

# Fundamental Patterns for Crafting Engaging Manga

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This study aims to assist those who are considering crafting manga by identifying essential patterns for crafting engaging manga. We analyzed 133 pattern insights and distilled them into ten fundamental and impactful patterns. These patterns are: Seed Sentence, Motivations That Resonate, Reactions That Reveal Ethos, Mutually Elevating Bonds, Throwing into Tough Situations, Built for the Climax, Puzzle-like Clues, In Two-page Spreads, Showcase Panels, and Speech Balloons Guide. Furthermore, the study explores the creative process of manga development, revealing a progression from the abstract concept of Sensing Wholeness through Character Development and Story Development to Panel Layout in a dynamic, iterative cycle. This process aligns with Christopher Alexander's concept of "Unfolding Wholeness," wherein a Seed Sentence diversifies into subsequent patterns, enhancing and developing the overall coherence in a step-by-step manner.

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## 1. INTRODUCTION

### 1.1 Non-professionals Entering the World of Crafting Manga

Manga refers to Japanese comics. Now, is the act of drawing manga familiar to us? Many people are more comfortable with writing than drawing. While reading manga may be more common, the act of drawing manga may not feel familiar. However, non-professional manga artists are beginning to recognize the benefits of drawing manga. They are starting to use manga to convey their messages in an appealing, easy-to-understand manner to a wider audience.

For example, there are instances where learning and manga crafting are combined. Michael Bitz's Comic Book Project (CBP) is an after-school activity where children at Martin Luther King Jr. High School draw their own manga and share it with their peers. Bitz states that the creative activity became "a powerful support for improving children's literacy." "In the process of planning and sketching their comic creations, they wrote a surprisingly large amount of text. They learned that the choice of words could change the tone and atmosphere of the story, and they tried various ways of narrating. They considered the characters' manner of speaking, pondered how the readers would perceive it, and thoroughly examined complex punctuation and sentence structures. When they published and distributed the manga, they had drawn themselves, they were recognized as writers/artists not only in New York City but also in other towns" (Bitz 2012). However, none of these children became professional manga artists. Through this project, the children acquired life skills in their own way.

There are also cases where manga has been used to overcome the limitations of research. Cultural anthropologist Katsumi Okuno focused on manga as a tool to depict the "immeasurable part of real life," which is a continuation of the ordinary daily life of the people living there, aiming for the discipline of anthropology to "become free from the constraints of expressing solely through text." Manga expression is easy to sketch on-site and share with local people, and it can become a new method of visually describing and sharing the lives of the people living there (Okuno & MOSA 2020).

Furthermore, there are examples of using manga as a tool for communication to promote practice and action. Uchiyama, a manager in Japan's food service industry, focused on manga as a communication tool to connect the company president and the frontline employees. Aiming for "a fantasy world where the top management and frontline employees can converse while sharing a pot of food," the president first comes up with the ideas. Uchiyama then edits them into a *name* (a preliminary manga storyboard) and outsources the artwork (Uchiyama 2023). It is reasonable for an employee who thoroughly understands the president's intentions to create the *name*. Additionally, the "Pattern Manga" by Iba et al. is practical research aimed at delivering the content of pattern languages in an appealing and easy-to-understand manner to a wider range of readers by focusing on manga, which is loved by people of all ages from children to adults (Iba et al. 2023).

These cases demonstrate how non-manga artists found value in drawing manga rather than just reading it and took on the challenge. All these cases commonly focus on the fact that manga can concretely depict daily scenes and practices that cannot be fully conveyed by simply presenting text or figures. Moreover, manga is easier to produce than movies or animations (Uchiyama 2023). In addition, there is the aspect of the artist themselves learning deeply through drawing manga (Bitz 2009, Uchiyama 2023). From these cases, can we not imagine a future where individuals and companies who are not professional manga artists will creatively utilize manga by drawing it themselves?

## 1.2 Objectives

We have illustrated how non-professionals are pioneering new approaches in manga creation. Nevertheless, the process of drawing manga remains highly challenging. Manga artists note the following points:

"What the readers see are the drawings, but behind them, 'characters,' 'story,' 'worldview,' and 'theme' are interconnected and exist. This structure could be called the workings of a single world, or even a universe. I believe that manga is the ultimate 'comprehensive art.' This is because manga expresses all of the 'four basic structures' plus 'drawings' and 'words' simultaneously" (Araki 2015, pp.48-49).

"Creating manga requires the artist to take on all roles, from the cast to the staff. You might be astonished to learn that manga is a solo, comprehensive art form, but this is also what makes it so enjoyable" (Fujiko 1994, <https://a.co/eSLO75u>).

As such, drawing manga is a kind of comprehensive art that covers a wide range of areas. We have determined that it is appropriate to replace the term drawing manga with crafting manga. Therefore, in this paper, we will use the term "crafting" from here on. Furthermore, in terms of artwork, in addition to expressing through illustrations, there is a unique method called "panel layout" that allocates sequential panels on a page. Because there is so much to consider and train for when crafting manga, it can be discouraging to start. However, there are people who have actually started crafting manga. Many of these individuals actively learn from professional manga artists' books and apply it to their practice (Bitz 2009, Uchiyama 2023).

Nevertheless, this learning process is time-consuming. Even if one sees potential in manga, there is a possibility of giving up during the trial and error before starting. What is necessary to overcome these obstacles and support those wishing to craft manga in the future? For example, it would be helpful to have something that provides guidance on how to think and act after deciding to craft manga. Moreover, if one could systematically learn the key insights for effective practice that manga artists value in manga crafting, it would be easier to learn. As an approach that addresses these needs simultaneously, we can focus on pattern language.

Pattern language is a method proposed by architect Christopher Alexander. He aimed to help both professionals and non-professionals recognize and create good towns, buildings, and construction designs by identifying and verbalizing the "quality without a name" that repeatedly appears in

vibrant cities and structures. This method of describing good construction quality has since been extended to describe good practices and has been applied to various fields.

