# Visual Quality of the Facade of Cultural Heritage Buildings in the Historic Area of Jalan Semeru Malang City

# Faisal Bahar<sup>1</sup>, Herry Santosa<sup>2</sup>, Jenny Ernawati<sup>3</sup>

<sup>1,2,3</sup> Fakultas Teknik, Universitas Brawijaya, Indonesia faisalbahar.mr@gmail.com

#### **Abstract**

Jalan Semeru Malang City is one of the historical areas that plays an important role in the development of the western part of Malang City which has many historical buildings from the Dutch colonial heritage. The purpose of this study was to find out the similarities and differences in perceptions between the public and practitioners and academics in the field of architecture in assessing the visual elements on the facades of cultural heritage buildings, as well as to find out the visual elements of the facades that were significant according to the public, practitioners and academics in the field of architecture on the visual quality of the facades of historic buildings along the way, the corridor of Jalan Semeru Malang City. The development and construction along the Jalan Semeru corridor, Malang City, which does not pay attention to the context of the area as a historic area, can slowly cause a shift in the shape and meaning of the city structure which can affect the visual character of building facades in the area. The shift in the visual character of the building facade that does not pay attention to the regional context in a historic area can have a negative impact on environmental aesthetics, causing a decrease in the visual quality of the historic area. This study uses quantitative research methods with a public perception approach. To measure people's perceptions, a differential semantic scale is used which contains two opposite words. The results of this study indicate that the assessment between two groups of respondents with different occupational and educational backgrounds has assessment results on each facade element. Facade elements that are significant to the visual quality

# Keywords

visual quality; façade; cultural heritage; historical area; perception



## I. Introduction

Malang City is a city formed in the Dutch colonial era which was well planned at the beginning of its formation, because it was the only city in the Dutch East Indies whose Bouwverordening Included sections on planning. urban spatial planning and building types in Bouwverordening voor het Regentschap Malang 1941 (Ari, Hariyani, and Meidiana, 2000:32). Malang City is an example of a city that in its planning adapts to the conditions of its people and the local climate. In 1937, the spatial plan for Malang was sent by Thomas Karsten to Paris to participate in an exhibition on urban spatial planning in the world, which was the only representative of a city in the Dutch East Indies (Handinoto and Soeharga, 1996: 113).

The Jalan Semeru Corridor is part of the development and construction of the city stage V (Bouwplan V) which began in 1924/1925 due to the increasing population of Europe by more than 100%, so that housing for Europeans is felt to be very lacking. The expansion of this city is intended for European housing which is located in the west of

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Malang city. The expansion of the city to the west is due to the limited development of the city in another direction. In addition, to prevent the growth of urban development that extends like a ribbon to the north along the Celaket and Lowokwaru roads, because the housing for Europeans in the Celaket and Rampal areas called the oranjebuurt is not sufficient. To anticipate this, it is planned to create a strong main route from the East-West direction. The planned route will connect the Bouwplan II area with the Bouwplan V The road plan starts from the train station towards Daendels Boulevard (Jalan Kertanegara), Bunder Square, Jalan Kahuripan, intersects Jalan Kayutangan, continues west to Jalan Semeru and ends at Semeru Park (Taman Semeru) where at the end of Semeru road you can see Gunung Kawi as focal point.

Manurung (2008), revealed that the existence of historic buildings with distinctive colonial architecture can provide qualities that can attract people's attention to an area. Architecture is the main visual element that forms the basis of urban imagery so that the design activities produced by a city are the most tangible form visually and then can present its era, so that the existence of an area cannot be separated from the existence of history and the surrounding buildings (Sachari, 2007). Development is a systematic and continuous effort made to realize something that is aspired. Development is a change towards improvement. Changes towards improvement require the mobilization of all human resources and reason to realize what is aspired. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020)

The development and development along the Jalan Semeru corridor, Malang City, which does not pay attention to the context of the area as a historic area can slowly cause changes and shifts in the shape and meaning of the regional structure which can affect the visual character of the building facades around the area. The shift in the visual character of the building facade that does not pay attention to the regional context in a historic area can have a negative impact on environmental aesthetics, causing a decrease in the visual quality of the historic area.

