

Research Article

End-of-life Planning and Well-being in Bashō's "Oku No Hosomichi": A Structural Analysis Using PlantUML C4 Models

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Abstract

This research examines three haiku from Matsuo Bashō's masterwork *Oku no Hosomichi* (The Narrow Road to the Deep North): "Inochi futatsu no naka ni ikitaru sakura kana" (Living within two lives-the cherry blossoms), "Hamaguri no futami ni wakare yuku aki zo" (Like a clam's shell at Futami, we part as autumn departs), and "Araumi ya Sado ni yokotau Amanogawa" (Turbulent seas-stretching toward Sado, the Milky Way). We employ PlantUML C4 models to conduct a structural analysis of these haiku. By applying the four abstraction layers of the C4 model (Context, Container, Component, and Code) to haiku interpretation, we systematically visualize the elements of end-of-life contemplation (*shūkatsu*) and well-being embedded within these poems. Our analysis reveals common themes across all three haiku: acceptance of the duality of life and death, re-recognition of relationships, and transcendence through devotion to nature-all core elements of spiritual well-being in the context of preparing for life's end. This methodology demonstrates the potential to rediscover the contemporary value of classical literature and suggests applications for practical end-of-life support. The findings provide a structured framework for understanding how poetic forms can encapsulate profound existential insights, offering valuable perspectives for both literary studies and contemporary well-being practices.

Keywords

Matsuo Bashō, *Oku No Hosomichi*, End-of-life Planning (*Shūkatsu*), Well-being, PlantUML, C4 Model, Haiku Analysis, Views on Life and Death

1. Introduction: Examining End-of-life Planning and Well-being in Haiku - Motivation and Background

1.1. Research Motivation

In contemporary society, interest in *shūkatsu* (end-of-life

planning-activities undertaken in preparation for the final phase of life) is growing. As our aging society progresses, the importance of well-being (a state of good health and happiness) as spiritual preparation, beyond mere physical ar-

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rangements, is increasingly recognized.

Meanwhile, Japanese classical literature, particularly haiku, condenses profound themes such as life, death, and impermanence into an extremely limited number of syllables. Among these works, Matsuo Bashō's (1644-1694) "Oku no Hosomichi" stands out [1]. This journey is effectively positioned as a "final journey," and the poems composed along the way vividly reflect an inner state closely aligned with end-of-life contemplation [1-3].

1.2. Research Background

Traditional haiku research has primarily focused on literary interpretation and historical investigation. However, recent developments in digital humanities have opened new possibilities for interpretation using systems thinking and modeling techniques.

The PlantUML C4 model was originally developed as a method for visualizing software architecture [4, 5]. Yet its hierarchical and structural approach can also be applied to analyzing haiku, which possess complex semantic structures. This research attempts to explicitly visualize the structures of end-of-life contemplation and well-being inherent in Bashō's poems using this method.

2. Objectives

This research has three objectives:

1. Establish a methodology for applying PlantUML C4 models to haiku analysis
2. Systematically extract elements of end-of-life contemplation and well-being from Bashō's three selected haiku
3. Derive insights from the analysis that can be applied to contemporary end-of-life support

3. Subject: Three Selected Haiku from "Oku No Hosomichi"

We have selected the following three haiku from "Oku no Hosomichi" that particularly strongly express the mindset of end-of-life contemplation:

3.1. First Haiku: "Inochi Futatsu No Naka Ni Ikitaru Sakura Kana"

English interpretation: "Living within two lives-the cherry blossoms"

1. Location: Ogaki
2. Background: Composed near the end of the journey, before cherry blossoms in full bloom
3. End-of-life elements: Awareness of the boundary between life and death; the coexistence of life's brilliance and transience

Note for international readers: Cherry blossoms (*sakura*)

hold deep cultural significance in Japan as symbols of beauty and impermanence. They bloom brilliantly but fall quickly, embodying the Buddhist concept of *mono no aware* (the pathos of things).

3.2. Second Haiku: "Hamaguri No Futami Ni Wakare Yuku Aki Zo"

English interpretation: "Like a clam's shell at Futami, we part as autumn departs"

1. Location: Ise, Futami-ura (a coastal area)
2. Background: Composed when parting from Sora, his traveling companion
3. End-of-life elements: Organizing relationships, accepting separation, premonition of life's end

Note for international readers: This haiku uses wordplay (*kakekotoba*). "Futami" refers both to the place name and to a clam's "two shells" (*futatsu no mi*). The clam's two shells, which fit perfectly together, symbolize the deep bond between Bashō and Sora.

3.3. Third Haiku: "Araumi Ya Sado Ni Yokotau Amanogawa"

English interpretation: "Turbulent seas-stretching toward Sado, the Milky Way"

1. Location: Dewa Province
2. Background: Viewing Sado Island across rough seas, with the Milky Way spanning the night sky
3. End-of-life elements: Recognition of life's achievements and incompleteness, devotion to nature, awareness of impermanence

Note for international readers: Sado Island historically served as a place of exile for political prisoners and criminals [12]. The island represents both the unreachable and the unattained. The Milky Way (*Amanogawa*, literally "heaven's river") symbolizes the infinite and the cosmic.

4. Analytical Method: The Significance of Using PlantUML C4 Models

4.1. What Is the C4 Model

The C4 model (Context, Containers, Components, Code) is a software architecture visualization method developed by Simon Brown [4]. It represents structure at four levels of abstraction, enabling progressive understanding from overall view to detail:

1. Context: The relationship between the entire system and its external environment
2. Container: Major execution units composing the system
3. Component: Functional elements within each container
4. Code: Implementation-level details

Plain explanation for non-technical readers: Think of the

C4 model as examining a building at different zoom levels. Context is like viewing the building in its neighborhood; Container is like seeing the building's major rooms; Component is like examining what's inside each room; and Code is like looking at how each piece of furniture is constructed.

4.2. Significance of Application to Haiku Analysis

Haiku are structures where multilayered meanings are compressed into merely 17 syllables (in Japanese: 5-7-5). By applying the C4 model's hierarchical approach:

1. Context layer: Clarifies the life context and phase of end-of-life contemplation in which the entire poem is situated
2. Container layer: Identifies major images (natural objects, people, time-space) composing the poem
3. Component layer: Breaks down the emotional and symbolic functions each image carries
4. Code layer: Describes implementation-level details such as phonetics, grammar, and rhetorical techniques

This method enables us to visualize the semantic structure of poems objectively and reproducibly, systematically ex-

tracting elements of end-of-life contemplation and well-being, resonating with contemporary discourses on life, death, and meaning [6-8].