A pattern language is a system where multiple patterns, essential for creating a specific quality, are interrelated. The insights within each pattern describe situations where specific problems are likely to occur, how to resolve them, and the resulting vibrant quality that can be achieved. In the context of crafting manga, if we can describe and systematize the recurring key insights for crafting engaging manga in the form of a pattern language, it could effectively support people's practice in this art form.

Therefore, in this research, we aim to describe the key insights for crafting engaging manga in the form of a pattern language to support those who want to try crafting manga in the future and those who want to utilize manga for education, research, practical support, and other purposes.

## 2. METHODS

The main theme of this research is, what are the key insights that should be kept in mind to craft engaging manga? This includes not only the question of how to describe the key insights based on the experience of manga artists as sharable knowledge but also the question of how the creative act of crafting manga is realized.

Therefore, we extracted descriptions related to the key insights and creative processes of manga crafting from literature such as books and video lectures where manga artists and editors discuss their own methods. By grouping the obtained findings into family resemblance using the KJ method (Iba et al. 2017), we grasped the main insights and described them in the form of a pattern language while systematizing them. It should be noted that during this process, we also drew manga ourselves to examine the patterns' effectiveness firsthand. Furthermore, to understand the characteristics of the act of crafting manga, we also compared and examined the practical insights shared by creators active in related fields (movies, animation, novels, etc.).

The literature was selected with the following three points in mind, and 140 pieces of literature were picked up.

Firstly, from the perspective of region. This paper deals with manga, and at present, the focus is on literature by Japanese manga artists and editors. To aim for universality, comics, graphic novels, and bandes dessinées from overseas should also be included in the scope. However, considering that the authors are Japanese, we thought it was meaningful to focus on the expression techniques spoken by Japanese manga artists first. This may provide a perspective for comparing the expression techniques and orientations of overseas manga artists in the future.

Secondly, from the perspective of how to select the literature of Japanese manga artists and editors. The important point is whether manga artists, manga writers, manga editors, and others discuss their own insights for manga crafting. Therefore, we focused on (1) interviews with manga artists, (2) manga creators discussing their own work, (3) manga about manga artists, (4) manga criticism and research, and picked up search results. The survey range was limited to available materials from 2000 to the present. Here, there may be a question about how to handle how-to-craft manga books written by legendary manga artists such as Osamu Tezuka and Shotaro Ishinomori. Such important literature has been digitally reproduced after 2000. As a result, there was no problem with the relevant literature being from 2000 onwards. On top of that, we are reviewing literature categorized as (1) interviews with manga artists and (2) manga creators discussing their own work, in a manner that avoids bias related to the artists' attributes (such as gender, genre, etc.), starting with the most recent sources. Additionally, documentary footage and video lectures following manga artists' crafting processes are valuable materials for understanding the crafting process, and we referred to as many currently viewable ones as possible.

Thirdly, from the perspective of how to select literature from adjacent fields. For adjacent fields, we decided to expand the scope of the survey each time based on what we learned from the literature survey on manga crafting to confirm the contrast with adjacent fields. For example, as it seemed that manga artists were learning from Hollywood-style scriptwriting techniques and adapting them for

manga, we consulted books related to movie scriptwriting techniques. We also referred to the practices of not only movie scriptwriters but also Japanese anime scriptwriters.

### 3. RESULTS

Manga crafting is a comprehensive art that includes story development and artwork. Therefore, the scope covered by the pattern language is also extensive. At present, out of the 140 pieces of literature picked up, pattern extraction has been performed from 58 books, and 133 practical insights have been collected. However, the overall concept of "A Pattern Language for Crafting Engaging Manga" is still not fully defined, and the research is ongoing. In this paper, we have selected fundamental and powerful patterns from the 133 identified insights and systematized them as the 10 fundamental patterns.

The 10 fundamental patterns introduced here are intended to support the process of conceptualizing an engaging story manga and drawing up a manga storyboard called a *name* in Japanese. Therefore, patterns related to artwork are not covered.

The overall picture is as follows (Figure 1). The categories are Sensing Wholeness, Character Development, Story Development, and Panel Layout from top to bottom. A sequence is depicted from abstract ideas to concrete manga, moving from top to bottom.

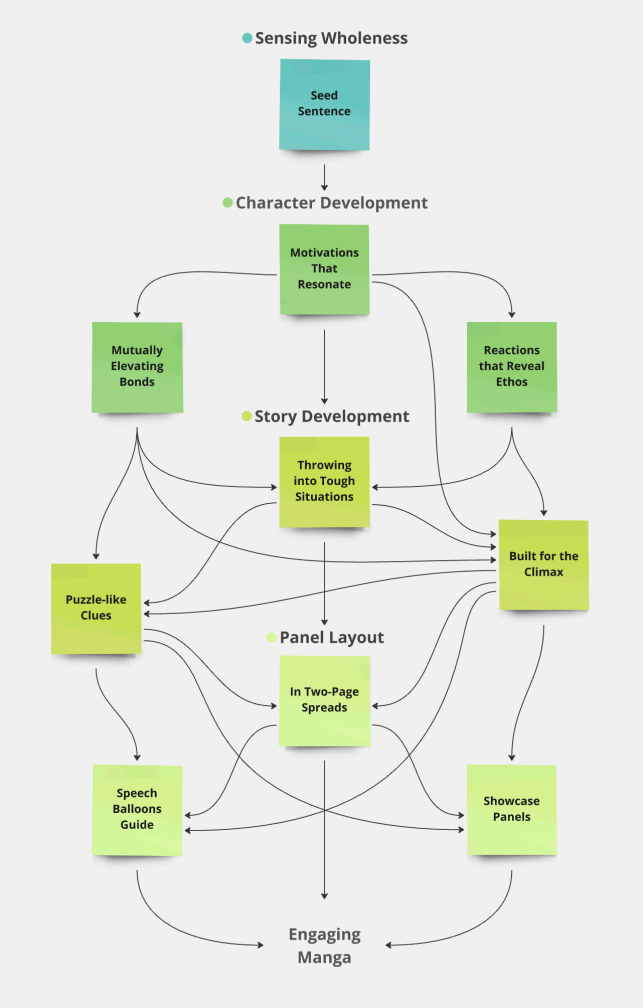


Figure 1: Overall System of the Pattern Language.

