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## Three Moments of Red Spirit: With a Discussion on Micro-Film Technology and Product Innovation Post-print

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### Abstract

A 9-minute-5-second micro-documentary that immediately went viral upon release, demonstrating that grand revolutionary historical themes can remain timeless and vibrant. Broadcast across television stations, websites, social media platforms, outdoor screens, and overseas social media, the film has surpassed 200 million views, becoming a “phenomenal 传播” sensation. It has been adopted as teaching material for patriotism education and media convergence case studies by government cadre training progr...

### Full Text

#### The Three Moments of “Red Temperament”: Innovations in Micro-Film Technology and Product Design

A 9-minute-5-second micro-documentary that immediately went viral upon release, demonstrating that grand revolutionary historical themes can remain timeless and vibrant. Broadcast across television stations, websites, social media platforms, outdoor screens, and overseas social media, the film has surpassed 200 million views, becoming a “phenomenal 传播” sensation. It has been adopted as teaching material for patriotism education and media convergence case studies by government cadre training programs at central and local levels, numerous universities, and primary and secondary schools.

Cinema is an art of time and space, an art that moves and infects audiences through sound and image, through temporal and spatial moments. A 9-minute-5-second micro-film that distills 95 years of the Chinese Communist Party’s passionate history and glorious achievements, looking back on history and sharing its honor—six months after its online release, it continues to move and resonate in the hearts of Chinese netizens.

Since the second half of 2016, this micro-documentary has won numerous national awards: Best Documentary at the China International Micro-Film Festival, first place in the National TV Documentary Feature Selection, the “Light-Year Award for Best Innovation” at the 6th China Documentary Academy Awards, Special Recommendation at the 4th China Internet Audio-Visual Conference, and Top Ten Public Welfare Micro-Film at the 4th China International Micro-Film Festival’s “Golden Osmanthus Award.” Hailed as the annual benchmark for Chinese internet audio-visual works in 2016, the film is titled *Red Temperament*.

The production practice of *Red Temperament* demonstrates that although it traverses time, works centered on grand revolutionary historical themes remain evergreen and full of vitality. The film’s success tells the industry that in the rankings of new media and micro-communication, mainstream media can still ride the tide and stand at the forefront.

### **The Moment of Movement**

During the initial planning phase, He Ping, the chief planner of *Red Temperament* and Editor-in-Chief of Xinhua News Agency, clearly defined the production approach: “We must base ourselves on leveraging Xinhua’s photographic advantages, selecting classic photographs, and using virtual technology to make them move and come alive.” Regarding the film’s expressive techniques, Editor-in-Chief He Ping made specific requirements: to reproduce these old photographs in new ways, focusing on solving three key problems: first, connecting them; second, animating them; and third, deepening them.

Though the process was arduous, the final result proved its worth. Following Editor-in-Chief He Ping’s planning approach, the production team worked diligently for four months, innovating micro-film directing, production, and technical methods. The several moments that were connected, animated, and deepened in the film will undoubtedly go down in history, witnessing the annual brilliance of Chinese micro-films in 2016.

Bai Lin, the planner of *Red Temperament* and Director of Xinhua’s Chief Editor’s Office, believes: “For this micro-film, ‘specialness’ comes first; without distinctive features, everything becomes a flaw.”

Where exactly does this “specialness” lie? Li Keyong, Deputy Director of Xinhua’s Chief Editor’s Office Convergence Development Center and the film’s director, explains: “Previous micro-films were dynamic, mostly produced through video editing, processing, and synthesis. *Red Temperament* never used any video footage; it was entirely created through the splicing, connecting, and post-production of static photographs from Xinhua’s historical photo archive—a world-first in film history.”

Photographs capture moments of light and shadow, fragments of memory. How did the production team animate these still moments?

“Connecting historical photographs and animating historical figures” refers to the use of post-production special effects to make static images move, presenting multiple photo frames with 叠加, motion, and other effects. This gives the micro-film’s visuals a sense of historical traversal while imbuing static photographic materials with a special narrative logic.

