive Feedback First*. How to give the gathering a supportive tone, and to start with feedback that will put the author in a receptive mood.

<sup>6</sup> Writers' Workshop Pattern *Positive Closure*. How to leave the author with a positive feeling at the end of the feedback.

<sup>7</sup> Writers' Workshop Pattern *Community of Trust*. How to help authors feel that the experience will help them, rather than tear them down.

### **3. Author as Owner**

Now that you have started shepherding, additional difficulties sometimes arise. **Developing a strong relationship with the author (The Shepherd Knows the Sheep) can cause the author to lean on you too much.** In particular, the author may use your suggestions more or less verbatim. While this is somewhat flattering, it has negative consequences. First of all, you aren't the expert, so your comments may not be completely accurate. Of course, the author should catch any inaccuracies, but **the temptation to take the comments as written is huge.** Second, it makes you, in a small way, a part owner of the work. This is usually inappropriate, and it's a burden that most shepherds don't want.

This problem is somewhat more common among newer pattern writers, but it is not unknown among the experts as well.

*Therefore,*

**Establish the author as the clear owner of the work.** Don't give the author any choice in the matter!

Perhaps the easiest way to do this is to frame most of your suggestions to the author as questions. **Use the questions to push the author in the right direction.** This forces the author to come up with the right words (and concepts!), rather than taking your words without much thought.

Note that this approach takes more work than simply tossing off a bunch of suggestions to the author. As a shepherd, you need to think carefully about what questions to ask the author. But this keeps the author wholly responsible for the work. The work will remain consistent without the visible hand of the shepherd, and the author will become a better pattern writer through question-driven reflection.

If you establish the author as the owner, it also lessens the chance of you becoming too personally involved in the work. You may make suggestions which the author will ignore. If it isn't your work, you are less likely to become offended when the author ignores your comments.

A side effect of using questions is that your comments are not direct attacks on the work, and thus are more likely to be given serious consideration.

## 4. Big Picture

**Drafts of all sorts of writing tend to be arcane. It's often hard to know where to start.** This is particularly true of technical writing, especially where the author is trying to appeal to a large, but unknown, audience. **But a good start is crucial to shepherding.**

**Patterns that are small and concise at this stage of maturity often lack substance, but adding detail can turn a simple pattern into a tome!** On the other hand, it's hard to get a handle on a large, detailed pattern to even know where to begin cutting! Furthermore, It's hard to know what the right level of detail is for any given pattern, especially at first reading.

Of course, the shepherd's initial experience to a pattern will likely mirror the experience of the general populace. The way a pattern is initially presented can make all the difference.

*Therefore,*

**Start by reading the problem and solution of the pattern to get the main idea** You do this for three reasons: First, it gives you an idea of the pattern very quickly, and helps frame your subsequent study of the pattern. Second, it helps you see how (or if!) the author understands the pattern. Third, the essence of a pattern should be easy to pick out of the pattern itself. The reader must be able to find what the pattern is about relatively easily.

**A good place for this kernel information is at the beginning of the problem and solution sections.** Look at the first one or two sentences in each section. **You should be able to understand the basic idea of the pattern upon first reading.** This is evocative of *Single-Pass Readable Pattern*<sup>8</sup>.

Note that some patterns (like these) don't have sections explicitly called "Problem" and "Solution." Nevertheless, they should be easy to find. In these patterns, for example, look at the beginning of the pattern, and right after "therefore". In some patterns, the key points are in bold; you should be able to get the big picture by just reading the bold points.

It is probably most profitable to give your first impression feedback very soon after you read the big picture; similar to *Reading Just Before Reviewing*<sup>9</sup>.

As a shepherd, you can do the following: **Ask the author to describe, as succinctly as possible, what the pattern is all about.** Have the author incorporate the answer into the pattern. (See Author as Owner.) **Suggest that the author start by using a "patlet" form to do this.**

Shepherding tends to be more effective when you start with the Big Picture. It helps get the shepherd and the author on the same page. It can avoid costly (in time) misunderstandings, and it helps place the focus on the most important issues first. (See Matching Problem and Solution.)

An interesting parallel pattern for reviewing papers is *Evaluate Papers Fast*,<sup>10</sup> by Jens Parlsberg.

