Using Japanese Yokai culture as a pattern language in a corporate case study

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In this paper, in order to explore the possibility of utilizing Japanese yokai culture as pattern language, we conducted a comparative analysis of yokai culture and pattern language based on a literature survey, developed a "yokai workshop" to create yokai as patterns based on the similarities extracted from both, and conducted a social experiment at a Japanese company to which the author belongs. Yokai are supernatural beings that cause "calamities and misfortunes" that occur in certain places and situations, and have been used in Japan as a code of conduct to avoid such negative experiences. Based on this, the workshop's theme was "Patternizing Problems", based on the view that patterns express solutions, whereas yokai are skilled at expressing problems. As a result, the following possibilities were identified. (1) Yokai and patterns can be formed through similar processes. (2) Yokai and patterns can have similar roles. (3) Yokai can enable us to deal with issues and problems in an enjoyable way. These findings indicate that Japanese yokai culture has the potential to be used as pattern language. In particular, it can be used as a pattern language to express problems.

1. INTRODUCTION

1.1   Purpose of this study

The purpose of this study is to clarify the possibility of using yokai culture, which has been utilized by people in Japanese society, as a pattern language in the modern age. In particular, we explore the potential of yokai as a pattern language for sharing and communicating issues.

1.2   Background of this study

Throughout Japan, there are various cultures that have been created in the local climate and in the lives of the people. In Japan, there is a "yokai culture" that has existed since before the modern era, which attributes the occurrence of mysterious phenomena to the work of "yokai".

Among the mysterious phenomena, especially negative experiences such as disasters and misfortunes are regarded as the work of yokai. For example, one might get lost in the mountains and be unable to move forward, or feel as if one's feet were suddenly scooped up by a river, and almost have an accident. People have created yokai as the cause of such experiences (yokai-ization) and passed on their existence and how to deal with them to others (yokai lore). By doing so, they have self-governed themselves, their families, and other communities.

In this study, we consider the yokai culture for dealing with such negative experiences as a pattern language for dealing with problems that Japanese people have handed down as wisdom since ancient times. The "yokai-ization" of experiences into knowledge that can be passed on can be seen as a process of pattern formation, and the "yokai lore" of telling others about the existence of yokai and how to deal with them can be seen as communication using pattern language.

In Japan, manga and anime based on yokai are very popular, as exemplified by the manga artist Shigeru Mizuki's "Gegege no Kitaro," and both adults and children have a great interest in yokai. Generally, discussing issues is avoided because it leads directly to criticism of the other party and may worsen relationships or involve negative feelings. However, by using yokai as a motif, we can make the act enjoyable.

1.3 Methods of this study

This study consists of the following three steps.
1) Literature review
2) Formulation of experimental methodology
3) Social experimentation

In the literature review, we first examined the definition and role of yokai and the process of yokai-ization based on yokai studies literature and articles. In conjunction, the definition and role of pattern language and the process of pattern formation were examined. We then conducted a comparative analysis of the pattern language of yokai cultures to identify similarities and differences. Then, based on the literature review, a "yokai workshop" was formulated to create yokai as patterns in order to explore the possibility of utilizing yokai culture as pattern language. The workshop was conducted with employees of the author's company and their opinions and reactions were analyzed. Then, based on the literature review and the results of the workshop implementation, the possibility of using Japanese yokai culture as a pattern language is clearly demonstrated.

1.4 Structure of this paper

This paper consists of seven chapters: Chapter 1, Introduction; Chapter 2, Survey of Previous Research on Yokai; Chapter 3, Comparative Analysis of Yokai and Pattern Language; Chapter 4, Formulation of Experimental Method; Chapter 5, Thematic Setting for Social Experiment; Chapter 6, Social Experiment and Results; Chapter 7, Conclusion and Future Issues.

2. WHAT ARE YOKAI AND THEIR ROLE IN JAPANESE CULTURE

2.1 Definition of a yokai

Komatsu (2015) states that gods and yokai arise when people assume the existence of transcendent (supernatural) beings or transcendent forces based on the assumption that phenomena that they find "mysterious" exist in their living world and try to explain such mysterious phenomena with them. It can be said that gods and yokai exist to explain "wonders". In particular, yokai have been used to explain "calamities" and misfortunes. Yanagita (1977) also states that yokai appear in places. For example, disasters in the mountains, such as forest fires, were explained as the work of a yokai called "Tengu", and disasters in rivers were explained as the work of a yokai called "Kappa". There was a time when many mysterious phenomena that could not be explained at that time were regarded as the work of yokai.

In other words, a yokai is an unexplainable negative phenomenon that occurs in a particular place or situation, and it is the entity that causes it.

2.2 Role of a yokai

Komatsu (2015) describes yokai as habitual "instrumental knowledge" that has no scientific basis and is like various arrangements that serve as behavioral norms for living in society. Takahashi and Fujii (2022) found that in 2020, the year of the new coronavirus epidemic, interest in yokai was particularly focused on "Amabie" and their legends of dispelling plagues, and that activities using amabie were conducted by various actors in society. Amabie is a yokai, known for its prophetic abilities and power to ward off epidemics. It is characterized by a fish-like body with three legs, long hair, and a beak-like mouth. It is said that upon its appearance, Amabie would predict an outbreak of disease and advise people to ward it off by showing them drawings of itself. The activities using amabie were carried out by various actors in society. This indicates that amabie may have not only a recreational function, which is believed to be possessed by modern yokai, but also a religious function to pray for the eradication of plague, and a function to spread and share the wish for the end of infectious diseases with others. This indicates that the existence of yokai may function effectively even in the modern age.

In other words, the role of yokai is a kind of "reasonable explanatory material" and various arrangements that serve as behavioral norms in order to recognize and avoid unexplainable negative phenomena negative phenomena that occur in certain places and situations, such as "calamities and misfortunes". In this way, people have protected themselves and their places.