To express this narrative logic, what advanced techniques did *Red Temperament* employ?

The film comprehensively utilized micro-film production technologies, most notably “keying” and “3D reconstruction.” Keying technology, first applied in television production, involves extracting a specific color from an image as a transparent color, removing it to reveal the background, creating a two-layer composite image. This allows figures shot indoors to be combined with various scenes through keying, producing certain artistic effects. 3D reconstruction is a computer vision technique that reconstructs three-dimensional information from single or multiple view images.

The production team achieved this through photo splicing, allowing departed Communist Party members to “traverse time and space, their souls returning from thousands of miles away.” 3D reconstruction restored historical moments, making figures and scenes “move,” and bringing the stories behind the photographs to life. This enhanced the weight of the protagonists’ lives intersecting with Chinese history and innovated the interpretation of the family and national sentiments of generations of Communist Party members and revolutionary martyrs, enabling post-90s and post-00s generations accustomed to “what you see is what you get” to fully experience the martyrs’ sense of responsibility and commitment to “shedding blood for the revolutionary cause” and “sacrificing family for the greater good.”

### **The Moment of Connection**

In modern computer technology, virtualization is a key technology widely applied in the broadcasting industry, commonly seen in virtual scene construction for programs like *News Broadcast*, *Today’s Law*, and the *Spring Festival Gala*. Virtualization technology digitally composites computer-generated virtual three-dimensional scenes with live footage from TV cameras in real-time, allowing figures and virtual backgrounds to change synchronously, achieving seamless integration for perfect composite images.

The production team used virtual studio technology to portray the evolution and shuttle of 95 years of spacetime, achieving scene connection effects. The micro-film employed the virtual element of a “historical photo album” as a clue to connect photographs. Through the scholarly narration of Chen Xiaobo, a senior editor at Xinhua who is deeply familiar with the archive’s collection, along with her serendipitous application of photo materials and superb curatorial experience, the film connected the Party’s yesterday, today, and tomorrow, presenting audiences with a feast concerning the choices between “family and

country,” “gain and loss,” and “responsibility.”

The accumulation of years, brilliant creativity, and exquisite production thoroughly interpreted how Chinese Communist Party members answered the soul-searching questions about life-and-death choices regarding “family and country,” “gain and loss,” and “responsibility.”

When discussing the film’s special effects production technology, Deputy Director Yao Junyi said: The selection of materials benefited from Xinhua senior editor Chen Xiaobo, who is familiar with approximately 4 million of the more than 10 million old photos in Xinhua’s archive. For *Red Temperament*, she and her colleagues carefully selected from five to six hundred thousand photographs, ultimately creating this micro-film where personal and national histories, personal and national photo albums illuminate each other.

Taking the technical processing of Qu Duyi’s narration as an example: using keying technology on Qu Duyi’s current image transformed it into her youthful appearance, restoring her to a family photo with her parents Qu Qiubai and Yang Zihua. This virtual scene created a narrative effect where “silence speaks louder than words,” connecting the image of a Communist Party member who “had only others in his heart, never himself” with that of a “husband and father,” making him grounded, full-blooded, and rich in human warmth.

Through addition in photographs, the film portrayed the deep affection of martyrs. In the scene featuring Jiao Yulu, the model county Party secretary who was too busy with work to ever take a family portrait, the film shows him in his Zhongshan suit stepping into a family photo, creating a warm scene with his family. This virtual scene produces a powerful narrative effect, making the Communist Party member who “cared only for others, never himself” connect with his role as “husband and father,” becoming grounded and full of human warmth.

Through subtraction in photographs, the heroic images previously seen as tall and heroic become more vivid and humanized. The 桥段 of martyrs like Zhao Yiman, Zuo Quan, Ye Ting, Peng Xuefeng, and Sister Jiang disappearing from family portraits outlines the group photos and collective images of Chinese Communist Party members during the war-torn years, striking directly at the softest parts of every audience member’s heart.

*Note: Figure translations are in progress. See original paper for figures.*

*Source: ChinaXiv — Machine translation. Verify with original.*