The Jalan Semeru Corridor in Malang City should maintain its visual quality and characteristics, so that it can improve its image as a historic area. Visual quality is an assessment that arises from the perception, and feelings of humans when they see something or are related to the visual senses (Aziz et al, 2019). Siswanto & Setiawan (2015) in their research explain that visual perception is the human ability to interpret, analyze and give meaning to what is seen by the eye. The function of perception is to recognize or recognize what objects exist and localize or determine where the object is (Eymeren, 2014). Purwodarminto in Anandaju and Sunaryo (2019) said that perception is a direct response of an absorption or human process to know certain things through sensing. Through visual perception, a person can understand the environment around him through the sense of sight.

Assessment of the visual image of a historic area is determined from the visual elements of the building facade (Askari & Dola 2009). The rows of facades of historic buildings along the corridor of Jalan Semeru Malang City should be able to improve the image of the area. It was also stated by Askari & Dola (2009) that the architectural style and the shape of the building facade can play a role in shaping the visual quality of the facade, especially in historical areas. The facade determines the visual strength of the building and is usually judged by the community by looking at the facade (Suri and Sugiri, 2015). Facade is a representation or expression of various aspects that appear and can be observed visually (Tarore, 2016). According to Krier (1988), the facade is the most important architectural element capable of voicing the function and meaning of a building.

The root of the word facade (faade) is taken from the Latin word facies which is a synonym for face and appearance. Therefore, the facade is the face of a building facing the street.

In 2018, the Malang City government has designated 32 (thirty-two) historic buildings as Cultural Conservation, of which 2 (two) are located along the Jalan Semeru corridor, Malang City, namely, the Radja Bally Building and the Bina Cendika SMK YPK Building. Thus, it is very important to know the most influential visual elements in creating the visual quality of the facades of cultural heritage buildings in the historic area of Jalan Semeru, Malang City as an effort to preserve cultural heritage buildings.

This study aims to determine the similarities and differences in perceptions between community groups and groups of practitioners and academics in the field of architecture in assessing the visual elements on the facades of cultural heritage buildings, as well as knowing the most influential facade visual elements according to the community, practitioners and academics on the visual quality of the facades of cultural heritage buildings, along the corridor of Jalan Semeru, Malang City. So that it can be a reference for practitioners, academics and the government to plan steps for the preservation of cultural heritage buildings on the facade elements, and development in the study area by paying attention to the visual elements of the facade that can support and strengthen the characteristics of the area, so that the development and preservation of the study site can continue, pay attention to visual comfort and improve the characteristics of the area as a historical area.

#### II. Research Method

This research uses quantitative methods by distributing questionnaires via *google* form to determine the assessment of the public, practitioners and academics in the field of architecture about the role of each visual element of the facade in shaping the visual quality of the facade of cultural heritage buildings in the historic area of Jalan Semeru, Malang City. The research location is on Jalan Semeru, Malang City.

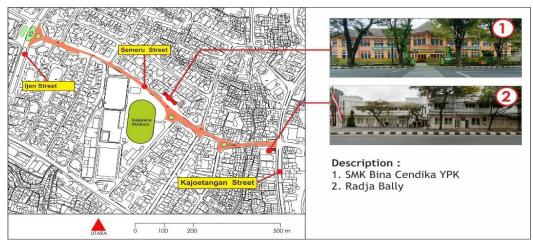


Figure 1. The Location Map

The basis for the selection of cultural heritage buildings that are used as research objects at the study location is based on Malang City Regulation No. 1 of 2018 concerning cultural heritage. Based on the regulation, there are 2 cultural heritage buildings in the study area that are the object of research, namely the Radja Bally Building and the Bina Cendika YPK Vocational School.

In this study, the population is Malang City people and people outside Malang City who have lived in Malang City for at least 4 years. The sampling method (respondents) is *non-probability* with *purposive judgment sampling technique*. The groups of respondents from the entire population are as follows:

- 1. The general public of Malang City and the general public outside Malang City who have lived in Malang City for at least 4 years. The criteria for respondents in this general public group are people with a minimum age of 18 years and physically and mentally healthy, so they can give a good assessment. This group consisted of 90 samples. The consideration in selecting this sample is that the general public is the user of the area in the study location, so they are considered to be able to provide an assessment based on their experience while in the study location.
- 2. The community from practitioners and academics in the field of architecture with a number of samples selected as many as 90 samples. Respondents from this group were divided into 3 categories, namely 30 architect practitioners, 30 architecture lecturers, and 30 architecture students in the sixth semester and above. The determination of the number of sub-samples is based on considerations from the theory of Roscoe (1975) in Sekaran (2010) which says that if a sample is to be broken down into several sub-samples, the minimum number of sub-samples is 30. Another consideration is that practitioners and academics in the field of architecture can assess the visual quality of building facades based on aesthetic principles and rules.