2.3　The Japanese interest in a yokai

Takada (2019) further noted that many yokai traditions are related to natural disasters such as earthquakes and tsunamis. Based on this, he considers yokai lore to contain wisdom for explaining and avoiding the various natural disasters that Japanese people constantly face, considers yokai as an intellectual resource for disaster prevention and mitigation, and proposes ways to utilize yokai in the modern age. Workshop-type classes were held mainly for children in the lower grades of elementary school on the theme of "yokai and local hazards". The following items were discussed regarding "dangerous places in the community".

1) What kinds of yokai appear?
2) What kind of evil things do yokai do?
3) What should be done to avoid being attacked by yokai?

The focus on yokai from the perspective of local disaster education and the development of workshops can be thought of as a mechanism for fostering awareness and practical attitudes to ensure the safety of oneself and one's community, by viewing the three elements - concrete risk events, the essence of risk, and yokai - in a cyclical and relational manner. The paper states that yokai can be thought of as a mechanism for fostering awareness and practical attitudes to ensure one's own and local safety. In Japan, yokai are represented by Shigeru Mizuki's "Gegege no Kitaro," and with the popularity of anime such as "Yokai Watch", not only adults but also children have come to recognize and take a great interest in the culture of yokai. The report states that it is meaningful to consider yokai as an intellectual resource in disaster education programs and to study ways to utilize them, in the sense that children can work together with adults to address disaster prevention issues with interest and curiosity.

In other words, there is a deep-seated interest in yokai in Japan and among Japanese people that can generate children's interest in the difficult topic of disaster prevention and mitigation.
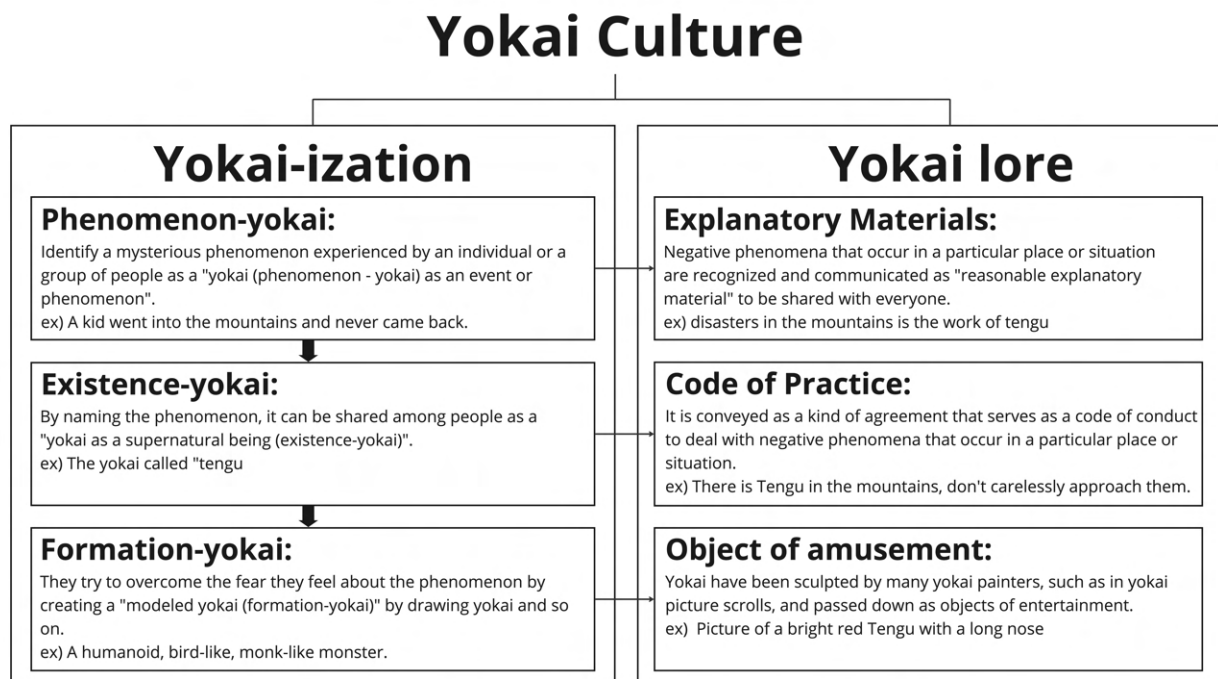
2.4　Creation process of a yokai

At the end of this section, introducing the creation process of a yokai, which leads into the next section.

Komatsu (2012) classifies yokai into the following three categories with the example of the well-known Japanese yokai called "azuki-arai" as an illustration.

1) Yokai as an event or phenomenon (phenomenon-yokai): A child has gone into a mountain behind a house and has not returned. People called it "Tengu kidnap" because they thought it was a kind of "Kamikakushi(spiriting away)" caused by a Tengu.
2) Yokai as a supernatural being (existence-yokai): A mysterious being was named "Tengu" as the cause of such a mysterious phenomenon, and was given the existence of a yokai.
3) Formed yokai (formation-yokai): The "Tengu" was formed in the form of a humanoid, bird-like, monk-like creature, in accordance with the descriptions of yokai forms given by those who experienced the phenomena. According to Komatsu (2012), the figuration of the yokai spoke of the superiority of the human side over the yokai. The creators and the people who enjoyed them may have feared the yokai that lurked in the dark of night or came from the other world.

These can be seen as processes for dealing with negative phenomena. The "yokai as event or phenomenon (phenomenon-yokai)" identifies a mysterious phenomenon experienced by an individual or a group of people, and by naming the phenomenon, it becomes a "supernatural entity (existence-yokai)" that can be shared among people, and by "forming a yokai (formation-yokai)," the fear felt about the phenomenon is overcome. The process of yokai-ization is a way of overcoming the fear people feel about the phenomenon. Phenomena and experiences that have been informed and learned through the process of yokai-ization are passed on to the next generation with several roles. The author summarizes that yokai-ka is a part of yokai culture, and that yokai culture can be established by combining yokai lore with yokai culture.(Figure1)

Figure 1 : Interpretation of Yokai Culture (prepared by the author)

Yokai Culture

Yokai-ization

Phenomenon-yokai:
Identify a mysterious phenomenon experienced by an individual or a group of people as a "yokai (phenomenon - yokai) as an event or phenomenon".
ex) A kid went into the mountains and never came back.

