

Q&A: After / Binary Interpretation

Project "After / Binary Interpretation" Artist Kenji Kojima, 小島健治

The source of this Q&A is the website for the digital art project "After / Binary Interpretation" by artist Kenji Kojima. This project deconstructs and reconstructs classic masterpieces and contemporary art using binary code and algorithms, questioning the originality of art in the digital age. The works are presented in video format, where randomly scattered pixels converge into the original image, and also utilize one-time pad encryption technology. These twelve videos, inspired by Van Gogh and Japanese Ukiyo-e prints, are freely shareable under a Creative Commons license. The project aims to update the viewer's perceptual framework, highlighting the aspect of visual information as a data structure before it acquires meaning.

Website URLs:

<https://kenjikoijima.com/After/>

Artwork Videos:

- The Plum Garden at Kameido after HIROSHIGE, after van Gogh / 3:00 / 2026
https://kenjikoijima.com/After/videos/Hiroshige-VanGogh_Plum_1080.mp4
- The Great Wave Mug after HOKUSAI / 3:00 / 2026
https://kenjikoijima.com/After/videos/HokusaiGreatWaveMug_1080.mp4
- Sakata Hangoro III & Bando Mitsugoro II after Sharaku / 4:00 / 2025
https://kenjikoijima.com/After/videos/Sharaku_1080.mp4
- Lovers in an Upstairs Room. after UTAMARO / 3:00 / 2026
https://kenjikoijima.com/After/videos/UTAMARO_Lovers_1080.mp4
- AIZEN MYOO (Ragaraja) after Unknown Busshi / 4:00 / 2026
https://kenjikoijima.com/After/videos/Ragaraja_1080.mp4
- Thunder God & Wind God after Tawaraya Sotatsu / 4:00 / 2025
https://kenjikoijima.com/After/videos/Wind-God-Fujin-and-Thunder-God-Raijin_1080_4min.mp4
- After Paul Gauguin, After Vincent van Gogh in Arles, 1888 / 5:00 / 2025
https://kenjikoijima.com/After/videos/After-Gauguin-VanGogh_1080.mp4
- The 108,528 Pixel Colors from Wheatfield with Crows were Scattered Randomly After Vincent van Gogh / 3:00 / 2026
https://kenjikoijima.com/After/videos/His-Last-Painting_1080.mp4
- A Woman Walks with a Sunflower Tote. After Vincent van Gogh / 1:00 / 2026
https://kenjikoijima.com/After/videos/Sunflower-Tote_1080.mp4
- Flag: After Jasper Johns / 5:00 / 2025
https://kenjikoijima.com/After/videos/Flag_AfterJasperJohns_1080.mp4
- Pumpkin After Yayoi Kusama / 4:00 / 2026
https://kenjikoijima.com/After/videos/Pumpkin_LeftRight_1080.mp4
- One-Time Pad Fountain: after Marcel Duchamp / 5:00 / 2025
https://kenjikoijima.com/After/videos/MarcelDuchamp_Fountain_1080.mp4

After

Q1: I would like to know more about the connection between Van Gogh's "After" and this project.

Q2: How does the concept of "After" connect with translation activities in the digital age?

Q3: How is the concept of "After" connected to Japanese culture?

Q4: How does the concept of "After" connect with translation activities in the digital age?

AI and Binary

Q5: Why deliberately work with binary in the digital age where AI is prevalent?

Q6: What are the differences between AI-generated images and art created through binary manipulation?

Q7: The Unique Role of "Binary Data" in Creativity in the AI Era

Q8: How does art created through binary manipulation change the concept of copyright?

Q9: What specifically does the translation into contemporary "digital media" refer to?

Q10: What is the expressive intent behind the "encryption art" using XOR operations?

Q11: How is he exploring "data structures" that AI is not utilizing?

Image Structure

Q12: What is the "structure" that emerges when two images are superimposed?

Q13: What specifically does the translation into the "language of modern digital media" refer to?

Q14: What is Kojima's intention in calling binary operations "manipulative acts"?

Q15: Why can bit-level "manipulative acts" be considered art?

Glitch

Q16: What role does "glitch" play in the reconstruction process?

Q17: What are the rules governing the process of glitch convergence?

Q18: What is the relationship between the convergence of "glitches" and "human perception"?

Q19: What role does "glitch" play in the reconstruction process?

Citations of Japanese Classical and Contemporary Art

Q20: Why were Hiroshige's ukiyo-e prints chosen for this project?

Q21: Why are two images, one by Hiroshige and one by Van Gogh, necessary?

Q22: What is the unexpected relationship between Duchamp's "Fountain" and encryption technology?

Q23: Detailed explanation of the pixel reconstruction process of "Wheatfield with Crows"

Q24: I would like to know the intention behind choosing Yayoi Kusama's "Pumpkin."

Background Sound Created from RGB

Q25: What kind of sound does the background music generated from RGB values have?

Q26: What is the background behind the development of the software "RGB MusicLab"?

Q27: How does RGB MusicLab connect images and music?

Q28: How is the background sound that plays when the image is completed specifically generated?

Senses

Q29: What is the mechanism of the "sensory organ filter" as conceived by Kojima?

Connection to Art History

Q30: What role does digitalization play in the continuity of art history?

Q31: Why did Kojima choose specific classical works as subjects for encryption?

Commercialism

Q32: What are the effects of digitalization on copyright and commercialism?

Q33: How is the critique of commercialism reflected in the work?

Q34: I would like to know how ecological considerations influenced the digital transition.

Relationship to Other Projects

Q35: What are the perceptual commonalities with other related projects?

Q36: I would like to know about the representation of "chaos" in other related projects.

After

Q1:

I would like to know more about the connection between Van Gogh's "After" and this project.

There is a deep structural connection between this project, "After / Binary Interpretation," and the concept of "After (d'après / in the style of)" found in Vincent van Gogh's works, specifically in terms of structural reinterpretation.

The main connections are as follows:

1. A modern extension of the concept of "After"

In this project, the concept of "After," which Van Gogh used when copying the works of other painters, is understood as something that goes beyond mere imitation or stylistic quotation.

Van Gogh's approach: For Van Gogh, copying was not just a superficial depiction, but an experiment in delving into the complex psychological structure of the subject and "translating it into the grammar of Western painting." Project Interpretation: This project extends the translation process to the modern "structure of digital information (binary code and algorithms)." It defines "After" as an "operative act" of deconstructing existing images into their underlying structures and reconstructing them with a unique visual language.

2. Deciphering Structure and the Continuity of Art History

One of the project's works, "The Plum Garden at Kameido after HIROSHIGE, after Vincent van Gogh," symbolizes this connection.

- This work has a multi-layered "After" structure: Hiroshige's ukiyo-e print is copied by Van Gogh, and then interpreted at the binary level by artist Kenji Kojima.
- This is not merely superficial meme (imitation), but includes complex elements such as deciphering the "original structure" and recognizing the continuity of art history.

3. The Similarity of Pixels and Pointillism

As historical background for the project, Kojima draws parallels between the color mixing in Georges Seurat's pointillist paintings and his own digital expressions.

- He extends this approach to Van Gogh's paintings, influenced by pointillism, employing a method of randomly scattering the pixel colors of the painting across the entire image and then realigning them at the binary level.
- For example, the process of randomly scattering the 108,528 pixel colors of "Wheatfield with Crows" and then reconstructing the original image can be said to digitally reproduce Van Gogh's pursuit of the structure of color.

4. Expression as a Filter of Perception

Just as Van Gogh sought to master perspective integrated with nature, this project also aims to transform the viewer's framework of perception.

- It emphasizes the moment when the underlying logic of meaning and emotion is revealed through invisible processes such as algorithms, data, and binary code.
- Kojima likens the way humans construct the world through the filter of their sensory organs to the process by which algorithms reconstruct images from binary data. Thus, while Van Gogh's "After" was a translation into the traditional grammar of painting, this project redefines it as a translation into the smallest unit of digital information, binary code, questioning the originality and structure of art.

Q2:

How does the concept of "After" connect with translation activities in the digital age?

In the digital age, the concept of "After (following, d'après)" is defined not merely as imitation or stylistic quotation, but as an operative act of translating existing images into the "language of digital media."

This connection has three main aspects:

1. Extension from "the grammar of Western painting" to "the grammar of digital media"

Historically, when Vincent van Gogh copied Ukiyo-e prints, he positioned it as an "experiment in translating into the grammar of Western painting." This project inherits that spirit and extends "After" to translation activities into new media such as algorithms, pixels, and binary code. In other words, the act that was once translated with oil paint is now replaced by binary operations in the modern era.

2. Translation as the deciphering of "structure"

"After" in the digital age aims not to reproduce superficial visual depictions (memes), but to reveal the underlying psychological and physical structures of the original work.

- Decoding and reconstruction: The original is interpreted not as a "visual image" but as a "structure of digital information."
- Operative process: The process of randomly scattering pixels and rearranging them at the binary level to reconstruct the image itself becomes a modern act of translation that deciphers and reconstructs the structure of information.

3. Consideration as a perceptual and structural system

The concept of "After" is considered as a perceptual and structural system for visualizing art in the digital age. • Contrast with AI: While AI simply collects and combines past data (assemblage), "After" aims to explore meaning at a fundamental level (bit level) before images become fixed.

- Continuity of Art History: By reinterpreting art from classical to contemporary periods as "structure, perception, and information systems," it respects the continuity of art history while serving as a starting point for exploring "newness" in saturated visual arts.

In this way, "After" is a core concept for translating the soul (structure and logic) of past art into the smallest units of modern information through digital technology, and regenerating it as a new perceptual experience.

Q3:

How is the concept of "After" connected to Japanese culture?

The concept of "After (following, d'après)" in this project is deeply rooted in the history of translation and mutual influence that has continued between Japanese culture and Western art.

The connection and specific details are as follows:

1. Connection to Japanese Culture through Van Gogh

Vincent van Gogh had a strong interest in Japanese culture, especially Ukiyo-e, and tried to incorporate it into his art. As he called his own copies "experiments in translating into the grammar of Western painting," "After" for Van Gogh was a sincere exploration to master the "perspective integrated with nature" and psychological structure underlying Japanese art. This project inherits that spirit of translation from Van Gogh into the digital realm.

2. Subject Selection Centered on Japanese Classical Art

Of the 12 image themes, half (6) are inspired by Japanese classical paintings, Ukiyo-e prints, and Buddhist statues.

- Utagawa Hiroshige: "Kameido Umeyashiki" is reconstructed into digital binary after being copied by Van Gogh.
- Katsushika Hokusai: "The Great Wave off Kanagawa" is treated with a critical perspective on modern commercialism (mugs).
- Toshusai Sharaku and Kitagawa Utamaro: Ukiyo-e portraits are analyzed at the binary level.
- Tawaraya Sotatsu: His "Fujin Raijin-zu" (Wind God and Thunder God) painting is reinterpreted as a structure of digital information.
- Anonymous Buddhist sculptor: The statue of Aizen Myoo is also selected as a symbol of historical Japanese art.

3. Expansion of "Translation Culture" in the Digital Age

Artist Kenji Kojima, reflecting his deep understanding of Japanese culture, redefines "After" as a translation activity into new contemporary media (algorithms, pixels, binary code). For example, the work title "after HIROSHIGE, after Vincent van Gogh"

symbolizes a chain of structural deciphering that goes beyond superficial imitation (meme), from Hiroshige to Van Gogh, and then to contemporary digital manipulation.