The sequence begins with writing a **Seed Sentence**. Based on that, the **Motivations That Resonate** of the main character is used as the core, and the character's way of life and relationships are explored through **Reactions that Reveal Ethos** and **Mutually Elevating Bonds**. While developing the characters, the story development is also considered. In many cases, using **Throwing into Tough Situations** and **Built for the Climax**, the author throws the characters into events that hinder their motivations, where even the author cannot predict the outcome, and examines how to overcome them together with the characters. Once the narrative structure becomes visible, the effective way of presenting information—such as where to begin the narrative and what to convey or conceal—is examined using **Puzzle-like Clues**. In the process of translating the story onto paper, the allocation of the narrative structure and the page distribution of scenes are grasped using **In Two-Page Spreads**, working backward from the number of pages in the manga. The paper is also effectively designed using the perspectives of **Showcase Panels** and **Speech Balloons Guide**. We believe that these 10 fundamental patterns, when followed in sequence with dedicated effort, can enhance the crafting of engaging manga and make the process of crafting them more intuitive.

Next, we introduce the descriptions of each of the 10 fundamental patterns.

Sensing Wholeness:

- **Seed Sentence**

Character Development:

- **Motivations That Resonate**
- **Reactions that Reveal Ethos**
- **Mutually Elevating Bonds**

Story Development:

- **Throwing into Tough Situations**
- **Built for the Climax**
- **Puzzle-like Clues**

Panel Layout:

- **In Two-Page Spreads**
- **Showcase Panels**
- **Speech Balloons Guide**

### 3.1 Sensing Wholeness: Seed Sentence

## Seed Sentence

First, try writing down "who is trying to do what."

You want to craft an engaging story manga.

▼ In this context

Even if you spend a lot of time thinking about the story, if you can't see the motivations and desires of the main characters who drive the story, it will be difficult to bring it to life. If your goal becomes making the story work, you might end up changing the characters to fit the story, resulting in a manga where the characters don't act naturally. According to the practices of many storytellers, a vibrant drama arises from the strong motivations and desires of the main characters, and the deepening conflicts and obstacles that stand in their way. However, it is often overlooked that the basis for driving the story lies more with the characters than the story itself.

▼ Therefore

**By writing down your ideas as a sentence that captures the potential motivations and desires of the main character, such as "who is trying to do what," you can use it as material to delve deeper into the characters and story development.** For example, you could summarize it as "a story about a main character of a certain age, occupation or position, and gender, who tries to do something in a certain place, triggered by some event." Using this sentence as a starting point, you can envision various aspects such as "what weaknesses, flaws, desires, and motivations the main character has," "what they can and cannot forgive," "what elements will create drama (conflict)," and "how they will change and grow," nurturing the sense that a vivid story is beginning to take shape.

▼ Consequently

Before you actually start drawing, understanding the overall story helps you create a prototype to develop various ideas. Additionally, by reflecting on and evolving the characters and world through the 'seed sentence,' you can craft a synopsis that captures the essence of the story. This sentence becomes the foundation for all your creative decisions during production. When you feel stuck in story development, revisiting this sentence can help you reconnect with what the story is aiming to become. However, if you see this sentence as unchangeable, you may limit your creativity to the framework you initially set. Use this sentence as a guide to understand the story as a whole, but be open to rewriting it as new ideas emerge.

### 3.2 Character Development: Motivations That Resonate

## Motivations That Resonate

New and empathetic motivations captivate readers.

You want to create compelling characters.

▼ In this context

No matter how much you consider a character's personality or setting without delving into what purpose they serve within the story, it is difficult to get a sense of the character coming to life within the narrative. Moreover, if a character's motivations are ambiguous or significantly deviate from the readers' general moral sense, it becomes challenging for readers to empathize with the character, even if they have clear motivations.

▼ Therefore

**By giving characters powerful motivations that simultaneously evoke a sense of "newness" and "empathy" within the creator, you can grasp the unwavering core of the character.** For example, consider motivations behind goals like 'becoming the Pirate King,' 'becoming the world's best striker,' or 'going to space with siblings.' Then, explore why the character wants to become that and what they want to do once they achieve it. Find motivations and reasons that simultaneously evoke a sense of "newness" and "empathy" within yourself. Furthermore, manga artist Hirohiko Araki states that to gain reader empathy for a character's motivations, they need to be "favorable motivations that align with natural ethics." For instance, if the motivation is "wanting money," it's important to make it a motivation that many people can empathize with, such as "not just being a thief, but needing it to help someone."

▼ Consequently

When a character's motivations become clear, it becomes easier to consider various settings and episodes that come as a set with those motivations, such as weaknesses, flaws, and desires. Moreover,

if you refer to the idea of exaggerating personalities as "too \_\_\_\_ personality" devised by Naoaki Asada of Scenario Center and expand your ideas like "because they have too \_\_\_\_ personality, they have \_\_\_\_ charm, but tend to \_\_\_\_," the character will feel more relatable. If you can create new and empathetic character motivations that resonate with you as the author, it will lead to enhancing the appeal that captivates readers. Also, if you choose a dark hero with motivations far from general ethical standards, ensure the manga doesn't become biased towards their ideology. Introduce rivals with more conventional, generally accepted ethical standards to maintain balance.

### 3.3 Character Development: Reactions that Reveal Ethos

## Reactions that Reveal Ethos

Inner qualities shape a person's characteristic actions and reactions.

You want to find the vivid humanity that characters possess.

▼ In this context

No matter how much you consider a character's appearance or setting in detail, it is difficult to grasp their human-like qualities and principles of action based on that alone. Even if you come up with an attractive appearance or occupation, it is challenging to imagine the character actively engaging in a lively manner without understanding the inner workings that shape those settings.