Existence-yokai:
By naming the phenomenon, it can be shared among people as a "yokai as a supernatural being (existence-yokai)".
ex) The yokai called "tengu

Formation-yokai:
They try to overcome the fear they feel about the phenomenon by creating a "modeled yokai (formation-yokai)" by drawing yokai and so on.
ex) A humanoid, bird-like, monk-like monster.

Yokai lore

Explanatory Materials:
Negative phenomena that occur in a particular place or situation are recognized and communicated as "reasonable explanatory material" to be shared with everyone.
ex) disasters in the mountains is the work of tengu

Code of Practice:
It is conveyed as a kind of agreement that serves as a code of conduct to deal with negative phenomena that occur in a particular place or situation.
ex) There is Tengu in the mountains, don't carelessly approach them.

Object of amusement:
Yokai have been sculpted by many yokai painters, such as in yokai picture scrolls, and passed down as objects of entertainment.
ex) Picture of a bright red Tengu with a long nose

2.5 Summary

Yokai are used to explain negative phenomena such as disasters and misfortunes, among other mysterious phenomena around us. Although yokai are often used to explain natural phenomena such as disasters, they are interpreted as negative phenomena such as accidents and incidents that are unfavorable to people because of human involvement there. Therefore, yokai also serve as a kind of "reasonable explanatory material" and various agreements that serve as behavioral norms in order to recognize and avoid unexplainable negative phenomena such as "disasters and misfortunes" that occur in certain places and situations. In this way, people have protected themselves and their places.

It can also be said that there exists a deep-seated interest in yokai in Japan and Japanese people, enough to generate children's interest and fascination with the difficult topic of disaster prevention and mitigation. Generally, discussing issues is avoided because it leads directly to criticism of the other party and may worsen relationships or involve negative feelings. However, by using yokai as a motif, we can make the act enjoyable.

The process of yokai-ization consists of three steps: recognizing negative experiences as "Yokai as events or phenomena (phenomenon-yokai)," naming them as "Yokai as supernatural beings (existence-yokai)," and making them visible through "Formed yokai (formation-yokai). These are the three steps of creating pattern language. These three steps are common to the process of creating pattern language, which consists of three major steps.

This study is an attempt to utilize Japanese yokai culture as a pattern language. In the next chapter, a comparative analysis of yokai culture and pattern language are conducted to clarify the similarities between the two.

3. HOW YOKAI AND PATTERNS ARE SIMILAR

3.1 What is pattern language and what is a pattern?

A pattern, as defined in the original work by Alexander et.al (1977) is a spatial configuration in the natural world or the built environment which resolves a number of forces in play. For example, you walk along a stream and notice a circular movement in the water, i.e. a whirlpool. Further investigation allows you to identify the forces at play, (i.e. gravity pulling at the flowing water, the confining banks of the stream, and a boulder in the middle of the stream) which result in, give rise to this visible circular motion. Or, for example, you walk around

the city and notice that narrow balconies are never used but that balconies at least 6 feet deep are used. People put out small tables and chairs, watch the life on the street, and wave to friends. You start to identify the forces, i.e. deep balconies feel safe, like an extension of the inside room, while narrow balconies feel precarious; people like to sit in transition, both inside and outside and feel connected to both. You name this spatial configuration, SIX FOOT BALCONY. A pattern language originally meant a web of interrelated patterns that formed a coherent building tradition. A good pattern language would have what Alexander called a Quality Without A Name, an ineffable quality that emerged from all the internal relationships that could be felt but not easily articulated. Later, in work in Japan, Iba (2014) focused on the power of naming as a way to support participatory community planning.

3.2 Commonalities in process

According to Ishiguro (2023), one process for creating pattern language is divided into three major steps

1) Pattern mining: First, interviews are conducted with people who have experience in the field, and then each member of the group writes down what they feel is important on sticky notes.
2) Pattern Writing: The participants begin to write the actual pattern language for the common patterns found in the first step. The written pattern language is discussed in a review meeting, and revisions are made over and over again to refine the pattern language text.
3) Pattern symbolizing: Pattern names and pattern illustrations are added to the developed pattern language. Here, as in the second stage, revisions are repeated through review meetings.

Through this process, the pattern language is completed. On the other hand, the creation process of a yokai introduced in the previous section can be organized as follows.

1) Yokai as events or phenomena (phenomenon-yokai): Identifying mysterious phenomena in a certain place or situation, mainly from people's experiences and legends.
2) Yokai as a supernatural being (existence-yokai): To give names and descriptions of the forms of the yokai that cause these phenomena.
3) Formed Yokai (formation-yokai): Iconography and modeling of yokai according to the descriptions of their forms given by people who have experienced them.

All of these processes are similar in that they consist of three major steps: extracting information from people's experience, giving names and explanations to the information, and creating images and forms.

3.3 Commonalities in roles

Iba (2014) identifies three linguistic aspects of pattern language that have the following three roles

1) Glasses of recognition (conceptual framework of recognition): by defining patterns as concepts, we can recognize "that pattern is what is happening now.

2) Vocabulary of communication: By using the names we give to patterns, we become able to discuss them.

3) Components of Thinking: It becomes an easy-to-handle unit for thinking about the composition on the subject and allows us to think while combining the pattern names when designing.

On the other hand, the ROLE OF A YOKAI introduced in the previous section can be organized as follows.

1) Recognition of phenomena: It can recognize unexplainable negative phenomena that occur in certain places and situations, such as "calamities and misfortunes.

2) Shared awareness: "reasonable explanatory material" to avoid these phenomena, which can be like various agreements that serve as a code of conduct.

