

Foghaven: Design and Research of a Healing APP Based on Chongqing Regional Culture

Qinyi Zhou

*Southwest University, Chongqing, China
imdiout@163.com*

Abstract. With the development of society and the accelerated pace of life, emotional health problems such as anxiety and stress have become increasingly prominent, and digital healing applications have emerged as the times require. However, the current mainstream digital healing products are mostly rooted in the framework of Western psychology and cultural context, and there are problems of design homogeneity and insufficient cultural adaptability. It is difficult to effectively stimulate the deep feelings of local users, especially groups with strong regional cultural identity. Emotional resonance and willingness to use for a long time. This study aims to explore a design methodology that deeply integrates regional culture into digital healing products through design practice. Taking Chongqing regional culture as the starting point of design, the design practice of "Foghaven" APP from concept to prototype has been carried out, and a complete set of healing APP design schemes with Chongqing regional culture as the core has been produced to prove the feasibility of transforming regional natural landscapes and humanistic spirit into digital chemotherapy and healing experience, and to provide personalized digital mental health for specific cultural groups. The design of intervention schemes provides a new idea that can be used for reference.

Keywords: regional culture, art therapy, healing APP, APP design, digital mental health intervention

1. Introduction

With the development of society and the acceleration of the pace of life, emotional health problems such as anxiety and stress are becoming increasingly prominent, giving birth to digital rehabilitation applications. However, most of the current mainstream digital healing products are rooted in Western psychological frameworks and cultural backgrounds, resulting in homogeneous problem design and insufficient cultural adaptation. This makes it difficult to effectively evoke deep emotional resonance and the willingness to continue to use among local users, especially those with a strong regional cultural identity.

As a core city in Southwest China, Chongqing has a unique landscape, distinctive civic character, and a vibrant urban culture in daily life. It has rich and diverse regional cultural resources, such as Three Gorges culture, Ba culture, immigrant culture, Anti-Japanese War culture, Hongyan culture, ethnic minority culture, intangible cultural heritage, natural humanities and landscape culture, as well as cooking and hot pot culture. These factors together constitute a solid foundation for the

development of Chongqing's cultural and creative industries [1]. These factors not only shape the appearance of the city, but are also internalized in daily life. Life is a shared psychological landscape and emotional structure, which provides rich materials for designing healing experiences with a high degree of cultural identity.

This study takes Chongqing regional culture as the research object to design practice, and proposes and implements the design "Foghaven" of healing APP. It aims to explore a way to systematically transform regional culture—from its physical space and humanistic characteristics—to digital psychological resources. By designing interventions, it enables users to complete emotional comfort, cognitive reconstruction and behavioral practice in a familiar cultural atmosphere. As such, it provides a practical model for building digital therapy products that are more culturally sensitive, emotionally resonant, and have lasting appeal.

2. Mountain city healing dialogue app: a digital design approach based on Chongqing regional culture

2.1. The design philosophy of Foghaven

The main function of the Art Healing App is a mobile app that provides healing activities and exercises, allowing users to self-heal anytime, anywhere. The research shows that this form has stronger autonomy and higher degree of choice, and is welcomed by the representative group of college students [2]. Past research has found a significant association between culturally adapted UI design and application use. When users use applications with familiar elements such as images, colors, languages, and layouts, they feel more confident [3].

Based on this, this study is committed to the Chongqing culture of the physical environment and human character directly into the interactive, experiential psychological resources. For example, the flow rhythm of the river is designed as a metronome guided by breathing; The upright personality traits of citizens are designed as gamified challenges that encourage fast action; The streets and alleys are transformed into anonymous, supportive story-sharing communities. In this way, the healing process is deeply bound to the user's cultural identity, which enhances the intimacy, substitution and efficacy of the intervention [4]. This is also the particularity of the design of the art healing APP "Foghaven", that is, the local healing combined with regional cultural attributes.