▼ Therefore

**By seeking to understand the inner qualities directly connected to a character's way of life, such as what makes them angry, cry, or laugh, you can envision the actions and reactions that exude their unique character.** For example, what is forgivable and unforgivable to that character? What do they consider good and evil? Anime scriptwriter Jukki Hanada cites "The Adventures of Tom Sawyer" as an example, stating, "There's a story where Tom gets into a fight with a cool boy, and at that time, Huck naturally suggests that he should apologize instead of fighting. Tom can't understand that at all. But on the other hand, Huck can't understand why Tom would go through the pain of fighting. The misunderstandings between the two are depicted in a very interesting way." This is an excellent example of vividly portraying the differences in reactions to the same event. In this way, it is important to delve into the character's inner workings, such as their desires, goals, and philosophy, based on their motivations and personality, while also making it possible to concretely imagine their visible actions and reactions.

▼ Consequently

The character's actions will have a core, and you will be able to envision how they react to the same events. Furthermore, you can also express the character's way of life in a multifaceted manner, including "habits" and "verbal tics" that the character themselves may not be aware of. Kazuo Koike focuses on the "habits" and "mannerisms" that visibly manifest the hidden emotions, instincts, values, and lifestyle habits within a person, stating, "People can lie as much as they want with words, but the 'habits' that are messages from the inside cannot lie." When you become able to differentiate between multiple characters, along with their specific actions and reactions, it will serve as a catalyst for each character to start moving on their own. On the other hand, as the author, you shouldn't fix your characters' inner thoughts in your mind. Their inner thoughts can only be inferred. Value the process of rediscovering and gradually understanding your characters as you craft the manga.

### 3.4 Character Development: Mutually Elevating Bonds

## Mutually Elevating Bonds

Solidify the supporting cast with an awareness of contrast to the main character.

You are starting to be able to imagine the actions and reactions of the main character.

▼ In this context

No matter how much you delve into the main character, if there are no social relationships or interpersonal relationships with others, a story with drama will not emerge. Drama is born from the character's own past and present, or from conflicts and discord with other characters. Therefore, it is necessary to simultaneously create the social relationships and interpersonal relationships with others that the main character is inextricably linked to within the story.

▼ Therefore

**By colliding the main character with motifs, episodes, and interpersonal relationships that are distant from their present, you can create drama within personal experiences and social relationships.** For example, manga artist Akiko Higashimura states that if you're doing a manga about curling, it's manga-like if the character furthest from curling is the one who does it. Also, anime scriptwriter Yoichi Kato made the protagonist who starts idol activities the daughter of a bento shop owner. He sets up a past where "since she was little, she cheerfully helped out at the store, handing bento boxes to customers over the counter and making them smile. The counter was like a stage," highlighting her present form. For interpersonal relationships, it's a good idea to simultaneously consider characters who have the exact opposite way of thinking to the main character. Kazuo Koike states, "The protagonist (main role) and rival (antagonist) should not be created separately, but rather by making their way of thinking, values, appearance, and qualities the exact opposite, and creating their past history, goals, and abilities while maintaining a balance."

▼ Consequently

By solidifying the supporting cast around the main character who plays the role of progressing the story together with the reader, you can highlight the main character's existence from personal and social aspects. Moreover, by clearly depicting both the "public and private" aspects of the main character while portraying either the "public" or "private" aspects of the other characters, you can clarify for the reader whose perspective they should follow the story from and who they should empathize with. If successful, the story of what the main character is "trying to do," what conflicts and discord arise, and why they occur will begin to unfold from the relationships between the characters. On the other hand, when crafting episodes where the protagonist connects with distant elements, be mindful to avoid falling into authorial convenience.

### 3.5 Story Development: Throwing into Tough Situations

## Throwing into Tough Situations

Let the character's unique decisions and actions shape the story.

You want to develop an engaging story.

▼ In this context

If characters act only to explain the plot, they will feel less like living, breathing people. When they achieve their goals too easily, the story loses the tension that keeps readers engaged. The more challenging the character's journey, the more vividly their personality emerges—and the stronger the story's driving force becomes. In other words, it's not that the character follows a predetermined plot; rather, the path they carve through their choices becomes the story itself.

▼ Therefore

**Throw your character into a tough situation with no obvious solution, forcing you to ask: "What would I do—and what would they do as themselves?"** Script doctor Ryuta Miyake emphasizes that difficult situations force characters to take decisive, self-driven actions, which strengthen the story's momentum. He advises not to go easy on your protagonist—push them to their limits so they hesitate, decide, and act. Manga artist Hirohiko Araki notes that thrill arises when characters face obstacles beyond their control, such as formidable enemies or political circumstances. He explains that he always prepares a major challenge before the climax but often doesn't know how the character will overcome it until he begins drawing. In his words, he fights alongside the character, constantly thinking, "What would I do if I were them?" By continuing to move the character forward, ideas gradually reveal themselves.

▼ Consequently

Through this process, you will discover story developments that naturally emerge from the character's choices. Their actions will reveal the themes and scenes you truly want to convey. Manga artist Osamu Yamamoto stresses that it's not about starting with a theme—the author discovers the theme through the act of creation. He also encourages authors to question their assumptions and turn their thinking inside out. Facing hardships alongside your character becomes a challenge for you as well, offering a chance to break free from your habitual ways of thinking. However, trying to resolve everything in a single tough situation can lead to forced decisions and a contrived storyline. Instead, guide your character through escalating challenges that allow readers to feel their struggles and growth—leading them toward the greatest difficulty ahead.

### 3.6 Story Development: Built for the Climax

## Built for the Climax

Steadily build the foundation for the character to break out of their shell.

You have begun to see the theme of your story and the scenes you want to depict.

▼ In this context

Even with a clear theme or vivid scenes in mind, readers will struggle to connect with the character's transformation unless they can relive the journey leading up to it. Without a process that lets readers empathize with the character's changes and decisions, the transformation may feel abrupt. In narrative structures like introduction, development, twist, and conclusion, the theme is revealed at the twist (the climax) after the introduction and development. To move readers and convey the theme effectively, you must carefully craft these earlier stages.

