The Munsell Color System is a common tool for providing a color standard in a wide range of industries and disciplines. As an internationally recognized standard, Munsell colors find applications in spectrophotometric and colorimetric analysis, and are also included in RAL, Practical Color Coordinate System (PCCS), and Pantone (50%) (Figure 7). The top ten popularity rating also included RAL, Practical Color Coordinate System (PZ2), CIE, Colored, Oswald color system, OSA-UCS (Optical Society of America - Universal Color System), and CIELAB (1976) (Figure 6). The overwhelming majority of colors professional who did not use the Munsell colors resided in South America (44%) and Europe (38%) (Figure 8).

Participants were classified into three age groups: (1) <25, 25–50, and over 50 years (Figure 2 left). The overwhelming majority of color professionals who did not use the Munsell colors resided in South America (44%) and Europe (38%) (Figure 6). The overwhelming majority of colors professional who did not use the Munsell colors resided in South America (44%) and Europe (38%) (Figure 8).

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Survey of the Use of the Munsell Color System in Environmental Color Design

Verena M. Schnider, Yulia A. Gribeva

1.1 Survey respondent characteristics

The total sample size of the online survey participants was 202 respondents (91 male and 111 females) from 15 different countries located in North and South America, Europe, Asia, Africa and Australia (Figure 1).

1.2 Socio-demographic profile of the Munsell system users

Almost half of the survey participants (49%) expressed the wish to use the Munsell color system in their future projects (Figure 9). A large majority of respondents were interested in using the Munsell Color System for the development of their research (Figure 10). The study revealed a significant correlation between the previous experience of respondents with the Munsell color system and their willingness to work with it in the future. Those who have already used the Munsell color system in their research responded more enthusiastically to the prospects for its continued application in their future projects (Figure 11, p<0.01).

1.1 Experience with other color systems

Only one quarter of color professionals (25%) reported the use of one single color system in their practice (Table 2). Most of them used Pantone (9%) or Natural Color System (8%). The overwhelming majority of those surveyed applied two and more color systems (52%).

The top ten popularity rating also included RAL, Practical Color Coordinate System (PZ2), CIE, Colored, Oswald color system, OSA-UCS (Optical Society of America - Universal Color System), and CIELAB (1976) (Figure 6).

Across all the papers using the Munsell Color System, the highest number was written in 2011 (21%), 2017 (18%) and 2009 (14%).

This study did not reveal the existence of a sufficient correlation between the gender of color professionals and their experience with the Munsell system (χ²=0.306, p=0.58). However, there were variations identified across the age groups and participants with different levels of education (Table 2). The Munsell system was more likely to be used among participants over 50 years old (39%) compared to those in the 25-50 age group (27%) and the under 25 age group (5%) (χ²=18.725, p<0.001). Color professionals with Doctoral and Master’s degrees used this system more frequently (48 and 38%) compared to those with other educational qualifications (χ²=13.277, p=0.001). We also measured the popularity of the Munsell system between representatives of various professions (Figure 5). Our analysis revealed that it was more often used among color consultants, technicians, educators of all levels (school teachers, university professors, lecturers), researchers and scientists, artists, and architects.

The overwhelming majority of those surveyed applied two and more color systems (52%).

2 Content analysis results

2.1 Popularity of the Munsell Color System in the AIC research

Archival step of the content analysis, we selected from the total number of 3,122 papers published in the 10 Proceedings books of the Association Internationale de la Couleur from 2000 to 2017. Of these, 314 papers reporting the use of the Mun- sellite color system (PCCS), and Pantone (6%) (Figure 7). The top ten popularity rating also included RAL, Practical Color Coordinate System (PZ2), CIE, Colored, Oswald color system, OSA-UCS (Optical Society of America - Universal Color System), and CIELAB (1976) (Figure 6). The overwhelming majority of colors professional who did not use the Munsell colors resided in South America (44%) and Europe (38%) (Figure 8).

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