According to previous research, the visual elements that make up the facade consist of architectural style (Shirvani, 1985; Askari & Dola, 2009; Fauziah et al, 2012; Utaberta et. al, 2012; Santosa & Ikaruga, 2013; Kiruthiga & Thirumaran, 2017), the shape of the facade (Smardon, 1986; Askari & Dola, 2009; Fauziah et al, 2012; Utaberta et al, 2012; Santosa & Ikaruga, 2013), doors (Ching, 1979; Krier, 1988; Fauziah et al, 2012; Kiruthiga & Thirumaran, 2017), material (Shirvani, 1985; Askari et. al, 2009; Fauziah et al, 2012; Santosa & Ikaruga, 2013), texture (Shirvani, 1985; Smardon, 1986; Askari et al, 2009; Fauziah et al, 2012; Santosa & Ikaruga, 2013), color (Shirvani, 1985; Smardon, 1986; Askari & Dola, 2009; Fauziah et al, 2012; Utaberta et al, 2012; Santosa & Ikaruga, 2013). The visual elements that make up the facade are used as an observation variable (the dependent variable) to assess the visual quality (the independent variable) of the cultural heritage building's facade.

Each group of respondents was asked to give an assessment on a scale of 1 to 7 in each variable observed with the *Semantic Differential Scale* with the opposite word as in table 1.

**Table 1.** Research variable rating scale

No.	Variable	Semanti	c diff	erential scale	?			
		Very	Ugly	Somewhat	Ordi	Somewhat	Beauti	Very
		Ugly		Ugly	nary	Beautiful	ful	Beautiful
1	Architectural Style	1	2	3	4	5	6	7
2	Facade Form	1	2	3	4	5	6	7
3	Doors	1	2	3	4	5	6	7
4	Window	1	2	3	4	5	6	7
5	Material	1	2	3	4	5	6	7
6	Texture	1	2	3	4	5	6	7
7	Color	1	2	3	4	5	6	7

The analysis method uses *independent sample t-test* to determine differences and similarities between assessments of two groups of respondents, as well as multiple linear regression analysis to determine the most influential visual elements on the visual quality of cultural heritage buildings in the central government area of Malang City. The determination of the visual quality category of facade elements was adopted from the research of Ramli et al (2020) which can be seen in table 2.

**Table 2.** Visual quality category

	G i
Scale	Category
1.00 - 1.85	Very Poor
1.86 - 2.71	Poor
2.72 - 3.57	Somewhat Poor
3.58 - 4.43	Average
4.44 - 5.29	Somewhat Beautiful
5.30 - 6.15	Beautiful
6.16 - 7.00	Very Beautiful

## III. Result and Discussion

Total respondents were 180 people, consisting of 90 people, 30 architectural practitioners, 30 architecture lecturers, 30 final year architecture students. Respondents with male sex as many as 104 people or 57.8%, while with female sex 76 people or 42.2%. Respondents who live in the city of Malang as many as 108 people or 60%, while those who live outside the city of Malang as many as 72 people or 40%. The respondent's profile can be seen in table 3.

**Table 3.** Profile of Respondents

Gender Domicile Educator											
Group of Respondents				City	Senior High School/ Vocati onal	Dipl oma	S1	S2	S3	Total	%
General Society	59	31	58	32	9	0	60	11	9	90	50
Practitioner Architect	16	14	13	17	0	1	14	14	1	30	16.67
Lecturer of Architecture	16	14	22	8	0	0	2	14	14	30	16.67
Student of Architecture	13	17	15	15	0	0	27	3	0	30	16.67
Total %	104 57.8	76 42.2	108 60.0	72 40.0	9 5.0	1 0.6	103 57.2	42 23.3	24 13.3	180	100

From the table 4 it can be concluded that the data obtained have a high reliability value, with the Cronbach Alpha value being 0.939 > 0.600