3) Components of Thinking: We can also consider those phenomena as the work of several yokai. For example, with regard to "floods," summer typhoons and other storms have been thought of as the work of a yokai called "Ichimokuren," landslides and cliff collapses as the work of a "daija(giant snake)," and river disasters as the work of a "kappa," respectively. If we consider that each yokai, or calamity, constitutes the phenomenon of a disaster, we can view them as "components of thought".

In these three points, there is a commonality of roles.

3.4   Differences between yokai and patterns

On the other hand, we have also identified differences between yokais and patterns in three major aspects.

   1)   Quality Without A Name and Problem Without A Name: Patterns are the linguistic visualization of "Quality Without A Name," which is a "solution" that does not yet have a name, in other words, an indescribable quality. On the other hand, yokai is to verbalize and visualize "problems" that are hard to describe, i.e., problems that do not yet have a name. In other words, it has the characteristic of verbalizing and visualizing "Problem Without A Name.

   2)   Solution-driven flow and Problem-driven flow: Pattern language refers to successful examples of "solutions" to "problems" that arise in a certain "context" and creates patterns with "names" attached to them. This can be called a solution-driven flow. On the other hand, a yokai is a pattern created by assigning a name to a "problem" that arises in a "context. In other words, it is a problem-driven flow. A comparison is shown in Figure 2.

   3)   Language and Character: The difference between pattern language and yokai is that pattern language outputs language, while yokai outputs characters. In Japan, yokai are represented by Shigeru Mizuki's "Gegege no Kitaro" and the popularity of anime such as "Yokai Watch" has made not only adults but also children recognize the culture of yokai and have become greatly interested in it. The output of this popular character "yokai" is expected to attract many participants to various initiatives that utilize pattern language.

Yokai share similarities with pattern language in that they can be formed by the same processes as patterns and can have similar roles to pattern language. On the other hand, while pattern language expresses resolution, yokai is characterized by its ability to verbalize and visualize problems. In addition, its characterization can elicit strong interest among men and women of all ages in Japan. In other words, yokai may be an effective pattern language in situations where problems are shared among many people.

Figure 2 : Solution-driven Process and Problem-driven Process (prepared by the author)
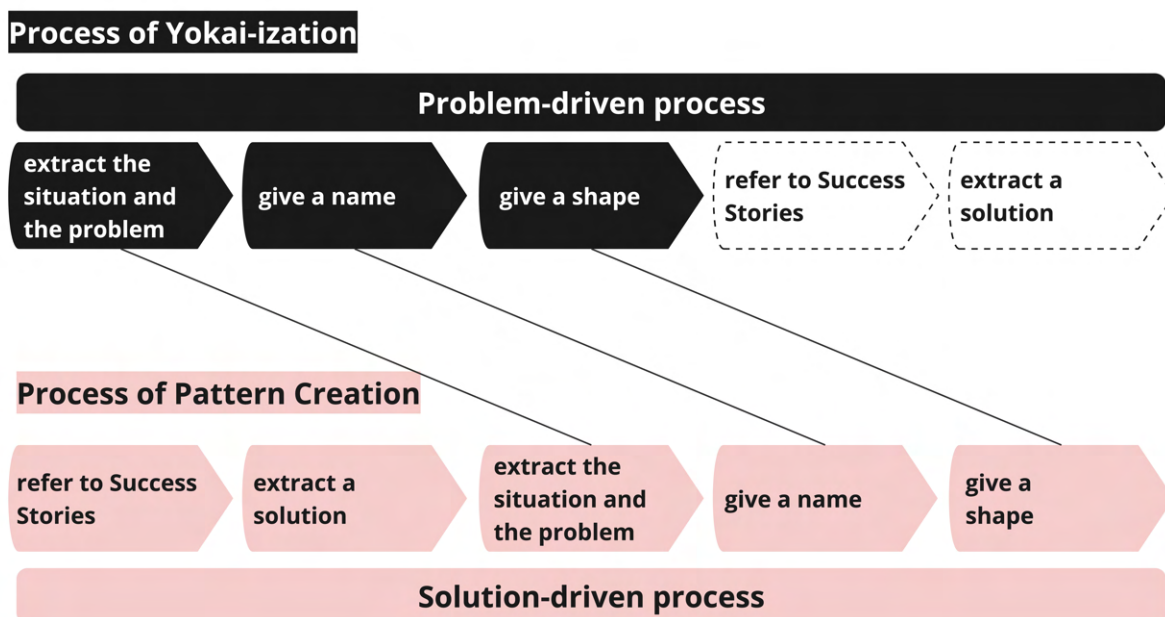
3.5   Summary

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Based on the similarities and differences between yokai culture and pattern language extracted in this chapter, we formulate a method of social experimentation to explore the possibility of utilizing Japanese yokai culture as a pattern language.

4. FORMULATION OF EXPERIMENTAL METHODS

4.1 Aim of the " Yokai Workshop"

As a method of social experimentation, a "Yokai Workshop" was designed to create yokai as patterns. The aim of this workshop was to explore the possibility of utilizing Japanese yokai culture as pattern language, and to confirm the similarities between yokai culture and pattern language, as described below.

1) To confirm that yokai and patterns can be formed through similar processes.
2) To confirm that yokai and patterns can have similar roles.
3) To confirm that yokai can handle issues and problems in a fun way.

4.2 Framework for the " Yokai Workshop"

In designing a workshop that can achieve the above three aims, we utilized the aforementioned common formation process of Yokai and Pattern, and structured it in five steps (Figure 3).

