

한옥건축물의 외관 이미지 인식에 관한 연구 - I.R.I 형용사 이미지 스케일을 활용하여 -

A Study on the Recognition of Exterior Image of Hanok Building - Using I.R.I Adjective Image Scale -

Jang, sung-un

Park, Dae-hyun

Abstract

This study is meaningful in figuring out how much the Korean people's awareness of hanok has increased even though interest in hanok has also increased due to the Korean Wave craze. Therefore, with respect to the exterior of hanok, which is visually recognized first, the level of experts and ordinary people is grasped through a semantic discrimination scale, and the degree of visual recognition is to be investigated centering on the color image of hanok buildings. This is the process of thinking about how the Korean image should be reflected in the design, and we want to suggest the direction that modern hanok should go. The study compared and analyzed the difference in visual color based on the elevation of the hanok using a 7-point and 5-point scale method for the general public and experts, and utilized the IRI adjective vocabulary scale and the color matching image scale to construct new hanoks with insufficient differences in appearance and shape. It can be applied to design and image preservation and construction of existing hanok.

Keywords : Hanok, I.R.I image scale, Semantic segmentation, Adjective vocabulary

1. 연구의 필요성 및 목적
1.1 연구의 배경
'가' 가 '가' ,1) 가
'가' 가 가
' 90 가
() 가 가 가 가
' 5000 가 , ,
(image) 가
(, 2007)²⁾.
가

*
**
(Corresponding author : Department of Human Services Sehan University
Adjunct Professor, Doctor of Engineering, 74daehyun@daum.net)
1) 1900 가 (, 2006) . 2010 R&D ()
2) , (韓) , (2023).
, 2007 , 39(4).

가 Fig. 3

<Fig. 3>

<Fig 2>

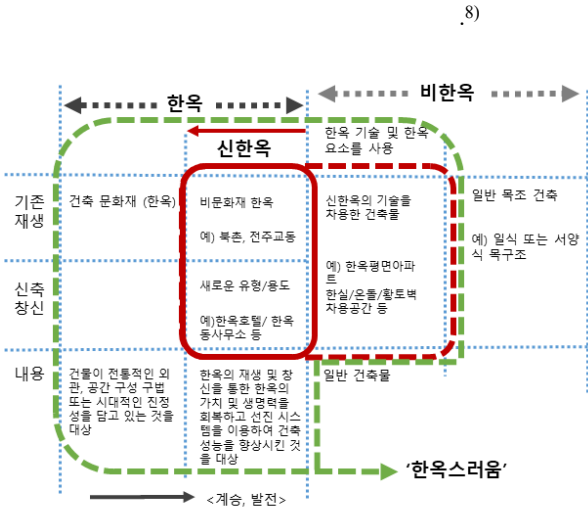


Fig. 2. Contents and categories of hanok, Sinhanok, and 'Korean traditional house style'

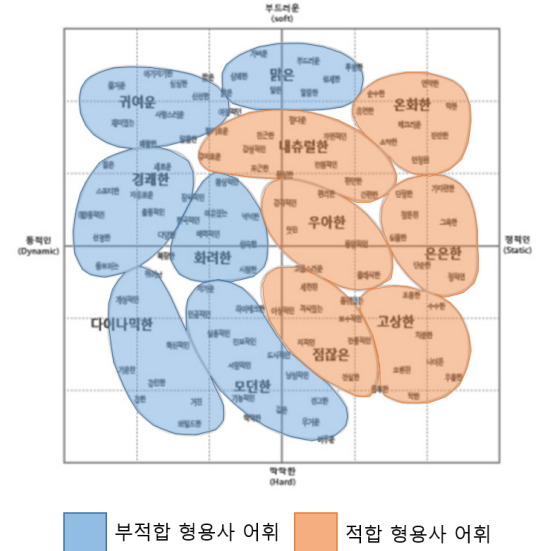


Fig. 3. Hypothesis category of 'korean traditional house style'

2.2 IRI

I.R.I 'Image Research Institute'

(1981) Kobayashi (S. Kobayashi.1990)

IRI

I.R.I Kobayashi

kobayshi

(warm-cool)

(dynamic-static)