4. Respect for the Continuity of Art History

Kojima respects the continuity of art history by reinterpreting classical Japanese art to contemporary art as "structure, perception, and information systems." By deconstructing and reconstructing the inherent thought and physical structure of Japanese art at the binary level, the smallest unit of contemporary digital technology, he uses it as a starting point to question "newness" in the saturated world of visual arts.

In this way, the concept of "After" serves as a bridge to decode the essence of classical Japanese art through contemporary digital language and connect it to the future.

Q4:

How does the concept of "After" connect with translation activities in the digital age?

In the digital age, the concept of "After" (following, d'après) is defined not merely as imitation or stylistic quotation, but as an operative act of translating existing images into the "language of digital media."

This connection primarily involves the following three aspects:

1. Extension from the "grammar of Western painting" to the "grammar of digital media"

Historically, when Vincent van Gogh copied Ukiyo-e prints, he positioned it as an "experiment in translating them into the grammar of Western painting." This project inherits that spirit, extending "After" to translation activities into new media such as algorithms, pixels, and binary code. In other words, the act that was once translated through oil painting is now replaced by binary operations in the modern era.

2. Translation as the deciphering of "structure"

"After" in the digital age aims not to reproduce superficial visual depictions (memes), but to reveal the underlying psychological and physical structures of the original work.

- Decoding and reconstruction: The original is interpreted not as a "visual image" but as a "structure of digital information."
- Operative process: The process of randomly scattering pixels and rearranging them at the binary level to reconstruct the image itself becomes a modern act of translation that deciphers and reconstructs the structure of information.

3. Consideration as a perceptual and structural system

The concept of "After" is considered as a perceptual and structural system for visualizing art in the digital age.

- Contrast with AI: While AI simply collects and assembles past data (assemblage), this "After" aims to explore meaning at a fundamental level (bit level) before the image becomes fixed.
- Continuity of Art History: By reinterpreting art from classical to contemporary periods as "structure, perception, and information systems," this project respects the continuity of art history while serving as a starting point for exploring "newness" in the saturated field of visual arts.

In this way, "After" is a core concept for translating the soul (structure and logic) of past art into the smallest units of modern information through digital technology, and regenerating it as a new perceptual experience.

Q: How is the concept of "After" connected to Japanese culture?

The concept of "After (following, d'après)" in this project is deeply rooted in the long history of translation and mutual influence between Japanese culture and Western art.

The connection and specific content are as follows:

1. Connection to Japanese Culture through Van Gogh

Vincent van Gogh had a strong interest in Japanese culture, especially Ukiyo-e prints, and tried to incorporate it into his art. As he called his own copies "experiments in translating into the grammar of Western painting," "After" for Van Gogh was a sincere exploration to master the "perspective integrated with nature" and psychological structure underlying Japanese art. This project inherits that spirit of translation from Van Gogh into the digital realm.

2. Subject Selection Centered on Japanese Classical Art

Of the 12 image themes, half (6) are inspired by Japanese classical paintings, Ukiyo-e prints, and Buddhist statues.

- Utagawa Hiroshige: "Kameido Umeyashiki" is reconstructed into digital binary after being copied by Van Gogh.
- Katsushika Hokusai: "The Great Wave off Kanagawa" is treated with a critical perspective on modern commercialism (mugs).
- Tōshūsai Sharaku and Kitagawa Utamaro: Ukiyo-e portraits are analyzed at the binary level.
- Tawaraya Sōtatsu: "Fujin Raijin-zu (Wind God and Thunder God)" is reinterpreted as a structure of digital information.
- Anonymous Buddhist Sculptor: The statue of Aizen Myōō (Aizen Myōō) has also been selected as a symbol of historical Japanese art.

3. Expansion of "Translation Culture" in the Digital Age

Artist Kenji Kojima, reflecting his deep understanding of Japanese culture, redefines "After" as a translation activity into new contemporary media (algorithms, pixels, binary code). For example, the work title "after HIROSHIGE, after Vincent van Gogh"

symbolizes a chain of structural deciphering that goes beyond superficial imitation (meme), from Hiroshige to Van Gogh, and then to modern digital manipulation.

4. Respect for the Continuity of Art History

Kojima respects the continuity of art history by reinterpreting classical Japanese art to contemporary art as "structure, perception, and information systems." By deconstructing and reconstructing the unique thought and physical structure of Japanese art at the binary level, the smallest unit of modern digital technology, he uses it as a starting point to question "newness" in the saturated world of visual arts.

In this way, the concept of "After" serves as a bridge to decode the essence of classical Japanese art through contemporary digital language and connect it to the future.

AI and Binary

Q5:

Why deliberately work with binary in the digital age where AI is prevalent?

In today's world where AI is widespread and anyone can easily generate images, this project deliberately works with binary (binary numbers), the smallest unit of data, for the following five main reasons:

1. Exploring Creativity That Is Not "Patching Together Past Data"

The advent of AI has democratized visual arts, leading to the spread of anonymous memes and the rise of "mass appropriation art," which collects and utilizes past data. Artist Kenji Kojima poses the question, "Can we create visual art that is not merely a collection of past figurative painting data, given that AI uses this method to generate images?" Using binary code as a fundamental artistic material is an attempt to explore data structures that AI has not yet utilized and to re-examine the potential of human artistic capabilities.

2. Exploring the Origins Before Images Become "Fixed"

All modern information is recorded in binary, but we are not consciously aware of this in our normal visual experience.

- The Origin of Information: This project focuses on the "stage before" images are fixed as normal visual experiences, aiming to explore meaning at its fundamental level (bit level).

- Interpretation as Information Structure: By reinterpreting original works not simply as "visual images" but as "digital information structures," existing expressions are deconstructed and reconstructed.

3. Pursuing "Novelty" in Saturated Visual Art

It is believed that contemporary visual art is already saturated.

- In this project, by deliberately using digital images, which are widely recognized as works of art, as a starting point from their smallest unit—binary code—the concept of "novelty" is questioned, serving as a stepping stone for further exploration.

4. Critical Examination of Contemporary Issues

Stepping into the operational layer of binary code is not merely a technical experiment, but also a critical examination of contemporary society.

- By processing images through binary operations (pixel division, bit-level reconstruction, encryption, etc.), the project raises questions about issues facing contemporary visual art, such as copyright, originality, the democratization of art, and rampant commercialism.

5. Visualizing the System of Perception

We construct the world through the filter of our sensory organs, and Kojima superimposes this process onto how algorithms construct images from binary data. By gradually revealing the invisible logic of binary code over time, this project aims to transform the viewer's framework of perception and present moments where the "underlying logic of meaning and emotion" is revealed.

In this way, deliberately working with binary code in the age of AI can be seen as a strategic choice to resist the consumption of superficial images and to fundamentally re-examine the structure of information, human perception, and the essence of art from a fundamental level.

Q6:

What are the differences between AI-generated images and art created through binary manipulation?

There are fundamental differences in how data is handled and the purpose of expression between AI-generated images and the "art through binary manipulation" practiced in this project.

The main differences, based on the source material, are as follows:

1. Data collection vs. exploration of fundamental structure

- AI-generated images: Collects vast amounts of past figurative image data and creates new visual images by combining them (assemblage). This has aspects of "mass appropriation art" and is based on the accumulation of existing data.

- Binary manipulation: Explores the "data structure" itself, which AI has not yet utilized. It focuses on the "pre-stage" before images are fixed as normal visual representations, and attempts to explore the root of meaning at the bit level, the smallest unit of information.

2. Visual finished product vs. manipulative process

- AI-generated images: The goal is the generation of a final "visual image," and the image is presented in a completed state.
- Binary manipulation: The image is not simply a visual image, but the manipulative act of the "structure of digital information (information system)" itself becomes the core of the art.

3. Presentation of order vs. visualization of chaos and glitches

- AI-generated images: Generates orderly images according to user instructions.
- Binary manipulation: Intentionally incorporates "chaos" and "glitches" into the process. By controlling the process so that the original image is not restored until the binary data is perfectly aligned, we emphasize the moment when the logic of the information becomes clear.

4. Presence of Social and Critical Messages

- AI-generated images: While bringing about the democratization of art, they have simultaneously blurred the boundaries of copyright and originality.
- Binary manipulation: In a contemporary art world saturated with images, starting from the binary level deliberately raises critical questions about issues such as copyright, originality, and greedy commercialism.

In summary, while AI is a "reconstruction of past images," the binary manipulation in this project is an "analysis and reconstruction of the logical structure before the image is formed," and can be said to be an attempt to re-examine the perceptual system of the digital age itself.

Q7:

The Unique Role of "Binary Data" in Creativity in the AI Era

In the AI era, "binary data" plays a unique role in this project, not merely as a data recording format, but as a "fundamental artistic material" for redefining human creativity.

The specific roles and significance are as follows:

1. Structural Exploration of AI's "Data Collection"

The spread of AI has led to "mass appropriation art," where AI collects past figurative art data to generate works. In contrast, this project focuses on the "data structure" itself, which AI has not yet utilized, thereby presenting new possibilities for human

artistic ability. Manipulating binary data becomes a means of creating a unique visual language, not merely a patchwork of existing images.

2. Visualization of the "Pre-Image Stage"

While all modern information is recorded in binary, this project focuses on the "stage before" images are fixed as normal visual representations.

- Exploration at a fundamental level: By deconstructing and reconstructing information at a fundamental level (bit level) before meaning is established, original works are reinterpreted not as visual "pictures," but as "information systems."
- Operative acts: Binary operations themselves, such as pixel division, bit-level reconstruction, and encryption, are defined as artistic "operative acts."

3. A Bridge Connecting "Logic" and "Perception"

Binary data serves as a bridge connecting the invisible "logic" of computers and human "perception."

- Simulation of sensory organs: Artist Kojima superimposes the process by which humans construct the world from chaos through the "filter" of sensory organs onto the process by which algorithms reconstruct images from binary data.
- The Moment of Logical Revelation: The "glitches" that occur until the binary data is perfectly aligned highlight a dramatic turning point where digital logic connects to "meaning and emotion."

4. Critical Examination of Existing Art Concepts

The use of a binary operational layer also serves as a critical tool for addressing various issues surrounding contemporary art.

- Questioning Originality: Processing original works through binary operations prompts a reconsideration of issues such as copyright, originality, and the democratization of art.
- Resistance to Commercialism: In response to the current situation where famous paintings are consumed as mere "symbolic icons (commodities)," the deconstruction and reconstruction at the binary level questions the concept of "newness" in the saturated world of visual art.

In this way, binary data in this project, unlike superficial image generation by AI, functions as a core material for questioning the essence of art and human perception from the fundamental structure of information.

Q8:

How does art created through binary manipulation change the concept of copyright?

Art using binary manipulation (processing at the binary level) fundamentally questions traditional concepts of copyright and originality, presenting several important transformations.

The points of transformation in this project are as follows:

1. Shift in Definition from "Visual Image" to "Information Structure"

Traditional copyright has protected specific, completed "visual images." However, this project, by using binary operations such as pixel division and bit-level reconstruction, reinterprets the work not as a mere visual image, but as a "digital information structure (information system)." By shifting the focus of expression to the smallest unit of information (bit level), which is the "stage before" the image is fixed, it questions the traditional legal and artistic definition of "what constitutes an original work of art."