The first step is the "introduction". This is an introduction that helps participants understand basic information about yokai, such as its definition and role, and also establishes the worldview that yokai are real and always lurk in our neighborhoods to do bad things. The second step is to encourage people to actively and comfortably share their problems based on the mindset that problems always exist and are the work of yokai.
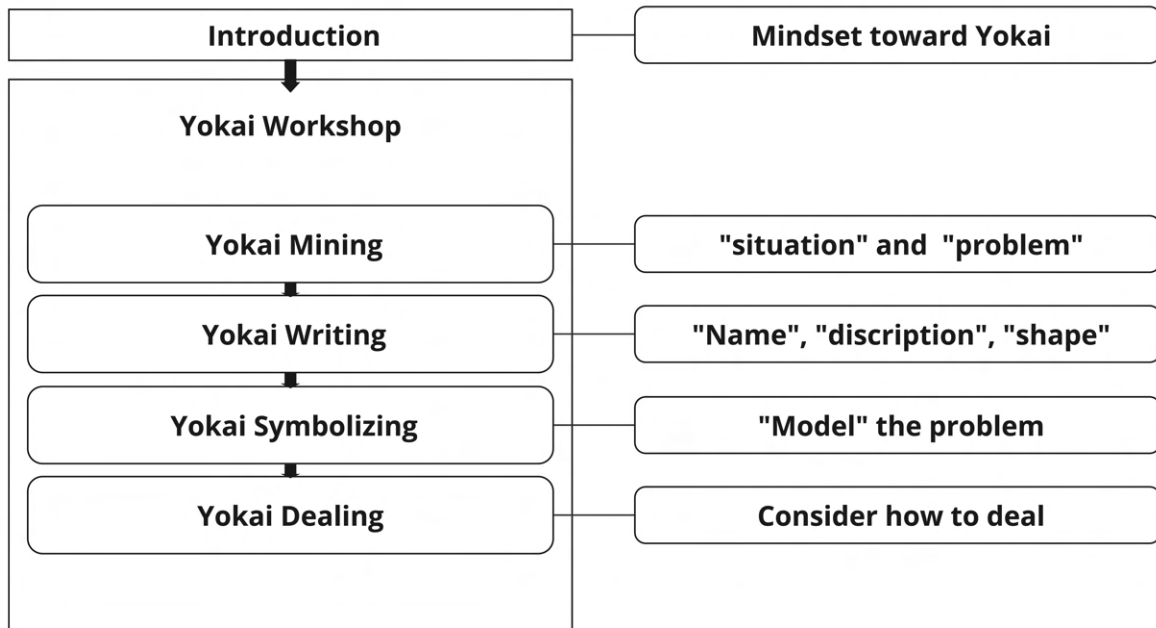
The second step is titled "Yokai Mining", which is the phenomenalization of the problem. Referring to "Yokai as events or phenomena (phenomenon-yokai)" in the process of yokai-ization and "pattern mining" in the process of pattern language formation, a set of "situations" and "problems" are identified for various problems.

The third step is titled " Yokai Writing," and involves bringing the problem into existence. Referring to "Yokai as supernatural beings (existence-yokai)" in the process of yokai-ization and "pattern writing" in the process of pattern language formation, we "name" the phenomenalized problems as yokai and describe "descriptions" of what kind of yokai they are. Also, describe what kind of "shape" it has, as it is needed as a material for modeling in the next step of "problem modeling".

The fourth step is titled "Yokai Symbolizing" and involves the modeling of the problem. Referring to the " Formed yokai(formation - Yokai)" in the process of yokai-ization and the "Pattern Symbolizing" in the process of Pattern Language formation, the image generation AI is used as a prompt for the description of the "form" described in the third step, and the yokai is "formed" into an image by using it.

The fifth step is titled "Yokai Dealing", in which the participants consider how to deal with the problem. Referring to the step of considering solutions in the pattern language formation process, we consider how to deal with the yokai, i.e., the problem.

Figure 3 : Framework for the " Yokai Workshop" (prepared by the author)

Introduction	Mindset toward Yokai

Yokai Workshop

Yokai Mining	"situation" and "problem"
Yokai Writing	"Name", "discription", "shape"
Yokai Symbolizing	"Model" the problem
Yokai Dealing	Consider how to deal

4.3   Summary

  Based on the similarities and differences between yokai culture and pattern language, this chapter designs a "Yokai workshop" as a method of social experimentation to explore the possibility of using Japanese yokai culture as pattern language. The aims are as follows.
  1)   To confirm that yokai and patterns can be formed through similar processes.
  2)   To confirm that yokai and patterns can have similar roles.
  3)   To confirm that yokai can handle issues and problems in a fun way.
  It consists of four major steps, which can be summarized as follows
  1)   Introduction: Introduction to the definition, roles and worldview of yokai.
  2)   Yokai Mining: Identification of a set of "situations" and "problems
  3)   Yokai Writing: "name", "discription", and "shape" the phenomenalized problems
  4)   Yokai Symbolizing: Image generation AI is used to visualize and "model" yokai.
  5)   Yokai Dealing: Thinking about how to deal with the problem
  As described above, we designed a workshop to create yokai as patterns that express problems from the viewpoint that yokai are skilled at expressing problems while patterns express solutions. In order to explore the possibility of using Japanese yokai culture as pattern language, it is necessary to conduct this workshop as a social experiment. In the next chapter, based on the literature review and the author's awareness of the problem, the theme of the social experiment is set. Specifically, its theme is "Pattern Language for Organizational Problems", which aims to form a corporate culture in which problems can be shared and communicated with each other by utilizing the characteristics of yokai as a pattern for expressing problems.

5.   SETTING THE THEME OF THE SOCIAL EXPERIMENT

5.1   Pattern Language Transition

  Iba (2011) describes the evolution of the use of pattern language from the three perspectives of "design objects supported by pattern language", "design characteristics", and "pattern language usage". Looking at the "design object", the first pattern language was created for the "material object" of architecture, and is called "Pattern Language 1.0". Since the late 1980s, pattern language has been applied and developed to software development

and interfaces. A representative example is the "design patterns" for object-oriented development by Gamma (1998) and others. The stage in which these patterns were applied to "immaterial" design objects is called "Pattern Language 2.0". In the 2000s and after, pattern language came to be applied to areas where "human actions" such as learning, education, and presentation are design objects, and how to design the actions of people themselves (to enable them to act and practice) to design or demonstrate their creativity. This is called "Pattern Language 3. This is called "Pattern Language 3.0".

