

**Micro-expressions and Shadows: The Visual
Transformation of Emotional Authenticity in Interactive
Facial Collage**

MA Art and Design

Mingzhu Mu

May 2026

Abstract

Starting with facial expressions in daily social interactions, this study focuses on a straightforward phenomenon: people tend to regulate their facial expressions during communication to appear emotionally stable and context-appropriate, while their genuine emotions still leak through fleeting microexpressions. Though such subtle emotional cues exist, they are rarely noticed continuously. Accordingly, this study attempts to visually reconstruct and represent these suppressed emotions. Gradually, a concise yet distinct creative structure has taken shape throughout the research practice: one layer features collaged human faces, and the other consists of shadows. The collaged faces, composed of fragmented facial parts, illustrate people's external identities across different social contexts. By contrast, the shadows do not fully synchronize with facial changes; instead, they emerge through offsetting, distortion and other visual shifts to imply unspoken inner states. Juxtaposed together, the two layers create a striking contrast, allowing viewers to perceive simultaneously the “performed self” and the “unspoken inner self”. In terms of interactive design, viewers are invited to reassemble fragmented facial components into complete portraits. During this process, they combine facial features based on personal judgment. Once the collage is finished, shadows emerge or transform dynamically. The experience unfolds progressively, from hands-on collage operation and result observation to the gradual detection of shadow elements. Feedback shows that most viewers interpret the shadows as the “inner self” or “hidden emotions”, proving that this visual narrative is widely accessible. Meanwhile, many viewers engage in reflective thinking while collaging and viewing the work—pondering the implications of different fragment combinations and the reasons behind shadow transformations—which demonstrates that the interaction effectively provokes in-depth reflection to a certain extent. Nevertheless, some viewers only perceive the work as entertaining, indicating room for improvement in its expressive depth.

Overall, this study does not aim to propose intricate theories, but to explore a direct

expressive approach through artistic practice. By integrating face collage and shadow imagery, it visualizes external appearances and internal states in parallel, and engages viewers through interactive participation. Despite limitations in sample scale and technical forms, this creative method lays a solid foundation for further in-depth research and expansion in the future.

Keywords: microexpression; shadow; face collage; interaction; identity expression

Contents

Abstract	i
CHAPTER 1 : Introduction	1
1.1 Research Background and Problem Statement	1
1.2 Research Origin and Creative Presentation	2
1.3 Research Objectives and Research Questions	3
1.4 Research Significance	3
CHAPTER 2 : Literature Review and Theoretical Framework	4
2.1 Core Theoretical Collation	4
2.2 Analysis of Relevant Precedent Works	7
CHAPTER 3 : Analysis of Commonalities and Differences	8
CHAPTER 4 : Research Gaps and the Construction of Systematic Integration	12
CHAPTER 5 : Research Methodology	14
5.1 Methodological Framework	14
5.2 Data Analysis Methods	15
5.3 Audience Feedback Analysis	16
CHAPTER 6 : Creative Practice and Analytical Conclusions	19
6.1 Analysis of Visual and Symbolic Systems	19
6.2 Analysis of Interactive Mechanisms	21
6.3 Conclusions, Research Limitations and Future Prospects	24
Reference.....	27

CHAPTER 1 : Introduction

1.1 Research Background and Problem Statement

In daily social interactions, the human face serves as the core medium for emotional expression and interpersonal communication. People convey emotional signals through subtle changes in facial muscles. However, in practical social contexts, this natural expressive process is often constrained by both social norms and self-regulation. In different social situations, individuals tend to maintain socially desirable and stable facial expressions to conceal and modulate their genuine emotional states (Jung, 1966).

Studies in psychology and behavioral sciences indicate that facial micro-expressions are transient emotional signals beyond full conscious control, typically lasting between 1/25 and 1/5 of a second (Romanynshyn, 2012). Research by Paul Ekman and other scholars has proven that even when emotions are deliberately suppressed, genuine mental activities still leak momentarily through subtle muscular movements. The existence of micro-expressions reveals the inherent contradiction of social emotional regulation: beneath the “expressive mask” individuals present lies a layer of authentic emotions that can never be fully repressed. This phenomenon forms the starting point of the present research: can suppressed emotions regain expression through visual approaches in social contexts? When facial images are decomposable and reconstructible, is there a creative approach capable of simultaneously displaying socialized “masked expressions” and the hidden psychological dimensions behind them? Furthermore, when audiences participate in the construction of such visuals, can interactive mechanisms prompt them to re-examine their own modes of emotional expression? Accordingly, this study regards “human face collage” as a form of presentation. By decomposing and recombining facial expression images, it simulates the multiplicity and internal conflicts of facial expression. Meanwhile, “shadow” is introduced as a key visual element to carry emotions repressed in social facial

regulation, thereby establishing a visual dialogue between external emotional management and internal emotional experience.

1.2 Research Origin and Creative Presentation

This research originates from continuous observation of “facial micro-expressions” in social interactions. During social communication, human facial expressions shift along with psychological activities. Even when emotions are deliberately suppressed, inner feelings can still be perceived through micro-expressions. While standardized “facial emotion management” improves social efficiency, it also simplifies the complexity of emotional expression, leaving individual differences and psychological tension largely unrepresented (Jung, 1966; Adamowicz, 1998). Against this backdrop, this study seeks a visual language that can simultaneously carry both superficial appearances and hidden inner realities. The creative practice consists of two parts: video works and a physical jigsaw puzzle. To begin with, both videos open with a complete human face collaged from facial features of males and females of different ages and identities. The whole face then disassembles into fragmented facial elements such as eyes and lips, floating against a black background. These fragments are magnified individually, transformed into pixelated or oil-painting textures, and animated with effects including blinking and dissolving. Afterwards, the scattered fragments reassemble into intact faces, which are duplicated and spread across the frame before finally fading away through pixelation.