2. Redefining "Imitation" as "Operative Action"

The concept of "After" used by Van Gogh is redefined in the digital age as "an operative act of deconstructing existing images into their underlying structures and reconstructing them with a unique visual language." This differs from mere stylistic quotation or superficial imitation (memes), as it involves deciphering the original structure and creating new works from the binary level. This process, while utilizing existing works, pursues a new form of creativity that is not simply a "collage of past visual data."

3. Critical Examination of Mass Appropriation

With the spread of AI, "mass appropriation art" and anonymous memes that collect and utilize past data are proliferating, blurring the boundaries of copyright and originality. Art created through binary manipulation plays a role in prompting critical reflection on this "consumption of superficial images" and "greedy commercialism" by exploring meaning at the fundamental level of information.

4. Shifting from Ownership to a Model of "Sharing and Donation"

This presents a new economic and rights model based on "sharing," which has been made easy by digitalization.

- Flexibility of Licensing: The works are released as free digital artwork under "Creative Commons 4.0."
- Freedom of Sharing: Videos can be shared and downloaded without permission, setting them apart from existing strict copyright management.
- Value Exchange: Instead of commercial sales, it proposes an ecosystem based on "trust and support," where viewers donate an arbitrary amount only if they recognize the artistic value.

In this way, art created through binary manipulation seeks to transform copyright from "a right to monopolize fixed expressions" to "a framework for respecting the structure of information, sharing within the continuity of art history, and serving as a starting point for new exploration." Digital Media, Encryption, Data Structures

Q9:

What specifically does the translation into contemporary "digital media" refer to?

The translation into the "language of digital media" in the contemporary context refers not simply to digitizing images, but to the act of reconstructing a work as an "information structure" using elements inherent to digital technology, such as algorithms, pixels, and binary numbers (binary code).

Specifically, the following elements and operations constitute the content of this "translation":

1. Redefinition at the binary level

Based on the fact that all information is recorded in binary numbers, binary data is treated as "basic artistic material."

- Bit-level reconstruction: Images are interpreted and manipulated not as visual images, but as a collection of information at the bit level.
- XOR operation and encryption: Data is processed using XOR operations, such as those used in one-time pads (encryption technology), and the process of decomposing and decrypting into two data sets—an encryption key and encrypted data—is used as a form of expression.

2. "Operational acts" through algorithms

Existing images are translated into logical procedures (algorithms) to reconstruct them through a unique visual language.

- Random scattering of pixels: Color pixels are scattered randomly, and the process of forming the original image from there using algorithms is shown.
- Glitch control: The "inconsistencies" that occur until the binary data is completely aligned are visualized as glitches, and the technical operation includes controlling the restoration until the moment the logic of the information is complete.

3. Auditory visualization of visual information (translation into sound)

The "language of digital media" is not limited to visual information, but can also be translated into other sensory forms as numerical data.

- RGB MusicLab: By converting the RGB color values of each pixel in an image into background sound, the invisible processes of algorithms and data are presented auditorily.

4. Transformation from Image to Information System

The goal of this translation activity is to focus on the stage before images become fixed as conventional visual representations.

- Deciphering the Structure: The original works are reinterpreted as "structure, perception, and information systems," going beyond superficial imitation (memes) to highlight the underlying logical blueprint.

Just as Van Gogh once translated Japanese ukiyo-e prints into the "grammar of Western painting," this project translates them through "digital technology as art," into a contemporary grammar that reveals the underlying logic of meaning and emotion.

Q10:

What is the expressive intent behind the "encryption art" using XOR operations?

The "encryption art (One-Time Pad)" using XOR operations goes beyond a mere technical experiment, embodying a multi-layered expressive intent that re-examines creativity and the mechanisms of perception in the age of AI.

The main expressive intentions, based on "the sources," are as follows:

1. Establishing binary data as "fundamental artistic material"

Kojima focuses on the fact that all modern information is recorded in binary, positioning binary data as a "fundamental artistic material" replacing paint and canvas in painting.

- Interest in materials: Kojima, who previously emphasized pigments and ground materials using medieval techniques (egg tempera), continues to be interested in manipulating information at the bit level, the smallest unit of information, even after transitioning to digital art, more so than in visual themes.

- Operative act: The process of dividing and decrypting images into two data sets, "encryption key" and "encrypted data," using XOR operations, is presented as a modern "operative act" of art.

2. Exploring "human-specific creativity" in relation to AI-generated images

In an era where AI can create works simply by collecting and reconstructing (assembling) past visual data, the intention is to explore data structures that AI has not yet utilized.

- Differentiation from AI: While AI combines existing "pictures," this project delves into the "logical structure of the data itself," which AI does not use for communication, thereby re-examining the potential of human artistic ability.

3. Connection to art history: Pointillism and "visual color mixing"

The separation and integration of data through XOR operations is linked to the logic of Georges Seurat's pointillism (Neo-Impressionism) in art history.

- Digital Interpretation of Color Mixing: Just as Seurat separated color particles on the canvas and allowed them to mix in the viewer's eye, Kojima separates images into two datasets and considers the process of generating the image by decoding (merging) them as a modern, digital reproduction of "color mixing in visual experience."

4. Deconstruction of Superficial Images and Presentation of "Logic"

Against the commercialism where famous paintings are consumed as mere "symbolic icons (commodities)," there is an intention to reinterpret the works as "information structures."

- Deciphering the Structure: By showing the encryption and decryption process step by step over time, it emphasizes that a logical data structure (binary code and algorithms) exists at the root of the "meaning and emotions" we usually feel.

5. Metaphor of "Perceptual Filters" for Understanding the World

The decryption using the XOR operation is also a metaphor for the mechanism by which humans perceive the world.

- Sensory Organs as Keys: Kojima believes that "the world is filled with chaotic information, and humans construct the world by extracting and decoding specific information through 'filters (or keys)' called sensory organs."
- Updating Perception: By showing the process of an image emerging from an encrypted chaotic state, he attempts to transform the viewer's perceptual framework and update their understanding of the world.

In this way, encryption art using the XOR operation embodies the concept of "After" in the digital age as an act of reconstructing from the smallest unit of information, and plays a role in connecting the continuity of art history with contemporary perceptual systems.

Q11:

How is he exploring "data structures" that AI is not utilizing?

In contrast to the method used by generative AI, which collects existing visual data and uses it as an "assemblage," Kenji Kojima explores areas untouched by AI by treating binary data itself, the most fundamental unit of digital information, as "basic artistic material." Based on the source material, this exploration method can be specifically divided into the following four approaches:

1. Deconstruction and Reconstruction at the "Bit Level"

While AI learns from completed images, this project focuses on the stage before the image is fixed as a visual representation.

- Utilization of Binary Operations: It uses "binary operations" themselves, such as pixel division, bit-level reconstruction, and algorithmic transformation, as a form of expression.
- Interpretation as Information Structure: The original work is reinterpreted not merely as a visual "picture," but as a "structure of digital information."

2. Encryption using One-Time Pad (XOR Operation)

It incorporates "encryption technology," which AI uses for communication but not as artistic material, into the creative process.

- XOR Operation: Using a random number of the same size as the data size, the image is divided into two data sets, an "encryption key" and "encrypted data," through bitwise XOR (exclusive OR) operation.
- Separation and Decryption: The process of generating an image by decrypting the two data sets is redefined as a digital version of "color mixing in visual experience" in Georges Seurat's pointillist paintings.

3. Controlling "Glitches" through Binary Integrity

Unlike the smooth image generation by AI, this method deliberately visualizes data inconsistencies.

- Glitch Generation: Each pixel is treated as four binary units, and the inconsistencies that occur until they are perfectly aligned in the calculation process are expressed as "glitches."
- Control of Restoration: The process is technically controlled so that the original image understandable to humans is not restored until the binary of the image data matches 100% accurately. This allows viewers to witness the logical convergence process of information from "chaos" to "order (image)."

4. "Audification" of Visual Data

Leveraging the versatility of digital data, visual information is translated into another sensory form. • RGB MusicLab: This project uses an algorithm to convert the RGB (red, green, blue) color values of each pixel in an image into background sound (music).

- Perceptual Renewal: By presenting the invisible binary code and algorithmic processes through both visual and auditory means, the project aims to renew the viewer's framework of perception of the world.

In this way, Kojima is exploring new forms of creativity in the AI era, not by focusing on "what is depicted (visual theme)" like AI does, but by making the information system itself—how data is structured and logically processed—the subject of art.

Image Structure

Q12:

What is the "structure" that emerges when two images are superimposed?

The "structure" that emerges when two images from different eras—Hiroshige and Van Gogh—are superimposed and analyzed is not merely a visual similarity, but refers

to a multi-layered logic encompassing "information translation" and "the continuity of art history."

Specifically, this "structure" can be understood from the following three aspects:

1. The Chain of Translation Grammar

When Van Gogh copied Hiroshige's ukiyo-e print, it was not simply a superficial copy (meme), but an "experiment in translating Japanese art into the grammar of Western painting."

- First stage of translation: Hiroshige's original structure was translated by Van Gogh into Western perspective and color logic.
- Second stage of translation: This project further translates this dialogue between the two into the "language of digital media (algorithms and binary code)." By superimposing the two images, the structure of transformation—how expression has been translated throughout history—is made visible.

2. "Psychological and Physical Structure" Beyond the Surface

Van Gogh's "After" aimed to reveal the complex psychological structure of the subject and the structure of perspective integrated with nature. The process of reconstructing the two images at the binary level in this project is an act of reinterpreting the "underlying structure before the image is formed" that these past masters explored, as a binary (information system), the smallest unit of the modern era.

3. Visualization of the Continuity of Art History

This process, from Hiroshige to Van Gogh and to modern digital manipulation, demonstrates that art history is a continuous flow of information (system).

- Decoding the structure: By watching the process of the two images mixing, glitching, and being reconstructed, viewers will recognize the unique thought and physical mechanisms of a particular painting as an "information structure." In this way, what emerges when two images are superimposed is not simply a "picture," but the essential blueprint (logic) of art that has been passed down through the ages, repeatedly decoded and encoded.

Q13:

What specifically does the translation into the "language of modern digital media" refer to?

The translation into the "language of modern digital media" refers not simply to digitizing images, but to the act of reconstructing a work as an "information structure" using digital-specific elements such as algorithms, pixels, and binary code.

Specifically, the following elements and operations constitute the content of this "translation":

1. Redefinition at the binary level

Based on the fact that all information is recorded in binary, binary data is treated as "basic artistic material."

- Bit-level reconstruction: Images are interpreted and manipulated not as visual images, but as collections of information at the bit level.
- XOR operation and encryption: Data is processed using XOR operations, such as those used in one-time pads (encryption technology), and the process of decomposing and decrypting into two data sets—an encryption key and encrypted data—is used as an expression itself.

2. "Operational acts" through algorithms

Existing images are translated into logical procedures (algorithms) to reconstruct them through a unique visual language.

- Random scattering of pixels: Color pixels are scattered randomly, and the process of forming the original image from there using an algorithm is shown.
- Glitch control: The "inconsistencies" that occur until the binary data is perfectly aligned are visualized as glitches, and the technical operation of controlling the restoration until the moment the logic of the information is complete is included.

3. Auditory visualization of visual information (translation into sound)

The "language of digital media" is not limited to visual information, but can also be translated into other sensory forms as numerical data. • RGB MusicLab: By converting the RGB color values of each pixel in an image into background sound, this project presents invisible processes such as algorithms and data in an auditory way.