IRI

(soft - hard)

11)

IRI

12

6

8) , , 2012

9) , , “

10) S. Kobayashi. “Color Image Scale”. Kodansha International: New York 1990

11) I.R.I , “ ? Color Combination” ,

<Fig. 4>

가

X (1) - , Y (2) - 가
(3) - , (4) - , (5) - , (6) 가
- 7 가

가

가

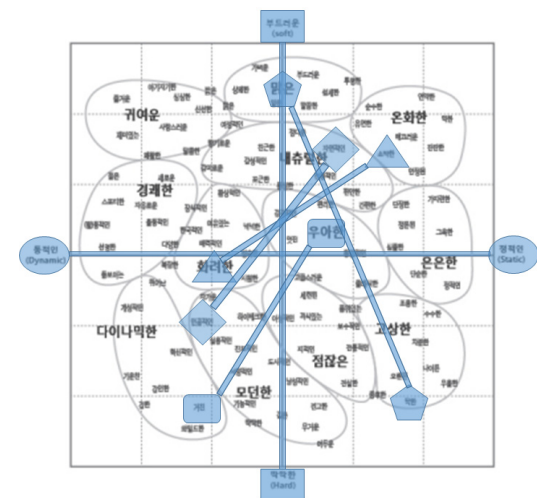


Fig. 4. IRI Adjective Vocabulary Detail Scale

3.

3.1

23 4
가

7

(1)

(. 2006

)12)

. Fig. 5 가, 가

가 가 <Fig. 5>

가 가 12

가

가

가 가 6
가 IRI 가

가

가

가

IR.I

<Fig. 5>



부적합 -> 적합 변동

Fig. 5. Hypothesis category of 'korean traditional house style'

12)