▼ Therefore

**Stack episodes that push your character to confront their shell, allowing readers to experience that breakthrough naturally.** In *Doraemon: Nobita's Dinosaur* by Fujiko F. Fujio, the theme centers

on "Nobita's conflict between his competitive spirit toward his friends and his growing affection for Piisuke (the dinosaur)." Frustrated after being denied a look at his friend's fossil, Nobita declares he will find one himself. Driven by rivalry, he discovers and hatches a dinosaur egg, raising Piisuke out of pride rather than affection. As Piisuke grows, Nobita moves him to a park pond, unaware of the trouble that public attention will bring. Through a series of episodes—his own illness, Piisuke visiting him, and their daily interactions—Nobita's affection gradually overtakes his competitiveness. When he learns Piisuke is in danger, he chooses to send him back to the Cretaceous period. Nobita's tearful farewell resonates because of the carefully built sequence of conflicts and emotional shifts leading up to it.

#### ▼ Consequently

By stacking the character's actions and decisions, you help readers relive the theme and key moments. To strengthen this, clarify how the character changes both inside and out. Eiji Otsuka suggests using a simple structure: "The protagonist starts in \_\_\_\_ seeking \_\_\_\_ but ends up \_\_\_\_." Considering the character's goals, gains, losses, and shifting relationships make the climax feel natural. As you refine earlier parts, you may find the planned climax no longer fits. Manga artist Osamu Yamamoto notes, "Stories that unfold exactly as planned often lack force." Don't hesitate to revise if it leads to a stronger climax. Flexibility can turn a good moment into an unforgettable one.

### 3.7 Story Development: Puzzle-like Clues

## Puzzle-like Clues

Engage readers with intriguing mysteries and reveal clues at just the right moments.

You have outlined the general flow of your story.

#### ▼ In this context

The more information you need to convey—whether about characters, world-building, or backstory—the more tempting it is to overload the beginning with explanations. However, doing so can cause readers to forget essential details when they matter most. A purely linear story, moving from present to future without purpose or revealing the past too directly, can make readers lose track of who the characters are and what they want, leaving the narrative dull. To keep readers engaged, you must provide information at the right moments while sustaining their curiosity.

#### ▼ Therefore

**Hold back information and reveal clues carefully to create an unfolding puzzle that keeps readers eager to solve the mysteries.** Focus on a central "mystery"—such as whether the protagonist will reach their goal—and weave in hints about hidden pasts, traumas, or foreshadowed conflicts. As Katsuhiro Otomo notes, "Mysteries should evolve, with each one leading to another." Create scenes that make readers wonder, "What happens next?" Surprising them by flipping facts revealed earlier can heighten engagement. Shoji Kokami emphasizes that "a story should fundamentally reveal the past as events move toward the future." Gradually uncovering a character's backstory or the truth behind key incidents—especially near the climax—keeps readers invested.

#### ▼ Consequently

By avoiding information overload and providing key details at impactful moments, you keep readers engaged. As they piece together the mysteries surrounding the characters and world, they experience

the journey more vividly, making them more likely to stay with the story until the end. Akira Sasō describes the ideal as "creating a development where, no matter where you cut into the story, the reader's initial '?' remains." Keiko Takemiya advises, "Add one more twist." Instead of relying on a single idea, consider crafting a double-layered narrative with parallel threads that converge at the climax. Incorporating multiple perspectives or side stories can enrich a simple concept into a deeper narrative. Presenting mysteries isn't limited to plot twists—Otomo highlights how "composition, close-ups, and unsettling symbols" in visuals can offer subtle clues. Consider how panel layouts and artwork can sustain intrigue and guide the reader's attention.

### 3.8 Panel Layout: In Two-Page Spreads

## In Two-Page Spreads

The unit that bundles one scene.

You want to translate the concept in your head into a storyboard.

#### ▼ In this context

If you start crafting a storyboard without a basis for judging how much length (number of pages, time, screen size, etc.) is needed for the story you are envisioning, or how much length you need to condense it into, you may find it difficult to see where the story is going to land. You may end up following the timeline too closely, becoming too explanatory, or having a scattered and unfocused depiction without realizing it. It is important to have some criteria for translating the story into scenes and a four-act structure (introduction, development, twist, conclusion).

#### ▼ Therefore

**By considering each scene as much as possible in "two-page spread units," you can roughly grasp the highlights of each scene and the scene transitions of the four-act structure.** For example, Aya Nakahara states, "When it comes to things I think about while crafting storyboards... First of all, vaguely, I think in terms of two-page spreads. Within those two pages, I consider the 'landing' of each scene. What happens in this scene? I put the 'landing' in even-numbered pages like two pages, four pages, six pages." She crafts her storyboards by roughly grasping the development in two-page spread units. Also, Katsuhiro Otomo tries to "end major turning points on the left page" as much as possible, and incorporates techniques that work in conjunction with the performance of turning to the next page, such as "having a surprising picture when you open the next page."

#### ▼ Consequently

When allocating the four-act structure of the story to scenes, you will be able to grasp how much information can be packed into a two-page spread unit. Also, by being aware of the reader's act of "turning to the next page," you can devise techniques such as creating a hook panel on the lower left of an odd-numbered page that makes the reader want to turn to the next page, especially for print media. Furthermore, by setting the constraint of capturing one scene in a two-page spread unit, you will develop an awareness of simplifying by cutting out unnecessary information, preventing you from following the timeline too closely or having an unfocused and verbose development. Note that while printed books treat a two-page spread as a single unit, the scale changes for e-books and vertically scrolling manga. It's important to adapt your perspective to suit the medium.

### 3.9 Panel Layout: Showcase Panels

## Showcase Panels

Begin by considering the position of the large panels you definitely want to showcase.

You are considering an appealing panel layout that takes into account the overall story.

▼ In this context

If you proceed with the panel layout in order, following the story's timeline from the first page, it feels like adding panels one by one to a blank space, making it difficult to find a basis for determining the size and shape of the panels. In movies and animation, the story unfolds within a single fixed frame, but in manga, the story emerges from the continuity of multiple panels laid out in two-page spread units. Therefore, unlike movies and animation, it is important to have the perspective of "layout design of the page" for allocating panels within the page.