4. Transformation from Image to "Information System"

The goal of this translation activity is to focus on the stage before images are fixed as conventional visual representations.

- Deciphering the Structure: The original works are reinterpreted as "structure, perception, and information systems," going beyond superficial imitation (memes) to highlight the underlying logical blueprint.

Just as Van Gogh once translated Japanese ukiyo-e prints into the "grammar of Western painting," this project translates them through "digital technology as art," revealing the underlying logic of meaning and emotion in a contemporary grammar.

Q14:

What is Kojima's intention in calling binary operations "manipulative acts"?

Kenji Kojima's use of the term "manipulative act" for binary operations (pixel division, bit-level reconstruction, algorithmic transformation, encryption, etc.) stems from a

clear intention to establish a new artistic and perceptual approach in the digital age, going beyond mere image processing.

Based on the source material, this intention can be summarized in the following five points:

1. Deconstruction and Construction from "Image" to "Information Structure"

Kojima reinterprets existing works of art not simply as "visual images," but as "structures of digital information."

- Deconstruction of Structure: He defines the concept of "After" as the process of deconstructing existing images into their underlying binary-level structures.
- Unique Reconstruction: He positions the act of reassembling the decomposed data through his own visual language of algorithms and binary code as a "manipulative act."

2. A Modern Translation of the Historical Concept of "After"

Just as Van Gogh translated Japanese ukiyo-e prints into the "grammar of Western painting," Kojima treats digital technology as the "grammar of contemporary translation."

- This operational act goes beyond superficial imitation (memes) or stylistic quotation; its essence lies in translating classics into the language of new media, such as algorithms and binary code.

3. The Process of Visualizing and Audibilizing "Logic"

This act serves to transform the invisible logic of computers into a form that appeals to human perception.

- Exploration of the Source of Meaning: By gradually showing, over time, the moment when the "logic" underlying meaning and emotion is revealed, it aims to transform the viewer's perceptual framework.
- Sensory Renewal: By presenting the invisible process of binary operations as visual (glitches and convergence) and auditory (sound generation from RGB values), it intends to update our understanding of the world.

4. Presenting "Human-Specific Creativity" in Contrast to AI Generation

In contrast to AI's method of collecting and simply assembling past visual data, this approach directly manipulates binary data as "fundamental artistic material."

- Exploration of Unutilized Structures: By delving into "data structures themselves," which AI uses for communication with humans but has not yet utilized for art, it re-examines the potential of human artistic ability.

5. Critical Reflection on Commercialism and Copyright

It presents a critical perspective on the current situation where famous paintings are consumed as mere "symbolic icons (commodities)" by performing manipulations using binary operations.

- By focusing on the "stage before" images become fixed, it is also an "operation" intended to encourage reconsideration of issues such as copyright, originality, and the democratization of art. Thus, referring to binary operations as "manipulative acts" can be seen as an expression of a highly conscious creative attitude: deciphering the world from the smallest unit of digital data and constructing a new perceptual system while maintaining the continuity of art history.

Q15:

Why can bit-level "manipulative acts" be considered art?

In Kenji Kojima's project, the reason why bit-level "manipulative acts" are considered art is that they are not merely technical processes, but are defined as acts related to the essence of creation: "the inheritance of art history," "the deep exploration of information," and "the visualization of perceptual processes."

Based on the source, the basis for this act being considered art can be summarized in the following five points:

1. Contemporary inheritance of historical "translation activities"

When Van Gogh copied Japanese ukiyo-e prints, he positioned it as an "experiment in translating into the grammar of Western painting," and tried to reveal the underlying structure of the original. The bit-level manipulation in this project is considered a legitimate act of expression in the continuity of art history because it is a translation activity that extends this historical concept of "After" to the language of modern digital media (algorithms and binary code).

2. Presentation of a new material: "the structure of information"

Kojima treats "binary data," in which all modern information is recorded, as a "fundamental artistic material" that replaces paint and canvas.

- Instead of simply consuming the completed visual image (surface), he focuses on the "fundamental level (bit level)" before the image is fixed, and finds artistic value in deconstructing and reconstructing its structure.

- This serves as a new starting point for pursuing "novelty" in the already saturated world of visual art.

3. Proof of "unique human creativity" in the AI era

While generative AI uses the method of collecting and assembling (assemblage) past figurative painting data, this manipulative act explores the "data structure" itself, which AI has not yet utilized. • Through techniques that directly manipulate the logical structure of information, such as encryption (XOR operation) and glitch control using binary integrity, this work presents a uniquely human artistic approach that AI cannot replicate.

4. Visualization of the Processes of Perception and Logic

This manipulation is also an act of simulating how humans perceive the world.

- By gradually showing, over time, the process by which chaotic data is ordered by algorithms and converges into meaningful images, it reveals the "logic" underlying the "meaning and emotions" that we usually perceive unconsciously.

By visualizing and sonifying this "invisible process," it provides an artistic experience that transforms the viewer's perceptual framework and updates their understanding of the world.

5. Digital Interpretation of Traditional Techniques (Pointillism)

The act of separating and integrating data at the bit level is interpreted as a digital version of "the mixing of colors in visual experience" as performed by Georges Seurat in pointillism.

- Just as Seurat separated color particles in his paintings, allowing the viewer's eye to combine them into an image, the process of separating and decoding data through XOR operations can be said to redefine the logic of traditional painting techniques from the perspective of modern information science.

In conclusion, the bit-level manipulation is not merely a means of creating a superficial "picture," but rather a conceptual art that explores the question of "how the world is constructed and how we perceive it" from the smallest unit of the digital age.

Glitch

Q16:

What role does "glitch" play in the reconstruction process?

In the reconstruction process of this project, "glitch" is not merely a visual disturbance, but plays a crucial role in visualizing the structure of digital information and controlling image restoration.

The specific roles based on the source material are as follows:

1. Presentation of binary data inconsistencies

Each pixel is composed of four binary units, and glitches occur due to inconsistencies until these data are perfectly aligned during the reconstruction process. In other words, glitches serve as a visual indicator of a "logical inconsistency," showing that the data is not yet in the correct order.

2. Control of human perception (limitation of restoration)

Artist Kenji Kojima incorporated the concept of glitches to prevent the original image, which is easily understandable to humans, from being easily restored. It functions as a technique to control the process so that the original image is not accurately reproduced until the binary data of the image is perfectly aligned.

3. Visualization of the process from chaos to order

Viewers witness the process of color pixels gradually transforming from a "chaotic state" of randomly scattered pixels to the color structure of the original image, accompanied by glitches. Through this process, the aspect of the image as a "structure of digital information" before it is fixed as a normal visual image is emphasized.

4. Impact on perception

The processes of invisible algorithms and binary code are gradually shown through glitches over time, transforming the viewer's framework of perception and updating their understanding of the world.

In this way, glitches serve as an important theatrical device in this project, allowing the work to be interpreted not merely as a "visual image" but as an "information system."

Q: What is the intention behind the moment when the glitches converge and the image is completed?

The moment when the glitches converge and the original image is finally completed contains multiple intentions that are central to this project.

The main intentions are as follows: 1. Revealing the "Logic" of Meaning and Emotion
One of the main objectives of this project is to highlight the moment when the underlying "logic" of meaning and emotion is revealed. By gradually displaying digital processes that are usually invisible, such as algorithms and binary code, the project visualizes the process by which chaotic data ultimately coalesces into "meaning (an image)."

2. Transformation of Perceptual Frameworks

Kojima intends to transform the viewer's perceptual framework and update their understanding of the world.

- From Chaos to Order: Viewers witness the process of transformation from "chaos" (randomly scattered pixels) through glitches to "order" (the original image).
- Sensory Organ Filters: This represents how humans construct the world from chaotic information through the filter of their sensory organs, superimposed on the algorithmic reconstruction of the image.

3. Presentation as an "Information Structure"

By introducing glitches into the process of image completion, the intention is to have the work interpreted not merely as a "visual image," but as a "structure of digital information."

- Limitations of Perception: By intentionally incorporating "glitches," the project controls the process so that the original image, understandable to humans, is not easily restored until the binary data is completely aligned.
- Exploration Before Fixation: By focusing on the stage before the image is fixed as a normal visual image, the project explores meaning at a fundamental level of information.

4. Continuity of Art History and the Presentation of "Newness"

In the saturated world of visual arts, starting from the "smallest unit of information" at the binary level, the project re-examines the concept of "newness." The moment when classical works are reconstructed as digital data respects the continuity of art history while presenting a new interpretation through modern technology.

In this way, the moment of image completion is not merely the completion of restoration, but is designed as a dramatic turning point where "invisible logic" is sublimated into "emotions and meanings understandable to humans." Q18:

The Role of Glitches in the Binary Manipulation Process

In this project, "glitches" are not simply digital errors, but play a crucial role in controlling the structure of information during the image reconstruction process and guiding the viewer's perception.

The specific roles and mechanisms based on the source material are as follows:

1. Visualization of "Inconsistencies" in Binary Data

In this project, each pixel is treated as four binary units. During the reconstruction process, inconsistencies between data that occur before all binary data is perfectly aligned appear on the screen as glitches. In other words, glitches can be said to be a visualization of "the state where the data is not yet in a logically correct order."

2. Limitation and Control of Human Perception

Artist Kenji Kojima intentionally incorporated the concept of glitches to prevent the original image, which is understandable to humans, from being easily restored.

Glitches function as a technique to control the process so that the original image is not accurately reproduced until the moment the binary data of the image is perfectly aligned.

3. Presentation of the Process from Chaos to Order

Glitches play a role in showing, step by step over time, the process by which the color structure changes from "chaos" to "order" (the original image).

- By witnessing the randomly scattered pixels gradually aligning with accompanying glitches, viewers become aware of the "structure of digital information" itself before the image is fixed as normal visual perception.

4. Transformation of Perception and Emphasis on "Logic"

The intention is to transform the viewer's perceptual framework by gradually revealing processes such as invisible algorithms and binary code through glitches.

- The moment the glitches converge and the image is completed is emphasized as the moment when "the logic underlying meaning and emotion" is revealed.

Kojima superimposes the process by which humans construct the world through the filter of sensory organs onto the way algorithms reconstruct images from binary data through glitches. Thus, glitches are an essential element in this project, elevating the artwork from a mere "copy of a painting" to a "reinterpretation as an information system."

Q17:

What are the rules governing the process of glitch convergence?

In this project, the process by which glitches converge and the image is completed follows the following rules based on logical alignment at the binary level:

1. Minimum Data Unit and Structure

Each pixel is treated not as a single data unit, but as being broken down into four binary units. In the reconstruction process, these lower-level units form the basis of the calculations.

2. Glitch Occurrence Due to "Inconsistency"

The glitches that appear on the screen are caused by data inconsistencies (mismatches) in the calculation process. When the reconstruction algorithm processes the binary data of each pixel, if the data is out of the correct arrangement order or incomplete, it is intentionally visualized as noise or display distortion.

3. Convergence Through Complete Alignment

The absolute rule for glitches to disappear and the original image to be formed is that "all binary data must be perfectly aligned."

- Restoration Control: The system is technically controlled so that the original image, understandable to humans, is not restored until the binary data of the image is 100% accurately matched and aligned.

- Gradual Change: Viewers will witness the color structure gradually changing from "chaos" to "order (the completed image)" over time.

4. Presentation of "Logic" by Algorithm

This convergence process is not simply about correcting the image, but is based on the intention of revealing the "logic underlying meaning and emotion."