According to Iba & Furukawazono (2013), from the perspective of "design usage," Pattern Language 1.0 is used to connect the architects who design the city and the residents who live there, and its usage is to "bridge the gap between those who design and those who use". Pattern Language 2.0 is intended to improve the skills of software engineers, and its usage is to "bridge the gap between skilled designers and unskilled users," and basically does not connect or communicate with people through patterns. In Pattern Language 3.0, the usage is to "connect diverse people with different experiences," and it develops into a media usage where people talk about their experiences through patterns.This pattern 3.0 is what is explored in the case study of yokai in this paper.

5.2   Corporate culture and its necessity

Kono (1993) states that corporate culture refers to unique values and codes of conduct that are consciously or unconsciously shared among the members of an organization. In English, it is expressed as "corporate culture" or "company culture". The basis of corporate culture is the history, traditions, and achievements of the company since its foundation. Naturally, the content varies greatly from company to company. Peter Drucker, the father of management, famously said, "Culture eats strategy for breakfast". The future of a company may be determined by how it fosters and reforms its corporate culture. The aforementioned Pattern Language 3.0 is expected to work effectively in fostering and implementing this corporate culture.

5.3   Situation of regional subsidiaries

In this context, regional subsidiaries often do not have a corporate culture. In this paper, a regional subsidiary is a subsidiary or a wholly owned subsidiary established by a parent firm in each region, mainly for similar services. Such regional subsidiaries are mainly intended to localize the parent company. For this reason, top management is usually seconded from the parent company. They often follow the corporate culture of the parent company and do not require their own corporate culture. On the other hand, the author, who has been consulting on corporate branding in recent years, says, "I want front-line employees to make the company their own. We want to create an organization that can conduct activities autonomously even if management changes. We want to create a culture for that purpose." The reasons for this are: "We cannot maintain our competitive advantage by simple localization because customer needs are diversifying", "For this reason, we want front-line employees who understand the region to take the lead in moving things forward", "We will have trouble managing the company if employees on loan do not fully understand the region and the regional subsidiary", "In addition, if people do not feel a sense of meaning in their work, they will quit, and we will not be able to secure human resources for the region", and "We want to create a culture of autonomy".In addition, if people do not feel the meaning of work, they will quit, and it is difficult to secure human resources in the region," etc. This is because there is an awareness of serious issues in the field that cannot be dealt with by the conventional theories.

5.4   The necessity of "design, by ourselves"

In addition to this, some of the parties involved, who are the ones responsible for the formation of corporate culture, have experienced "not being able to use the deliverables" after working with outside designers, consultants, and other experts on projects to formulate corporate culture. The author has also provided support for such projects, but the results were not useful. It is the people on the frontlines who are responsible for subsequent corporate activities that determine the outcome of corporate culture formation. What can be done during the project period so that the people onsite will continue to act independently even after the project period is over? What are the viewpoints to be kept in mind in order to carry out effective activities with a view to future development? Looking back on the practice, we found that the parties involved in the project, who were highly involved and burdened in the formation process, were able to utilize the corporate culture and actively participate in the corporate activities after the project. This situation overlaps with "Design, by Ourselves" in which "3) Design by Parties (by Ourselves)" is carried out among the three design approaches that Kamihira (2017) organized for the "Framework for Design by Parties".

5.5 The difficulty of finding a problem

Alexander's answer to the question, "What is design?" was to find a "problem" that arises in a certain "situation" and to "solve" it. Normally, the word "design" tends to focus only on "creating form," or "solving" problems, but Alexander believed that discovering problems is also a part of design. In the course of providing support, negative reactions to discovering this problem were noticeable. They were afraid to speak out about the problem for a variety of reasons: "It would be a complaint about the company," "It would be a criticism of someone else," "I don't want to put myself on the shelf," "I'd be carrying the burden," "I'm not in a position to say it," "I don't want to be seen as a jerk," or "I don't want to be thought of as all talk." In aiming to become an autonomous organization, it is important to correctly sort out the problems of one's own organization, consider solutions to those problems, and then formulate the necessary corporate culture. Smoothing the step of discovering these problems is an important issue.

5.6 Summary

Based on the above, the theme of "Patternizing Organizational Problems" will be set to form a corporate culture in which problems can be shared and communicated with each other, utilizing the characteristics of a yokai as a pattern for expressing problems.

6. THE CASE STUDY AND RESULTS

6.1 Overview

A summary of the implementation is shown in Table 1. The study was conducted at one company to which the author belongs.

Table 1: Summary of the workshop

item	content
Title	Organizational Yokai Workshop
Theme	Patternizing Organizational Problems
Objective	Developing the ability to identify and address organizational issues independently
Target Audience	Stakeholders interested in improving their affiliated companies
Platform	Online whiteboard tool "Miro"
Duration	2-3 hours

6.2 Workshop program

The workshop program is shown in Table 2. The program was designed and implemented in four steps that followed the process of creating the pattern language.

Table 2: Workshop Program

program		content
#1	Yokai Mining	Describing the Situation-Problem Set
#2	Yokai Writing	Identifying important sets in Step 1 and describing Yokai Name-Description-Appearance
#3	Yokai Symbolizing	Drawing Yokai using image generation AI
#4	Yokai Dealing	Brainstorming ideas for Yokai extermination methods

6.3 Yokai Mining

According to Iba et al. (2012), there are various ways to uncover patterns, but the holistic approach proposed by Iba et al. (2012) includes three methods: reflection (uncovering from one's own experience), interview (uncovering through interviews), and reading (uncovering from the literature). In the present study, we chose the reflection method (digging up from our own experiences) and conducted the research as shown in Table 3.

Table 3: Yokai Mining Method

item	content
Theme	Identifying the Types of Yokai Lurking within an Organization
Rules	・Discover the types of Yokai through a set of "Situation-Problem" pairs. ・Avoid associating the Yokai with specific individuals. ・It is permissible to engage in discussions or walk around the office.
Procedure	1. Use yellow sticky notes to write down specific situations/scenarios/locations. 2. Use darker yellow sticky notes to write down corresponding problems. 3. Allocate 10 minutes.