4.3. Why PlantUML Was Chosen

1. PlantUML is a text-based diagram generation tool [5] with the following advantages
2. Easy version control
3. High reproducibility
4. Enables programmatic processing
5. Open-source and suitable for academic research

Plain explanation: PlantUML allows us to create complex diagrams by writing simple text commands, much like how haiku creates complex imagery with simple words. This makes our analysis transparent and reproducible-anyone can recreate our diagrams using the same text commands.

5. Analysis Results

Below, we present C4 model analysis for each of the three haiku.

5.1. First Haiku: "Inochi Futatsu No Naka Ni Ikitaru Sakura Kana"

5.1.1. Context Diagram (Contextual Layer)

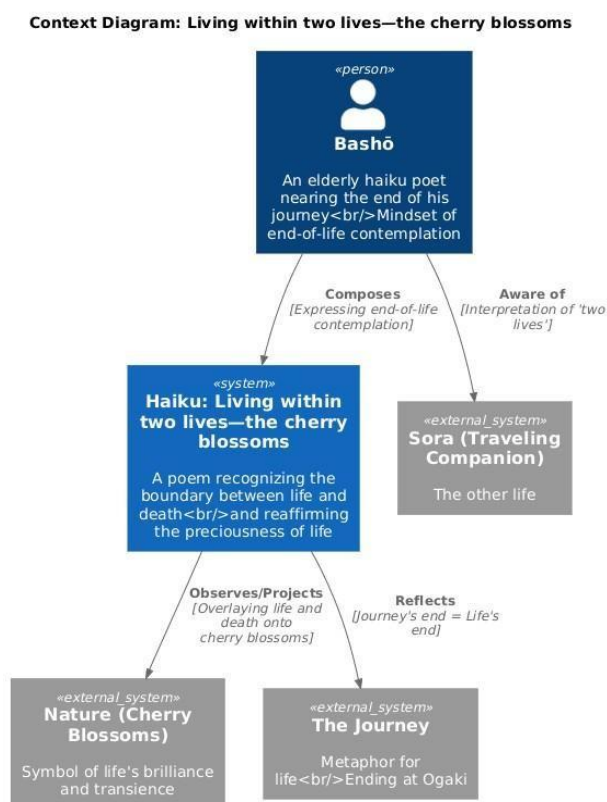


Figure 1. Context Diagram of the First Haiku ("Inochi futatsu...")

Diagram Explanation:

This poem expresses Bashō's end-of-life mindset near the end of his journey. Through the expression "two lives" (*inochi futatsu*), he becomes aware of the boundary between the life that lives and the life that must die. Using cherry blossoms as a natural medium, the structure looks at one's own existence and life's end. External environmental factors-fatigue from the journey, physical decline, and Ogaki as the journey's destination-exert influence.

PlantUML Code:

```
@startuml
!include
```

https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Context.puml title Context Diagram: Living within two lives-the cherry blossoms

```
Person(Bashō, "Bashō", "An elderly haiku poet nearing the end of his journey
```

```
Mindset of end-of-life contemplation")
```

```
System(haiku, "Haiku: Living within two lives-the cherry blossoms", "A poem recognizing the boundary between life
```

```
and death
```

```
and reaffirming the preciousness of life")
```

5.1.2. Container Diagram (Container Layer)

```
System_Ext(nature, "Nature (Cherry Blossoms)", "Symbol of life's brilliance and transience")
```

```
System_Ext(journey, "The Journey", "Metaphor for life Ending at Ogaki")
```

```
System_Ext(companion, "Sora (Traveling Companion)", "The other life")
```

```
Rel(Bashō, haiku, "Composes", "Expressing end-of-life contemplation")
```

```
Rel(haiku, nature, "Observes/Projects", "Overlaying life and death onto cherry blossoms")
```

```
Rel(haiku, journey, "Reflects", "Journey's end = Life's end")
```

```
Rel(Bashō, companion, "Aware of", "Interpretation of 'two lives'")
```

```
@enduml
```

Container Diagram: Living within two lives—the cherry blossoms

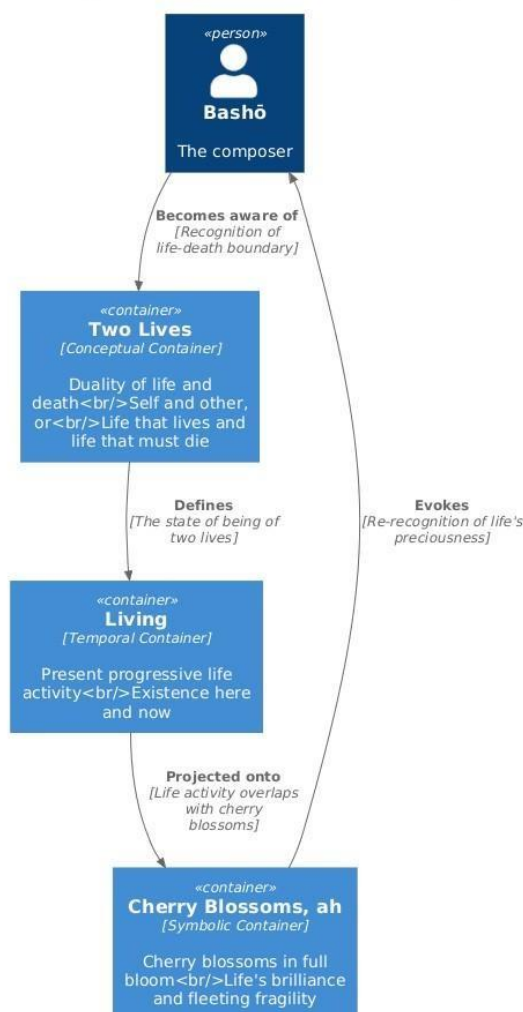


Figure 2. Container Diagram of the First Haiku ("Inochi futatsu...")

Diagram Explanation: container representing the duality of life and death. "Living"

We identify three major elements-"containers"-compos- (*ikitaru*) is a temporal container indicating ongoing life activating the poem. "Two lives" (*inochi futatsu*) is a conceptual ity in the present progressive form. "Cherry blossoms, ah" (*sakura kana*) is a physical container symbolizing natural beauty and impermanence. These three interact to generate the poem's overall meaning.

Plain explanation: Think of these containers like nested boxes, each holding different aspects of meaning. The outermost box is the concept of dual existence, inside that is the experience of being alive now, and at the center is the concrete image of cherry blossoms that brings it all together.

