Furniture and accessories design for creative pop music communities’ space

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Abstract. This study aimed to introduce creative industry development in Indonesia that had enjoyed widespread and advanced growth. One of the many creative communities was the creative pop music community located at Earhouse. This community was pioneered by an Indonesian musician couple, Endah Widiastuti and Rhesa Aditya. It consisted of collective subjects related to the creative music industry located in Pamulang, South of Tangerang. This cafe was utilized as a supporting forum for every creative pop music community’s activities. Hence, designing the compatible seating gesture and other interior accessories were necessary to support the activities and facilities at Earhouse. The study used the methods of literature study and comparison to other coffee shops. The research’s result is in the design creation for seats and supporting media such as a table, chair, and lamp, which are suitable for ergonomics gesture and activity inside Earhouse. Besides that, material selection and construction systems are also counted as this design solution to consistent with the concept.

Keywords: furniture design, accessories design, creative pop music, Earhouse

1. Introduction
Creative industries in the country are rife lately. Almost all fields of work require creativity in their workers. Many local brands are starting to emerge. In the music industry, many musicians are not included in the major music labels. They are called as indie musicians. All creative aspects are related to one another. In addition to the development of technology, young people are required to be more creative than the previous generation.

Therefore, the formation of communities as a forum for youth creativity is not limited. According to Hendro Puspito, the community is a real social group consisting of individuals with various background roles that have one specific goal. Some are formed based on a passion for fine arts, painting, performance art, and even a mixture of various fields of art that are only united by the same vision. Age is no longer a taboo boundary in a community. They gathered in a place that became their container for expression.

Most creative communities have a place where they gather. One of the creative communities is in the Earhouse coffee shop, the Ear community. The pioneers, as well as coffee shop owners, are Rhesa Aditya and Endah Widiastuti. They involved in the Indonesian creative industry in the music field. Equipped with
their experience, Rhesa and Endah embraced young people around their area to develop their potential. This community was formed because of the same interests in the music industry. The music that is delivered is also free and unlimited. The agenda of activities at the Earhouse coffee shop tends to be diverse. Not only live music, but the coffee shops also housed songwriting clubs, performances, Friday gameday, video makers, and others. This indirectly makes the customers in the Earhouse coffee shop feel the warmth, intimacy, and involvement in a fairly friendly atmosphere. It is possible to introduce customers and coffee shop employees.

This study aims to focus on the coffee shops’ facilities associated with seating gestures as well as other supporting elements. Earhouse hosted a variety of activities; designing appropriate seating facilities to support the agendas in Earhouse is imperative to make it a comfortable place.

2. Literature review

2.1. Definition of furniture

A furniture is a moving object that supports human activities such as seating (for example, chairs, tables, and sofas) and beds. Furniture is also used to hold objects at a height that is comfortable to use (such as traffic surfaces above the ground, such as desks) or store things (for example, cabinets and shelves) [8].

Furniture can be a product of design and considered a form of decorative art. In addition to the role of functional furniture, it can be for symbolic or religious purposes. This can be made from a variety of materials, including metal, plastic, and wood. The furniture can be made using a variety of connections and working techniques.

2.2. Types of furniture

Based on [2], the following are the division of furniture types based on their function and purpose when they were made.

1. Loose furniture: this furniture has many types and shapes that can be moved, such as tables, dining chairs, and others.
2. Indoor furniture cannot be exposed to direct sunlight and does not use finishing that can withstand hot and rainy weather, for example, the usual sofa placed in the family room.
3. Outdoor furniture is furniture that can be exposed to direct sunlight and resistant to weather.
4. Multifunction furniture is commonly used in areas with minimal space, for example sofa that can turn into a bed.
5. Knock-Down furniture is a type of furniture that can be assembled.

2.3. Furniture material

According to [3], raw materials for making furniture are divided into several types, one of which is wood. Wood is one of the forest products and natural resources. Wood is a raw material that is easily processed to be made into goods according to human needs. Wood derived from various types of trees with different properties, even wood from one tree has different properties when compared between the tip and the base. In connection with the construction of chairs, no tall wood can be used. There are several technical requirements that must be met, including:

1. Not too heavy and not too light.
2. Dimensions are stable, do not have large shrinkage.
3. Decorative. The feel of the fiber display is beautiful.
4. Easy to do manually or use the machine. Not too hard or easily broken.

2.4. Furniture construction system made from wood

There are various types of furniture construction made from wood, including:
1. **Biscuit Joints**
   Biscuit joints are used in cabinet construction to strengthen the edge joints between boards, which are supposed to be tongue and grooved or rub jointed.

   ![Figure 1. Biscuit Joints](source)

2. **Edge Jointing**
   Usually used on wide wooden boards to connect the edges so that the boards can be wider and have a stable construction.

   ![Figure 2. Edge Jointing](source)

3. **Dovetail and Comb Joints (Including Tapered Finger Joints)**
   Although decorative fitting is largely preservation of the manufactured furniture, they can be done using special machines or router jigs. Traditionally, the dovetail is used for corners because there are no other connections that can withstand everyday use pressures. Dovetail has many variations from two main categories, namely: dovetail and half-blind dovetail.
4. Dowel Joint
Dowelling is a fast and cost-effective way to be used on small door frames and carcasses. Because it is easy to make, the process can be made using a machine or manually.

5. Halving Joint
This type of connection is made by cutting the thickness of each board in half, then stacking them together. After that, nailed or glued.
6. Mortise and Tenon Joint
Mortise and Tenon Joints is a system of connecting wood by making a hole (mortise) on the ground of one wood to be joined, and making a tongue (tenon) to be inserted in the mortise hole.