**Table 4.** Reliability Test Results

No	Variable	Cronbach Alpha	Limit Value	Ket.
1	Beauty	0.939 0600	Reliable	Visual

# 3.1 Quality Assessment of the Radja Bally Building

Malang City has two very historic iconic buildings located at the intersection of Kahuripan-Semeru and Basuki Rahmat roads, namely the Radja Bally Twin Buildings. The Radja Bally twin building was inspired by a Dutch architect Thomas Karsten, by displaying the beauty of the Kawi-Panderman mountains. The twin buildings on the north side became the Boekhandel Slutter CCT van Darp Co bookstore at the time. In the 1950s, the twin buildings were turned into Toko Radjabali which is owned by a Pakistani Indian, while the southern twin building was used as a Juwelier Tan gold shop in the past.

The architectural style of this building is the *Nieuwe Bouwen style* which prioritizes functional aspects to adapt to the local climate as well as the availability of existing materials and technology. At the top of the building there is also a tower on each roof of the building which serves to observe the surrounding conditions. There is a mix of vertical and horizontal elements. The vertical is a welcome gate from Kota Baru Station, because in the past trains were an important mode of transportation, while the horizontal side is the painting of Sleeping Beauty Mountain and Panderman as a backdrop for the scenery between the buildings.



Figure 2. Radja Bally Building

Based on the respondent's assessment of the Radja Bally building, the average value is obtained as follows (table 5).

**Table 5.** The average respondent's assessment of the beauty of the facade of the Radja Bally building

				ally bul	iding				
No	Variable	General Public		Practitioners and Academics		Independ ent Samples t- test	Graph		
		Mean	Visual Quality	Mean	Quality	Sig. (2tailed)	1 2 3 4 5 6 7		
1	Architectural Style	5,467* *	Beautiful	5,544 **	Beautiful	0.687			
2	Facade Form	5,278	Somewhat Beautiful	5,367	Beautiful	0.652			
3	Doors	5,144*	Somewhat Beautiful	4,978	Somewhat Beautiful	0.441	J		
4	Window	5,256	Somewhat Beautiful	4,833*	Somewhat Beautiful	0.047			
5	Material	5,322	Beautiful	5,144	Somewhat Beautiful	0.371			
6	Texture	5.178	Beautiful	5,078	Somewhat	0.613	1		
7	Color	5,278	Somewhat Beautiful	5,333	Beautiful	0.773			
8	Visual Quality	5,489	Beautiful	5,344	Beautiful	0.419			
	4 = Negative ting	* = Low	est Score	*** = Has DifferenceRating			General Public		
x 4 = Positive Rating		** = Hi	ghest Value				<ul><li>Practitioners</li><li>&amp; Academics</li></ul>		

The general public assesses architectural style as having the highest visual quality as a facade element with an average value of 5,467 while doors have a low visual quality on the facade of the Radja Bally building with an average score -average 5,144. In general, the public considers that the facade of the Radja Bally building has a visual quality on a beautiful scale with an average value of 5,489.

The respondent group of practitioners and academics also assessed that architectural style has the highest visual quality as a facade element with an average value of 5.544, while the door on the facade of the Radja Bally building has a low visual quality value with an average value of 4.978. The assessment of practitioners and academics on the visual quality of the facade of the Radja Bally building as a whole is on a beautiful scale with an average value of 5.344.

Based on the results of the *Independent sample t-test* in table 5, it can be seen that the assessment between the general public and practitioners and academics is the same on 6 (six) independent variables (Architectural Style, Facade Shapes, Doors, Materials, Textures and Colors) as well as on the dependent variable (Visual Quality), this refers to the *p-value* (t-test significance) greater than ( $\alpha$ =0.05), which means that there is no difference in assessment between the general public as well as practitioners and academics in assessing the facade elements of the Radja Bally building. While on the Window variable, there is a difference in assessment between the general public and practitioners and academics, this refers to the *p-value* (t-test significance) which is smaller than ( $\alpha$  = 0.05), which means that there is a difference in assessment between the general public and practitioners. and academics in assessing the elements of the facade of the Radja Bally building.

The following is a matrix table of respondents' assessment of the facade elements on the visual quality of the facade of the Radja Bally Building based on the *independent* sample t-test analysis.