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<sup>8</sup> Pattern Writing Pattern: *Single-Pass Readable Pattern*: How to make it easy for the reader to understand the gist of the pattern on first reading.

<sup>9</sup> Writers' Workshop Pattern *Reading Just Before Reviewing*: How a reviewer should avoid over-preparing or under-preparing for the workshop.

<sup>10</sup> *Evaluate Papers Fast*: How to quickly get an idea of the merits of a paper to be reviewed for a conference or a journal. See <http://c2.com/cgi/wiki?EvaluatePapersFast>

## 5. Matching Problem and Solution

**The pattern is pretty immature; perhaps it doesn't feel pattern-ish.** It may feel like a solution looking for a problem. Or perhaps it is hard to tell what the purpose of the pattern is.

As the shepherd, you already have picked out the Big Picture, but it isn't all that helpful. **Sometimes the Big Picture doesn't really fit with the rest of the pattern. Yet you are expected to provide meaningful feedback to the author, and you can't do it if you don't understand the pattern yourself.**

Some patterns are pretty complex, so they are naturally hard to understand. They are most accessible to those who know the material – the people who probably already know the pattern. One purpose of a pattern is to convey information to people new to the area – the ones who are least likely to understand the pattern.

*Therefore,*

**Read the problem and the solution together, and make sure the solution and problem match.** For the first pass, just read the problem and solution, and skip the other sections. You should get some idea of what is going with just those sections. Make sure the two sections are consistent with each other. Of course, you should be able to find them; see *Findable Sections*<sup>11</sup>.

Note that the problem and solution are the key elements of *Mandatory Elements Present*<sup>12</sup>.

**The solution must address the whole problem.** Ideally, it completely solves the problem. If the solution does not do that, then one or the other must change; see *Convincing Solution* and *Forces Define Problem*. We write patterns based on our experience with solutions, so the solution is somewhat more likely to be in good shape than the problem. **Because of this, we get the solution in reasonable shape and then work on the problem. So go first to *Convincing Solution*, then to *Forces Define Problem*.**

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<sup>11</sup> Pattern Writing Pattern *Findable Sections*: How to make key information easy to find.

<sup>12</sup> Pattern Writing Pattern *Mandatory Elements Present*: How to make sure all the necessary information is present in a pattern.

## 6. *Convincing Solution*

Patterns capture proven solutions. **But what do you do when you are skeptical of the solution?**

On the surface, a pattern may look good. It may have a solid Big Picture and Matching Problem and Solution. But something just doesn't feel right; you aren't convinced that it works.

**Some patterns exhibit the “World Peace” syndrome; they sound good, but appear to break down in practice.** Most commonly, the author has omitted important information that would make the pattern more compelling. **Once in a while, the pattern really doesn't work.** As a shepherd, it's your job to discern between the two.

**A focus that is too narrow can also make a solution suspect.** If the author describes only one situation, one naturally wonders whether the pattern has really been proven.

*Therefore,*

**Look for a solution that is strong; even compelling. If it isn't, ask direct, pointed questions to bring this out.**

This is a time to be pretty direct. **For example, tell the author that you are not convinced that the solution works; please convince me.** Ask how to implement it. Ask where the author has seen the pattern in practice. War Stories may help.

**Watch for tip-offs, such as the word “should”, or little evidence of known uses.** In addition, trust your own instinct. If something sounds too good to be true, it probably is.

This is a direct challenge to the author. There is danger of damaging relationships here; that's why it's important to have established a relationship with the author (see The Shepherd Knows the Sheep.) However, you must not back away. **Being openly skeptical now can save the author no end of trouble later.**

After (and only after) the solution is in reasonably good shape, you can move on to the problem with Forces Define Problem.

## 7. Forces Define Problem

**Many patterns have poor problem statements.** It's hard to tell just what problem the pattern is supposed to solve. **Yet the problem is a key to the pattern**; if the solution is the heart of the pattern, the problem is its soul.

Problem statements are hard. We tend to be solution-oriented; once we've solved a problem we don't think much about it any more. **Authors have a particularly difficult time, because they are so close to the work.** All too often a problem statement looks like, "How do you do X?" where the solution is "Do X." Sometimes this manifests itself in the forces, where all the forces point toward the solution. Good problems have forces that pull in different directions.