PlantUML Code:

```
@startuml
```

```
!include
```

```
https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Container.puml title Container Diagram: Living within two lives-the cherry blossoms
```

```
Person(Bashō, "Bashō", "The composer")
Container(inochi, "Two Lives", "Conceptual Container",
"Duality of life and death
Self and other, or
Life that lives and life that must die")
Container(ikitaru, "Living", "Temporal Container", "Pre-
sent progressive life activity
Existence here and now")
Container(sakura, "Cherry Blossoms, ah", "Symbolic
Container", "Cherry blossoms in full bloom
Life's brilliance and fleeting fragility")
Rel(Bashō, inochi, "Becomes aware of", "Recognition of
life-death boundary")
Rel(inochi, ikitaru, "Defines", "The state of being of two
lives")
Rel(ikitaru, sakura, "Projected onto", "Life activity over-
laps with cherry blossoms") Rel(sakura, Bashō, "Evokes",
"Re-recognition of life's preciousness")
@enduml
```

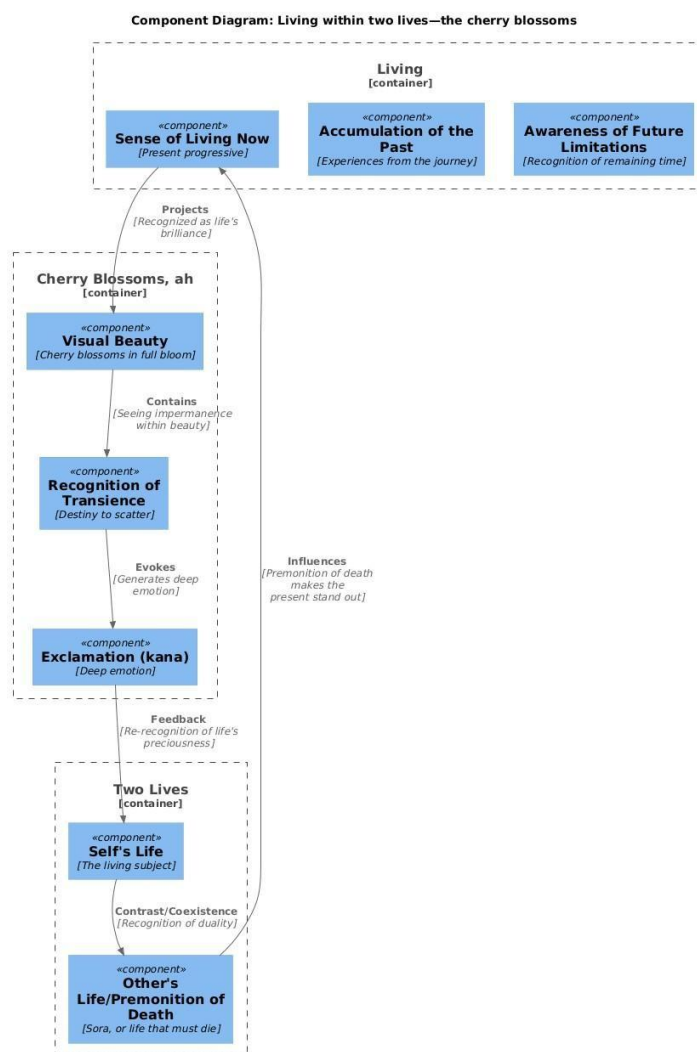


Figure 3. Component. Diagram of the First Haiku ("Inochi futatsu...").

5.1.3. Component Diagram (Component Layer)

Diagram Explanation:

We break down the functional elements within each container. The "Two Lives" container has two components: "Self's life" and "Other's life (or premonition of death)." The "Living" container consists of "Sense of living now," "Accumulation of the past," and "Awareness of future limitations." The "Cherry Blossoms, ah" container includes "Visual beauty," "Recognition of transience," and "Exclamation (*kana*)," an emotional response. The interaction of these components forms the poem's deep meaning.

PlantUML Code:

```
@startuml
!include
```

https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Component.puml title Component Diagram: Living within two lives-the cherry blossoms Container_Boundary(inochi_boundary, "Two Lives") {

```
    Component(self_life, "Self's Life", "The living subject")
    Component(other_life, "Other's Life/Premonition of Death", "Sora, or life that must die") }
    Container_Boundary(ikitaru_boundary, "Living") {
        Component(present, "Sense of Living Now", "Present progressive")
        Component(past, "Accumulation of the Past", "Experiences from the journey")
        Component(future, "Awareness of Future Limitations", "Recognition of remaining time") }
    Container_Boundary(sakura_boundary, "Cherry Blossoms, ah") {
        Component(visual, "Visual Beauty", "Cherry blossoms in full bloom")
        Component(transience, "Recognition of Transience", "Destiny to scatter")
        Component(exclamation, "Exclamation (kana)", "Deep emotion") }
    Rel(self_life, other_life, "Contrast/Coexistence", "Recognition of duality")
    Rel(other_life, present, "Influences", "Premonition of death makes the present stand out")
    Rel(present, visual, "Projects", "Recognized as life's brilliance")
    Rel(visual, transience, "Contains", "Seeing impermanence within beauty")
    Rel(transience, exclamation, "Evokes", "Generates deep emotion")
    Rel(exclamation, self_life, "Feedback", "Re-recognition of life's preciousness")
@enduml
```

5.1.4. Extraction of End-of-life Planning and Well-being Elements

Analysis Results:

1. Acceptance of the Duality of Life and Death:

The expression "two lives" presents a perspective that views life and death not as opposites but as two coexisting aspects. This connects to "overcoming the fear of death" in end-of-life planning.

2. Intensity of Living in the Present:

The present progressive form "living" (*ikitaru*) expresses the attitude of living this moment with full strength while recognizing the finitude of remaining time. This is an element of well-being: "mindfulness focused on the present."

3. Unity with Nature:

Through the beauty and transience of cherry blossoms, one recognizes that one's own life is also part of nature. This is the core of spiritual well-being: "a sense of belonging to something greater."

5.2. Second Haiku: "Hamaguri No Futami Ni Wakare Yuku Aki Zo"

5.2.1. Context Diagram (Contextual Layer)

Diagram Explanation:

This poem deals with the specific scene of human relationships: the parting from Sora at Ise's Futami-ura. Through the metaphor "like a clam at Futami" (*hamaguri no futami*), it expresses the separation of two beings with a deep bond, while "departing autumn" (*yuku aki*), the season's end, hints at life's conclusion. This expresses the important theme of "organizing relationships" in end-of-life planning.