In addition, a jigsaw puzzle titled *Face in Shadow* is created based on the two collaged faces, directly corresponding to the visual content of the videos. Designed with a male composite face on the left and a female one on the right, it materializes the fragmented pixel elements from the videos into oil-painted colour block collages in physical form. During the puzzle assembly process, viewers can gradually perceive the subtle differences in brushwork and colour collage between the two facial compositions. Throughout the creative experiments, “shadow” has gradually evolved

into the core visual element. Visually, shadow is attached to the subject and rooted in reality; meanwhile, its form is fluid and unstable, capable of distortion, extension and separation with changes of light and shadow. Such qualities enable shadow to act as an intermediary between external appearance and inner mentality, conveying repressed emotions and psychological conflicts that cannot be directly visualized (Jung, 1966; Bishop, 2023). Adopting a practice-based research approach, this study regards the creative process as an integral part of academic exploration. By constructing an installation combining human face collage, light and shadow transformation, and interactive mechanisms, the research focuses not only on final visual outcomes but also on participants' choices and behavioural responses during interaction. Audiences' decisions in the puzzle-making process are regarded as an externalised reflection of how they understand and reconstruct their own identities.

1.3 Research Objectives and Research Questions

This study aims to explore the potential of visual methods in representing complex identity structures through the artistic practice of interactive human face collage. The specific objectives are as follows: first, to analyze the role of collage structures in expressing multiple social roles; second, to discuss the expressive ways of “shadow” as a visual element in presenting subconscious content; third, to examine the function of interactive mechanisms in guiding audiences to reflect on identity. Based on the above objectives, this paper puts forward the following research questions. First, to what extent can the fragmentation of human face collage reflect individuals' role differences in diverse social contexts? Second, how does shadow transform from a subordinate visual element into a psychologically expressive symbol through visual means? Third, how does the involvement of interactive mechanisms influence audiences' understanding of the relationship between “external image” and “inner experience” .

1.4 Research Significance

The significance of this study is reflected in the following dimensions. Theoretically, this research integrates the theories of emotional suppression and emotional leakage in micro-expression psychology with the concept of the “shadow” in Jungian psychology, and incorporates them into a concrete visual practice framework. This interdisciplinary perspective provides a new analytical approach to understanding the identity tension behind social emotional regulation, and also offers theoretical support for the transformation of psychological concepts into visual artistic language. Practically, this study proposes a creative method to visualize the tension of micro-expressions through visual installation. By converting the fleeting and elusive experience of micro-expressions into observable and operable visual structures, it endows transient emotional signals with a stable form of expression, and provides methodological references for related artistic and design practices. Socially, this research seeks to guide audiences to re-examine the gap between genuine emotions and facial management in social interaction. In a social culture that highly emphasizes appropriate self-presentation, such experience-oriented reflection helps individuals better perceive the complexity of their own emotions, and to a certain extent, rebuild attention and respect for inner personal experience.

CHAPTER 2: Literature Review and Theoretical Framework

2.1 Theoretical Collation

In Jungian theory, the “shadow” does not refer to completely repressed content, but a continuously existing residual psychological structure (Jung, 1966; McBride, 2007). In the field of visual culture, the role of shadow has evolved from an accessory to an independent symbol. In traditional painting, shadow is mainly used to define space and volume, whereas in expressionist films and surrealist paintings, it has emerged as an independent narrator. Through morphological mutations such as stretching, distortion or separation from the subject, shadow conveys the psychological tension that the subject cannot express directly through physical appearance. Drawing on this

visual transformation mechanism, this study regards shadow as an artistic material with “non-apparent” characteristics. In creative practice, shadow is no longer a simple reproduction of the human face, but functions as a psychological mirror. Its morphological uncertainty responds to the deep-seated identity anxiety of individuals (Odhner, 2019). Accordingly, this study defines shadow as “persistent residues after emotional suppression”, and transforms the transient emotional leakage into a continuously observable visual structure through visual strategies. As a typical modernist visual method, collage is fundamentally based on the deconstruction and reconstruction of inherent logic. During the Cubist period, Picasso broke the singularity of perspectival authenticity by introducing heterogeneous materials, suggesting that identity is not constructed by a single dimension (Collins, 2018). In the artistic practice of Hannah Höch, a representative Dadaist, collage became a direct medium for revealing the fragmentation of social identity. By dislocating and splicing facial components, she visualized the disintegration of identity under specific social pressures (Joles, 2016; Sierra, 2013; Mulvey, 2013). This “anatomical” creative logic provides the basic method for facial image creation in this research: regarding the complete human face as detachable and editable symbolic components, which corresponds to the constructive nature of identity in the digital age.

In the contemporary context, Cindy Sherman’s identity experiments further prove that identity is artificially “assemblable”. Through the superposition of costumes, prosthetics and light and shadow, she presents a series of socially defined role images. Nevertheless, static collage merely displays the final constructed result while neglecting the exploration of the construction process itself. This study argues that the essential significance of collage lies in the act of creation. By involving audiences in the selection and combination of fragmented elements, the work transforms passive visual “observation” of identity expression into active behavioural “participation”. Such behavioural logic not only reflects the norm of identity shaping on social media, but also lays a practical foundation for the visualization of the subconscious. The core value of interactive art lies in transforming audiences from passive onlookers into

co-creators of artistic meaning. This sense of participation is particularly crucial in works concerning identity expression. When audiences intervene in the generative logic of artworks, their embodied decision-making behaviours — such as capturing and placing fragmented elements — externally visualize their self-cognition and preference. In this study, interactive design is not merely a technical application, but also a psychological intervention method. Driven by real-time visual feedback, audiences inevitably project their own aesthetic standards and identity expectations while constructing others' facial images. Within such interactive logic, delayed or unexpected visual feedback often triggers profound cognitive transformation (Joles, 2016). The integrated “collage-projection” mechanism designed in this research constructs a complete process from “active construction” to “passive confrontation”. While audiences strive to assemble a complete facial image, the system generates an unexpected shadow based on their operational logic. This interaction-driven visual feedback compels participants to confront the “social face” they have created, and perceive the neglected psychological shadows refracted by light and shadow. The closed loop from operational behaviour to perceptual reflection constitutes the core logic of identity reflection in this study. Jean Baudrillard's theory of simulacra provides a critical perspective for understanding the homogenization of contemporary facial images. He proposes that in current media society, symbols have replaced real references, and facial images on social platforms have evolved into hyperreal simulacra. The replicability and performativity of such simulacra have gradually marginalized authentic self-experience. Individuals continuously produce aesthetically standardized “identity fragments” in digital spaces, an act that essentially realizes the forcible erasure of the shadow self (Ardévol, 2012). Based on the above theoretical foundations, this research establishes an integrated theoretical framework: collaged face (external mask) + shadow (inner repression) + interaction (construction process). This framework aims to simulate and deconstruct the identity dilemma of the digital era. Collage corresponds to the editability and fragmentation of identity; the morphological variation of shadow embodies the repressed true self; and interactive practice reflects individuals' efforts to integrate conflicting multiple