() 4 2 p.15-24. 2006

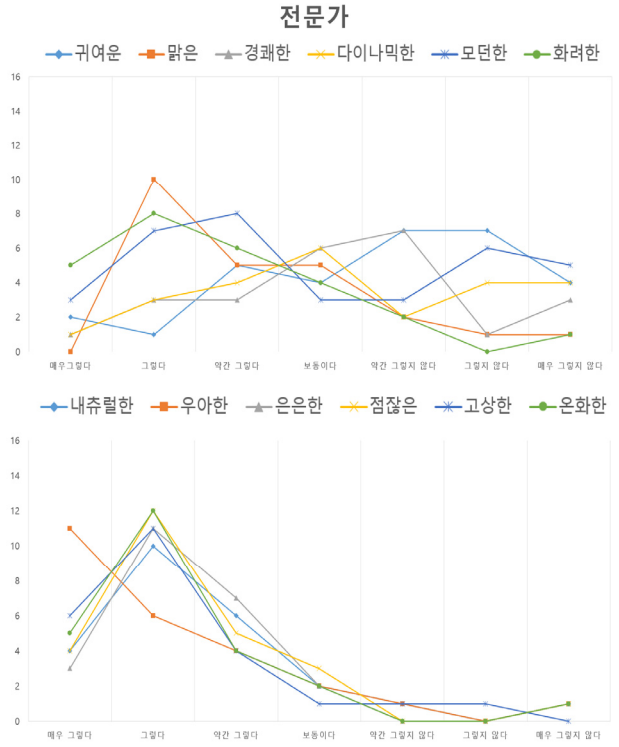


Fig. 6. Expert Group Adjective Vocabulary Survey Results

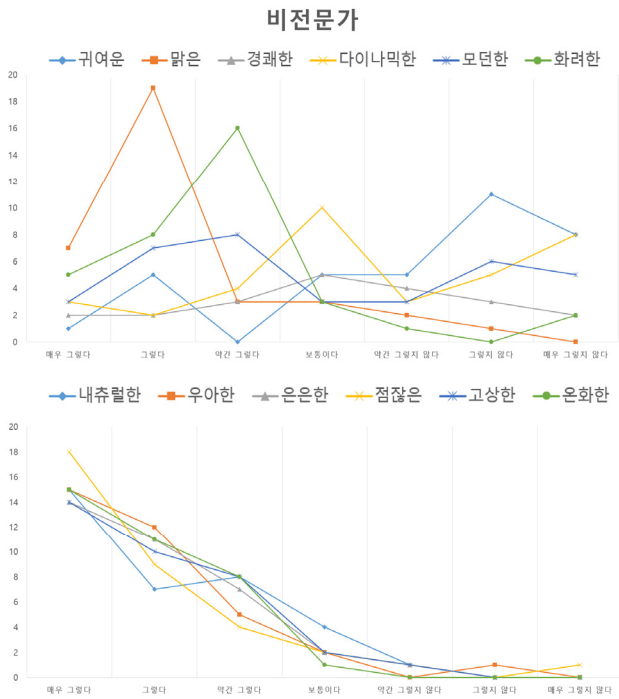


Fig. 7. Non-Expert Group Adjective Vocabulary Survey Results

(2)

7

Fig. 8

가 가

7

Table 2. Subject of Hanok Visual Perception Survey



가 , , 가

Table 3. Average Value of the Survey on Visual Perception of Hanok

| | | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|-----|-----|-----|-----|-----|-----|
| 가 | 가 | 2.7 | 2.3 | 2.3 | 1.8 | 2.4 | 3.4 |
| | 가 | 2.9 | 1.8 | 2.4 | 2.0 | 2.3 | 4.2 |
| | 가 | 3.1 | 2.3 | 2.8 | 2.4 | 2.6 | 3.2 |
| | 가 | 3.3 | 2.2 | 2.5 | 2.5 | 2.7 | 3.5 |
| | 가 | 3.5 | 2.5 | 3.3 | 2.8 | 2.9 | 3.6 |
| | 가 | 3.2 | 2.6 | 2.6 | 2.8 | 3.1 | 3.8 |
| | 가 | 3.3 | 2.8 | 3.5 | 2.5 | 3.2 | 3.0 |
| | 가 | 3.4 | 3.0 | 2.5 | 3.0 | 3.0 | 4.0 |
| | 가 | 4.3 | 3.7 | 3.0 | 3.3 | 3.2 | 3.5 |
| | 가 | 4.2 | 3.8 | 2.2 | 3.0 | 3.3 | 3.8 |
| | 가 | 4.4 | 3.7 | 3.2 | 3.8 | 3.6 | 3.3 |
| | 가 | 4.5 | 3.9 | 2.9 | 2.9 | 3.9 | 2.5 |
| | 가 | 3.8 | 4.0 | 3.0 | 3.9 | 2.8 | 4.2 |
| | 가 | 3.9 | 4.4 | 2.2 | 3.8 | 2.1 | 5.2 |

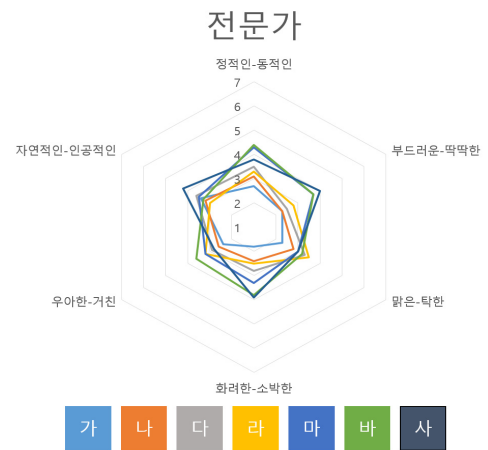


Fig. 8. Average Value of the Survey on Visual Perception of Hanok by Expert Group

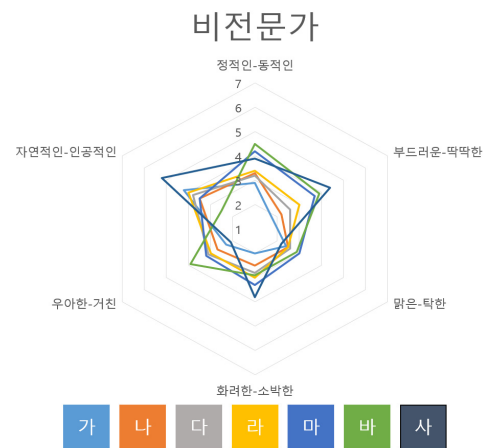


Fig. 9. Average Value of the Survey on Visual Perception of Hanok by Non-Expert Group