6.4 Yokai Writing

In the yokai writing process, we gave a "name (yokai name)" to a particularly important problem from the "situation-problem" set described in the yokai mining process, and described its "description". In addition, in order to shape the yokai, a description of the "figure" was also described in the set. The process was carried out as shown in Table 4.

Table 4: Methods of Yokai Writing

item	content
Theme	Recognizing Yokai within an Organization
Rules	・Avoid associating the Yokai with specific individuals. ・Choose names that can be easily shared and understood by everyone. ・The "Situation-Problem" sets can be based on experiences other than your own.
Procedure	1. Choose some "Situation-Problem" sets. 2. Use pink sticky notes to give the Yokai a "Name". 3. Use darker pink sticky notes to write a "Description" of the Yokai. 4. Use red sticky notes to describe the Yokai's "Appearance". 5. Allocate 10 minutes.

6.5 Yokai Symbolizing

In Yokai Symbolizing, we attempted to formulate Yokai using the description of "figure" described in Yokai Writing. Various image-generating AIs were utilized for the modeling so that all subjects, regardless of ability or skill, could participate. The process was carried out as shown in Table 5.

Table 5: Methods of Yokai Symbolizing

item	content
Theme	Visualizing Yokai Hidden within an Organization
Rules	・Aim for something that can be easily shared and understood by everyone. ・Strive for appearances that evoke a sense of fear, compelling one to exterminate them instinctively.
Procedure	1. Create a prompt with a description in "Appearance" for an image generation AI service. 2. Add the phrase "This is a Yokai." to the prompt. 3. Input the prompt into an image generation AI service to visualize the Yokai. 4. Select a preferred visual and paste it. 5. Allocate 10 minutes.

6.6 Yokai Dealing

In the Yokai Ideation, ideas for exterminating the Yokai formed in Yokai Symbolizing were based on the "Situation-Problem" described in Yokai Mining and the "Name (Yokai Name)" and "Description" described in Yokai Writing. The process was carried out as shown in Table 6.

Table 6: Methods of Yokai Extermination Ideation

item	content
Theme	Exterminating Yokai within an Organization
Rules	・Aim for something that can be easily shared and understood by everyone. ・Avoid associating the Yokai with specific individuals.
Procedure	1. Choose a Yokai and brainstorm ideas to exterminate it freely. 2. Use green sticky notes to write down the ideas. 3. Allocate 10 minutes.

6.7　Results

In this workshop, the following results were obtained that support the aforementioned aims.

1) Yokai and patterns can be formed by a similar process.

Same Process as Pattern Language: As shown in Table 2, the process followed by Pattern Language was able to produce a yokai.

2) Yokai and patterns can have similar roles

In addition, the yokai produced became a problem that could be shared by everyone. In the process of identifying important sets of "situation-problems" in the team writing process from among the "situation-problem" sets diverged by individuals in the yokai mining, the important sets of "situation-problems" in the team could be shared and were called by yokai names in the subsequent process.

3) Yokai makes dealing with issues and problems fun

As shown in Figure4~9, a large number of yokais were generated despite the short time involved. The participants' comments are shown in Table 7, and many of them mainly said, "I could enjoy finding problems through finding yokai. Some said that they were usually afraid to mention problems for various reasons, such as "I am not in a position to say," "I don't want to be thought of as a jerk," or "I don't want to be thought of as just talking. The results of the survey were as follows.

Figure 4 : Generated yokai（LABEL）

#yokai name
LABEL

#about yokai
By indiscriminately affixing a sticker called a "label" to people, this yokai causes people to over-interpret things, invites rumors, and creates prejudice

#context
They often appear when new people join an organization or team.

#problem
They prevent communication and mutual understanding by unilaterally assuming that a person is this or that, based on a rumor or a single incident.

#solution
-

Figure 5 : Generated yokai（INFORMATION BREAKER）

#yokai name
INFORMATION BREAKER

#about yokai
A yokai that gathers information and contacts for achieving goals, but keeps them to oneself to protect their position and demonstrate power.

#context
Often lurks in large companies with a wide variety of departmental divisions.

#problem
They believe it is important to retain information in order to secure their own position, causing problems that inhibit collaboration within the organization.

#solution
Summon Yuzuru-kun(Find people who are well informed and add them to the team.)

Figure 6 : Generated yokai（PUBLIC EYE）

#yokai name
PUBLIC EYE

#about yokai
A yokai that creates humanoid vine spirits that make impossible statements such as, "You'll fail anyway," or "There's no way you can do it," to constrain people from taking action

#context
It often appears at the beginning of a term or when you set a goal and feel renewed.

#problem
When they try something new or challenging, they are concerned about criticism from others, which causes problems that prevent them from taking action.

#solution
-

Figure 7 : Generated yokai （CONFUSED BIRD）

#yokai name
CONFUSED BIRD

#about yokai
A yokai known as the cause of meetings that never end because for some reason the conversation goes in circles, even though the agenda has been set.

#context
They often appear at meetings for idea generation and risk management.

#problem
Causes problems with topics becoming distracted, going off-topic, or causing conflicts of opinion.

#solution
-

Figure 8 : Generated yokai（IDEA-SEALING DEVIL）

#yokai name
IDEA-SEALING DEVIL

#about yokai
A yokai that stifles new ideas by hindering the creativity and imagination needed to generate ideas and induces people to be cautious at all times.

#context
It often appears when working alone or inventing ideas.

#problem
Causes problems that make avoiding failure and risk a top priority and makes people hesitant to try new things.

#solution
Consider a wide range of ideas and disperse the demon's consciousness.

Figure 9 : Generated yokai（BLAMER）

#yokai name
BLAMER

#about yokai
A yokai that makes people blame others for their blunders.

#context
They often appear when there is some trouble.

#problem
An attitude of blaming others and defending oneself when something is inconvenient. This attitude causes one to lose dignity as a person and hinders one's own growth.