**Because the problem comes first, authors often write the problem before they write the solution.** But the problem is usually not clear until the solution is well understood. Unless the author has thought through the solution in detail, **a problem written before the solution is written tends to be weak.**

*Therefore,*

**Read the forces in order to understand the problem.** The forces capture the difficult aspects of the problem, so the problem emerges from the forces. **The author should iterate between forces and solutions to improve both.**

If the author has a good start on the problem, but the forces are weak, **ask what makes the problem difficult.** If there are forces but a problem is not articulated, ask the author to summarize the forces in a single statement that describes the problem, and go from there. If the pattern is weak in both forces and problem, **start by asking something like, "So what problem are you trying to solve?"** Of course, you can directly point out the cases where a problem presupposes the solution.

Since forces are the aspects of a problem that make it difficult, ask, **"What are the obstacles between you and your end goal?"** Of course, the goal is not the solution; you must make that clear.

If you can't find the forces at all, it's time to apply *Visible Forces*<sup>13</sup>.

Be particularly wary of problem statements that are questions, as they are easy to abuse. If the problem reads something like "How do you do X?", see whether there is a real problem lurking in the forces.

You may find that you spend the bulk of the shepherding effort working on the problem. This is appropriate. Once the problem and solution are in good shape, the pattern emerges. I have seen many alleged patterns where there was indeed a pattern struggling to get out. The patterns became apparent as the solution crystallized.

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<sup>13</sup> Pattern Writing Pattern *Visible Forces*: How to make sure the reader understands the choice of solution.

## 8. *Balanced Context*

Even though the pattern is taking shape, the pattern just isn't at the right level. There is something about it that just doesn't hang together.

**In many cases, the pattern tries to be all things to all people.** The author has received comments from others about how the pattern might be applied in this or that situation, and the author tries to expand the pattern to cover the new areas. **So the pattern grows, and tends to lose focus.**

If it is easy to lose focus about where a pattern might be applied, it's even easier to lose focus about what the application of the pattern does to the world. **Far too many patterns suffer from the "And They Lived Happily Ever After" syndrome; if you apply the pattern all will be right with the world**

*Therefore,*

**Look at the context before and after the solution to see how the world changes as a result of applying the pattern.** The beginning context lays the groundwork, setting the stage for what will come. The ending context should explain how the world has changed through the application of the pattern. The ending context should also show how the forces have been balanced.

**Compare the before and after contexts.** You can enumerate them, and see that the results account for all the beginning context. The overly rosy resulting context statements are usually pretty short on specifics, and so do not show how the context has changed or how the forces are balanced. So use them to guide you as you ask the author how each has been addressed. Ask for specifics and examples. **War Stories may help.**

**Context is difficult to get one's arms around, so it is often impossible or impractical to state the context with a great deal of rigor.** So don't be too hard on the pattern writer. But do watch for obvious traps: **Overly broad context, or overly optimistic resulting contexts should be fixed; the context must be concrete.**

This helps keep the patterns crisp. It can also help keep the patterns focused on what is important, and make them more useable out of the box. The user will know better what to expect, and won't be built up and then disillusioned by grandiose expectations.

## **9. Interlaced Comments**

**During the course of shepherding, you find that your comments aren't getting through to the author.**

**Most shepherding happens via email, which is inherently inferior to face to face discussions.** There is a great chance for misunderstandings. Email also has a natural latency, so it's easy to lose the thread of an email conversation. If the participants are on different continents, there is often at least a one or two day lag because of time zone differences. But you still have a short time for shepherding.

As a shepherd, you are trying to make sure the author is responsible for making all the changes to the pattern (Author as Owner). To do this, **you often take the somewhat roundabout approach of asking questions. But this makes it a bit harder for the author to see what you are driving at.**

Of course, the author may choose to ignore your comments. After all shepherds have been wrong before. But how do you know whether the author is actively ignoring a comment, or simply missing what you are trying to say? **You want to reiterate comments that were missed, but not the ones that the author decided to reject.**

*Therefore,*

**Interlace your comments in the pattern and send the annotated pattern back to the author.** Then the author will see the comments in the context of the pattern, and will know what they apply to. Many word processors support this kind of annotation.