**Table 6**. Respondents' assessment of the beauty of the facade elements in the Radja Bally building

No.	Variables	iables of Respondent's Assessment		
		of General Public	Professiona	
			ls' and	
			Academics'	
1	Architectural Style	Beautifully	Beautiful	Same
2	Facade Shape	Fairly	Beautiful	Same
4	Door Shape	Fairly	Beautiful	Same
3	Window Shape	Fairly	Somewhat Beautiful	Different
5	Types of Material	Beautiful	Somewhat Beautiful	Same
6	Types of Texture	Somewhat Beautiful	Somewhat Beautiful	Same
7	Types of Colors	Somewhat Beautifully	Beautiful	Same
8	Quality of Visually	Beautiful	Beautiful	Same

To find out which facade elements are significant according to the public, practitioners and academics on the visual quality of the facade of the Radja Bally building, then performed multiple regression analysis. Based on the analysis of the F test (simultaneous test) and t test (partial test) on the data of the Radja Bally building, a regression model is obtained which shows a significant effect of several variable components on the visual quality of the facade of the Radja Bally building as follows (table 7)

**Table 7.** Results of Linear Regression Test on the Beauty of the Visual Quality of the Radia Bally Building Facade

Radja Bany Bunding I acade										
	Coefficients <sup>a</sup>									
Model	Unstan	Standardized								
	Coef	ficients	Coefficients	t	Sig. t					
(Constant)	.247	3.498		.001	Archite ctural					
Style	.189	.086 .203	2.186	008	.030**					
Facade Shape	.264	.239 .091	2,623	.010	**					
Doors	006	.075	084		.86493 3					
Window	030	.088	035	337	.737					
Material	048	.080	054	603	.548					
Texture	.226	.074 .249	3.046	.003	***					
Color	.286	.066	.308	4.336	.000**					

a. Dependent Variable: Visual Quality of Building Facade

F-count = 53,523Sig. F = 0.000\*\*\*

R-Square = 0.685

Partial testing of the effect of building facade elements on the overall visual quality of the building facade shows that architectural style, facade shape, texture, and color have a significant influence on respondents' assessment of the visual quality of the Radja building. Bally. This is indicated by the significance value <0.05 on the architectural style variable with a significance value <0.030\*\*, the facade shape variable with a significance value <0.03\*\*, and the color variable with a significance value <0.003\*\*\*, and the color variable with a significance value <0.003\*\*\*.

Based on the results of the regression analysis on the Radja Bally building, an *R*-square of 0.685 was obtained. This shows that the visual quality of the facade of the Radja Bally building can only be explained by 68.5% by architectural style, facade shape, door shape, window shape, material type, texture type, color type. So there are still 21.5% of other factors that are not included in this study that can affect the visual quality of the facade of the Radja Bally building.

# 3.2 Assessment of the Visual Quality of the Building Facade of the Bina Cendika YPK

Vocational High School Bina Cendika YPK is one of several schools that witnessed events during the colonial period. The school, which is located on Jalan Semeru, was built in 1932 and only started functioning in 1937. Previously, this school was named "Meer Uitgebreide Lager Onderwijs" which is abbreviated (MULO), which is the equivalent of a junior high school.

The Bina Cendika YPK Vocational School building has an architectural style that is a combination of *De Stijl and Nieuwe Bouwen*, with the main characteristics of minimal ornamentation and building decoration. The window shape itself adopts the shape of a fighting butterfly by rotating it into a vertical model. Striking changes occur in the color elements of the building which use striking and contrasting colors. Passive vents above windows and doors are one of the adaptation efforts to Indonesia's tropical climate (Afrandika, 2019).



Figure 3. Bina Cendika YPK Vocational School Building

Based on the respondents' assessments of the Bina Cendika YPK Vocational School building, the average values are as follows (table 8).