2.2. The core architecture of Foghaven

A clear three-layer architecture characterizes the application's design, as illustrated in Fig. 1 below. This structure is intended to support both a coherent user experience and a therapeutic process in which objectives are progressively met.

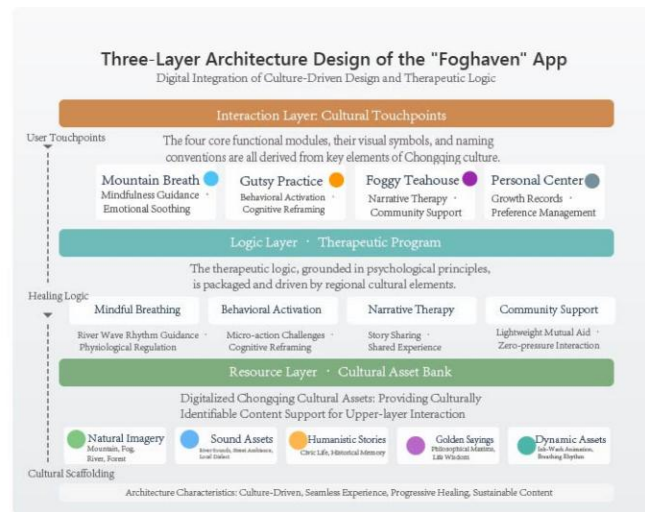


Figure 1. The Three-Layer architecture design of Foghaven

2.3. The extraction and translation of Chongqing regional cultural elements for healing

2.3.1. Therapeutic translation of natural landscape

Confronted with constant life pressure, modern urban people often have an internal need to escape from reality for psychological adjustment. They are eager to find a shelter that can provide a sense of psychological security and spiritual tranquility [5]. Therefore, when translating Chongqing regional culture digitally, this study transforms the structural support symbolized by mountains, the ambiguity contained in fog, and the rhythmic guidance embodied by rivers into perceptible stability, safety and breathing rhythm in interface interaction, so as to build a cultural shelter that echoes this psychological demand at the digital level.

Mountain: Translated as the basic outline of visual design and the tone of blue and gray color, as well as the stable and reliable psychological hints in the interaction. With breathing exercises, mountain imagery serves as a background, providing static, supportive visual anchors.

River: Translated into the core interaction mechanism of the Mountain Breath module. The dynamically simulated river waves become the visual guidance of breathing rhythm, that is, inhale for 4 seconds, hold breath for 2 seconds, and exhale for 6 seconds, synchronizing physiological adjustment with familiar natural rhythm and lowering the execution threshold.

Fog: Translated into dynamic effects and transition animation in the interface, creating a soft and non-oppressive visual atmosphere. At the same time, the variability, ambiguity and the sense of security of acceptance of metaphor emotions, such as the use of gradual change and diffusion effects in recording emotions.

2.3.2. Therapeutic translation of humanistic spirit

Gutsy. Translated into the core idea of the "Gutsy Practice" module. Through gamification designs such as "10-second challenge" and "minimum action", the local character of not entangled and acting first is transformed into a behavior training tool to resist choice anxiety and procrastination.

Open-minded. Translated into the core content of the "Local Wisdom Quotes" section in "Foggy Teahouse", as well as the feedback copywriting after various challenges. By collecting and

displaying open-minded golden sentences full of local life wisdom, such as "What are you afraid of, and you must not lose your life!", it subtly helps users loosen their catastrophic thinking and establish a more flexible cognitive model.

Chatting. Translated into the community structure and interaction rules of "Foggy Teahouse". Simulate the relaxed and safe atmosphere of the teahouse, set up sections such as "Chit-Chat Hub" and "Support Corner", emphasize non-judgmental support of listening, sharing and empathy, and use the power of the community to reduce loneliness and achieve universal comfort.

2.4. Detailed explanation of core interaction and narrative design

The interactive and narrative design of this APP is committed to creating an immersive healing experience with multi-sensory fusion and cultural script embedding.