#solution
-

Table 7: Participants' comments

#	comments
1	Have fun and share your problems.
2	If you make a yokai out of someone in particular. you can do so without denying
3	By using a yokai on the issue I could think I was able to think
4	It's interesting to visualize the problem.
5	Common challenges. By replacing the Yokai I felt that it would be easier to touch on negative topics.
6	Because there was an explanation of the premise that we were trying to tackle something mysterious that could not be explained, I had the comfort of not worrying about it and blaming it on the yokai.
7	It is because they are not trying to produce the right thing. It is because we are trying to create something interesting.
8	We deal with negative things, but feel positive when we work on them. The tools are fun, and so is the idea of making it visual, e.g., the theme of yokai.
9	It's a fun way to have fun within the company. I thought it was great that we could share problems I thought it was very good.
10	With this method, anything can be I think I can see it as a fun issue

7. CONCLUSIONS AND FUTURE ISSUES

First, a yokai has similarities with pattern language in that it can be formed by a process similar to that of a pattern and can have a role similar to that of pattern language. On the other hand, while pattern language expresses resolution, yokai has the characteristic of verbalizing and visualizing problems. It was found that yokai can be an effective pattern language, especially in situations where problems are shared among many people. In addition, its characterization can elicit strong interest from men and women of all ages in Japan.   Although it is necessary for autonomous organizations to discover and solve problems on their own, the process of problem discovery is often avoided. The use of yokai, therefore, provides an opportunity to confront problem discovery in a fun way. In other words, yokai can contribute to the first step toward the development of autonomous organizations by drawing the interest of the people involved and enabling them to discover and share problems in an enjoyable way

On the other hand, future issues remain in the following points.
1) Consideration of solutions
We were not able to sufficiently consider how to deal organizational yokai that means solve problems in the organization in this process. We would like to redesign the process through repeated practice in the future.
2) Elimination of genus
When considering yokai, there was a tendency to tie them to a specific person. If the problem is attributed to a person, the person who is tied to the problem becomes the bad guy. We would like to consider a process that allows the problem to be shared by all members of the organization.
3) Passing on the yokai
Although the workshop was conducted with a small group of people in the organization this time, organizational yokai (problem) and how to deal with it should be shared and passed on throughout the company. We would like to consider how this can be done, and the output and process.

REFERENCES

Laloux, F. (2014). "Reinventing Organization." Nelson Parker.

Suzuki, Kanichiro. (2009). "A Study on Visionary Management in Small and Medium-sized Enterprises: Value, Vision Penetration, and Performance." Journal of Japan Association for Small Business Studies, 14, 13-22. DOI: https://doi.org/10.24717/jasve.14.0_13

Kono, Toyohiro. (1993). "Corporate Culture and Departmental Culture in the Whole Organization." Journal of the Japanese Society for Organizational Studies, 27(2), 48-60. DOI: https://doi.org/10.11207/soshikikagaku.20220630-110

Kamihira, T. (2017). "Framework on Participatory Design: Supplemental Material for the Theme Discussion Session 'Co-creation and Participatory Design' at the 2017 Autumn Conference of the Japan Society for Design Studies." Retrieved from http://www.ne.senshu-u.ac.jp/~cd/files/dio2.pdf (Accessed: October 15, 2020).

Iba, T. (2013). "Pattern Language: Language for Creating a Creative Future." Reality Plus.

Iba, T. (2014). "Pattern Language as a Medium for Creative Dialogue: Learning Patterns as a Case Study." Keio SFC Journal, 14(1), 82-106.

Iba, T. (2011). "Pattern Language 3.0: New Targets × New Uses × New Ways of Making." Information Processing, 52(9), 1151-1156.

Gamma, E., Helm, R., Johnson, R., Vissides, J. (Authors), Motoi, S., & Yoshida, K. (Translation Supervisors). (1998). "Design Patterns: Elements of Reusable Object-Oriented Software, Revised Edition." Softbank Publishing.

Iba, T, & Furukawa, Tomoki. (2013). "Pattern Language as a Media Supporting Creative Society." Journal of Information Management, 55(12), 865-873. DOI: https://doi.org/10.1241/johokanri.55.865

Iba, Takashi, & Isaku, Taichi. (2012). "Holistic Pattern-Mining Patterns." In Proceedings of the 19th Pattern Languages of Programs conference, pp. 1-19.

Ishiguro, Y. (2023). "A Study on the Development of Qualities and Abilities to Solve Daily Life Issues in a Classroom Group: Focusing on Pattern Language and its Utilization." Journal of the Japan Society for Special Activities, 31(0), 69-77. DOI: https://doi.org/10.51044/tokkatsu.31.0_69

Teramura, S., Ando, M., Otsuka, A., Oshiro, A., Katsuragi, S., & Shimogo, M. (2019). "Pattern Language based on Activities and Challenges for Supporting UX Design Introduction in Companies." Journal of the Human Interface Society, 21(4), 335-348. DOI: https://doi.org/10.11184/his.21.4_335

Komatsu, Kazuhiko. (2015). "Yokai Gaku Shin-Ko: Yokai Kara Miru Nihonjin no Kokoro." Kodansha Gakujutsu Bunko.

Yanagita, Kunio. (1977). "Yokai Dangi." Kodansha Gakujutsu Bunko.

Komatsu, Kazuhiko. (2012). "Yokai Bunka Nyumon." Kadokawa Sophia Bunko.

Takahashi, Ayako, and Fujii, Shuhei. (2022). "The Societal Function of Yokai as Seen in Amabie During the COVID-19 Pandemic." Psychological Research, 93(1), 58-64. DOI: https://doi.org/10.4992/jjpsy.93.20340

Takada, Tomonori, and Kondo, Ayaka. (2019). "A Study on Disaster Prevention Education Program Utilizing Yokai Folklore as Intellectual Resource." Journal of Japan Society of Civil Engineers, Ser. H1 (Education), 75(1), 20-34. DOI: https://doi.org/10.2208/jscejeep.75.20