▼ Therefore

**By first determining the position and size of the showcase panels that serve as the story's highlights or important devices, you can roughly grasp the convergence and passing points of episodes and emotions throughout the entire story.** For example, Katsuhiro Otomo states, "Manga is about tempo, so you want a concluding picture every few pages," "You increase the tempo towards that," "There's something like a peak somewhere," "You decide that you're going to draw this picture," "You increase the tempo towards it and then come back," "You increase the tempo again and go to the next picture," "So there are about three key pictures in one manga, right?" "It's best if you can bring the biggest one at the end." If you are envisioning a story development with several small climaxes leading up to the biggest climax, you can create the framework of the page layout by dividing the panels centering on the images (scenes) you want to showcase that correspond to each climax. In story development, the main character's motivations served as the trigger for delving into episodes, but in panel layout, the images you want to showcase provide the impetus for dividing the panels.

▼ Consequently

By tentatively deciding where the important scenes and key large panels are in the overall story, the framework of the panel layout becomes visible. If you decide on the most important panel you want to showcase in a two-page spread unit, and then decide on important panels as passing points leading up to it, it becomes easier to consider the panel layout with the idea of connecting the spaces between those panels and gradually increasing the tension of the main character's emotions, interpersonal relationships, and so on. Furthermore, each panel has its own role to play. By marking the key panels that serve as the pivotal points of the story, you can clearly distinguish the relationship between the important panels and the other panels that serve to highlight them, making it easier to create a clear contrast in the size and presentation of the panels. Also, when drawing the path connecting important panels, be careful not to remove panels that are necessary for readers to understand the content.

### 3.10 Panel Layout: Speech Balloons Guide

## Speech Balloons Guide

In manga as well, people inevitably tend to read where there is text.

You are planning a page layout to enhance key images and lines.

▼ In this context

No matter how attractive the flow of information is designed, if the position of the speech balloons is misplaced, it will encourage a reading that differs from the author's intention. The order in which manga is read is determined by the rough constraints of the panel layout and the position of the speech balloons placed within the page. Also, if the speech balloons are positioned in a way that goes against the natural flow of the reader when reading manga, it tends to become unclear where to start reading from.

▼ Therefore

**By placing speech balloons rhythmically along the reader's line of sight and consciousness, strive to create a page that allows the reader to read smoothly without stress in the timeline intended by the author.** For print media, it is a good idea to place speech balloons in a balanced way, keeping in mind the line of reading that starts from the first panel and progresses in an S-shaped direction. Also, by laying out the artwork and speech balloons so that they intersect, you can create a rhythm of reading the speech balloons, feeling the artwork, and then reading the speech balloons again. In panel layout, in addition to the size and arrangement of the panels, be conscious of the relationship between the character's "size, orientation, and composition" and the "speech balloons." In terms of creating a rhythmic flow, it is a good idea to craft the storyboard while reading aloud the lines to be placed in the speech balloons.

▼ Consequently

If you become aware that the page layout of speech balloons is a crucial element that controls the timeline when reading manga, you can accumulate information without fail toward the images you want to show and the key lines, and you can approach a page layout that is easy to read and naturally flows. Furthermore, the process of refining the flow of lines by reading them aloud with speech balloons can be said to be a process of integrating text and visuals. You may find hints for eliminating unnecessary elements, such as removing explanatory text that becomes unnecessary when there are illustrations, or removing illustrations that become unnecessary when there are lines. Note that overly prioritizing the flow of gaze with speech bubbles at the expense of the artwork is counterproductive. Always be mindful of balancing panels, artwork, and speech bubbles.

## 4. DISCUSSION

Here, we would like to discuss the basis for the sequence seen in the 10 fundamental patterns presented in this paper, particularly the important points of "starting point of manga crafting" and "order and mutual enhancement of both character and story development," while citing literature.

### 4.1 Basis for Sequence I: Starting Point of Manga Crafting

Many creators condense their ideas into a single sentence, such as "who is trying to do what," and use it as a trigger to delve into character and story development ideas.

Manga artist Hirohiko Araki introduces a case where he brainstormed the content for the first chapter of his work *JoJolion* based on the idea of "a boy who has lost his memory regains his heart" (Araki 2015, p. 230).

Manga artist Naoki Urasawa began crafting *20th Century Boys* with the concept of "a drama in which children of my generation fought hard against something like a giant cult and safely welcomed the 21st century, inspired by the scene, 'We were able to welcome the 21st century thanks to them'" (Urasawa, 2023).

Manga artist Tsunami Umino created her work *The Full-Time Wife Escapist (Nigeru wa Haji da ga Yaku ni Tatsu)* with the angle of "contract marriage" (Kimura 2018). "Contract marriage itself is a

common theme in manga and dramas, but it's usually a Cinderella story with a wealthy person. Instead, I thought that if I considered contract marriage as a form of employment, it might conversely clear up various issues regarding marriage and work," she said about her inspiration (Mainichi Shimbun 2016).

In this way, an idea that gives a sense of the direction in which the story will progress is first generated. Additionally, manga editor Shigeki Suzuki advises that it is important to narrow down one's own "likes" and "stance" and draw a "guideline (auxiliary line)" in response to the concern of manga beginners, "How should I decide what to draw?"

"Choose what you like, whether it's characters, settings, or anything else. When doing so, it's recommended to narrow it down until you can imagine it as concretely as possible. In terms of shojo manga, if you vaguely say 'I like unrequited love,' it's quite unclear what you're going to draw. (...) What is the other 'stance'? Simply put, it's the position from which you approach the chosen subject. (...) You can depict the 'best unrequited love' or the 'worst unrequited love.' (...) Whether the protagonist is 'positive about love' or 'not even interested in love' greatly changes what you depict. (...) Try concretizing your 'likes' and deciding your 'stance' to narrow down what you draw as much as possible. I often use the term guideline (auxiliary line), and drawing a guideline makes it easier to decide what to draw. In other words, it makes decision-making easier. That's what I recommend" (Suzuki 2023, pp. 43-45).

Condensing an idea into a single sentence essentially serves as a guideline that facilitates the author's decision-making. Script doctor John Truby writes the following about the importance of the premise (a term in screenwriting that refers to summarizing the story in a single sentence):

"The premise is your story stated in one sentence. It is the simplest combination of character and plot and typically consists of some event that starts the action, some sense of the main character, and some sense of the outcome of the story" (Truby 2007, p.16).