Note that early comments are generally of the Big Picture variety, and apply to the work as a whole. So this pattern often doesn't come into play until later in the shepherding process; in the second iteration at the earliest.

## 10. War Stories

Sometimes a pattern is unclear, and no matter what you suggest, the author isn't making it any better.

**The pattern writer is often faced with requests to add this or that to the pattern to make it more broadly applicable, easier to use, etc.** But if the author adds everything in, the result will be huge, unwieldy, and obtuse. In addition, as patterns grow, they tend to become more abstract, and less approachable. Yet the information requested is important.

**The author is very close to the pattern, and has experienced it first hand.** So the pattern is perfectly clear to the author. But it isn't to many readers. **Among other things, the author has unwritten knowledge which seems obvious, but isn't to the outside world.** Sometimes there is so much missing that the shepherd knows that the pattern isn't clear, but can't even figure out what to ask to gain the necessary clarification.

*Therefore,*

**Ask the author to relate real-life experiences (“war stories”) to clarify the pattern.** War Stories can be extremely powerful instruments to show what a pattern is all about, and how one can use it.

**One way to use a war story is to make it a *Running Example*<sup>14</sup>.**

An important aspect of a War Story is that it be appropriate for the intended audience. See *Clear Target Audience*<sup>15</sup> for help.

**One way to draw out relevant stories from the author is to ask how the pattern came about.** I was mentoring two people at a EuroPLoP, and the pattern was just hard to grasp. We struggled together for a while, then I asked them to tell me how they came across the pattern. They immediately lit up, and talked animatedly about their use of the pattern. All of a sudden, their pattern made sense, so I then told them to write down what they had told me. The improvement to the pattern was dramatic.

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<sup>14</sup> Pattern Writing Pattern *Running Example*: How to make it easier for the reader to put the pattern into practice by using a single example through several patterns.

<sup>15</sup> Pattern Writing Pattern *Clear Target Audience*: How to make sure the pattern reaches the intended audience by clearly identifying a primary target audience.

## **11. Form Follows Function**

**(Or: Functional Form, Fitting Form)**

**Sometimes the pattern and the form the author picked just don't go together.** It's obvious that a different form is called for, but it's not easy to change forms in the middle of the stream. It can be a lot of work!

**Some authors have limited exposure to patterns, and therefore may know only one or two pattern forms.** For example, many people's first experience with patterns is the GOF book (Design Patterns: Elements of Objected-Oriented Software Design), which uses a different pattern form than many patterns in the PLoPD (Pattern Languages of Program Design) series. You stick with what you know.

**However, some patterns just work better in one format than another.** And the author may have a much easier time with a different form. I remember once writing a group of patterns in a particular form. I struggled with them until I started over, using a different form. Then the patterns almost wrote themselves.

**But a form change can be pretty major.** The author may be (understandably) reluctant to make such a big change, especially when there is little time in which to rework the patterns.

*Therefore,*

**Find a form that fits the pattern, and slide it in.** Ask the author to provide some information, and then suggest that it might work well as its own section with an appropriate name. For example, if the target pattern form has a separate problem statement, you might draw out the problem as described earlier, and suggest that it be set off with a "Problem" heading. You can eliminate sections by suggestions to remove them, or combine them with other sections.

**The goal, of course, is to make the form serve the pattern, rather than the other way around. As you gradually introduce the desired form, the author should see how the new form is useful.** Of course, as all the other patterns, this pattern will not force the author to write a certain way. It's still up to the author.

## **12. Small Patterns**

**(Or: Small is Beautiful)**

**By now, the nice little pattern has grown into a behemoth.** It's getting too big.

Of course, there has been pressure to add information, and possibly other sections, to the pattern. The author and the shepherd aren't particularly eager to rip things out of the pattern just yet, in case it might be important. Besides, the author wrote everything for a reason.

**It often isn't clear what information is needed in a pattern until it has been worked quite a bit.** But by then, the author may be reluctant to change the pattern any more, particularly if it involves removing stuff.

*Therefore,*

**Identify the parts of the pattern that may be extraneous, and ask the author how each contributes to the pattern.** This helps make it clear to the author that some parts of the pattern should be removed, and the author can do the removing.