- It emphasizes the moment when the "digital logic" of invisible binary data and algorithms overcomes glitches, aligns, and ultimately connects to the "image" that we can perceive. Thus, the convergence of glitches follows an information-theoretic principle: a set of inconsistent binary data is transformed into a perfectly consistent information structure by an algorithm.

Q18:

What is the relationship between the convergence of "glitches" and "human perception"?

In this project, there is a deep relationship between the convergence of glitches and "human perception," specifically in the reproduction and transformation of the "world-building process."

Based on the source material, this relationship is explained from the following four perspectives:

1. Reproduction of the "filter" of sensory organs

Artist Kenji Kojima overlaps the process by which humans construct the world from chaotic surrounding information with the process by which algorithms reconstruct images from binary data.

Kojima's philosophy: Our sensory organs function like a "filter," extracting only specific elements from chaos to create the world.

The role of the artwork: The process of glitches converging and the original image taking shape visualizes how humans perceive the world by using "keys (sensory organs)" to decipher the code.

2. Transformation and updating of the framework of perception

By gradually presenting the invisible processes of algorithms, data, and binary code over time, the intention is to transform the viewer's framework of perception itself.

By showing the reconstruction process accompanied by glitches, the aim is not simply to have viewers consume the finished image, but to update their "understanding of the world."

3. Emphasis on the moment when "logic" transforms into "emotion"

The moment when the glitches disappear and a meaningful image is completed is a dramatic turning point where digital "logic" is sublimated into "meaning and emotion" in human perception.

- The artwork deliberately uses the process of glitches to emphasize the moment when the logic underlying meaning and emotion is revealed through computer technology.

4. Control of perception and focus on structure

Humans have a tendency to immediately try to find meaningful images, but this project intentionally uses glitches to control that perception.

- Limitation of perception: The technology employed prevents the "original image that humans can understand" from being restored until the binary data is completely aligned.
- Intent: This forces viewers to confront the underlying "structure of digital information" before jumping to superficial visual images (memes).

In summary, the convergence of glitches symbolizes the process by which "invisible digital logic" is transformed into "humanly perceptible reality," and serves to challenge our unconscious act of "perceiving the world."

Q19:

What role does "glitch" play in the reconstruction process?

In the reconstruction process of this project, "glitch" is not merely a display disruption, but plays a crucial role in visualizing the structure of digital information and controlling image restoration.

The specific roles based on the source are as follows:

1. Presentation of binary data inconsistencies

Each pixel is composed of four binary units, and glitches occur due to inconsistencies until this data is perfectly aligned during the reconstruction process. In other words, glitches serve as a visual indicator of "logical inconsistencies," showing that the data is not yet in the correct order.

2. Control of human perception (limitation of restoration)

Artist Kenji Kojima incorporated the concept of glitches to prevent the original image, which is understandable to humans, from being easily restored. It functions as a technique to control the process so that the original image is not accurately reproduced until the binary data of the image is perfectly aligned.

3. Visualization of the process from chaos to order

Viewers witness the process of color pixels gradually changing from a "chaotic state" of randomly scattered pixels, through glitches, to the color structure of the original image. Through this process, the aspect of the image as a "structure of digital information" before it is fixed as a normal visual image is emphasized.

4. Impact on perception

The processes of invisible algorithms and binary code are gradually revealed through glitches over time, transforming the viewer's perceptual framework and updating their understanding of the world. In this way, glitches serve as a crucial performative

device in this project, allowing the artwork to be interpreted not merely as a "visual image" but as an "information system."

Citations of Japanese Classical and Contemporary Art

Q20:

Why were Hiroshige's ukiyo-e prints chosen for this project?

The main reasons for choosing Utagawa Hiroshige's ukiyo-e prints in this project are their deep connection to Vincent van Gogh and their fundamental role in the concept of "After."

The specific reasons are as follows:

1. The Foundation of the "After" Theme

The project's "After" theme is based on works created from two images: one by Hiroshige and one by Van Gogh. Van Gogh copied (After) Hiroshige's ukiyo-e prints, viewing it as an "experiment in translating them into the grammar of Western painting." This project aims to further extend this history of translation to the level of digital binary code.

2. Symbol of the Continuity of Art History

One of the project's works, "The Plum Garden at Kameido after HIROSHIGE, after Vincent van Gogh," has multiple layers of interpretation: Hiroshige, Van Gogh, and digital. By choosing this, the project intends to respect and express the continuity of art history, from Japanese classical art to Post-Impressionism and contemporary digital expression.

3. Decoding and Reconstruction of Structure

Just as Van Gogh attempted to learn the psychological structure and perspective of the subject through Hiroshige's works, Kenji Kojima aims to decode the original structure as an information system through this project. Works with established visual structures, such as ukiyo-e prints, provided an ideal starting point for verifying the process of decomposition and reconstruction into pixels and binary data (Binary Interpretation).

4. Appreciation of Japanese Culture and Personal Background

Of the 12 image themes, half (six) are selected from Japanese classical art, including ukiyo-e prints. This reflects artist Kojima's deep understanding of and personal connection to Japanese culture.

In this way, Hiroshige's ukiyo-e prints are not merely visual references, but are chosen as materials that symbolize the core of the project: "translation," "structural analysis," and "historical continuity."

Q: What other works besides ukiyo-e prints have been selected?

In this project, "After / Binary Interpretation," of the 12 image themes, six are selected from classical Japanese art (ukiyo-e prints, Japanese paintings, Buddhist statues), and the remaining six are selected from Post-Impressionism and contemporary art.

The main works and artists selected besides ukiyo-e prints are as follows:

1. Classical Japanese Art (excluding ukiyo-e prints)

- Buddhist statue (Aizen Myoo): "AIZEN MYOO (Ragaraja)" by an anonymous Buddhist sculptor has been selected.
- Rinpa school (Japanese painting): Tawaraya Sotatsu's "Thunder God & Wind God" is included.

2. Post-Impressionism

Works centered around Vincent van Gogh and his contemporaries have been selected.

- Vincent van Gogh: Works include a piece that scatters and reconstructs the pixel colors of "Wheatfield with Crows," and "A Woman Walks with a Sunflower Tote," which uses a tote bag depicting sunflowers as its subject.
- Paul Gauguin: "After Paul Gauguin, After Vincent van Gogh in Arles, 1888," related to the period he spent with Van Gogh in Arles in 1888, has been selected.
- Georges Seurat: As part of the historical background and related works of the project, "A Sunday Afternoon on the Island of La Grande Jatte," a representative work of pointillism, is included.

3. Modern and Contemporary/Conceptual Art

Iconic works that are widely recognized in contemporary art have also been selected.

- Jasper Johns: His representative motif, "Flag," has been selected.
- Yayoi Kusama: Her iconic motif, "Pumpkin," has been selected.
- Marcel Duchamp: His work "Fountain," a turning point in modern art, has been selected as a work utilizing the encryption technology "one-time pad."

4. Other Related Works

The following works are also mentioned or used in the project's history and related projects:

- Leonardo da Vinci: A "Da Vinci Code" project that encoded the "Mona Lisa" was conducted in the past.
- Lascaux Cave Paintings: A related project called "Begins with Chaos - Lascaux" exists.

These selections are not merely visual references, but aim to reinterpret the originals as "structures, perceptions, and information systems," and to explore the continuity of art history.

Q21:

Why are two images, one by Hiroshige and one by Van Gogh, necessary?

The reason two images, one by Hiroshige and one by Van Gogh, are necessary is to represent the foundation of the core theme of this project, "After."

Specifically, the reasons are as follows:

- Inheritance and expansion of translation culture: Van Gogh copied Hiroshige's ukiyo-e prints, but this was not merely superficial imitation; it was an "experiment in translating Japanese art into the grammar of Western painting." This project attempts to further extend that historical translation process into the "language of modern digital media (algorithms and binary)."
- Deciphering structure and continuity of art history: Kojima's work "after HIROSHIGE, after Vincent van Gogh" symbolizes a "chain of structural deciphering" from Hiroshige to Van Gogh and then to modern digital manipulation. By treating the two images together, it emphasizes the continuity of art history that goes beyond superficial imitation (meme) to reveal the underlying structure of the original.
- Exploration of the "After" concept: Using these two images serves as a starting point for considering "After" as an "operative act" of deconstructing existing images and reconstructing them with a unique visual language.

In this way, by using both Hiroshige (the original) and Van Gogh (the translation into Western art) as materials, the intention is to reconnect past art to the present from the perspective of "information structure."

Q: I would like to know about specific examples such as "Fountain" and "Sunday Afternoon."

Based on the source, the works based on Marcel Duchamp's "Fountain" and Georges Seurat's "A Sunday Afternoon on the Island of La Grande Jatte" belong to a group that specifically uses an encryption technique called "One-Time Pad" within this project.

The specific content of each work is as follows:

1. "Fountain" (Fountain: After Marcel Duchamp)

- Method: An encryption technique using bitwise XOR operation (exclusive OR) is used.
- Role: This video is positioned as a link to the "image encryption project" that served as the starting point for the current project.
- Work Details: A 5-minute video work, created in 2025.

2. "A Sunday Afternoon on the Island of La Grande Jatte"

- Method: The technique of "Bitwise Splitting and Merging of Pixels" is used.
- Expressive Intent: Kojima considered the method used by Seurat in pointillism, where he separated color particles and mixed them in the viewer's eye, to be similar to "encryption (separation) and decryption (integration) of digital data."
- Process: First, the colors of Seurat's painting are separated into two datasets (encryption key and encrypted data) for encryption, and the process of generating the image by merging (decrypting) them is visualized.
- Work Details: A 4-minute video work, created in 2023.

The "One-Time Pad" Mechanism Common to These Works

The method used in these examples is based on the following logic:

- Data Splitting: Using a random number of the same size as the image data, the data is split into two sets using the XOR operation.
- Reinterpretation of Visual Experience: Kojima expresses the way the image emerges as this separated data is combined again (decrypted) as a digital version of "the mixing of colors in visual experience."
- Background Sound: The background sound of these videos, like other works, is also generated from the RGB color values of each pixel, presenting the invisible digital logic auditorily.

These works do not simply reproduce famous paintings, but play an important role in questioning the structure of art and the mechanisms of our perception through the information engineering process of "encryption and decryption."

Q22:

What is the unexpected relationship between Duchamp's "Fountain" and encryption technology?

In this project, Marcel Duchamp's iconic work, "Fountain," is reconstructed as an expression using the encryption technique called "One-Time Pad."

The details of this unexpected relationship and mechanism are as follows:

1. Adoption of the "One-Time Pad" encryption technology

In this project, "Fountain" is divided into two datasets: an "encryption key" and "encrypted data," using bitwise XOR operations. The image is generated only when these two datasets are decrypted (merged).

2. Role as a "bridge" between projects

This work serves as a bridge between the current project, "After / Binary Interpretation," and the "image encryption" project that artist Kenji Kojima previously worked on. Placed last among the 12 videos, this work symbolizes the "connection" representing the history of past trial and error.

3. Redefinition as "information structure"

Just as Duchamp's "Fountain" redefined ready-made objects as art, this project interprets "Fountain" not merely as a visual image, but as a "digital information structure."

- Exploration at the binary level: Focusing on the stage before the image is fixed as a normal visual representation (binary level), it explores the origins of meaning through the method of encryption.
- Transformation of perception: By gradually showing the processes of invisible algorithms, data, and binary code over time, it attempts to transform the viewer's framework of perception.