6
가 .
- , - , - , -
, - , - , - , 7
가 .7 가 1
7
<Table. 3> 가 7 1 가
X, Y
X - , 2-3 가
. Y 가
가
가 가
가 4 가 4
가 가
가 1 7 가
가

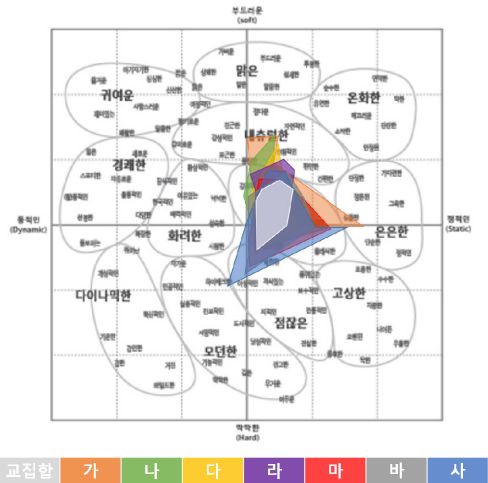


Fig. 10. Distribution map of Hanok visual perception survey targets within adjective vocabulary category

Table. 4. Average Value of Hanok Color Image

| | | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|-----|-----|-----|-----|-----|-----|
| 1 | 가 | 2.7 | 3.1 | 2.9 | 2.7 | 2.5 | 4 |
| | 가 | 2.4 | 3.1 | 2.7 | 2.7 | 2.1 | 4.2 |
| 2 | 가 | 1.5 | 1.7 | 2.9 | 2.2 | 2.8 | 4.5 |
| | 가 | 2 | 2 | 3.6 | 2.5 | 2.8 | 3.9 |
| 3 | 가 | 4.7 | 4.4 | 3.6 | 3.7 | 4.4 | 2 |
| | 가 | 4.7 | 4.4 | 4.3 | 3.8 | 4.5 | 3.9 |
| 4 | 가 | 5.5 | 5.3 | 2.2 | 4.5 | 3.5 | 4.3 |
| | 가 | 5.2 | 5 | 3.1 | 4.5 | 3.5 | 4 |

3,4 , , 가
 - , 3 가 가
 가 가
 가

7
 <Fig. 10>

(3)