**If the pattern is very large, it may actually be several patterns.** You might suggest that the author consider whether the pattern should be broken into multiple smaller patterns. A tale-tell sign is when a pattern contains multiple solutions; **a single pattern should contain one problem, one context, and one solution.**

This pattern may be applied throughout the shepherding process, but tends to be more appropriate at the end. **Build up first, then remove.** It's easier to do it with prose than it is to do it with source code...

## **Candidate Patlets**

The patterns community is fortunate to have a large body of experienced shepherds. I polled the current shepherds for the 1999 PLoP conferences, and asked for their shepherding experiences. Their responses tended to confirm and amplify the previous patterns, and suggested several new patterns. The following patterns are from them; names of the originators are given at the end of each.

### ***Patlets Drive Discussion***

Pattern sizes are inconsistent, irregular, or awkward.

*Therefore*, have the author write patlets for the patterns, and at first, focus the discussion on the patlets. (Ward Cunningham)

### ***Details Can Wait***

The pattern has many annoying problems with grammar, spelling, sentence structure, etc.

*Therefore*, ignore them until late, even if they really get in the way. When you are doing major remodeling, you leave the wallpaper and trim until last; otherwise you will keep ripping out the trim you just put in. (David DeLano, Bill Opdyke)

### ***Reserve Judgement***

The work stinks.

*Therefore*, do shepherding first; separate shepherding from evaluation. At the end, and not before, read it for evaluation whether to accept. (David DeLano)

### ***Form Proves Pattern***

The work isn't a pattern, it is a retread of a paper rejected from some other conference.

*Therefore*, ask the author to put it into a pattern form (then proceed to Reserve Judgement ...) (William Opdyke) (Is this part of Form Follows Function, or maybe Matching Problem and Solution?)

### ***Half a Loaf on Time***

The author doesn't respond quickly.

*Therefore*, suggest to the author a date by when you should get the next iteration. Make it clear that the pattern can still be a work in progress at that time; just tell me how much you have done so far. Ping if late. (David DeLano, Jutta Eckstein, Dirk Riehle, Neil Harrison)

### ***Domain Expertise in Shepherds***

You find that you are totally lost in the pattern.

*Therefore*, select patterns in domains you know. (Implies that the program committee allow shepherds to select their own patterns.) (Antonio Rito Silva, Jim Coplien, Linda Rising)

Common Variation: English is a domain. Papers written by non-native English speakers can profit by having a shepherd who speaks English natively or very fluently. (Andreas Rüping, Bill Opdyke)

### ***Three Iterations***

There is a danger of getting sucked into way too much work on a pattern.

*Therefore*, aim for three iterations (and tell the author). (Jim Coplien, Neil Harrison, Dirk Riehle)

### ***A Place in the World***

The pattern doesn't acknowledge related work.

*Therefore*, Ask how the pattern relates to (specific) previous work. Often: ask how it differs from a specific previous work. This is particularly useful where a pattern seems to be a minor variation on an existing pattern. (Mark Bradac, Linda Rising)

### ***Joint Self-Criticism***

A pattern written by a committee looks that way.

*Therefore*, ask each author to read the whole work to "even out the writing." It keeps you as shepherd from all that work, and keeps you from inadvertently favoring one writer over another. (Linda Rising.)

## Epilogue

On the surface, these patterns are all about how to help someone improve their patterns. Yes, that is what they are all about. But they are deeper than that. For the most part, these patterns are all about the things that make patterns good. For example, War Stories is all about making the pattern more concrete and approachable. Matching Problem and Solution helps the shepherd, and therefore the author, focus on the essence of the pattern – the solution and what problem it solves. Many of the patterns seek to improve the quality of the problem. If the solution is the heart of a pattern, the problem is its soul. In my experience, the problem statements are typically weak, so the patterns can directly influence the quality of the pattern.

But one can go still deeper. These patterns can help us solve problems more effectively; they can guide us in how we approach a problem; they can help us think. For example, Big Picture and Matching Problem and Solution can help us get started right. I have been in several meetings where my friend and colleague, Jim Coplien, has asked, “Wait a minute! What problem are you solving?” This question helps us focus on what we are really trying to accomplish, and steers us away from ineffective actions. In a like manner, all these patterns can help us, not only in shepherding, but in general problem solving and in relationships with others.

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