

The therapeutic effect of the rural leisure landscapes on human physiology and psychology¹

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Abstract

Yilan and Hualien districts in Taiwan have diverse and rich rural landscapes. In addition to important agricultural production area, Yilan and Hualien have many leisure agricultures. Due to realize the benefits of psychological and physiological response to various recreation rural landscape types, we select flower field and tea plantation landscapes for recreation landscape of represent, and use office for control. We measured participant's psychological responses including attention restoration, preference, ZIPERS emotions, prospect-refuge cognition, and their physiological responses including the electrical activity on their forehead through electromyogram (EMG), electroencephalography (EEG), and their heart rates (HR). The results indicated that significant highly evaluations in the attention restoration (being away, fascination, extent, and compatibility) overall recreation landscapes than measured in the office. The results of prospect-refuge cognition indicated that significant highly evaluations in the openness and perspective, comparing with those measured in the office. Participants who viewed recreation landscapes demonstrated significant preference evaluations, positive affect, and attentiveness-coping emotions, comparing with results in the office which brings fear arousal and sadness emotions to people. In the part of physiological index, participants who viewed the recreation landscape demonstrate a significant relaxation in low heart rates. Participants who were watching the tea plantation landscape could significantly increase the left brain α wave, indicating that the subject was conscious but relax. This study indicated that significant healthfully benefits of psychological and physiological response to various recreation landscape types. Results of this study can be used as a reference for contacting recreation environment that will allow people to obtain greater benefits from nature. This encourages people to go out from the indoor environment and spend more time in the natural environment, which could help relieve tension and promote for mental health

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