**Table 8.** Average respondent's assessment of the beauty of the facade elements of the SMK Bina Cendika Malang YPK

N o	Variable	General Public		Practitioners and Academics		Independ ent Samples t- test	Graph
		Mean	Visual Quality	Mean	Quality	Sig. (2tailed)	1 2 3 4 5 6 7
1	Architectural Style	5,578* *	Beautiful	5,133	Somewhat Beautiful	0.042	otag
2	Facade Form	5,389	Beautiful	5,167 **	Somewhat Beautiful	0.321	
3	Doors	5,244	Somewhat Beautiful	4,889	Somewhat Beautiful	0.122	
4	Window	5,356	Beautiful	4,922	Somewhat Beautiful	0,066	
5	Material	5,100	Somewhat Beautiful	4,678	Somewhat Beautiful	0.075	
6	Texture	5.189	Somewhat Beautiful	4.578	Somewhat Beautiful	0.013	
7	Colors	4,578*	Somewhat Beautiful	3,489	Slightly Bad	0.00	
8	Visual Quality	5,356	Beautiful	4,767	Somewhat Beautiful	0.012	
x <	4 = Negative	* = Low	est Score	* ** = Has Differences			in General
	ting						Public
	= Positive	** = Hig	ghest Value				Practitioners
Rat	ting						& Academics

Based on table 8, the general public assesses architectural style as having the highest visual quality as a facade element with an average value of 5.578, while color has visual quality which is low on the facade of SMK Bina Cendika YPK with an average value of 4,578. In general, the public considers that the facade of the SMK Bina Cendika YPK building has visual quality on a beautiful scale with an average value of 5,356.

The respondent group of practitioners and academics assessed that the shape of the facade has the highest visual quality as a facade element with an average value of 5.167, while the color on the facade of the SMK Bina Cendika YPK building has a low visual quality value with an average value of 3,489. The assessment of practitioners and academics on the visual quality of the building facade of the Bina Cendika YPK Vocational School as a whole is on a "rather beautiful" scale with an average value of 4.767.

Based on the results of the *Independent sample t-test* in table 8, it can be seen that the assessment between the general public and practitioners and academics is the same on 4 (six) independent variables (Facade Shapes, Doors, Windows, and Materials), this refers to the *p-value* (t-test significance) is greater than ( $\alpha$ =0.05), which means that there is no difference in assessment between the general public as well as practitioners and academics in assessing the facade elements of the Bina Cendika YPK Vocational High School. Meanwhile, for the other 3 (three) independent variables (Architectural Style, Texture and Color) and the dependent variable (visual quality) there are differences in assessment between the general public and practitioners and academics, this refers to the *p-value* (t-test significance) which is smaller than at ( $\alpha$ =0.05), which means that there is a difference in

assessment between the general public as well as practitioners and academics in assessing the facade elements of the Bina Cendika YPK SMK building.

The following is a matrix table of respondents' assessment results about the role of facade elements on the visual quality of the facade of the SMK Bina Cendika YPK building based on an *independent sample t-test analysis*.

**Table 9.** Respondents' assessment of the beauty of the facade elements in the Bina Cendika YPK Vocational School building

No.	of the Facade Elements	Respondent'	Comparison	
		of General Public Professionals and Academics		
1	Architectural Style	Beautiful	Somewhat	Differently
2	Facade Shape	Beautiful	Somewhat Beautiful	Same
3	Door Shape	Somewhat	Beautiful	Same
4	Window Shape	Beautiful	Somewhat Beautiful	Same
5	Types of Material	Somewhat Beautiful	Somewhat Beautiful	Same
6	Types of Texture	Somewhat Beautiful	Somewhat Beautiful	Different
7	Types of Colors	Somewhat Beautiful	Somewhat Badly	Different
8	Visual Quality	Differently	Slightly Beautiful	Beautiful

To find out which facade elements are significant according to the community, practitioners and academics on the visual quality of the facade building of SMK Bina Cendika YPK, multiple regression analysis was carried out. Based on the analysis of the F test (simultaneous test) and t test (partial test) on the building data of SMK Bina Cendika YPK, a regression model was obtained which showed a significant effect of several variable components on the visual quality of the building facade of SMK Bina Cendika YPK as follows (table 10).

**Table 10**. Linear Regression Test Results on the Beauty of the Visual Quality of the Building Facade of Bina Cendika SMK YPK

<b>Coefficients</b> <sup>a</sup>									
Model	Unstan	dardized							
	Coef	ficients	Coefficients	t	Sig. t				
Constant	•	(		_	_				
_	_	_	_	_	_				
_	_	_	_	_	_				
<del>-</del>	_ .117	.076	.117	1,550	.123				
Material	056	.097	057	581	.562				
Texture	.154	.094	.160	1.636	.104				
Colors	.240	.049	.285	4.910	.000* **				

a. Dependent Variable: Visual Quality of Building Facade

F-count = 69,372Sig. F = 0.000\*\*\*\*

R-Square = 0.738

Partial testing of the effect of building facade elements on the visual quality of the building facade as a whole show that the shape of the facade and color have a significant influence on respondents' assessment of the visual quality of the building facade of SMK

Bina Cendika YPK. This is indicated by the significance value of t<0.05 on the facade shape variable with a significance value (.000\*\*), and the color variable with a significance value (.000\*\*).