"The big reason so many writers fail here is that they don't know how to develop the idea, how to dig out the gold that's buried within it. They don't realize that the great value of a premise is that it allows you to explore the full story, and the many forms it might take, before you actually write it" (Truby 2007, p.17).

Truby states that it is important to grasp the overall nature of the story by condensing the idea into a single sentence. It is the first step in judging whether the sentence is appealing and selecting what to depict and what not to depict.

In this way, the **Seed Sentence** is positioned at the starting point of the pattern sequence (Figure 2). This can also encourage creators to realize the value of the "premise."

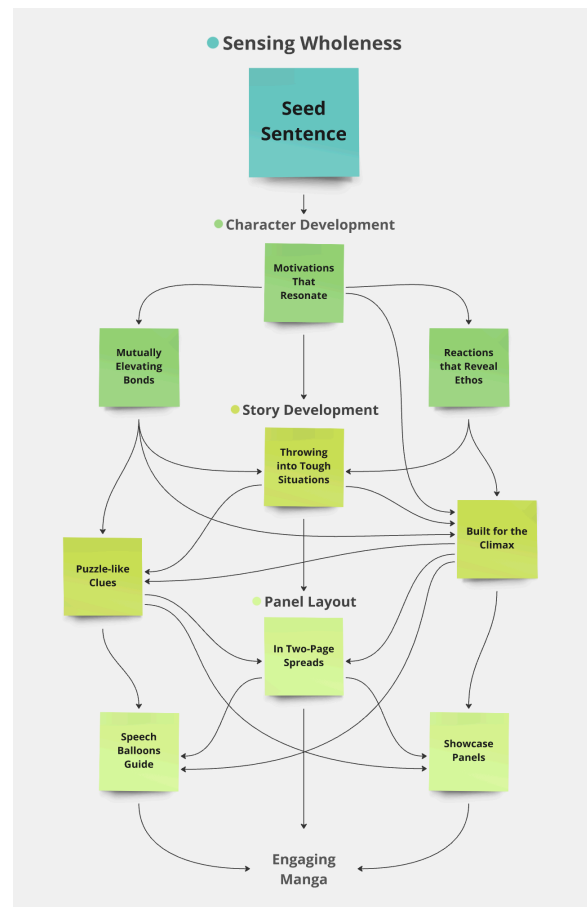


Figure 2: Starting Point of Manga Crafting

#### 4.2 Basis for Sequence II: Order and Mutual Enhancement of Both Character and Story Development

In this system, why does the sequence following the **Seed Sentence** first proceed to character development? And why does **Motivations That Resonate** become the center of character development? To answer these questions, let's revisit Hirohiko Araki's diagram of the "Four Basic Structures" and specifically confirm their weighting.

"When actually drawing manga, the thing that should always be kept in mind is what I call the 'Four Basic Structures' of manga. In order of importance, they are: (1) Character, (2) Story, (3) Worldview, and (4) Theme. These four do not exist independently, but deeply influence each other. And what augments and integrates these elements is the strongest tool, 'Art,' and it is further supplemented by 'Words' in the form of dialogue" (Araki 2015, pp.47-48).

Araki states that (1) Character, (2) Story, (3) Worldview, and (4) Theme are important in that order, which seems consistent with many literary works. The system of patterns discussed in this paper focuses on Character and Story, which are considered particularly important in manga crafting. Therefore, the discussion in this section will also focus on Character and Story. Araki says the following about Character:

"To put it bluntly, if there are appealing characters, there is no need for story or worldview. That's how important it is. Some professional manga artists even say that 'manga can be created with just characters'" (Araki 2015, p.57).

"Before drawing, you first need to create an image of what conditions are necessary for the characters in the manga you are about to draw. The most important thing at this point is 'motivation.' If you don't clearly depict what the protagonist wants to do and their motivation for those actions, the character will not come together. Depicting 'why people act' is extremely important, and if this is ambiguous, readers cannot empathize with the protagonist" (Araki 2015, p.59).

As seen in these testimonies, many creators state that characters are the most important in manga, and furthermore, the motivations of the characters are important. Araki further states:

"I'm often asked, 'Do you create the story thoroughly from beginning to end before starting to draw?' But my method is different. Assuming there is a goal of 'the protagonist wins,' without deciding how they win, I first think about 'what kind of characters there are' and 'throw those characters into difficult situations.' That's the stage where I start drawing. (...) In my case, I prepare a big obstacle before the end. However, even I don't know how to overcome it while drawing. I fight alongside the protagonist, thinking, 'What would I do if I were the protagonist?' As I move the characters in that way, ideas gradually come to me" (Araki 2015, pp.137-138).

Related to this, manga artist Aya Ikuemi stated the following in an interview with Kimura:

"My works always feature characters who are not necessarily good people. And it's not that I like to depict them, but more like, 'Ah, as I followed the character, it turned out this way... It can't be helped.' In other words, it's 'how it turns out' as required by the story. I always think that I don't want to end with just pretty words, so even if the story turns out to be about bad personalities, I try not to avoid depicting it. In this work, it just happened to be about 'infidelity'" (Kimura 2018).

These testimonies suggest a creative process in which a story is born (or inevitably determined) by throwing a character with a certain "motivation" into a certain situation or human relationship. Let's cite a few more testimonies.

"It's better to think of that story you came up with first as a pattern to discard. If you place the protagonist on the pattern and they start walking in their own direction, that's great, but in reality, it's not that easy. Rather, 'thinking until they start walking in their own direction' is the correct answer" (Oishi 2023, p. 27).

"I mentioned that stories are patterns, but dramas are infinite. What creates infinite dramas are the characters. If you can create appealing characters, their unique actions and reactions will emerge, making the scenes appealing and the entire story appealing. The only partner that can break through the fate of 'stories being patterns' is the characters" (Arai 2023, p.95).

Here, the perspective that characters break through the story is extremely suggestive. Many authors directly or indirectly talk about a similar sense. Manga artist Kazuhiro Fujita's statement, "Don't fit characters to the story. Create the story and characters while going back and forth!" (Fujita 2016) also seems to essentially say the same thing.