identities. Through structured visual practice, this study translates abstract identity theories into tangible spatial experience, and explores the complex relationship between identity manifestation and hidden inner experience.

2.2 Analysis of Relevant Precedent Works

Among contemporary collage creations centered on facial themes, the works of John Stezaker offer significant referential value. By cutting and superimposing two portraits, he creates hybrid faces with a distinct “stitched texture”. Such creative method leverages the fragmentation and reconnection of facial features to effectively convey the fluidity of identity. Nevertheless, most works of this kind remain confined to static visual presentation, emphasizing the visual impact brought by the final outcome. While drawing on his fragmented processing techniques, this study places greater emphasis on the decision-making logic within the collage process. Through dynamic audience participation, it transforms static images into a behavioral experiment concerning identity construction. Other contemporary digital collage works adopt algorithms to reconstruct massive facial images and explore the homogenization of identity. Although these pieces visually demonstrate the dissolution of identity in the digital age, they appear cold and mechanical due to the absence of individual involvement. This study argues that identity expression should not be a mere accumulation of data, but a projection of emotion. Therefore, the creative practice retains the randomness and tactility of manual collage, aiming to restore individualized, psychologically resonant visual expression in an era saturated with over-polished aesthetics. In the field of shadow art, the works of Tim Noble and Sue Webster provide profound examples for interpreting the relationship between physical substance and superficial appearance. Through the precise arrangement of waste materials, they project elegant and figurative human shadows under strong light. This form directly reveals the intense tension between surface appearance and intrinsic essence—the coexistence of external chaos and internal order. This visual logic inspires the design of shadow as a psychological medium in this research: a

shadow does not need to fully replicate its physical subject; instead, it can serve as an irony or supplementary reflection of the subject's inner psychological state.

However, most existing shadow art prioritizes visual spectacle and overlooks the in-depth connection between shadow and identity structure. This study contends that the significance of shadow should not be limited to formal morphological changes. In practical creation, shadows, through real-time interaction with collage fragments, embody a sense of uncontrollability and disconnection. This design breaks the absolute dominance of the subject over the shadow in traditional shadow art, and metaphorically reflects the subconscious mental forces that cannot be fully controlled by consciousness yet constantly shape one's self-perception (Odhner, 2019). Shadow Box, an interactive installation by Rafael Lozano-Hemmer, is a representative work exploring public identity and individual projection. The piece captures visitors' shadows via sensors and processes them in real time, allowing participants to perceive the expansion of their self-image within space. Such works excel at constructing a complete interactive loop, yet they bear clear limitations. Their interaction mostly remains at the physical level of tracking and feedback, lacking exploration of participants' inner psychological conflicts. Audiences primarily experience technological novelty rather than profound reflection on identity during the interaction.

CHAPTER 3: Critical Comparison of Representative Precedent Projects and Differentiated Exploration of This Research

In the early stage of creation, this research attempted two creative approaches: the first was to directly distort human facial features to convey emotions, and the second was to indirectly imply psychological states through abstract graphics and colours. The former resulted in stiff visuals that only served emotional catharsis while failing to explore the core question of "what defines a person". The latter delivered vague

expressions and likewise could not focus on the core theme of identity. The failure of these two attempts prompted this research to systematically examine existing relevant creations and explore new creative directions on the basis of critical reflection. First, taking Francis Bacon as a typical case, he adopted extreme techniques such as misplaced facial features and bodily distortion to carve anxiety and pain directly into his works, generating strong visual impact (Sylvester, 1998). However, such radical deformation brings a fundamental problem: as the human face loses recognizability, the individual identity of the subject fades away simultaneously. What the audience perceives is only universal emotion, rather than the inner conflicts between the social persona and the inner self of a specific individual. More importantly, distorted faces merely externalize emotions unilaterally and cannot construct a visual dialogue between external appearance and internal psychology. When the face itself becomes a pure container for emotions, there remains no space for depicting complex psychological layers. Therefore, this research retains the basic recognizability of the human face, ensuring that the individual remains a clear narrative subject. Instead of placing all expressive pressure on facial features alone, it adopts auxiliary visual elements to present inner psychological conditions. This strategic choice led the research to explore the expressive language of shadows. Next comes the conceptual boundary of shadow art. Kara Walker adopts black human silhouettes as her core medium to narrate historical issues including racial oppression and gender violence, with shadows undertaking massive narrative functions in her works. Nevertheless, when examined from the perspective of personality structure and the subconscious, the limitations of her creative method become prominent. The shadows in Walker's works fully replicate human outlines, serving as mere duplicates of human figures rather than reflections of inner mentality (Walker, 2007). Meanwhile, flat black shadows have long been solidified as fixed symbols of "darkness and trauma" in visual culture, carrying rigid connotations that cannot accommodate ambiguous and contradictory subconscious contents. Once shadows are reduced to fixed labels, they lose the flexibility to probe into inner psychology.