Based on the results of the regression analysis on the SMK Bina Cendika YPK building, an *R-square* of 0.738 was obtained. This shows that the visual quality of the facade of the SMK Bina Cendika YPK building can only be explained by 73.8% by architectural style, facade shape, door shape, window shape, material type, texture type, color type. There are still 26.2% of other factors not included in this study that can affect the visual quality of the facade of the SMK Bina Cendika YPK building.

From the results of the discussion on the two research objects, there are several differences in assessment between community groups and groups of practitioners and academics in the field of architecture about the role of each facade element on the visual quality of the facade of the Radja Bally Building and the Bina Cendika YPK Vocational School building. The Radja Bally building is a *landmark* around the area, while the Bina Cendika YPK Vocational School is an educational building, so that people know the building well. The group of practitioners and academics gave an assessment based on consideration of the historical aspects of the building and the area, as well as the principles of design and aesthetics, as well as based on the experience of space in daily life at the study location. Community assessments with practitioners and academics with different occupational and educational backgrounds have different assessment results on the Radja Bally building and SMK Bina Cendika YPK, so it can be concluded that each facade element has a role with different levels of beauty according to the community, practitioners and academics.

From the results of the discussion on facade elements that are significant according to society, practitioners and academics in the field of architecture on the visual quality of the facades of cultural heritage buildings, it is found that architectural style, facade shape, texture, and color have a significant influence on the visual quality of the facade of the Radja Bally building. Bina Cendika YPK Vocational High School building, the shape of the facade and color have a significant influence on the visual quality of the facade of the Bina Cendika YPK SMK building.

In general, the facade elements that affect the visual quality of the facades of cultural heritage buildings along the corridor of Jalan Semeru Malang City are the shape of the facade and color. This is in line with what was said by Krier (1988) who explained that the facade can describe the face of the building where the function and meaning of the building can be expressed. The facade determines the visual strength of the building and is usually judged by the community by assessing the facade (Suri & Sugiri, 2015). The facade is an element that has a very significant impact on the beauty of the Colonial building (Ramli et al, 2020).

Askari & Dola (2009) in their research entitled *Influence of Building Facade Visual Elements on Its Historical Image: Case of Kuala Lumpur City, Malaysia* explained that color is the most influential element on the facade of historic buildings. While white and gray are the most suitable colors for historical buildings, this can also improve the quality of road corridors. Majidah, et al., (2019) argue that color has a much deeper and broader meaning than the concept of just a layer of paint on a surface, or a decoration tool. Color is the basic (main) element of a design and the most expressive, which is believed to be the most important visual experience that serves as a powerful channel of information for the human cognitive system and plays an important role in improving memory performance.

### IV. Conclusion

Based on the results of the analysis and discussion, it can be concluded that the assessment of the general public with practitioners and academics in the field of architecture with different occupational and educational backgrounds has different assessment results on the visual quality of the facades of the Radja Bally and SMK Bina Cendika YPK buildings, so it can be concluded that each element of the facade has a role with a different level of beauty according to society, practitioners and academics.

The visual elements of the facade that most influence the visual quality of the facade of the Radja Bally building according to the community, practitioners and academics are architectural style, facade shape, texture and color. Meanwhile, the faade visual elements that have the most influence on the visual quality of the building facade of the Bina Cendika YPK Vocational School according to the community, practitioners and academics are the shape and color of the facade.

In general, the facade elements that affect the visual quality of the facades of cultural heritage buildings in the historic area of Jalan Semeru, Malang City are the shape of the facade and color, so these two elements need to be maintained as an effort to preserve the facade elements in cultural heritage buildings that can have an influence on the visual quality of the building. cultural heritage in the historical area of Jalan Semeru, Malang City. Meanwhile, the visual elements that do not have a significant influence on the visual quality of the facades of historic buildings at the study site need further evaluation and aesthetic studies. This is an effort to create environmental aesthetics at the study site, by paying attention to the visual elements of the facade in each building according to the regional context.