7

8가
 , 가 7
 가
 8

<Fig. 11>

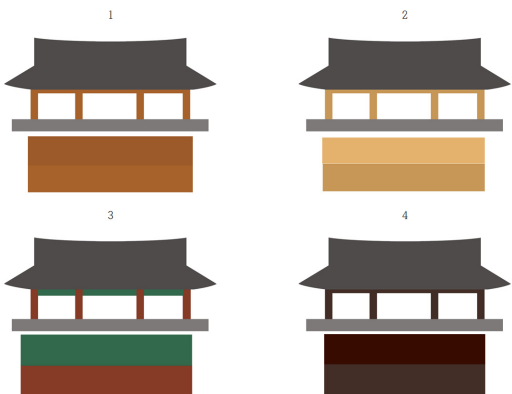


Fig. 11. Image of Hanok Coloring

<Table. 4>

1,2 ,
 가

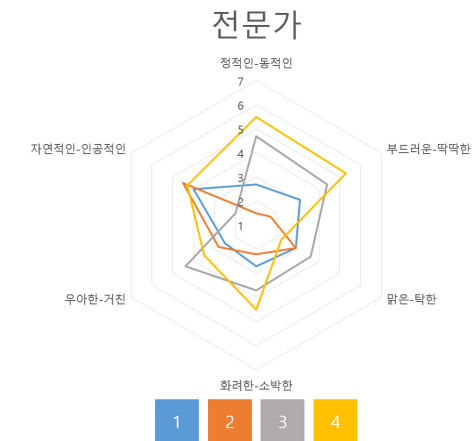


Fig. 12. Average Distribution Diagram of Expert Group Hanok Color Image

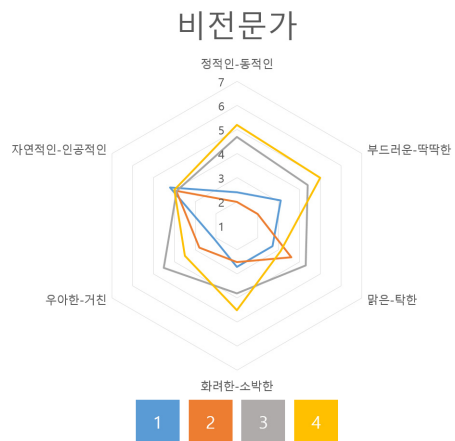


Fig. 13. Average value distribution diagram of non-expert group Hanok coloration image

가 1,2 가
3,4 가
가 7 가

<Fig. 16>

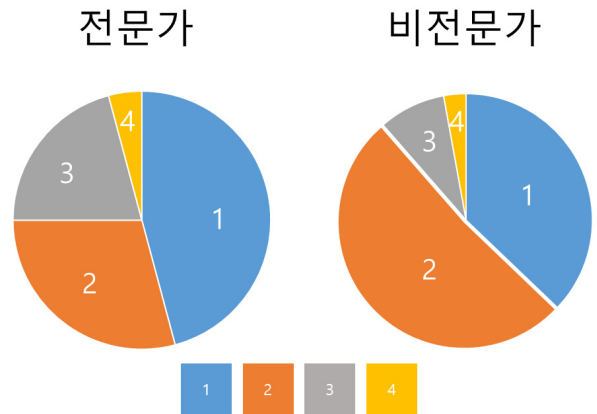


Fig. 16. Preference for Hanok Shape

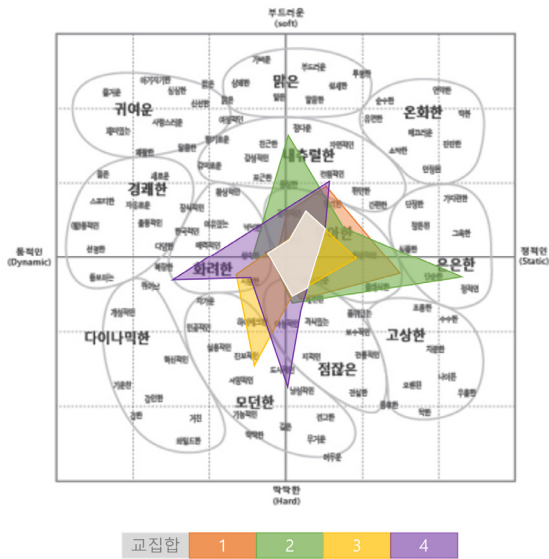


Fig. 14. Average Distribution of Hanok Color Image within Adjective Vocabulary Category

(4)

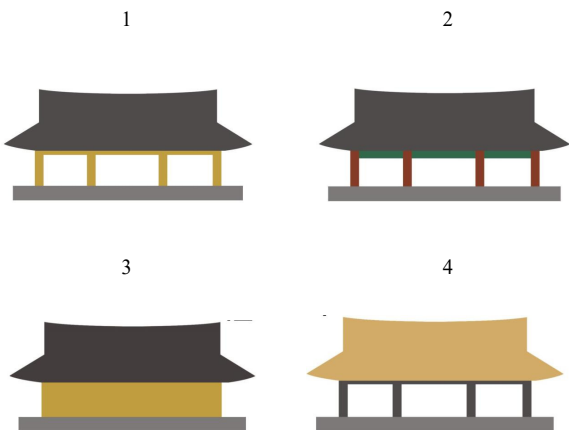


Fig. 15. Image of Hanok shape

6:4

가 30% 가
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가 가

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1. , , , 39(4), 2023.
2. , 가 , 1985.
3. , , , 2006.
4. , , (19), 1997.
5. , , , 2008.
6. , (韓) , 2007.
7. , , BRIEF 2 , 가 , 2011.11.
8. , , , 2012.
9. , , (), 4(2), 2006.
- 10.
11. Kobayashi, S., Color Image Scale, New York: Kodansha International, 1990.
12. I.R.I , ? Color Combination, : , 2003.

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: 2023. 09. 08