4. Similarity to Pointillism

Kojima believes that the process of separating and integrating data through this encryption is similar to the "mixing of colors in visual experience" in Georges Seurat's pointillist paintings. This idea became the foundation for a series of digital expressions, including Duchamp's work. In this way, Duchamp's "Fountain" is treated in this project as a symbol of an operational expression unique to the digital age: "treating a work of art as binary data and deconstructing and reconstructing it using cryptographic techniques."

Q23:

Detailed explanation of the pixel reconstruction process of "Wheatfield with Crows"

The pixel reconstruction process in the work based on Vincent van Gogh's "Wheatfield with Crows" is carried out in the following steps:

1. Random scattering of pixels

First, the process begins by randomly scattering 108,528 color pixels extracted from the original painting across the entire image. At this stage, the original image's color structure is completely lost, and it is presented in a chaotic state.

2. Rearrangement at the binary level

Each scattered pixel is processed as four binary units. Using the project's unique algorithm, these lower-level units are aligned, and the process of reconstructing the original image is performed.

3. Glitch generation and convergence

During the reconstruction process, "glitches" (display disturbances) caused by data inconsistencies continue to occur until all binary data is perfectly matched and aligned. This technique ensures that the original image, understandable to humans, is not restored until the moment the binary data is perfectly aligned.

4. Presentation of perceptual change

Through the video work (approximately 3 minutes), viewers witness the process of the color structure gradually changing from chaos to order. This emphasizes the aspect of the image as a "structure of digital information" before it is fixed as a normal visual image.

5. Synchronization with sound

The background sound of this reconstruction process is entirely generated from RGB color values. By linking the movement of visual pixels with the sound generated from their color data, the moment when the logic of the data becomes clear is expressed from multiple perspectives. This process is positioned as an "operative act" that reinterprets Van Gogh's pursuit of color and perspective structures using the smallest units of modern digital information (pixels and binary code).

Q24: I would like to know the intention behind choosing Yayoi Kusama's "Pumpkin."

The intention behind choosing Yayoi Kusama's "Pumpkin" as the subject of the project is primarily a critique of the consumption of "symbolic icons" in contemporary art and an exploration of "newness" in the digital age.

The specific intentions based on the source are as follows:

1. Critique of Symbolic Icons (Commercialism)

"Pumpkin" was chosen because it is a highly symbolic icon that transcends the boundaries of "artwork" and is widely recognized worldwide.

- From "Art" to "Commodity": Similar to the works of Hokusai and Van Gogh, famous works like Yayoi Kusama's "Pumpkin" tend to be consumed not only as pure art but also as a kind of "icon (commodity)" in modern times.
- Critical Examination: By deconstructing and reconstructing these "world's most iconic works" at the binary level, the project raises critical questions about contemporary issues such as copyright, originality, and the rise of rampant commercialism. The photograph of the pumpkin used as the source material was taken by Kojima on the street during Halloween.

2. Exploring "Newness" in Saturated Visual Arts

In the modern era, visual images are saturated, making it difficult to create "newness" through superficial depictions.

- Starting from a Known Image: By deliberately using a digital image like the "pumpkin," which everyone knows, as a starting point at the smallest unit of binary code, the project serves as a stepping stone for new exploration, not merely a reproduction of an image.
- Exploration Before Fixation: By focusing on the "stage before" the image is fixed as a visual representation (at the bit level) and demonstrating the "manipulative act" of

reconstructing its structure, the project re-examines the meaning of art at a fundamental level. 3. Reinterpretation as "Information Structure"

Similar to other classic works, "Pumpkin" is intended to be reinterpreted not merely as a visual "picture," but as a "structure, perception, and information system."

- Restoration from Chaos: It presents a process where binary data is arranged by an algorithm from a state of "chaos" with randomly scattered color pixels, and the image of the "pumpkin" gradually emerges.
- Visualization of Logic: By showing the process of image completion through glitches, it aims to reveal that a logical data structure exists at the root of the "meaning and emotions" we feel.

In this way, Yayoi Kusama's "Pumpkin" is chosen as a symbolic and strategic material for decoding and re-encoding a representative icon of contemporary art from the smallest unit of digital information.

Background Sound Created from RGB

Q25:

What kind of sound does the background music generated from RGB values have?

In this project, the background sound generated from RGB values is not merely incidental music, but has a sound that represents the "logic underlying meaning and emotions" in an audible form.

The specific characteristics and background are as follows:

- Sound as a Visualization of Logic and Emotion: This sound is used to emphasize processes that are inherently invisible, such as algorithms, data, and binary code. As the video progresses, it plays a role in highlighting the moment when this digital logic connects to "meaning and emotions."
- A Device for Transforming Perception: The background sound aims to transform the viewer's framework of perception and update their understanding of the world. Artist Kenji Kojima overlays the process by which humans construct the world from chaotic information through the filter of sensory organs with the sound and images generated from this data.
- Transformation by "RGB MusicLab": At the root of this sound expression is the "RGB MusicLab" software developed by Kojima in 2007. This project explores the relationship between images and music, based on his series of works called "The Musical Interpretation of Paintings," which converts image data into music.
- Intertwined with the image reconstruction process: In works such as "Wheat Field with Crows," sound plays in conjunction with the process where randomly scattered pixels are aligned at the binary level and reconstructed into the original image. In this

process, the stage where "glitches" occur due to data inconsistencies, and the process of converging into an orderly image, are expressed through sound.

While the source material does not directly describe the specific instrument sounds or the quality of the melody (e.g., piano sound, electronic sound, etc.), it can be said that it is a logical and structural sound that directly translates the structure of the image data into music.

Q: What is the artistic role of the "background sound" generated from RGB values? In Kenji Kojima's project, the "background sound" generated from the RGB (Red, Green, Blue) color values of the image is not merely background music, but plays a crucial artistic role in allowing viewers to perceive the logic of digital data from multiple perspectives.

Based on the source material, the specific roles and intentions are as follows:

1. Making invisible "logic" audible

The core of the project is to make visible the "invisible processes" such as algorithms, data, and binary code.

- Presentation of logic: By converting RGB values into sound, viewers experience the numerical logic underlying the image reconstruction process visually and auditorily simultaneously.
- Emphasis on the root of emotion: The video emphasizes the moment when the "logic underlying meaning and emotion" becomes clear over time, and the background sound serves as a perceptual clue supporting that logical structure.

2. Transformation and updating of the framework of perception

Kojima aims to transform the "framework of perception" that viewers possess and update their understanding of the world through expression using computer technology. • Multisensory Understanding: By demonstrating that visual information (pixels) and auditory information (sound derived from RGB values) originate from the same data structure, viewers can simultaneously perceive a single piece of information through different senses, leading to a deeper understanding of the nature of digital information.

3. Simulation of "Sensory Organ Filters"

Kojima believes that humans use their sensory organs as "filters," extracting specific elements from chaos to construct their understanding of the world.

- Key to Deciphering the Code: Presenting data through both sight and sound artistically simulates the very process by which humans use their sensory organs as a "key" to decipher the world's code and create order.

4. Interdisciplinary Artistic Exploration (Inheritance of RGB MusicLab)

This method is an extension of the interdisciplinary approach to exploring the relationship between images and music, which originated with the software "RGB MusicLab" developed by Kojima in 2007.

- **Musical Interpretation of Paintings:** In projects since 2023, Kojima continues to translate the achievements of art history into new sensory forms through the series "The Musical Interpretation of Paintings," which converts data from classical paintings and photographs into music.

In this way, the background sound generated from RGB values acts as a bridge connecting "the logic of data" and "human perception," and is an essential element for viewers to go beyond superficial images and touch upon the fundamental structure of information.

Q: How does the "translation of information" through hearing affect the appreciation of the artwork?

In this project, the "translation of information" through hearing is not merely background music, but functions as a crucial device that fundamentally transforms the viewer's perceptual experience and allows them to understand the underlying logic of the artwork.

Based on the source, the impact of presenting auditory information on appreciation is mainly as follows:

1. Direct experience of invisible "logic"

All the background sounds in this project are generated from the RGB color values of the images. This allows viewers to experience the following:

- **Perception of Invisible Processes:** Computer processes such as "algorithms," "data," and "binary code," which are usually invisible, become directly perceptible through sound, allowing their existence to be felt.

- **Emphasis on Logic:** As the image converges from chaos to an ordered image over time, the accompanying sound emphasizes the moments when the "logic underlying meaning and emotion" becomes clear.

2. Transformation and Updating of Perceptual Frameworks

Presenting information through both hearing and sight aims to transform the viewer's "perceptual framework" and update their understanding of the world.

- **Multifaceted Understanding:** By listening to image data as music, viewers can not only consume superficial images but also reinterpret the work from multiple perspectives as a "structure, perception, and information system."
- **Discovery of a New "Novelty":** In the already saturated world of visual arts, the act of translating visual data into auditory form provides viewers with a new starting point for exploration.

3. A Sense of Reality as the "Key" to Constructing the World

Kojima believes that humans construct the world through the filter of their sensory organs.

- Re-experiencing Cryptographic Deciphering: Experiencing the translation of information through hearing allows viewers to re-experience, through their own bodily sensations, the process by which humans use their sensory organs as a "key" to "decipher" and create the world from the chaotic information surrounding them.

4. Multisensory Inheritance of Art History

This translation, carried out through series such as "RGB MusicLab" and "Musical Interpretation of Paintings," is an attempt to inherit art history not merely as a visual record, but as an "information structure encompassing sound."

- This allows viewers to interpret classical works by artists such as Hiroshige and Van Gogh more three-dimensionally within the new grammar (context) of modern digital technology. In this way, the translation of information through hearing provides a highly active viewing experience, prompting the viewer to focus on "logic (the process)" rather than "the image (the result)," and making them aware of the very mechanisms of their own perception.

Q26:

What is the background behind the development of the software "RGB MusicLab"?

The software "RGB MusicLab" was developed in 2007, and its background lies in Kenji Kojima's career transition as an artist, his strong awareness of ecology, and his unique inquisitive approach to materials.

Based on the source, the main background leading to its development is as follows:

1. Transition from physical materials to digital

Kojima moved to New York in 1980, and for the first ten years, he created contemporary egg tempera paintings using medieval materials and techniques. He was more interested in the "basic materials of painting" themselves—such as gesso, pigments, and binders—than in the visual themes of his works. However, with the rapid spread of personal computers in the 1980s, Kojima felt a greater affinity for computer art than for painting.

2. Concern for ecology and feelings of guilt

One of the important motivations behind the software development was environmental awareness.

- Concern about material waste: Kojima felt guilty about "wasting materials in the name of art."

- Advantages of digital: Creating with computers was "clean," did not waste materials, and made him feel "lighter." In the early 1990s, he completely shifted his creative activities to digital art and taught himself programming.

3. Exploration of interdisciplinary expression

Kojima was particularly interested in developing interactive works.

- Fusion of images and music: "RGB MusicLab" was developed to create interdisciplinary artwork that explores the relationship between images and music.
- Data translation: This attempt to convert image pixel data (RGB values) into sound became a precursor to the method of "making invisible processes (algorithms and binary code) audible" in later projects.

4. "Translation" as a perceptual system

Kojima believes that human sensory organs are "filters" that extract specific information from chaos. The development of "RGB MusicLab" was part of his philosophical exploration, aiming to present the perceptual system as a "key" to constructing the world by translating data from one sense (sight) to another (hearing).