The adoption of shadows in this research originates from direct visual observation: although shadows inevitably correspond to human forms in reality, such correspondence can be broken in artistic creation. Experimental practice proves that when shadow outlines are intentionally stretched or distorted and no longer aligned with facial features, audiences do not regard such changes as technical errors. Instead, they instinctively interpret aberrant shadows as silent expressions of repressed inner thoughts that cannot be conveyed by facial expressions. This interpretive mechanism cannot be triggered by Bacon's distorted portraiture. Deformed faces draw viewers' attention to visual abnormality, while displaced shadows guide audiences to reflect on the hidden inner reality behind external appearances. Nevertheless, early experiments also revealed the limitations of relying solely on shadow elements. When paired with realistic and intact faces, isolated shadows can only convey the superficial message that "an individual harbors hidden emotions", without elaborating on the specific relationship between external images and inner experiences. In such a context, shadows remain subordinate and incapable of establishing equal dialogue with facial imagery. To break through the expressive limitations of single shadow elements, this research introduces fragmented facial collage. John Stezaker is a leading representative of this creative field, whose core practice lies in splicing and recombining old photographs and portrait fragments to visualize the fragmentation of modern individual identity (Stezaker, 2011). Even so, Stezaker's creations contain an essential deficiency: the fragmentation created by collage only operates at the level of external appearance, with almost no response to inner psychological conditions. His works demonstrate that external identity can be fragmented yet provide no visual clues about the inner essence beneath the fractured surface. The combination of fragments is driven merely by formal visual interest and lacks inherent psychological logic. His visual fragmentation remains superficial and formal rather than reflecting genuine psychological fragmentation. Gradually, fractured faces have evolved into generalized symbols of "modern existential loss" instead of in-depth explorations of specific psychological structures. Differing from simple formal superposition, this research integrates collage and shadows into a unified two-tier visual structure. The

fragmented collaged face symbolizes the socialized external persona constructed in interpersonal communication—the social mask presented to the public. Alienated and distorted shadows represent the rationality-defying subconscious and repressed inner emotions that are suppressed and cannot be naturally expressed. A dynamic restrictive relationship is formed between the two: the more complete and harmonious the external facial image appears, the more distorted and displaced the shadow becomes; the more fragmented and chaotic the external collage is, the more unstable the shadow's form grows. Consequently, shadows are completely liberated from decorative functions and elevated to a core expressive element with equal importance to collaged faces. Correspondingly, the core research question shifts from “how to visualize emotions” to “what is the relational mechanism between external identity and inner subconsciousness”. After establishing a mature visual system, this research further advances to the design of audience participation mechanisms. Current interactive facial collage installations share a common fundamental flaw: there is no substantial connection between audience operation and work themes. Audiences drag and combine fragments in a random, entertaining manner. Different combinations generate no narrative differences, and interactive behaviors cannot trigger meaningful psychological feedback. In this context, audiences merely manipulate images for leisure rather than establishing connections with their own psychological realities. Key patterns observed in preliminary tests lay a solid foundation for interactive design. Faced with identical collage materials, different audiences exhibit entirely different choices. Some participants deliberately select coordinated fragments to assemble a visually normal and complete face, reflecting their desire to present a socially acceptable self-image. Others retain or even actively create visual conflicts between fragments to construct fractured and contradictory facial imagery. This indicates that the collage process is never a neutral visual operation but an unconscious act through which individuals construct and define “how they wish to be perceived by others” (Cardinal, 1994).

In summary, the four categories of reference creations—Bacon's emotional

portraiture, Kara Walker's shadow art, Stezaker's collage practice, and mainstream facial interactive installations—share common defects. They rely on a single visual language, lack effective connection between diverse visual elements, confine thematic exploration to superficial external appearances, and fail to effectively respond to human inner psychology. All innovations of this research are developed through identifying and addressing the deficiencies of existing works one by one. In response to Bacon's erasure of individual identity through extreme deformation, this research retains facial recognizability and replaces blunt distortion with alienated shadow imagery. To break the rigid symbolic connotation of shadows shaped by Kara Walker's creation, shadows are redefined as independent psychological visual materials with dynamic and variable forms. Targeting Stezaker's exclusive focus on external fragmentation without inner reflection, a dual-layered structure of "collaged externality + shadowed internality" is constructed to fill the expressive gap of subconscious narration. Against the entertaining and superficial nature of conventional interactive devices, audience collage choices are linked to identity cognition. Combined with real-time visual feedback and questionnaire research, interactive participation becomes a core link for in-depth research. By integrating fragmented collage and dynamic shadows into a logically rigorous visual system and encouraging in-depth audience participation, this research transforms the abstract psychological proposition of "identity" from static image presentation into an operable, experiential and reflective dynamic process. It provides a comprehensive practical reference for contemporary artistic creation focusing on identity, subconsciousness and inner emotional conflicts.

CHAPTER 4 : Research Gaps and the Construction of Systematic Integration

Through a comparative analysis of similar interactive artworks, this study argues that the core focus of interaction should shift from "motor synchronization" to "meaning generation". Current artistic practices on identity themes lack a mechanism that

integrates “the constructive act of fragmentation” with “the passive manifestation of the subconscious” (Turkle, 1995). Most existing interactions follow a “forward” logic, in which the system delivers direct feedback corresponding to the audience’s behaviours. By contrast, this research explores a “reverse” or “dislocated” interactive feedback mode. Through such visual expectation discrepancy, it guides audiences from superficial operational experience toward in-depth reflection on identity. Based on the above review of literature and case studies, this study identifies three key research gaps. First, at the visual expression level: existing facial collage works mostly focus on the deconstruction of external forms, with insufficient figurative representation of internal psychological dimensions. Second, at the symbolic logic level: although shadow art has developed the independent expressive value of projection, it rarely regards shadow as a kind of “psychological material” and combines it with the collage logic of social persona. Third, at the interactive mechanism level: prevailing interactive art concerning identity often falls into the trap of superficial entertainment, lacking an effective approach to lead audiences from social masks to hidden psychological shadows. This research attempts to fill the above deficiencies by integrating collage, facial shadow imagery and interactive mechanisms into a unified expressive system, rather than discussing them as isolated elements. Through such systematic integration, the work not only visually presents the complexity of identity in the digital era, but also establishes a participatory structural experience. Within this structure, audiences participate in identity construction by assembling facial fragments, while perceiving repressed inner contents through the dynamic transformation of shadows. Compared with pure visual presentation, this approach enables participants to gradually recognize the divergence between “external image” and “inner state” during operation, thereby triggering profound thinking on self-identity. Therefore, this study focuses not only on visual images, but also on the audience’s immersive interactive experience, achieving a comprehensive exploration of identity structure, subconscious expression and interactive mechanisms.