PlantUML Code:

```
@startuml
!include
```

https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Context.puml title Context Diagram: Like a clam's shell at Futami, we part as autumn departs

```
    Person(Bashō, "Bashō", "One who continues the journey Subject experiencing separation")
    Person(sora, "Sora", "Traveling companion One who departs")
    System(haiku, "Haiku: Like a clam's shell at Futami, we part as autumn departs", "A poem overlaying separation with life's end")
    System_Ext(futami, "Futami-ura", "Place of parting Clam production area")
    System_Ext(autumn, "End of Autumn", "Season's end Metaphor for late life")
    System_Ext(journey_continues, "The Continuing Journey", "Life continues after parting")
    Rel(Bashō, sora, "Parts from", "Separation of deep bond")
    Rel(Bashō, haiku, "Composes", "Sublimating the feeling of separation")
    Rel(haiku, futami, "Incorporates place", "Wordplay with clam and Futami")
    Rel(haiku, autumn, "Overlaps", "Analogy between parting and ending")
```

Rel(Bashō, journey_continues, "Proceeds", "Accepting separation and continuing the journey") @enduml

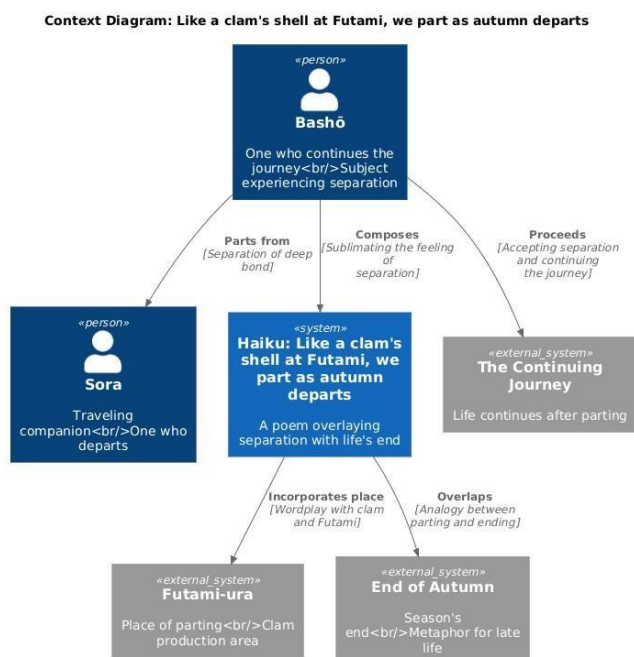


Figure 4. Context Diagram of the Second Haiku ("Hamaguri no...").

5.2.2. Container Diagram (Container Layer)

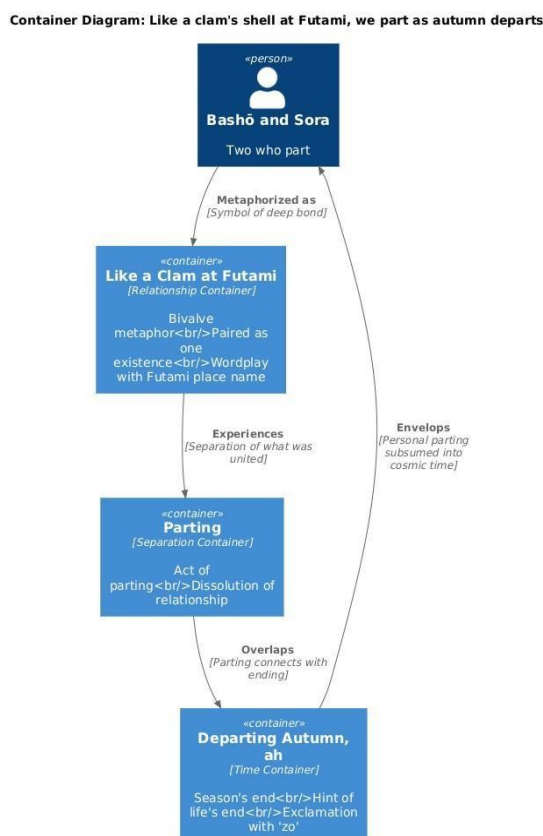


Figure 5. Container Diagram of the Second Haiku ("Hamaguri no...").

5.2.3. Component Diagram (Component Layer)

Diagram Explanation:

We identify the major components of the poem: "Like a clam at Futami" (metaphorical container for relationship), "Parting" (container for the act of separation), and "Departing autumn, ah" (container for time and ending). These work hierarchically so that personal separation is elevated to universal life's end.

PlantUML Code:

```
@startuml
```

```
!include
```

https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Container.puml title Container Diagram: Like a clam's shell at Futami, we part as autumn departs

```
Person(Bashō_sora, "Bashō and Sora", "Two who part")
```

```
Container(hamaguri, "Like a Clam at Futami", "Relationship Container", "Bivalve metaphor
```

Paired as one existence

Wordplay with Futami place name")

Container(wakare, "Parting", "Separation Container", "Act of parting

Dissolution of relationship")

Container(yukuaki, "Departing Autumn, ah", "Time Container", "Season's end

Hint of life's end

Exclamation with 'zo'")

Rel(Bashō_sora, hamaguri, "Metaphorized as", "Symbol of deep bond") Rel(hamaguri, wakare, "Experiences", "Separation of what was united")

Rel(wakare, yukuaki, "Overlaps", "Parting connects with ending")

Rel(yukuaki, Bashō_sora, "Envelops", "Personal parting subsumed into cosmic time")

```
@enduml
```

Component Diagram: Like a clam's shell at Futami, we part as autumn departs

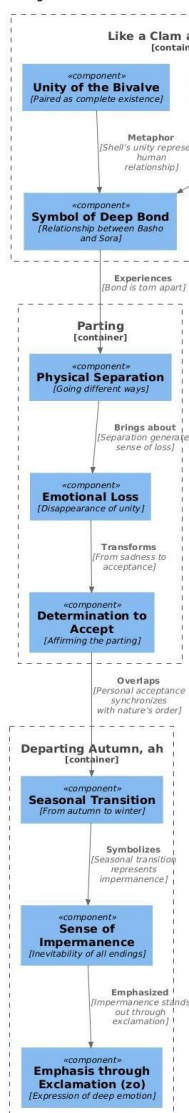


Figure 6. Component Diagram of the Third Haiku ("Araumi ya...")

Diagram Explanation:

We show detailed elements composing each container. "Like a clam at Futami" consists of "Unity of the bivalve," "Futami place name," and "Symbol of deep bond." "Parting" includes "Physical separation," "Emotional loss," and "Determination to accept." "Departing autumn, ah" comprises "Seasonal transition," "Sense of impermanence," and "Emphasis through exclamation." The complex interaction of these elements generates the poem's multilayered meaning.