#### References

- Anandaju, P.P & Sunaryo, R.G. (2019). Kajian Persepsi Visual Pada Elemen Sekuens di Museum Kereta Api Ambarawa. Jurnal Dimensi Arsitektur: Vol. VII, No.1.
- Askari, A. H. and K. B. Dola. (2009). "Influence of Building Façade Visual Elements on Its Historical Image: Case of Kuala Lumpur City, Malaysia." Journal of Design and Built Environment 5: pp. 49-59.
- Aziz, Baskoro. Ernawati, Jenny. dan Santoso, Herry. (2019). Penilaian Persepsi Masyarakat Terhadap Bangunan Bersejarah di Koridor Kayu Tangan Malang Indonesia. LOCAL WISDOM, Vol. 11, No. 1
- Ching, Francis D.K. (2007). Architecture Form, Space & Order. Third Edition. Canada. Published by John Wiley & Sons, Inc.
- Eymeren, Margaretha M.V. (2014). Memahami Persepsi Visual: Sumbangan Psikologi Kognitif Dalam Seni dan Desain. Journal UMN: Vol. V, No.1.
- Fauziah, Nur. Ernawati, Jenny, dan Sudikno, Antariksa. (2012). Kualitas Visual Fasade Bangunan Modern Pasca Kolonial di Jalan Kayutangan Malang. Jurnal RUAS, Volume 10. No 2.
- Khiruthiga, K. & Thirumaran, K. (2017). Visual Perception on The Architectural Elements of The Built Heritage of a Historic Temple Town: A Case Study of Kumbakonam, India. Frontiers of Architectural Research: 6.
- Krier, Rob. 1988. Urban Space. London. Academy Edition
- Manurung, Parmonangan. (2008). Kualitas Pencahayaan Pada Bangunan Bersejarah. DIMENSI TEKNIK ARSITEKTUR Vol. 36, No. 1 : 28 34.
- Ramli, S., Santosa, H., dan Antariksa. (2020). Penilaian Kualitas Estetika Elemen

- Arsitektural Bangunan Kolonial di Jalan Basuki Rahmat, Malang. Jurnal ARTEKS: Jurnal Teknik Arsitektur, Volume 5, Issue 1.
- Sachari, A. (2007). Budaya Visual Indonesia: Membaca Makna Perkembangan Gaya Visual Karya Desain di Indonesia Abad ke-20. Jakarta: Erlangga.
- Santosa, H. & Ikaruga, S. (2013). Visual Evaluation of Urban Commercial Streetscape Through Building Owners Judgment. Journal of Architecture and Planning (Transactions of AIJ).
- Sekaran, U., & Bougie, R. (2010). Research methods for business: A skill building approach 5th edition. West Sussex, UK: John Wiley & Sons Ltd.
- Shah, M. et al. (2020). The Development Impact of PT. Medco E & P Malaka on Economic Aspects in East Aceh Regency. Budapest International Research and Critics Institute-Journal (BIRCI-Journal). P. 276-286.
- Shirvani, Hamid. (1985). The Urban Design Process. Van Nostrand Reinhold, New York.
- Siswanto, C. & Setiawan, A.P. (2015). Persepsi Visual Pengunjung Terhadap Elemen Interior Stilrod Café di Surabaya. JURNAL INTRA Vol. 3, No. 2.
- Smardon, R. C. (1986). Foundation For Visual Project Analysis. Kanada: John Wiley & Sons
- Subadyo, A.Tutut. (2009). Penilaian Estetika Visual Lansekap Koridor Jalan Di Kawasan Civic Center Tugu Alun-Alun Bunder Kota Malang. Jurnal TESA Arsitektur: Vol. 7, No.1.
- Suri, N.S. & Sugiri, A. (2015). Persepsi dan Preferensi Masyarakat Terhadap Fasad Bangunan di Koridor Jalan Ki Samaun Kota Tangerang. TATA LOKA: Vol. 17, No. 3.
- Tarore, L.T., dkk. (2016). Karakteristik Tipologi Arsitektur Kolonial Belanda Pada Rumah Tinggal Di Kawasan Tikala. Daseng: Jurnal Arsitektur, Vol. 5, No. 2.