Currently, this exploration, which began with this software, has been continued in the series "The Musical Interpretation of Paintings," which converts data from classical paintings and photographs into music.

Q27:

How does RGB MusicLab connect images and music?

The "RGB MusicLab" software captures the visual elements of an image as numerical data and directly connects the image and music through the following process:

1. Conversion from RGB color values to sound

The core mechanism of this software is to convert the RGB (red, green, blue) color values of each pixel in an image into corresponding musical data (background sound). This directly "translates" visual information into auditory information.

2. Making "invisible processes" audible

Kojima aims to make the "invisible processes" inside the computer, such as algorithms, data, and binary code, manifest through sound.

- Updating perception: By allowing viewers to visually follow how the image is reconstructed while simultaneously hearing the underlying logical numerical values as sound, the goal is to transform the framework of perception and update their understanding of the world.
- Emphasizing logic: The moment when the "digital logic" underlying meaning and emotion is revealed is emphasized through sound.

3. Expression based on the same data structure

The expression created by RGB MusicLab is based on the fact that visual information (pixels) and auditory information (sound) are **derived from the same data structure (binary data)**.

- This allows viewers to experience an interdisciplinary and multifaceted appreciation by simultaneously perceiving the same information through different senses (eyes and ears).

4. Background and evolution of the development

This software was developed in 2007, after Kojima had fully transitioned to digital art.

- Originally created to produce "interdisciplinary artwork exploring the relationship between images and music," this method has now been continued in a series called "The Musical Interpretation of Paintings," which converts data from classical paintings and photographs into music.

In this way, RGB MusicLab doesn't simply add music to images, but rather **plays (makes audible) the image data itself**, serving to appeal to our senses with the fundamental structure of the information.

Q28:

How is the background sound that plays when the image is completed specifically generated?

The background sound in this project is generated directly from the RGB color values (numerical data for red, green, and blue) of each pixel in the image.

The specific generation mechanism and intent are as follows:

- Conversion by "RGB MusicLab": The dedicated software "RGB MusicLab," developed in 2007 by artist Kenji Kojima, is used. This software was created to explore the relationship between images and music, and is based on the method of "The Musical Interpretation of Paintings," which converts digital data from paintings, photographs, and films into music.
- Audibilization of information structure: The background sound plays a role in emphasizing the inherently invisible digital processes, such as algorithms and binary code. As the image is reconstructed from a chaotic state towards completion, the sound expresses the moment when the "logic underlying meaning and emotion" is revealed.
- Sound as a perceptual filter: Kojima likens the way humans construct the world through the filter of sensory organs to the process of deciphering a code. By generating sound from RGB values and linking it to the visuals, the intention is to transform the viewer's perceptual framework and update their understanding of the world.

Thus, the background sound is not merely decorative background music, but a translation of the binary structure of the image data itself into another sensory form (hearing), and is an indispensable element for showing the "information structure" of the work from multiple perspectives.

Senses

Q29:

What is the mechanism of the "sensory organ filter" as conceived by Kojima?

Kenji Kojima's proposed mechanism of the "sensory organ filter" is based on a unique philosophy that likens our everyday "perception of the world" to the decoding of data in information engineering.

Based on the source and previous conversations, the mechanism consists of the following elements:

1. "Chaos" as the original state of the world

Kojima believes that the world around us is inherently filled with "chaotic information." This chaos refers to a state overflowing with raw data that has not yet acquired meaning.

2. "Information extraction" by the filter

Human sensory organs such as sight and hearing function as "filters" that extract only specific components (visual information, auditory information, etc.) from this chaos.

- Selective extraction: By passing through the filter, we pick up only specific information that we can understand from the vast amount of chaos.
- Code decoding: Kojima describes this as humans using sensory organs as a "key" to decode the chaos, which is like an encrypted code, to construct their own world.

3. Similarity to digital processes

This mechanism of sensory organs is directly superimposed on the algorithms and the image reconstruction process using binary data adopted in this project.

- Rearrangement and construction: The process of aligning randomly scattered pixels (chaos) using an algorithm (filter) and restoring them to the original image symbolizes the very mechanism by which humans construct reality from chaos through their five senses.
- Transformation of perception: By showing the invisible binary-level logic gradually through glitches over time, viewers will experience a simulated process of how their own perceptual filters shape the world.

4. Visualizing the "logic" of perception

Through the art of computer technology, Kojima is attempting to visualize this process of "construction by filtering" that we unconsciously perform. This project aims to reveal that a logical structure (information extraction and arrangement) underlies the "meaning" and "emotions" we ordinarily experience.

In this way, for Kojima, sensory organs can be described as "devices that translate the chaotic code of the universe into an ordered world that humans can understand."

Connection to Art History

Q30:

What role does digitalization play in the continuity of art history?

In this project, "After / Binary Interpretation," digitalization plays a crucial role in maintaining and extending the continuity of art history.

The role of digitalization in the continuity of art history is explained primarily from the following four perspectives:

1. The inheritance and extension of the translation culture of "After" (following the style of)

The project draws inspiration from a wide range of works, from classical Japanese art such as Katsushika Hokusai and Utagawa Hiroshige to modern art such as Vincent van Gogh and Marcel Duchamp. Just as Van Gogh once copied (After) Hiroshige's ukiyo-e prints and considered it an "experiment in translating into the grammar of Western painting," this project extends this historical creative activity into the modern era through translation into a new medium of digitalization (algorithms, pixels, binary code).

2. Reinterpretation as a "structure, perception, and information system"

Digitalization allows for the reinterpretation of past original works not merely as superficial visual images, but as the underlying "structure, perception, and information system."

- Dissection of Structure: Through "manipulative acts" that decompose existing images to the binary level and reconstruct them with a unique visual language, the project attempts to reveal the original psychological and physical structures.

- New Perspective: This challenges the concept of "newness" in the already saturated world of visual arts and transforms classical works into starting points for contemporary exploration.

3. Historical Connections at the Binary Level

While all modern information is recorded in binary, this project utilizes this to connect art from different eras at the smallest unit of digital data (the bit level). For example, by allowing three layers—Hiroshige, Van Gogh, and contemporary digital expression—to coexist within a single binary conversion process, it expresses an overlapping of art history that goes beyond superficial memes (imitation).

4. A Critical Approach to Contemporary Challenges

Digitalization (especially the rise of AI) has led to "mass appropriation" of collecting and reconstructing past data, but this project deliberately focuses on the fundamental level of information—binary operations—to encourage critical reflection on contemporary issues such as copyright, originality, and the democratization of art, within a historical context.

In this way, digitalization functions in this project as a common language for "decoding" and "encoding" the spirit of past masters with modern technology, serving as a bridge for art history to continue seamlessly into the future.

Q: Explain in detail the significance of binary becoming the "material" replacing the canvas.

In Kenji Kojima's project, the use of binary numbers as a "material" replacing canvas and paint has profound significance from art historical, ecological, and perceptual perspectives.

Based on the source, the significance is explained in detail in the following four points:

1. Return to the "Fundamental Constituent Elements" of Art

Kojima views binary as equivalent to the most basic constituent material of art, comparable to medieval painters mixing pigments to create paints or prehistoric cave painters rubbing earth pigments onto walls.

- **Manipulation at the Smallest Unit:** Through the "operational act" of deconstructing and reconstructing images at the bit level of "0" and "1," the smallest unit of digital data, he aims to reveal the underlying information structure of the work, going beyond superficial images (retinal painting). 1. **Redefining "After":** When creating imitations (After) of masterpieces, the artist finds essential meaning not in simply mimicking the appearance, but in decoding and reconstructing the "blueprint of information" using binary, a modern material.

2. Ecology and Ethical Responsibility for the Future

The transition from physical materials to digital (binary) is underpinned by the artist's ethical stance towards the environment.

- **Art that doesn't become "waste":** Kojima feels guilty about wasting materials in the name of art, and to avoid his works becoming "waste" that pollutes the earth 100 years from now, he chose binary, which has no physical form, as his material.

- Clean production: Production on a computer is "clean," and being freed from physical constraints allows for deeper thinking about the future.

3. Realizing a Borderless "Inter-Sensory Extension (Synesthesia)"

The greatest advantage of binary as a material is that "both visual and auditory data can be handled using the same binary numbers."

- Sensory crossover: Binary has no boundaries between sight and sound. The same binary data can be "heard" when output as music (MIDI), and "seen" when output as an image (pixels).
- Techno-Synesthesia: This makes possible "synesthesia using computer science methods (techno-synesthesia)" that does not rely on individual intuition, allowing the perceptual system that constructs the world itself to become the subject of expression.

4. Exploring Unique Human Creativity in the AI Era

In contrast to generative AI that only collects and reconstructs existing visual data, treating binary itself as a material is also an act of protecting a unique domain of human expression.

- Unutilized data structures: The artist delves into the ***"logic of data structures themselves (XOR operations, encryption, etc.)"*** that AI uses for communication with humans but has not yet utilized in art, exploring "newness" from the very source of information: binary operations.
- Presentation of the Process: Instead of simply showing the finished "image" as the result, the work presents the logical process (including glitches) by which the binary data is arranged and order (the image) emerges. This reveals the underlying logic behind meaning and emotion.

In this way, using binary data as a substitute for a canvas has the crucial significance of questioning the nature of contemporary art, which is often bound by material value, and redefining art from the perspective of information structure and the mechanisms of perception.

Q31:

Why did Kojima choose specific classical works as subjects for encryption?

Kenji Kojima chose specific classical works as subjects for encryption (binary manipulation) not merely for imitation, but to decipher the "structure of information" within the "continuity of art history" and reconstruct it into a contemporary visual language.

The specific reasons, based on the source material, are as follows:

1. Exploration of the concept of "After"

Kojima was strongly drawn to Van Gogh's positioning of his own copies as "an experiment in translating into the grammar of Western painting."

- Unveiling the structure: Just as Van Gogh's "After" aimed to reveal the underlying psychological and physical structure rather than merely superficially imitating the original, Kojima also chose these classical works as subjects to reinterpret them as "structure, perception, and information systems."
- Continuation of translation activity: The act of translating classical works into the language of digital media (algorithms, binary code) is a modern extension of the historical translation activity undertaken by Van Gogh.

2. Alignment of visual experience and technical logic (similarity to pointillism)

Works such as Georges Seurat's "A Sunday Afternoon on the Island of La Grande Jatte" were chosen because their techniques have a high affinity with digital logic.

- Digital pointillism: Seurat's method of separating color particles and mixing them in the viewer's eye was perceived by Kojima as similar to the XOR operation process of "data separation (encryption) and integration (decryption)."
- Digitalization of historical techniques: By extending this approach to works by Van Gogh, who was influenced by pointillism, and the classical master Leonardo da Vinci, he is redefining historical techniques at the binary level.

3. Seeking "newness" in "saturated visual art"

In the modern era, visual imagery is saturated, making it difficult to create superficial novelty. • Starting with known works: By deliberately using famous digital images widely recognized as "works of art" as a starting point at the binary level, the aim is to explore new human creativity that goes beyond mere data assembly by AI.

4. Critique of Symbolic Icons (Commercialism)

Famous works such as Katsushika Hokusai's "The Great Wave off Kanagawa" and Van Gogh's "Sunflowers" are consumed in modern times more as "icons (commodities)" than as "art."