PlantUML Code:

```
@startuml
!include
https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Component.puml
title Component Diagram: Like a clam's shell at Futami, we part as autumn departs
    Container_Boundary(hamaguri_boundary, "Like a Clam at Futami") {
        Component(shell, "Unity of the Bivalve", "Paired as complete existence")
        Component(place, "Futami Place Name", "Locality through wordplay")
        Component(bond, "Symbol of Deep Bond", "Relationship between Basho and Sora") }
    Container_Boundary(wakare_boundary, "Parting") {
        Component(separation, "Physical Separation", "Going different ways")
        Component(loss, "Emotional Loss", "Disappearance of unity")
        Component(acceptance, "Determination to Accept", "Affirming the parting") }
    Container_Boundary(yukuaki_boundary, "Departing Autumn, ah") {
        Component(season, "Seasonal Transition", "From autumn to winter")
        Component(impermanence, "Sense of Impermanence", "Inevitability of all endings")
        Component(emphasis, "Emphasis through Exclamation (zo)", "Expression of deep emotion") }
    Rel(shell, bond, "Metaphor", "Shell's unity represents human relationship")
    Rel(place, bond, "Grants locality", "Concrete stage for parting")
    Rel(bond, separation, "Experiences", "Bond is torn apart")
    Rel(separation, loss, "Brings about", "Separation generates sense of loss")
    Rel(loss, acceptance, "Transforms", "From sadness to acceptance")
    Rel(acceptance, season, "Overlaps", "Personal acceptance synchronizes with nature's order")
    Rel(season, impermanence, "Symbolizes", "Seasonal transition represents impermanence")
    Rel(impermanence, emphasis, "Emphasized", "Impermanence stands out through exclamation")
@enduml
```

5.2.4. Extraction of End-of-life Planning and Well-being Elements

Analysis Results:**1. Organizing Relationships and Gratitude:**

The clam metaphor recognizes the relationship with Sora as a deep bond: "paired as one." This represents "gratitude for important people and organizing relationships" in end-of-life planning.

2. Acceptance of Parting:

The active expression "parting" (*wakare yuku*) shows an attitude of accepting rather than rejecting separation. This is an important element of well-being: "flexibility toward change."

3. Transcendence of the Individual:

By overlaying one's own parting with autumn's end, personal events are positioned within cosmic temporal flow, healing loneliness. This is spiritual support: "belonging to something greater."

5.3. Third Haiku: "Araumi Ya Sado Ni Yokotau Amanogawa"

5.3.1. Context Diagram (Contextual Layer)

Diagram Explanation:

This poem deals with the experience of a magnificent natural landscape in Dewa Province. Turbulent seas (dynamic, difficult reality), Sado Island (unreachable place), and the Milky Way (infinite ideal) form a three-layer structure, within which the smallness of self-existence and a state beyond life evaluation are expressed. This addresses the end-of-life challenge of "integrating achievement and non-achievement."

PlantUML Code:

```
@startuml
!include
https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Context.puml
title Context Diagram: Turbulent seas-stretching toward Sado, the Milky Way
    Person(Bashō, "Bashō", "Traveler Subject examining self")
    System(haiku, "Haiku: Turbulent seas-stretching toward Sado, the Milky Way", "A poem entrusting life's achievements and non-achievements to nature")
    System_Ext(araumi, "Turbulent Seas", "Hardships of the journey Real difficulties")
    System_Ext(sado, "Sado Island", "Unreachable place History as place of exile")
    System_Ext(amanogawa, "Milky Way (Heavenly River)", "Infinite ideal Cosmic beauty")
```

System_Ext(self_small, "Recognition of Self's Smallness",
 Rel(haiku, amanogawa, "Looks up to", "Yearning for the
 evaluation to nature") infinite") @enduml
 "Finitude of human existence") Rel(araumi, self_small,
 "Makes recognize", "Before na-
 Rel(Bashō, haiku, "Composes", "Humble attitude before
 ture's greatness")

nature") Rel(sado, self_small, "Symbolizes", "Acceptance
 of non-
 Rel(haiku, araumi, "Confronts", "Difficult reality")
 achievement")
 Rel(haiku, sado, "Gazes at", "Unreachable ideal")
 Rel(amanogawa, self_small, "Transcends", "Entrusting life

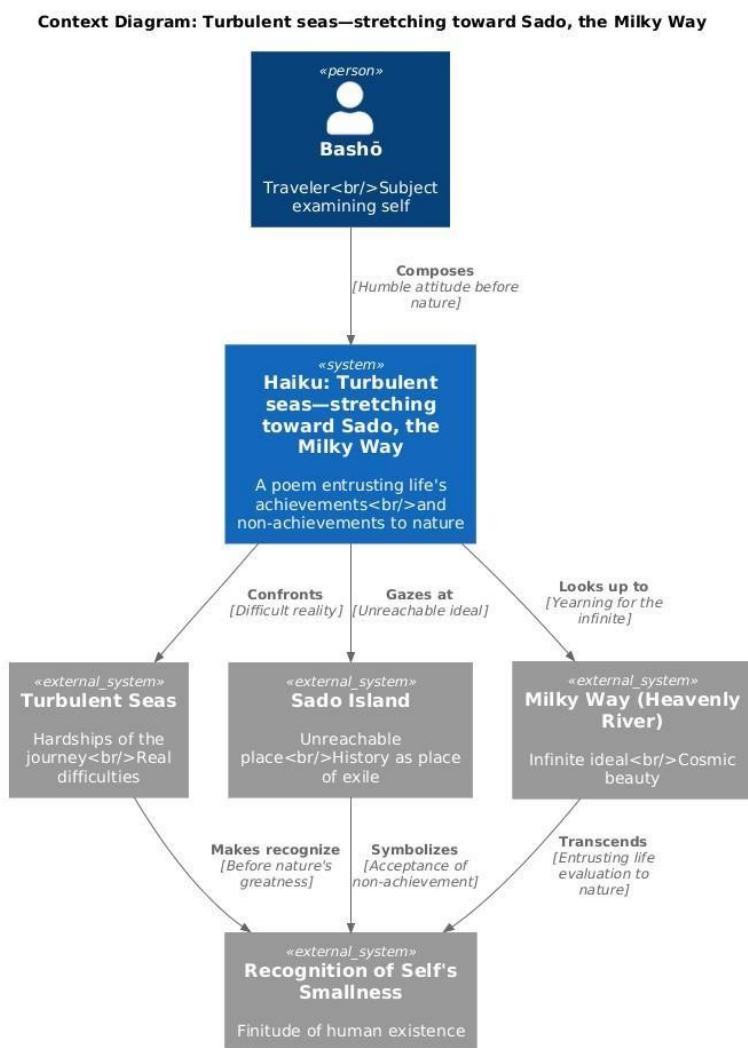


Figure 7. Context Diagram of the Third Haiku ("Araumi ya...").

5.3.2. Container Diagram (Container Layer)

Diagram Explanation:

Three major containers composing the poem—"Turbulent seas, ah" (container of dynamic reality), "Stretching toward Sado" (intermediate/unreached container), and "Milky Way" (container of static ideal)—form a vertical spatial structure. The movement of gaze from sea to island, island to sky, symbolizes spiritual ascent from reality to ideal.