CHAPTER 5: Research Methodology

5.1 Methodological Framework

This study adopts Practice-based Research as its overall methodological approach. Instead of proposing a complete theoretical framework for subsequent verification, this research gradually clarifies research questions and deepens theoretical understanding throughout continuous creation and iterative revision (Suchin, 1996). Specifically, three methods are integrated in this research: visual ethnography, phenomenology, and action research. First, visual ethnography is adopted to observe real-world visual phenomena (Odhner, 2019). In the early research stage, this study continuously examined facial images on social media and analyzed their presentation modes, including prevalent visual templates, exaggerated facial features, and rarely displayed emotions. Such observations reveal that most individuals tend to conceal their genuine feelings, resulting in dissonance between facial micro-expressions and inner emotions. This finding directly shaped the subsequent creative direction and established the core focus of this research: how to break such simplified and homogenized emotional expression. Second, the phenomenological approach is applied to interpret audience experience. This study focuses not only on the artwork itself but also on participants' perceptual and emotional responses during interaction. It investigates viewers' initial reactions to fragmented facial images, emotional fluctuations in the collage process, and cognitive comprehension after completing the operation. Relevant experiential feedback helps evaluate whether the artistic expression can be fully understood by the audience. Third, action research promotes iterative optimization of creative practice. Each practical attempt generates new empirical feedback. For instance, the early creation only adopted video works to present facial deformation, yet such expression was found to be obscure for audience comprehension. Accordingly, the shadow element was supplemented as a crucial visual supplement. In collage experiments, diverse behavioural choices among participants further optimized the interactive mechanism design. Through the repeated circulation of trial–feedback–revision, the art installation has evolved into its current

complete structure. Overall, the three methods correspond to different research stages. Visual ethnography facilitates problem identification; phenomenology deepens the interpretation of participant experience; action research drives the continuous development of creative practice. Together, they construct an integrated and systematic methodological framework for this study.

5.2 Data Analysis Methods

In terms of data analysis, this study mainly adopts Thematic Analysis and Phenomenological Analysis. Firstly, thematic analysis is used to organize questionnaire results. By categorizing audience responses, recurring viewpoints and key contents can be identified. For example, words such as “curiosity” and “interest” frequently appeared in viewers’ initial impressions, indicating that fragmented facial images possess strong visual appeal. Regarding the interpretation of shadows, most audiences understood them as the “hidden inner self”, which verifies the effectiveness of this visual design. The focus of this analysis lies not in quantitative statistics, but in the recurrence of shared perceptions. If multiple participants provide similar interpretations without prior prompting, it demonstrates that the core expression of the work has been successfully conveyed. Secondly, phenomenological analysis is applied to capture participants’ experiential changes throughout the interaction. Unlike simple content classification, this method places greater emphasis on shifts in emotion and cognition during participation. For instance, some audiences began with mere curiosity, but gradually became more engaged and reflective in the collage process. Such transformations prove that the interactive mechanism has exerted a subtle influence on their perception. In the analytical process, this study combines written questionnaire feedback with behavioural observation to explore how viewers gradually form their understanding step by step. According to the collected data, most audiences successfully comprehended the core visual correspondence: the collaged face was recognized as “social identity” or “social mask”, while the shadow was interpreted as the “inner self”. This outcome indicates that the central concept of the

work is effectively communicated to the public. In terms of experiential feedback, “curiosity” and “interest” were the most common initial reactions, proving the work’s attractive visual presentation. During the interaction, many participants described the experience as “intriguing” and “thought-provoking”, reflecting that they engaged not only in mechanical operation but also in in-depth content comprehension. In addition, several audiences mentioned ideas such as “fragmented identity” and “the combination of heterogeneous parts”, which are highly consistent with the research objectives. Meanwhile, limitations and deficiencies were also reflected in the feedback. Some participants focused excessively on the collage operation itself while neglecting the morphological changes of shadows; a small number of audiences also expressed a sense of confusion. Such responses suggest that further optimization can strengthen the visual connection between collage and shadow, making their symbolic relationship more intuitive and coherent in future revisions. Overall, the interactive mechanism transforms audiences from passive spectators into active participants, turning the abstract proposition of identity into a tangible, embodied experience. This constitutes a vital achievement of this research.

5.3 Audience Feedback Analysis

This study collected audience feedback after their experience with the interactive artwork through questionnaires, yielding a total of 7 valid samples. Despite the limited sample size, the collation and summarization of responses reveal representative perceptual trends, enabling a preliminary evaluation of the work’s expressive effectiveness. Overall statistical results show that audiences’ initial reactions were dominated by curiosity and interest, appearing 4 times and 5 times respectively. This indicates that fragmented facial imagery possesses distinct visual appeal. Meanwhile, a small number of participants reported feelings of confusion, suggesting that the visual instability of the images arouses curiosity while also creating certain barriers to comprehension. In the interpretation of collaged faces, 4 participants regarded them as the social self / social mask. Additional responses