- Critical Examination: By deconstructing and reconstructing these "world's most iconic works" through binary operations, critical questions are raised about contemporary issues such as copyright, originality, and rampant commercialism.

5. Simulation of Sensory Organs

Kojima believes that "the world is filled with chaotic information, and humans construct the world through the filter (key) of their sensory organs."

- Visualization of the Recognition Process: By showing the process of well-known classical works gradually being restored from a chaotic state through binary alignment, the underlying logic by which humans construct meaning and emotion is emphasized.

In this way, choosing specific classical works can be said to be an inevitable choice to "decode" past artistic heritage from the perspective of modern information science and connect it to future expressions.

Commercialism

Q32:

What are the effects of digitalization on copyright and commercialism?

Based on "the sources," the spread of digitalization and AI has had the following multifaceted effects on copyright, originality, and commercialism:

1. Democratization of Art and the Rise of "Mass Appropriation"

While the advent of AI has democratized visual art, the spread of anonymous memes and the rise of "mass appropriation art," where anyone can use past data to create works, have emerged. This has blurred the boundaries of who the true author is.

2. Re-examining Copyright and Originality

Digital technology, particularly binary operations such as pixel division and bit-level reconstruction, has raised questions about the very concepts of copyright and originality. The source material critically examines these issues by reinterpreting original works not merely as "visual images" but as "structures of digital information."

3. The Rise of Greedy Commercialism and the Transformation of "Art"

Digitalization and mass aesthetic sensibilities have led to the rise of "greedy commercialism."

For example, iconic works such as Hokusai's "The Great Wave off Kanagawa" and Van Gogh's "Sunflowers" are consumed as designs for mugs and tote bags, transforming them from "art" into mere "symbolic artwork (commodities)."

- Furthermore, the world of visual arts is already saturated, and the pursuit of "novelty" in the digital environment itself has become a historical challenge.

4. Exploring New Rights Models and Economic Viability

In response to the impact of digitalization on copyright, new approaches that are not bound by existing commercial frameworks are being explored.

- Creative Commons 4.0 License: A system is adopted that allows works to be published as free digital artwork, respecting the continuity of art history while enabling wide sharing.
- Donation Model: A new economic approach is presented where digital content such as videos is freely shared and downloaded without permission, while activities are supported by voluntary donations from viewers who appreciate the artistic value.

In this way, while digitalization has made art more accessible, it has also highlighted the conflict between "copyright protection" and "freedom of expression and sharing," and the risk of art converging into easily commercialized products.

Q33:

How is the critique of commercialism reflected in the work?

In this project, the critique of commercialism is reflected in several clear ways, from the choice of subject matter and publication methods to the underlying philosophy. 1.

Reference to the "commodification" of iconic works

The project includes works featuring Katsushika Hokusai's "The Great Wave off Kanagawa" on a mug and Vincent van Gogh's "Sunflowers" on a tote bag.

- From "Art" to "Icon": The descriptions of these works point out that "popular aesthetic sensibilities have transformed these works not into 'art,' but into the world's most iconic 'artworks' (designs/products)."
- Critical Perspective: The project raises concerns about the current situation where famous works of art are consumed as commodities such as mugs and bags, and treated only as superficial images (memes), highlighting the "rise of greedy commercialism."

2. Deconstruction of "Images" through Binary Operations

In contrast to commercially consumed "superficial images," the project deconstructs and reconstructs images at the binary level.

- Return to the Structure of Information: The works are reinterpreted not simply as visual "pictures," but as "digital information structures" that undergo operations such as pixel division and bit-level reconstruction.
- Manipulative Act: This process is a "manipulative act" that explores the origins of images before they become fixed, and serves as a questioning of artistic originality, distinct from easy commercial use and copying.

3. Resistance through Publication Format and Economic Model

As an alternative to the existing commercial art market and copyright framework, the project adopts a unique distribution and revenue model.

- Creative Commons: The works are released as free digital artwork under the Creative Commons 4.0 license.
- Sharing and Donations: Videos can be freely shared and downloaded without permission, presenting an ecosystem different from commercial sales, where viewers who appreciate the work can donate any amount from \$1 to the artist.

4. Departure from Material Value

The artist Kenji Kojima's own background also includes a critique of commercialism. • Questioning excessive material value: Kojima previously used medieval art techniques (egg tempera), but felt frustrated by the situation of contemporary art, which places excessive emphasis on material value.

- Transition to digital art: The shift to digital art, which avoids wasting materials, was driven by an ecological perspective, as well as an intention to move away from commercially driven values dependent on physical materials and pursue a more "lightweight" form of expression.

In this way, this project deconstructs "art consumed as a commodity" at a binary level, and by using a system of free distribution and donations, it offers a quiet yet fundamental critique of contemporary greedy commercialism.

Q34:

I would like to know how ecological considerations influenced the digital transition.

Kenji Kojima's complete transition to digital art is deeply rooted in his strong belief in ecology (environmental awareness) and his conflict with the waste of materials in traditional art production.

Based on the source, the impact of ecological considerations on his work is as follows:

1. Liberation from "guilt" over material waste

In the early stages of his work in New York, Kojima used egg tempera, a medieval technique, but he felt guilty about "wasting materials in the name of art."

- Mental change: By transitioning to computer-based production, he gained a "clean production environment" that did not consume physical materials, and he states that this "lightened his spirits."
- Escape from physical constraints: He confessed that he was "tired of art that deals with physical objects," suggesting that moving away from tangible materials led to greater creative freedom.

2. Artistic responsibility to avoid creating "future waste"

Kojima believes that the possibility of his artwork becoming "waste" that pollutes the earth 100 years from now is unbearable for him as an artist.

- Sustainable expression: He positions digital art as "a slightly cleaner artistic method for the earth," believing that expression that does not use physical materials enables forward-thinking for the future.

- The idea of sharing: He presents art as a digital creative commons (shared property), a means of changing the "quality of desire" that differs from the exclusive ownership of physical materials.

3. The "ethics" required of 21st-century artists

Kojima argues that contemporary artists need "ethics that take responsibility for the future of this planet."

- Reconsidering the quality of desire: He believes that questioning the "quality of desire" — what we want and what we should leave behind — is important from an ecological perspective.
- Criticism of NFTs, etc.: Regarding NFTs (non-fungible tokens), which involve digital works being traded at high prices, Kojima holds a critical view, arguing that the enormous power consumption of blockchain technology is environmentally destructive.

4. Defining Binary as a "New Fundamental Material"

Instead of physical pigments and mediums, Kojima has come to view "binary" (binary numbers), the smallest unit of digital information, as the fundamental material of art.

- This is an attempt to pioneer unknown art using binary, the most "waste-free and clean" material in the modern age, just as ancient cave painting artists discovered earth pigments and concretized their images.

In conclusion, ecological considerations are not merely a production choice for Kojima, but rather the greatest driving force in shifting the essence of expression from "material value and waste" to "information structure and sharing."

Relationship to Other Projects

Q35:

What are the perceptual commonalities with other related projects?

There are several common perceptual themes between this project, "After / Binary Interpretation," and related projects ("The Da Vinci Code," "A Sunday Afternoon on the Island of La Grande Jatte," "Begins with Chaos - Lascaux," etc.).

The main perceptual commonalities are as follows:

1. The philosophy of viewing sensory organs as "filters"

The most core idea common to all of Kenji Kojima's projects is the recognition that "sensory organs are filters that extract only specific elements from a chaotic world."

Commonality: In each project, the process of humans constructing the world by using sensory organs as "keys" to decipher codes is superimposed on the algorithmic data decoding process.

2. The visual process of "from chaos to order"

As symbolized by the project name "Begins with Chaos - Lascaux," many related projects depict "the process of meaningful images emerging from chaos." Similarities: Like this project, these projects guide the viewer's perception from a "fixed image" to an "information structure" through a process where the original image is reconstructed from a state of randomly scattered pixels, undergoing alignment at the binary level.

3. Similarities between Pointillism and Digital "Color Mixing"

In projects from around 2013, such as "Split/Merge AudioVisual" and projects dealing with Seurat's work, the separation and integration of digital data are likened to the "mixing of colors in visual experience" in Georges Seurat's pointillist paintings.

Similarities: The process of physical color particles (pointillism) mixing in the eye to form an image is treated as perceptually equivalent to the digital process where binary data (bits) are processed and recognized as an image.

4. Emphasizing the Moment When Logic Transforms into Emotion

A common technique is emphasizing the moment when "invisible logical processes" such as algorithms and binary code converge over time into "images with meaning and emotion."

Similarities: All these projects aim to update the viewer's understanding of the world and transform their perceptual framework through expression using computer technology.

5. Correlation between Visual and Auditory Data (Sonification)

In the "Musical Interpretation of Paintings" series using "RGB MusicLab," image data is converted into music.

Similarities: By translating visual information (RGB values) into auditory information, these projects aim to allow simultaneous perception of a single data structure through multiple senses (sight and hearing), presenting the underlying logic of the information from a more multifaceted perspective.

These projects, despite differing in era and subject matter (from cave paintings to contemporary art), consistently share the commonality of exploring, through digital methods, the fundamental question of "how humans construct and perceive meaning from a sea of information."

Q36:

I would like to know about the representation of "chaos" in other related projects.

In Kenji Kojima's related projects, "chaos" is not merely visual disorder, but is treated as a central concept for explaining the structure of the world and the human perceptual system.

The representation and role of "chaos" in other projects are as follows:

1. "Chaos" symbolized in the project title

One of the related projects is titled "Begins with Chaos - Lascaux." As this title suggests, "chaos" is positioned as the starting point of everything in Kojima's expressive methods.

2. Chaos as the original state of perception

Kojima holds the philosophical view that "the surrounding world is filled with chaotic information."

- Perceptual filter: Our sensory organs, like a filter, construct (decode) the world by extracting only specific elements such as sight and hearing from the chaos.
- Contrast with algorithms: In the project, this "process of constructing the world from chaos" is superimposed on the process by which an algorithm reconstructs an image from binary data.

3. Visual chaos through pixel scattering

As a technical expression, chaos is created by "random scattering of color pixels."

- Specific method: By randomly placing all the pixel colors extracted from the original paintings (such as "Wheat Field with Crows" and "Fujin Raijin-zu") across the entire image, a chaotic state is created where the original color structure is completely lost.
- Presentation of information structure: By showing the process in which the original image gradually emerges from this chaotic state through alignment at the binary level, the aspect of "information structure" before the image is fixed is emphasized.

4. Chaos in encryption projects

In early projects such as "Split/Merge AudioVisual" and "Da Vinci Code," chaotic expressions also played an important role. • One-Time Pad (Encryption): When dividing an image into an encryption key and encrypted data, the color particles generated on the screen appear to the human eye as similar color tones (chaotic noise).

Convergence Process: Only when these chaotic color particles are decrypted (merged) does a meaningful image emerge.

5. Extracting "Logic" from Chaos

A common perceptual theme across related projects is capturing the moment when chaos (digital logic) transforms into meaning and emotion (human perception) over time.

- Viewers experience the process of convergence from a chaotic state, through glitches, to a final ordered image through the video.
- This is intended to encourage viewers to look at the underlying logical structure rather than simply consuming the finished image, thereby updating their framework of perception.

In this way, in other related projects as well, "chaos" is defined as a pure state before information acquires meaning, and it serves as material for expressing the drama of perception—how humans and algorithms bring order to it.