Plain explanation: Imagine standing on a shore. First you see the violent waves at your feet (present struggles), then

your eyes move to the distant island you cannot reach (unfulfilled dreams), and finally you look up to the vast starry river in the sky (eternal perspective). This upward movement of vision mirrors the spiritual journey from immediate concerns to cosmic understanding.

PlantUML Code:

@startuml

!include

https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Container.puml title Container Diagram: Turbulent seas-stretching toward Sado, the Milky Way

Person(Bashō, "Bashō", "Observer")
 Container(araumi, "Turbulent Seas, ah", "Dynamic
 Container", "Surging sea
 Real difficulties
 Exclamation 'ya'")
 Container(sado, "Stretching toward Sado", "Intermediate
 Container", "Lying island
 Unreachable place
 History of exile")
 Container(amanogawa, "Milky Way", "Static Container",

"Milky Way
 Infinite ideal
 Cosmic beauty")
 Rel(Bashō, araumi, "Confronts", "Reality at his feet")
 Rel(araumi, sado, "Gazes beyond", "Island beyond turbu-
 lent seas")
 Rel(sado, amanogawa, "Looks up as background", "Milky
 Way above the island")
 Rel(amanogawa, Bashō, "Envelops", "Relativizing every-
 thing from cosmic perspective") @enduml

Container Diagram: Turbulent seas—stretching toward Sado, the Milky Way

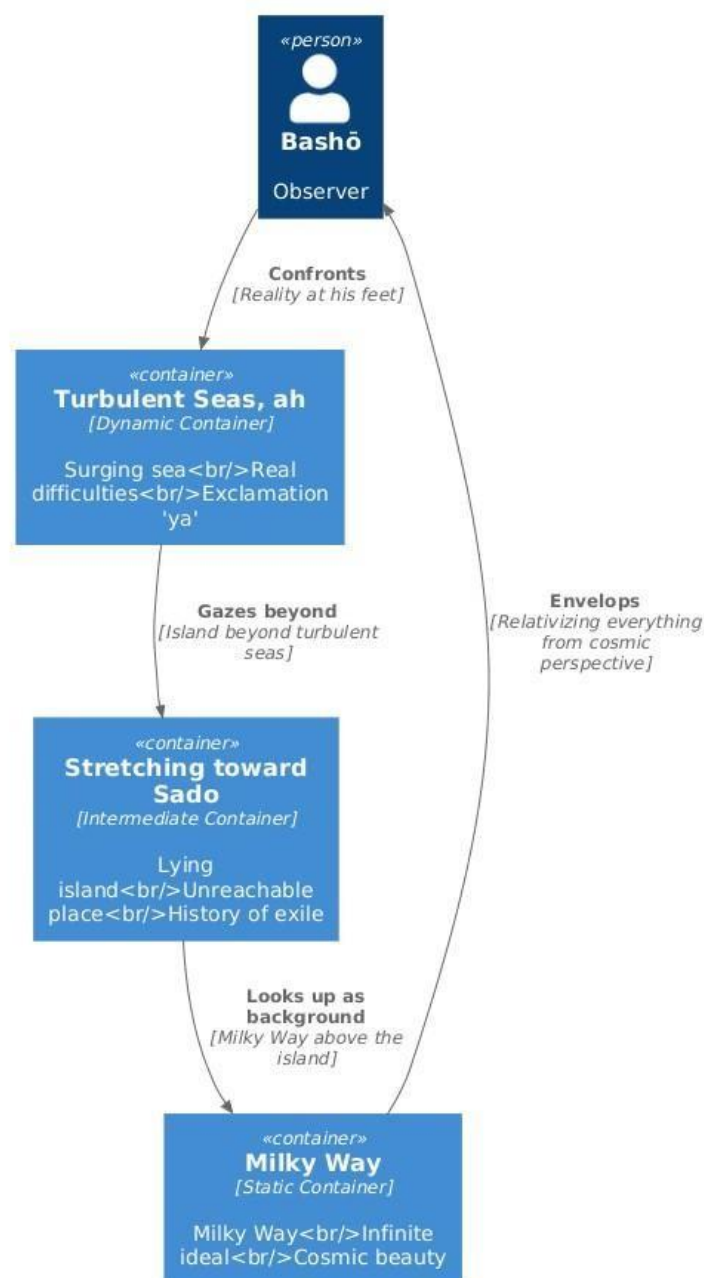


Figure 8. Container Diagram of the Third Haiku ("Araumi ya...").

5.3.3. Component Diagram (Component Layer)

Diagram Explanation:

We analyze the internal structure of each container in detail.

"Turbulent seas, ah" consists of "Visual wildness," "Auditory roar,"

"Tactile danger," and "Exclamation (ya)." "Stretching toward Sado" comprises "Physical distance," "Historical weight," and "Lying stillness." "Milky Way" includes "Visual grandeur," "Recognition of infinity," and "Spiritual consolation." The interaction of these elements forms the deep theme of life's summation. PlantUML Code:

```
@startuml
```

```
!include
```

```
https://raw.githubusercontent.com/plantumlstdlib/C4-PlantUML/master/C4_Component.puml title Component Diagram: Turbulent seas-stretching toward Sado, the Milky Way Container_Boundary(araumi_boundary, "Turbulent Seas, ah") {
```

```
    Component(visual_rough, "Visual Wildness", "Intensity of waves")
```

```
    Component(sound, "Auditory Roar", "Sound of waves")
```

```
    Component(danger, "Tactile Danger", "Symbol of journey's hardships")
```

```
    Component(ya, "Exclamation (ya)", "Expression of strong impression") }
```

```
Container_Boundary(sado_boundary, "Stretching toward Sado") {
```

```
    Component(distance, "Physical Distance", "Unreachable
```

```
    Component(history, "Historical Weight", "Darkness as place of exile")
```

```
    Component(lying, "Lying Stillness", "Contrast of motion and stillness") }
```

```
Container_Boundary(amanogawa_boundary, "Milky Way") {
```

```
    Component(vastness, "Visual Grandeur", "Expanse of stars")
```

```
    Component(infinity, "Recognition of Infinity", "Universe's eternity")
```

```
    Component(console, "Spiritual Consolation", "Sense of belonging to the infinite") }
```

```
Rel(visual_rough, sound, "Resonates", "Integration of audiovisual")
```

```
Rel(sound, danger, "Emphasizes", "Wildness highlights danger")
```

```
Rel(danger, ya, "Evokes", "Difficulty generates exclamation")
```

```
Rel(ya, distance, "Shifts gaze", "From turbulent seas to Sado")
```

```
Rel(distance, history, "Recalls", "Dark history of distant island")
```

```
Rel(history, lying, "Contrasts", "Contrast of historical weight and stillness")
```

```
Rel(lying, vastness, "Looks up", "Milky Way above the island")
```

Rel(vastness, infinity, "Recognizes", "Grandeur evokes sense of infinity")