2.4.1. Multi-sensory integrated breath guidance

In the scene of "Mountain Breath scenario", the ink animation style is visually presented, and the river surface fluctuates with the rhythm; Audially match the natural white noise of the corresponding period; Haptically, the rhythm of waves is simulated by the vibration of the mobile phone. This multi-channel synchronous design of audio-visual touch aims to maximize the user's attention to the present, enter the state of flow, and achieve rapid emotional and physiological adjustment.

2.4.2. Culturally-embedded behavioral practice

The "Gutsy Practice" module encapsulates abstract behavioral activation theories into miniature narratives with Chongqing's life atmosphere. For example, the "The Half-Priced Bubble Tea Incident" situational dialogue game allows users to face the common stressful event of being cut in line, and by choosing different response methods, they can instantly see different personality dimension interpretations and result feedback. This design seamlessly integrates the Cognitive Behavioral Therapy process of situational exposure and Cognitive Restructuring within a culturally familiar context, making the therapeutic practice more engaging and personally relevant.

2.4.3. Emotionally designed community interaction

The interaction design of the Foggy Teahouse actively avoids creating social pressure. Simultaneously, through the media space, users can attain perceptual experiences and emotional resonance infinitely approaching those of a real-world environment. Through perception, experience, sharing, and socializing within this mediated space, individuals gradually develop a connection to and identification with the place, fostering a sense of "digital place attachment" based on the media space [6].

3. Design practice of the Foghaven app

3.1. Visual language design: Neo-Chinese Guochao Style

In the field of domestic app interface design, considerable room remains for refinement when it comes to accommodating users' visual preferences. Factors such as aesthetic inclinations and habits of image perception, for instance, may not yet have been fully considered in terms of their practical impact on the final design outcome. Capturing these elements with greater precision can do more

than simply align information presentation with users' cognitive patterns. It also holds the potential to meaningfully enhance user engagement and stimulate further innovation in interface design.

Guided by this principle, and with the aim of appealing to younger users while foregrounding cultural resonance, the visual system adopts a Neo-Chinese Guochao Style. Within this framework, the formal language of Guochao-style illustration engages with the coexistence of ancient and modern sensibilities. Building upon the integration of Chongqing's cultural characteristics, the design approach moves beyond conventional stylistic boundaries. In doing so, it successfully bridges the illustrative languages of tradition and modernity [7]. In constructing this visual system, Chongqing Regional Cultural elements served as primary sources for extraction. The morphological profiles of stilted buildings distributed across the mountainous terrain, for instance, were carefully abstracted into simplified forms. In a similar vein, the natural, meandering flow characteristic of the Jialing River informed a corresponding visual language of lines. The iconic lantern-lit scenery of the Hongyadong area likewise underwent a process of distillation, with its essential imagery rendered in stylized form. Each of these elements thus contributes to a visual vocabulary rooted in local identity.

3.2. Design practice of the Foghaven app

3.2.1. Target user positioning and needs identification

The app primarily targets young adults aged 20-35, living in Chongqing or identifying with its culture, who face multiple pressures from work, social life, and personal choices. They experience needs such as emotion regulation, decision-making difficulties, and loneliness but may resist formal, clinical psychological services. This product uses Regional Culture as an entry point to provide self-guided healing support with a low psychological barrier and high emotional affinity.

3.2.2. Scenario application

Multi-sensory Integration in Breath Guidance: The theory of "five-sense healing" believes that the realization of healing depends on the comprehensive use of intentionally designed positive sensory stimuli in the environment [8]. Its core is to systematically create an experience environment that can mobilize multiple senses such as vision, hearing, and touch at the same time, attract and guide individuals' attention from internal anxiety to external perception, thereby promoting physical and mental balance. Chongqing's unique natural and cultural environment itself is a natural healing field full of rich sensory vocabulary. Therefore, the design of the "Foghaven" App is extracted, translated and reorganized through digital media to build an immersive digital healing environment.