referred to “a combination of multiple roles”, proving that the collage structure effectively conveys the concept of multiple identities. Interpretations of shadows showed high consistency: 6 audiences understood shadows as the hidden inner self, with a few mentioning unconscious emotions and unstable identity. This result demonstrates that shadow, as a core visual element, delivers high recognizability in representing inner psychological conditions. In terms of interactive experience, the keyword interesting appeared 5 times, alongside descriptions such as thoughtful and focused. It reflects that participants engaged beyond superficial operation and entered a state of reflective thinking during participation. Based on the above data, two core themes closely related to this research can be summarized. The first theme concerns the recognition of shadow as the inner self. Questionnaire results indicate that most audiences spontaneously established a connection between shadow and the inner self without explicit hints. Statistically, 6 out of 7 participants directly described shadows as the hidden inner self. This proves that the visual treatment of shadows—including offset, distortion and morphological variation—constructs a stable and coherent symbolic logic. Rather than regarding shadows merely as lighting effects, audiences actively endowed them with psychological connotations. This is critical to the study, as it verifies the feasibility of adopting shadow as a medium for subconscious expression. Furthermore, individual mentions of identity instability and unconscious feelings illustrate that shadows are perceived not only as inner existence, but also as complex, fluctuating psychological states, which further deepens the work’s expressive dimension. The second theme lies in the generation of self-reflection. Interactive records and open-ended answers demonstrate that many participants developed reflective awareness throughout the process. The act of actively selecting and combining fragmented facial features prompted reflection on how an individual identity is constructed. Feedback involving different emotions and fractured identity reveals that audiences engaged in symbolic interpretation rather than simple image manipulation. After completing the collage, the emergence of distorted shadows further strengthened such contemplation. Since shadow forms are not fully controlled by human operation, their unpredictable changes make viewers aware of the

uncontrollable dimension of selfhood and evoke associations with repressed inner states. Although the frequency of the term thoughtful was moderate, open responses confirm that several participants shifted from passive experience to active interpretation, with keywords such as painful and fragmented identity linking visual perception to emotional and identity-related contemplation.

In conclusion, audience feedback delivers clear findings on two core research dimensions. On the one hand, the symbolic correspondence of shadow = inner self is widely recognized, validating the rationality and effectiveness of the study's core visual setting. Shadows are no longer merely decorative visual elements, but transformed into independent carriers of psychological meaning. On the other hand, the interactive mechanism successfully stimulates critical thinking to varying degrees. The work transcends pure visual entertainment and guides audiences to contemplate social masks, fragmented identity and repressed inner emotions. Nevertheless, certain limitations should be acknowledged. Some participants remained at the superficial level of entertainment without deeper interpretation, and occasional confusion indicates that the visual narrative structure still requires optimization. Future revisions may strengthen the visual correlation between collage and shadow and add subtle guiding cues to enhance conceptual clarity.

Overall, the interactive design achieves satisfactory results in balancing expressive clarity and reflective guidance, while still leaving room for further depth and refinement. In this research, research methodologies were not applied as post-creation tools, but guided the entire creative process from the outset. First, preliminary visual observations directly shaped the creative orientation. The recognition of homogenized, over-regulated facial presentation in daily social media drove the adoption of collage as a critical countermeasure, making collage a targeted conceptual response rather than a random aesthetic choice. Second, action research continuously promoted iterative revision. The work evolved from independent facial video experiments, to the incorporation of shadow imagery, and finally to the integrated dual structure of

“collage face + distorted shadow”, all through repeated testing, feedback and optimization. Third, phenomenological attention to audience experience also informed interactive design. Participants’ personalized selection habits and behavioural tendencies reshaped the interactive logic, enabling the collage process to function not only as an operational game, but also as a metaphorical pathway for understanding identity construction. Accordingly, methodology and creative practice advanced simultaneously throughout the research. Methodological perspectives facilitated problem identification and directional adjustment, while artistic creation continuously tested, revised and enriched the practical application of theoretical frameworks.

CHAPTER 6: Creative Practice and Analytical Conclusions

6.1 Analysis of Visual and Symbolic Systems

In this study, multiple visual elements are deliberately integrated. Each carries specific symbolic connotations, while being interrelated and mutually complementary within the overall structure, collectively forming a visual system concerning self-cognition and identity construction. First, the collaged face represents the individual’s external identity. Traditional facial images are generally regarded as complete, stable and unified depictions, which often symbolize one’s social identity or the “self” perceived by others (Pradivlianna, n.d.). In this research, however, the human face is intentionally disassembled into scattered components and recombined through collage. Such treatment breaks inherent wholeness and endows the image with fragmented features. Instead of encountering a single, fixed individual portrayal, viewers confront a composite assembled from heterogeneous fragments. This visual structure corresponds to the accumulation of multiple social roles that individuals occupy across diverse situations. For instance, a person may act as a child within the family, a student at school, and a friend or peer in social interactions. These identities are never entirely identical, but continuously adjusted according to contextual and relational changes. Therefore, facial collage is more than a formal aesthetic transformation; it visually demonstrates that the self is not innately unified but

constantly constructed. It reminds viewers that the so-called external self is largely shaped by social norms, external expectations and personal choices. Second, the shadow, as another core visual element, symbolizes inner psychological content. Unlike the clearly defined collaged face, the shadow lacks precise structure and tangible details, appearing in blurred, distorted or displaced forms. Such unstable visibility grants the shadow strong openness and ambiguity, evoking rich associative thinking among audiences. Visually, the shadow seemingly attaches to the facial subject yet remains not fully controlled by it. It can be stretched, twisted, or shaped in ways that diverge from the original figure. These qualities render shadow an ideal carrier for expressing repressed emotions, subconscious thoughts and concealed inner conditions. According to questionnaire feedback, most audiences interpreted the shadow as the inner self, encompassing hidden emotions, desires and unspoken experiences, which verifies the high effectiveness of this symbolic design. The shadow introduces an invisible yet tangible dimension to the artwork, suggesting that beyond performable and controllable external appearances, every individual possesses a complex, fluid and elusive inner world. Third, the circular frame plays a vital role in regulating the audience's mode of viewing. In visual culture, circular forms carry distinctive symbolic meanings. The mandala, for example, widely signifies wholeness and offers a structured visualization of the individual's inner landscape. It functions not only as a visual pattern but also as a psychological metaphor for self-integration (Daniels, 2011). In this study, the circular frame operates as a visual window, constraining disordered collage elements within a bounded viewfinder to concentrate audience attention. This visual limitation helps viewers seek central order amid fragmented visuals, while metaphorically reflecting the social condition of being constantly observed and judged — individual identities are always defined and interpreted within given social frameworks. Accordingly, the circular frame is far more than a compositional device; it reinforces the core theme of constructed, spectated and bounded identity on a metaphorical level. Holistically, these visual elements establish a clear, layered relationship. The collaged face and the shadow form a dialogical contrast between exterior and interior: the former stands for the

visible, socialized persona, while the latter embodies the hidden, emotional inner self. The circular frame mediates and guides perception between the two, shaping the viewing process and conceptually bridging division and integration, so as to maintain balanced visual tension throughout the work. Furthermore, the interactive process itself carries profound significance. During the collage session, audiences actively select and combine fragmented facial components. This participatory act simulates the process of self-construction. Unconsciously, participants assemble meaningful facial imagery based on personal experience, aesthetic preference and subjective imagination.