Rel(infinity, console, "Brings", "Infinity provides spiritual comfort")

Rel(console, visual_rough, "Relativizes", "Cosmic perspective relativizes real difficulties")

@enduml

Component Diagram: Turbulent seas—stretching toward Sado, the Milky Way

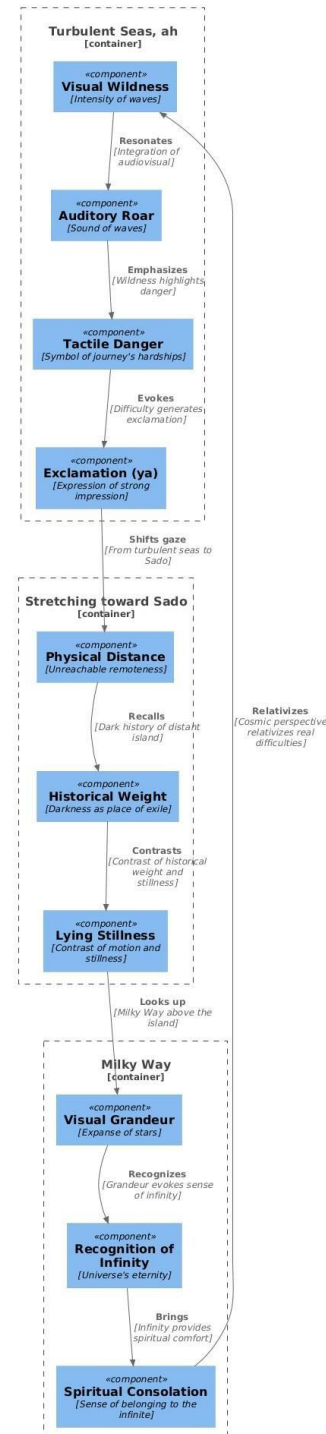


Figure 9. Component. Diagram of the Third Haiku ("Araumi ya...").

5.3.4. Extraction of End-of-life Planning and Well-being Elements

Analysis Results:

Integration of Achievement and Non-Achievement:

The three-layer structure-turbulent seas (hardship), Sado (unreached), Milky Way (ideal)-presents a perspective accepting both "what was achieved" and "what was left undone" in life. This connects to "liberation from perfectionism" in end-of-life planning.

Relativization of Self:

By recognizing one's own smallness before magnificent nature, one liberates life evaluation from self-centered perspective. This is a higher stage of well-being: "transcendence of ego."

Devotion to Nature:

The sense of impermanence that entrusts everything to nature's order brings "peace of mind" through letting go of the desire for control. This is the core of spiritual preparation in end-of-life planning.

6. Conclusion

Through structural analysis of Bashō's three haiku using PlantUML C4 models, we have obtained the following insights:

6.1. Methodological Achievements

The four-layer structure of the C4 model (Context, Container, Component, Code) has been demonstrated as an effective method for systematically visualizing the multilayered semantic structure of haiku. Specifically:

1. Context layer clarifies the life context and phase of end-of-life contemplation in which the poem is situated
2. Container layer identifies major components of the poem and their interrelationships
3. Component layer breaks down the internal structure and functional roles of each element in detail
4. Code layer (in this research, phonetic and grammatical levels) enables precise description of implementation techniques. This method has achieved reproducible and objective analysis that transcends traditional impressionistic criticism.

6.2. Content-based Achievements

Through analysis of the three haiku, the deep structure of Bashō's mindset regarding end-of-life contemplation has been revealed:

1. First Haiku: "Living within two lives-the cherry blossoms"

Expresses a mindset that accepts the duality of life and death, intensifying the strength of living in the present

2. Second Haiku: "Like a clam's shell at Futami, we part as

autumn departs"

Expresses gratitude for important relationships, acceptance of parting, and transcendence of the individual

3. Third Haiku: "Turbulent seas-stretching toward Sado, the Milky Way"

Expresses integration of life's achievements and non-achievements, and peace of mind through devotion to nature

These insights hold universal value in contemporary end-of-life planning and well-being theory [6-8].

7. Comprehensive Evaluation: Common Themes Across the Three Haiku

Lessons on End-of-Life Planning and Well-Being Derived from the Haiku.

7.1. Common Structural Features Across the Three Haiku

C4 model analysis has revealed the following structural features common to all three haiku:

7.1.1. Movement from Duality to Integration

First haiku: Duality of life and death → Integration through nature (cherry blossoms)

Second haiku: Duality of unity and separation → Integration through time (autumn)

Third haiku: Duality of reality and ideal → Integration through cosmos (Milky Way)

All poems possess a structure where opposing elements are integrated through transcendent existence: nature (cherry blossoms), time (autumn), or space (Milky Way).

Plain explanation: Each poem starts with two opposite ideas that seem to conflict, but then finds a way to bring them together through something larger and eternal. It's like resolving an argument by stepping back and seeing the bigger picture.

7.1.2. Upward Movement of Perspective

In all three haiku, there is a shift in viewpoint from personal/concrete level to universal/abstract level:

First haiku: Self's life → Essence of life in general

Second haiku: Personal parting → Cosmic impermanence

Third haiku: Journey's hardships → Cosmic perspective

This "elevation of perspective" symbolizes the spiritual process in end-of-life planning of transcending self-centeredness and reconsidering life in a larger context.

7.1.3. Emotional Sublimation Through Exclamatory Expressions

All three haiku use exclamatory expressions (*kana*, *zo*, *ya*) to achieve deep emotional expression and sublimation beyond mere description. This is noteworthy as a technique for

"emotional integration" in end-of-life planning.

Note for international readers: These exclamatory particles (*kana*, *zo*, *ya*) don't translate directly into English, but they function like musical notes that add emotional resonance to the meaning-similar to how "Oh!" or "Ah!" can transform a simple statement into something deeply felt.

7.2. Lessons for End-of-life Planning

From analysis of the three haiku, the following lessons applicable to contemporary end-of-life planning emerge:

Lesson 1: Don't Seek Perfection (Acceptance of Non-Achievement)

As symbolized in "Turbulent seas-stretching toward Sado, the Milky Way," the attitude of not denying the unreachable ideal (Sado) but looking up at the entirety (Milky Way) that includes it demonstrates "accepting non-achievement in life and affirming one's life including that"-a core attitude in end-of-life planning.

Contemporary people often suffer from seeking "perfect end-of-life planning." Bashō's poem teaches that "accepting the totality of life, including both achievement and non-achievement" is true well-being.

Lesson 2: Gratitude for Relationships and Practicing Parting

"Like a clam's shell at Futami, we part as autumn departs" recognizes the relationship with an important person as a deep bond- "paired as one"-while accepting that parting by overlaying it with autumn's end, nature's order. This demonstrates the important end-of-life task of "accepting both gratitude for relationships and the inevitability of parting."