Dynamic Visuals: With the river water as the core visual carrier, the interface background abandons the form of static pictures, and uses algorithms to generate dynamic effects on the river surface in the style of ink animation in real time, and the visual dynamic rhythm is deeply compatible with the healing breathing method. In the inhalation stage, the waves on the river surface gently surge upwards from the bottom of the screen, symbolizing the inhalation of energy with visual images; In the breath-holding stage, the light ripples slightly at the visual peak, helping the user to maintain breathing concentration; In the expiratory stage, the waves slowly recede with the breathing rhythm, expressing the release of metaphorical pressure with concrete vision. With the help of this design, the abstract breathing instructions are transformed into an intuitive and natural visual flow, so that the user's eyes and breathing rhythm are naturally synchronized with the fluctuations of the river waves, and the guidance of breathing regulation is strengthened.

Auditory: Based on the local natural environment of Chongqing, a variety of three-dimensional white noises such as "Jialing in the Morning", "Nanshan Mist" and "Night Rain Jinyun" are created. All sound effects are recorded on the spot based on real natural scenes in Chongqing, and undertake the basic functions of covering external interference and creating a quiet environment. At the same time, the system supports single sound effect selection and multi-sound effect combination to meet the user's personalized auditory needs and realize an immersive auditory wrapping experience.

Tactile: As an important supplement to vision and hearing, it relies on the linear motor of the mobile phone to achieve refined tactile feedback, and the tactile rhythm is completely synchronized with the breathing rhythm of vision and hearing. At the key transition node of breathing rhythm, the mobile phone uses a linear motor to simulate the slight vibration of water waves hitting rocks, and strengthens the perception of breathing rhythm with delicate and natural tactile feedback, allowing users to perceive the breathing rhythm from the tactile level, further improving the rhythm of breathing regulation and The sense of ritual helps users anchor the present more firmly and improve the effect of emotional physiological regulation.

Embedding Cultural Scripts in Behavioral Practice.The "Gutsy Practice" module abandons didactic psychological guidance, and instead uses the principles of cognitive behavioral therapy and narrative therapy, that is, healing needs to start with changing the individual's inherent thinking evaluation mode that often causes anxiety, aiming to guide users to complete Positive cognitive reconstruction [9]. By creating a series of low-risk and high-feedback cultural situations, this module enables users to intuitively expose their non-adaptive thinking such as perfection and excessive concern about the result in simulated decision-making conflicts, and with the help of instant, humorous and Chongqing open-minded philosophy Feedback provides an alternative and more flexible cognitive framework, so as to subtly loosen and rebuild their cognitive models in behavioral practice. This mode is embedded in Chongqing's local life scripts that users are highly familiar with, allowing healing to occur naturally in stories and games. For example, the "Half-Priced Bubble Tea Incident" situational dialogue game is a typical example.

Scenario Design: The game is set in a contemporary urban and anxious scene of queuing up at an Internet celebrity milk tea shop. Users encounter the common conflict of being cut in line by an aunt. The details of the scene all strengthen the sense of Chongqing in the ground.

Options and Personality Dimensions: The system provides four response options based on Chongqing's humanistic personality refinement, such as A. "Auntie, please line up" corresponds to the personality tag of "Border Defender", B. Use humor to resolve the personality tag of "Flexible Coordinator", C. Active caring inquiry corresponds to the personality tag of "Kindness Forerunner", and D. Silence and forbearance corresponds to "conflict avoider". Each option represents a subconscious mode of communication and core beliefs.

Immediate Feedback and Cognitive Healing: After the user chooses, the system not only gives the situational results, but also provides a layer of psychological lens feedback. For example, after choosing Option D, the feedback may be "You chose to avoid head-on conflict, which may be due to concerns about relationship breakdown. Please realize that temporary calm sometimes comes at the cost of internal consumption. Next time, you may try like Option A, gently and clearly express "I am here ". This design transforms a daily choice into a safe self-observation and cognitive exploration, helping users see their own patterns in a risk-free environment, and Exposure to alternative, healthier coping strategies.