In summary, by integrating three core visual elements — collaged facial imagery, shadow projection and circular framing — this study constructs a multi-layered symbolic system. It visually articulates the tensions between exterior and interior, self and other, and engages audiences in reflective self-cognition through interactive mechanisms. The entire visual and experiential system conveys a central argument: individual identity is never static or fixed, but continuously generated, negotiated and reshaped by social contexts, psychological conditions and shifting modes of observation.

6.2 Analysis of Interactive Mechanisms

In this study, the interactive mechanism is not merely a designed operational procedure, but a structural process that gradually guides audiences to comprehend the artwork's meaning. In other words, interaction itself constitutes part of meaning generation, rather than being an additional function separate from the core content. As Kurt Schwitters argued, "The picture becomes the medium between myself and the viewer." This viewpoint emphasizes that artistic meaning is not transmitted in a one-way manner, but continuously activated and reconstructed through audience participation. Meanwhile, Judith further proposed that within collage-based interaction, meaning resides not only in the final outcome, but also emerges from the

audience's operational process (Collins, 2018). Accordingly, the interactive mechanism of this research can be regarded as a progressive and continuous structure of guidance–construction–reflection, instead of a mere list of independent steps. First, before formal interaction begins, audiences enter a guided introductory stage by watching videos that demonstrate the fragmentation and recombination of facial fragments. This stage serves not only to convey basic information, but also to establish visual and conceptual foundations for subsequent hands-on operation. Throughout the video, human faces are continuously disassembled and reassembled, accompanied by constantly shifting shadows. This dynamic process enables viewers to intuitively grasp two core concepts: external appearances are not fixed, but detachable and reconstructible; and shadows, as unstable counterparts, always coexist with facial images without full alignment. Compared with static textual explanation, dynamic visual narration fosters holistic perceptual impressions. Before engaging in practical collage, audiences develop preliminary awareness of the relationship between externality and internality. Hence, this introductory phase functions as both information input and the starting point for constructing a cognitive framework for subsequent participation. On this basis, audiences proceed to the collage stage, which forms the core of the entire interactive mechanism. During this process, participants actively select diverse facial fragments and combine them into a complete facial portrait. Superficially, this resembles a simple puzzle activity; yet underneath lies continuous subjective judgment and intentional decision-making. When choosing fragments, audiences are unconsciously influenced by personal experience, aesthetic preferences, and their understanding of a “rational and normal appearance”. Some participants tend to pursue coordinated, unified facial features to construct socially recognizable, conventional faces. Others deliberately retain visual dissonance, highlighting conflicts and incongruity between fragments from different sources. Such divergent choices are not accidental, but reflect individual perceptions of the ideal self and the authentic inner self. Therefore, the collage act is far more than assembling a face; it simulates a simplified process of identity construction. Every decision — retention or replacement, visual unity or intentional fragmentation — shapes a unique

self-image. This construction blends rational judgment, intuition and life experience, endowing each final work with personal characteristics and inherent uncertainty. In this process, the black background should not be dismissed as mere visual decoration, but recognized as a vital layered component of the interactive structure. Its dark tone echoes the shadow imagery presented in the videos, while expanding the concept of shadow from a concrete visual form to an ambient, pervasive existence. Distinct from the first layer of shadow — the variable, figure-bound shadow in the video — the black background carries no fixed outline and envelops the entire collage space as a persistent environmental field. Even when audiences focus entirely on selecting and combining facial fragments, this ambient shadow remains implicitly present. In this sense, the black background functions as a second-layer shadow: no longer a specific projected form, but an inescapable inner psychological dimension. The first layer of shadow is visible yet unstable; the second layer is invisible yet always omnipresent. This dual shadow structure reinforces the core theme of uncontrollable inner emotions, ensuring that audiences remain subtly influenced by psychological connotations throughout the collage process, even without consciously focusing on shadow imagery. After completing the collage, interaction enters the final stage: the observation and contemplation of the complete visual composition. This phase transforms hands-on operation into tangible, reflective experience. The full presentation of the final piece encompasses multiple intertwined visual layers: a self-constructed facial portrait, corresponding shadow imagery, and the enveloping black background. At this moment, audiences develop a subtle dual perception. On one hand, they possess a clear sense of control and participation, as the final face is created through their own choices. On the other hand, complete control remains unattainable. Visible collage traces, fragmented inconsistencies, and the ambiguous tension between shadow and background render the overall image simultaneously familiar and alienating. This perceptual contrast encourages viewers to recognize that the constructed external self is never fully stable or unified, but assembled from fragmented, heterogeneous elements. Furthermore, the coexistence of shadows and the dark background directs attention to uncontrollable, unoperated dimensions.

Audiences begin to ponder why shadows never perfectly mirror facial appearances, and what those irreconcilable, unregulated elements signify. This cognitive transition — from focusing on self-created outcomes to reflecting on uncontrollable inner dimensions — defines the core value of this stage. It transforms audiences from task-oriented operators into self-reflective subjects.

In conclusion, the interactive mechanism of this research follows an intrinsically logical progressive structure: video guidance establishes conceptual cognition, hands-on collage realizes active identity construction, and holistic visual observation stimulates in-depth reflection. All stages connect closely and advance layer by layer. The expansion of shadow symbolism through the second-layer black background further completes and strengthens the expression of inner psychological dimensions. Through this systematic interactive journey, audiences not only participate in visual creation, but also gradually engage with the core research theme: how individual identity is continuously constructed, negotiated and perceived between controllable social performance and uncontrollable inner reality.