In end-of-life workshops, this poem enables practice [10, 11] of both "gratitude for important people" and "mental preparation for eventual parting."

Lesson 3: Living in This Present Moment (Mindfulness)

The present progressive form "living" (*ikitaru*) in "Living within two lives-the cherry blossoms" expresses the attitude of "living this moment with full strength" while being aware of death. This resonates deeply with the contemporary concept of mindfulness.

End-of-life planning is "preparation for death," but paradoxically it is also "living the present more deeply." Bashō's poem shows these two are not contradictory.

Lesson 4: Peace of Mind Through Devotion to Nature

In all three haiku, by positioning one's existence in the larger context of nature (cherry blossoms, autumn, Milky Way), one attains "a sense of belonging to something greater" that transcends loneliness and anxiety.

In today's secularized society, many people lack religious devotion. Bashō's poems show that devotion to nature can be a universal spiritual support, providing a practical anchor for the mind in end-of-life planning.

7.3. Structure of Well-being

From analysis of the three haiku, the structure of well-being

in end-of-life planning can be organized as follows:

[Level 1: Acceptance]

Acceptance of life-death duality (First haiku)

Acceptance of parting's inevitability (Second haiku)

Acceptance of non-achievement (Third haiku)

[Level 2: Integration]

Integration of opposing elements (life and death, unity and separation, reality and ideal)

Emotional sublimation (through exclamatory expressions)

Integration of past, present, and future

[Level 3: Transcendence]

Devotion to nature

Transcendence of self-centeredness

Attainment of cosmic perspective

[Result: Spiritual Well-Being]

Peace of mind

Liberation from loneliness

Affirmation of life

This three-level structure can be utilized as a roadmap for spiritual growth in end-of-life planning. This resonates deeply with the contemporary concept of mindfulness [9].

7.4. Implications for Contemporary Society

The wisdom of end-of-life planning shown in Bashō's poems includes implications for the following contemporary challenges:

1. Spiritual Care in an Aging Society:

The importance of spiritual well-being in addition to physical support through medical care and nursing

2. Humanity in the Digital Age:

The value of "acceptance," "space," and "non-action" beyond efficiency and optimization

3. Globalization and Cultural Identity:

Contemporary re-evaluation of traditional Japanese wisdom (haiku, nature views) [12, 13].

4. Spirituality in a Secular Society:

Exploration of universal spiritual support not dependent on religion

8. Future Directions

Based on the achievements of this research, the following developments are anticipated:

8.1. Academic Development

1. Application to Other Classical Works:

Apply the C4 model haiku analysis method to works by other poets such as Saigyō, Ryōkan, and Issa, tracking diachronic changes in views on end-of-life planning and well-being in Japanese literature.

2. Cross-Cultural Comparative Research:

Comparative research on end-of-life views in Eastern (haiku, Chinese poetry) and Western (Rilke, Eliot, etc.) poetry.

3. Quantitative Analysis:

Quantitative analysis of structural features of haiku using PlantUML text data (network analysis, text mining).

4. Cognitive Science Verification:

Use brain activity measurement (fMRI) when reading haiku to elucidate how emotional sublimation and perspective elevation are neurologically realized.

8.2. Practical Development

1. Development of End-of-Life Workshops:

- Encourage haiku composition on themes like "When you view your life as a journey, what are your 'turbulent seas,'"
- 'Sado,' and 'Milky Way' now?"
- Provide spaces for participants to share haiku and deepen empathetic understanding
- Activities visualizing one's life structure using PlantUML C4 diagrams

2. Application in Medical and Nursing Settings:

- Introduce haiku therapy as a tool for spiritual care in terminal medical care
- Utilize haiku in reminiscence therapy for dementia patients
- Training programs for nurses and caregivers: "Learning End-of-Life Care from Literature"

3. Development in Educational Settings:

a) In middle and high school Japanese language education, design lessons connecting classical literature with contemporary issues (well-being, mental health) b) Develop teaching materials for university "Death and Life Studies" and "Well-Being Theory" courses

4. Development of Digital Tools:

- Develop automatic haiku analysis AI (C4 model generation)
- Personal end-of-life support applications (haiku diary function, composition support, emotion recording)
- Mutual support platform through online haiku communities

8.3. Proposals for Social Implementation

1. Collaboration with Local Governments:

- Introduction of "cultural end-of-life support" programs in regional comprehensive care systems
- Regular holding of "Learning End-of-Life Planning Through Haiku" lectures at community centers and libraries

2. Corporate Application:

- Haiku workshops in employee well-being training
- Integration into retirement preparation programs

3. Publishing and Media Development:

- Publication of general-audience book "Wisdom of End-of-Life Planning from Bashō"
- Widespread dissemination through web series and

YouTube videos

Abbreviations

C4 Context, Containers, Components, Code

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This Paper

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Regarding PlantUML Diagrams

- PlantUML code included in this paper is permitted for free use for academic and educational purposes.
- Modification and redistribution are also possible, but please clearly indicate the source.

Conflicts of Interest

The authors declare no conflicts of interest.

Appendix: How to Generate PlantUML Diagrams

To reproduce the PlantUML diagrams used in this paper, please follow these steps:

Required Environment

- Java Runtime Environment (JRE) 8 or higher
- PlantUML jar file (download from <https://plantuml.com/download>)
- Or, online editor (<https://www.plantuml.com/plantuml/uml/>)

Execution Method

- Save the PlantUML code from this paper as a text file (e.g., Bashō_context.puml)
- Execute from command line:
- java -jar plantuml.jar Bashō_context.puml
- A PNG image file will be generated

Online Execution

By pasting the code into PlantUML Web Server, you can

generate diagrams without installation, making the visualization process accessible to all readers regardless of technical background.

Plain Explanation for All Readers: Think of PlantUML as a recipe. Just as following a recipe exactly will produce the same dish, using our PlantUML code will produce the same diagrams. This ensures our analysis can be verified and built upon by other researchers or practitioners interested in applying these methods to their own work with classical literature or end-of-life planning.

Concluding Thoughts

This research demonstrates that ancient wisdom contained in 17-syllable haiku can speak powerfully to contemporary concerns about aging, mortality, and meaning. By using modern analytical tools like the C4 model, we bridge past and present, showing that Bashō's insights into life's final journey remain profoundly relevant.

The three haiku examined here offer a roadmap for spiritual well-being in life's final phase: accepting both achievement and incompleteness, treasuring relationships while preparing for inevitable partings, and finding peace through connection with something greater than ourselves.

Whether through traditional literary appreciation or systematic structural analysis, Bashō's poetry continues to guide us toward a more mindful, accepting, and ultimately more peaceful relationship with our own mortality.

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Biography



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