Manga artists are always thinking about creating appealing story developments. Therefore, to overcome easily conceived ideas and common story developments, they use characters as catalysts. This leads to a writing process where appealing characters with clear **Motivations That Resonate** are **Throwing into Tough Situations** where even the author doesn't know what will happen. Difficult situations critically hinder the character's "motivation." In fact, they are often conceived with the intention of hindering the "motivation." Therefore, there is a strong relationship between **Motivations That Resonate** and **Throwing into Tough Situations**. Furthermore, the characters' relationships and story seem to be created in a way that mutually elevates them, centering on the characters' "motivations."

As we have seen so far, crafting engaging manga is first and foremost about creating engaging character motivations. And characters and stories tend to develop with the protagonist's motivation as the core. In the process, manga artists throw characters into difficult situations and corner themselves (the characters and the authors) into situations that break through easily imaginable story developments (Figure 3). In this way, the current sequence, where character design and story development proceed while interacting with each other, was derived.

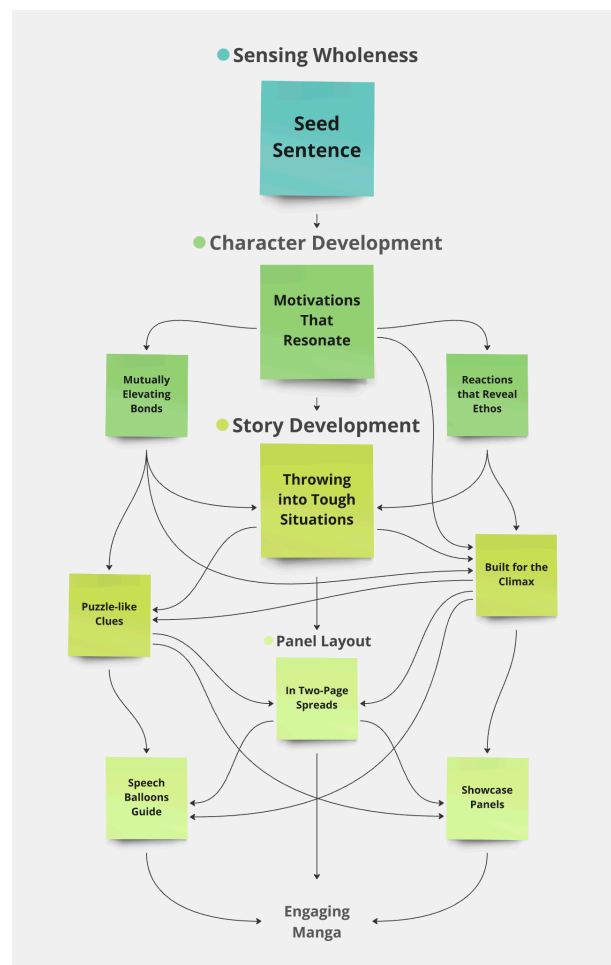


Figure 3: Order and Mutual Enhancement of Both Character and Story Development.

#### 4.3 "The Principle of Unfolding Wholeness" Observed in the Sequence

Finally, it is noteworthy that the sequence representing the manga crafting process in this study closely parallels Christopher Alexander's concept of the 'principle of unfolding wholeness.' This principle, proposed by Alexander—an architect and the originator of pattern language—refers to a

generative process characterized by a consistent thrust toward order, wherein parts emerge from and are shaped by the whole. These parts, referred to as 'sub-wholes' or 'centers,' support, complement, and reinforce one another, thereby enhancing the overall vitality of the whole (Alexander, 2002a, 2002b).

A similar generative process is observed in manga crafting. Manga artists begin by grasping the wholeness of the story through the **Seed Sentence**, which serves as the foundational concept from which potential developments are explored. The identification of the character's **Motivations That Resonate** establishes the driving force that directs the narrative progression. This motivation, derived from the **Seed Sentence**, is further refined through patterns related to character and story development. Following this refinement, the process proceeds to page and panel layout, which varies depending on the intended medium—print or digital. Finally, the narrative is translated into a *name* (a preliminary manga storyboard), culminating in a detailed storyboard (Figure 3).

In essence, this process illustrates how 'sub-wholes' or 'centers,' represented by these patterns, are gradually strengthened and interconnected under the guidance of the overarching **Seed Sentence**, thereby reinforcing the overall structure of the manga. This resemblance to Alexander's generative framework suggests a potential avenue for further detailed analysis.

## 5. CONCLUSION

In this study, we extracted patterns for crafting engaging manga to support those who want to try crafting manga in the future. As a result, 133 practical tips have been collected at this point. From among them, we selected, described, and systematized 10 fundamental and powerful patterns. The extracted patterns are **Seed Sentence**, **Motivations That Resonate**, **Reactions that Reveal Ethos**, **Mutually Elevating Bonds**, **Throwing into Tough Situations**, **Built for the Climax**, **Puzzle-like Clues**, **In Two-Page Spreads**, **Showcase Panels**, and **Speech Balloons Guide**.

We also focused on the process of how the creative act of crafting manga is realized. As a result, we found a sequence where manga begins with the abstract Sensing Wholeness, progresses from Character Development to Story Development, develops while going back and forth between characters and story, and then proceeds to Panel Layout. This creative process employed by manga artists closely resembles Christopher Alexander's concept of the 'principle of unfolding wholeness.' It can be understood as a generative process in which the overall wholeness is gradually strengthened and developed through the step-by-step application of patterns derived from the initial **Seed Sentence**.

However, in this paper, we have only described patterns in a rather limited scope as the 10 fundamental patterns and derived a sequence. In the future, it will be necessary to identify powerful patterns that also include the four basic structures mentioned by Hirohiko Araki: "(1) Character, (2) Story, (3) Worldview, and (4) Theme," as well as areas such as artwork including inking, dialogue, and other elements. At the same time, we believe it is necessary to add newly identified patterns to the system and reconsider the connections between patterns each time, while assuming the sequence obtained this time.

Finally, we hope that the 10 fundamental patterns proposed in this paper will serve as a guide for the creation of those who want to try crafting manga and support new challenges.

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