6.3 Conclusions, Research Limitations and Future Prospects

Focusing on interactive facial collage and shadow expression, this study explores the potential of visual strategies to visualize complex identity structures. Synthesizing creative practice and audience feedback, three core findings are summarized as follows. First, shadow, as an independent visual element, delivers powerful expressive effects in representing inner psychological experiences. Through formal treatments such as displacement and morphological distortion, the shadow transcends a mere optical phenomenon and is universally interpreted by audiences as the hidden inner self. Without contextual prompting, most participants spontaneously established symbolic connections between shadows and repressed inner states. This proves that shadow can serve as an effective psychological visual medium for conveying subtle, inexpressible emotions and subconscious experiences. Second, interactive mechanisms

play a crucial role in deepening audience comprehension. By engaging in hands-on collage creation, viewers transform from passive spectators into active participants in identity construction. The subsequent emergence of distorted shadows further directs attention to uncontrollable inner dimensions and stimulates critical thinking. Audience feedback including “interesting” and “thought-provoking” indicates that interaction strengthens sensory engagement and facilitates in-depth self-reflection. Most importantly, this research verifies that individual emotional expression in social contexts is never fully controllable or entirely performative. When external facial presentations are constructed as stable, socially acceptable masks, residual repressed emotions persist beneath the surface. Through the structural juxtaposition of fragmented facial collage and alienated shadow imagery, this study visualises those fleeting, rapidly concealed micro-emotions. It transforms implicit subconscious feelings into tangible visual experience and achieves sustainable representation of suppressed inner experiences. Despite its achievements, this research still contains noticeable limitations. In terms of audience research, the small sample size only reflects localized feedback and cannot represent broader public perceptions. Thus, the drawn conclusions indicate general developmental trends rather than universal rules. In terms of creative practice, the interactive design adopts relatively basic technical frameworks, and shadow variations rely predominantly on preset algorithms, lacking complex generative dynamics, which restricts the richness of visual expression. In addition, partial audience feedback regarding visual confusion reveals that the symbolic connection between collage and shadow requires further optimisation in clarity and narrative guidance. Building on the current deficiencies and developmental potential, future research can be expanded in the following directions. Subsequent studies may further explore participants’ decision-making logic during collage creation. Individual tendencies toward visual unity or fragmented conflict can be analysed to reveal diverse cognitive perceptions of identity. Combined with in-depth interviews and detailed behavioural recording, future research can further clarify the correlation between visual selection and individual psychology. Multi-participant interactive mechanisms can also be introduced to extend identity exploration from

individual experience to social relational contexts. Collaborative collage creation and mutual behavioural influence among multiple participants can help examine how identity is reconstructed and redefined through external social perspectives. In terms of research methodology, expanding the questionnaire sample size and integrating qualitative interviews will enable more comprehensive and objective data analysis, enriching the research credibility of experiential feedback. Lastly, visual expression can be further diversified by incorporating dynamic moving images, sound design and multi-sensory elements, enabling the theme of identity and subconscious tension to be presented across multi-dimensional sensory levels.

Reference

- Adamowicz, E. (1998). *Surrealist Collage in Text and Image: Dissecting the Exquisite Corpse*.
- Ardévol, E. (2012). Virtual/visual ethnography. In *Advances in Visual Methodology*, pp. 74-94.
- Bishop, C. (2023). *Artificial Hells: Participatory Art and the Politics of Spectatorship*.
- Cardinal, R. (1994). Collecting and collage-making: the case of Kurt Schwitters. In *The Cultures of Collecting*, pp. 68-96.
- Collins, C. (2018). *Envisaging Alternatives: Representations of Women in Kurt Schwitters' Collages*. PhD thesis, The University of Edinburgh.
- Daniels, V. (2011) The analytical psychology of Carl Gustav Jung. Lecture notes.
- Joles, A. (2016) *A Companion to Dada and Surrealism*. Chichester: Wiley Blackwell.
- Jung, C.G. (1966) *Collected works of C.G. Jung: Volume 7, Two essays on analytical psychology*. 2nd ed. Princeton: Princeton University Press.
- Krauss, R. (1981). The photographic conditions of surrealism. *October*, 19, pp. 3-34.
- McBride, P. C. (2007). The game of meaning: collage, montage, and parody in Kurt Schwitters' Merz. *Modernism/Modernity*, 14(2), pp. 249-272.
- Mulvey, L. (2013). Visual pleasure and narrative cinema. In *The Sexual Subject*, pp. 22-34. Routledge.
- Odhner, D.C. (2019) Redeeming the shadow of the self: A depth psychological, cross-cultural investigation of the foreshadow archetype. *Doctor of Philosophy dissertation*, Pacifica Graduate Institute.
- Pradivlianna, L. (n.d.). Modern surrealist collage: competition of the visual and the verbal. *імені Михайла Коцюбинського*, p. 34.
- Romanyshyn, R.D. (2012) *The necessity for the humanities in psychology: The psychologist and his/her shadow*. *The Humanistic Psychologist*, 40(3), pp.1-12.
- Sierra, N. (2013). Surrealist histories of language, image, media: Donald Barthelme's 'collage stories'. *European Journal of American Culture*, 32(2), pp. 153-171.
- Stezaker, J. (2011) *John Stezaker*. London: Whitechapel Gallery.

- Suchin, P. (1996) Reeling in the real. *Variant*, 2(1), Winter, p.14.
- Sylvester, D. (1998) *Interviews with Francis Bacon*. London: Thames & Hudson.
- Todić, M. (2006) Cut and paste pictures in surrealism. *Muzikologija-Musicology*, (6), pp. 281-301.
- Turkle, S. (1995) Virtuality and its discontents. *Life on the screen: Identity in the age of the internet*. New York: Simon & Schuster, pp. 225-254.
- Walker, K. (2007) *My Complement, My Enemy, My Oppressor, My Love*. Minneapolis: Walker Art Center.