Emotional Design in Community Interaction.The core of the design of the "Foggy Teahouse" community is to avoid social comparisons and performance anxiety, and return to the essence of sharing, listening, and mutual assistance in Chongqing Longmenzhen. Its emotional design is

reflected in every detail of naming, rules and interaction. The Jiaotong Teahouse, located at No. 4, Main Street of Huangjueping Graffiti Art Street, is the spiritual prototype of "Foggy Teahouse", and the Gaiwan Tea, which is "covered by the sky, carried by the ground, and cultivated by people", has become the cultural reality of Wudu Teahouse. carrier. Based on the core features of both inclusiveness and privacy [10], it is one of the important modules of the "Foghaven" APP.

"Chit-Chat Hub": The post button is designed to "open a cavity", and the invitation tone is cordial. Posts are sorted by empathy rather than views, emphasizing emotional resonance rather than traffic. Cancel the public comment function, and only set up two emotional buttons, "Ba Shi De Board" and "Mo De Shi", to fundamentally eliminate the pressure brought by critical speech, encourage pure emotional expression and story sharing, in order to realize the collective meaning Co-construction and cohesion of core values [11].

"Local Wisdom Quotes": Interpersonal approaches in traditional knowledge need to be reflected in digital intervention models. The catchphrases full of open-mindedness and wisdom among Chongqing folks are presented in the form of daily cards. Users can generate posters with characteristic ink background for sharing with one click, strengthen positive cognition in communication, and realize lightweight communication of culture.

"Support Corner": Design a minimalist mutual assistance process for specific selection problems. Others can only interact by voting and sending preset encouraging phrases. This limited interaction mode not only allows help-seekers to obtain social support and diversified perspectives, but also avoids the secondary pressure or suggestion burden that may be brought about by complex communication.

Through the in-depth design of the above three scenes, "Foghaven" successfully translates Chongqing's river water, market stories and teahouse atmosphere into a set of operable, experiential and warm digital healing programs, making regional culture truly A positive resource to support users' psychological recovery.

3.2.3. High-fidelity prototype showcase

As the primary point of contact and communication between users and the Digital Mental Health Intervention, the UI remains a focal point for designers in terms of UX and user acceptance. Based on user requirements, we have designed and completed a Hi-Fi Prototype covering core user pathways. Key interfaces include:

Landing Page. Establishes the expectation for culturally-grounded healing swiftly through dynamic landscape illustrations and impactful copy.



Figure 2. Landing page

Homepage & Personal Center.Features an Intelligent Recommendation Feed that dynamically presents location-based insights, mood cards, or curated posts based on usage context and history.



Figure 3. Homepage & personal center

Main Interfaces of Key Features:

Mountain Breath features a full-screen dynamic river view and a breathing ball as its core visual elements, while also supporting customizable functions.



Figure 4. Mountain breath

Gutsy Practice primarily utilizes scenario cards and a gamified task panel.



Figure 5. Gutsy practice

Foggy Teahouse simulates the layout of a traditional teahouse with clearly defined sections.



Figure 6. Foggy teahouse

4. Conclusion

Based on the regional culture of Chongqing, this study completed the whole process of "Foghaven" healing APP from theoretical exploration to design practice. The design practice of "Foghaven" provides a feasible methodology to transform local knowledge into universal psychological resources. It internalizes geographical rhythm into physiological rhythm through "Mountain Breath", reshapes humanistic character into behavioral mode through "Gutsy Practice", and evolves social customs into support systems through "Foggy Teahouse". This process not only provides a new digital path for the contemporary inheritance and activation of Chongqing regional culture, but also provides a design perspective for the field of digital mental health.

Based on this, future research can further quantitatively evaluate the specific effectiveness of this culture-based design on improving users' emotions, relieving stress, and enhancing cultural identity through user testing and usability research. At the same time, this localized design framework is also scalable and can be applied to other distinctive regional cultures to develop more diverse and culturally resonant digital healing solutions, and ultimately promote digital mental health services Develop in a more humane, more inclusive, and warmer direction.

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