![Mortise and Tenon Joint]

Figure 7. Mortise and Tenon Joint
Source: www.craftsmanspace.com

2.5. Definition of ergonomic
Ergonomics is the study of average human body sizes with design objects such as buildings, machinery, furniture, etc. The principle of ergonomics is achieved if the design can function comfortably in the hands of universal humans. The purpose of the ergonomics is effectiveness in working or doing activities.

According to the book Dimensions of Humans and Interior Spaces, Julius Panero and Martin Zelnik [1] explained that various activities and elements of furniture are usually associated with the sitting room. It produces some level of relationship between the human body and the physical components of a space. The most obvious is between the user and the chair or sofa. In this connection, the height of the seat must take into account the height of the fold in the knee. At the same time, the length of the seat must be adjusted to the distance of the buttocks to the fold in the knee. The circulation around the seating elements must contain the maximum body range, while the placement of a coffee table and its relationship to a chair must be responsive to the size of human reach. The height of a painting hung on the wall must be determined through the height of the eye.
Figure 8. The Ergonomics of Lounge Seating

Figure 9. The Clean Distance in Lounge Seating

|    | in  | cm  |
|----|-----|-----|
| A  | 84-112 | 213.4-284.5 |
| B  | 13-16  | 33.0-40.6  |
| C  | 58-60  | 147.3-203.2 |
| D  | 16-18  | 40.6-45.7  |
| E  | 14-17  | 35.8-43.2  |
| F  | 12-18  | 30.5-45.7  |
| G  | 30-38  | 76.2-91.4  |
| H  | 15-16  | 30.5-40.6  |
| I  | 60-68  | 152.4-172.7 |
| J  | 54-62  | 137.2-157.5 |

Figure 10. Size Remarks
In studying the relationship between the human dimension and the dining room, the areas that become the center of attention of the designers are the clean distance around the table and the number of people who can be accommodated by a certain large table [4]. The net distance between the edge of the table and other physical barriers must cover at least the following two elements, namely, the space required for the chair and the maximum body of a person with a larger body when people pass the distance between the chair and the wall. In determining the chair's distance, it must be noted that its relative position to the edge of the table will change throughout eating [5].

![Figure 11. Chair Ergonomics](image1)

|    | in  | cm  |
|----|-----|-----|
| A  | 31-33 | 78.7-83.8 |
| B  | 15.5-16 | 39.4-40.6 |
| C  | 16-17 | 40.6-43.2 |
| D  | 17-24 | 43.2-61.0 |
| E  | 0-6   | 0.0-15.2 |
| F  | 15.5-16 | 39.4-45.7 |
| G  | 8-10  | 20.3-25.4 |
| H  | 12    | 30.5  |
| I  | 16-20 | 41.7-50.8 |
| J  | 24-28 | 61.0-71.1 |
| K  | 23-29 | 58.4-73.7 |

![Figure 12. Table Ergonomics](image2)

3. Methodology
The study used the methods of literature study and comparison to other coffee shops. Both methods are used to cater to different purposes, to make the findings whole and complete. The research resulted in the design creation for seats and supporting media such as a table, chair, and lamp, which are suitable for ergonomics gesture and activity inside Earhouse.
3.1. Direct research methods
3.1.1. Field survey
Field surveys are conducted to obtain data and information directly from the source to support the design. The field survey was conducted at several coffee shops that present live music in Jakarta, namely Owl Coffee House, Earhouse Pamulang, and Join Kopi. The survey data includes photographs, visitor activities carried out in the coffee shop, and the activities of coffee shop officials or staff.

3.1.2. Field observation
The observation was carried out to directly observe all the activities normally carried out in the coffee shop, such as interactions between staff and visitors, visitors, and other visitors, or the behavior of furniture users. Observations were also made to observe the physical condition of the coffee shop directly and the various problems encountered.

3.2. Indirect research methods
The author uses indirect research methods through literature studies. Literature Study is a form of data related to topics, ranging from history, function, understanding, types, and all things that will assist the process of designing furniture and accessories. These data can be obtained from literary sources, such as reference books, magazines, and the internet.

The design process followed several stages. The first stage is to analyze the problems found during the data collection. Analysis of the problems obtained during this data collection process will be beneficial in the design installation.

The next stage is classifying the type of furniture to be used, determining which furniture is necessary, making a space program consisting of facility activities, calculating the total space requirements, relationships between spaces, proximity diagrams between spaces, and processing using concepts.

The planning stages of furniture and accessories can be started after the concept, namely sketching the thumbnails and layout. Thumbnail sketches are done for the right shape and ergonomics studio to meet the needs of its users. It takes more than one sketch at this time because the designer will pour out ideas to be saved. The layout of the planning is also carried out through various considerations such as the need for facilities and activities of the users of the coffee shop facilities.

After designing the layout and sketch thumbnails, the next stage is the design drawing consisting of furniture-looking drawings, furniture layouts, a room cut-out drawings, furniture cut-out drawings, detailed furniture drawings, and exploding furniture displays. Once the image has been designed, the process is followed by making 3D visuals of the rooms that have been determined, along with the furniture that has been designed to get visuals that are quite real.

4. Results and discussion
4.1. Earhouse
Coffee shop with a pop music creative community called Ear Community. The Earhouse Coffee Shop is open to the public. The following agenda for the event held at Earhouse.

| Day       | Time                  | Agenda                  |
|-----------|-----------------------|-------------------------|
| Monday    | 8:00 pm - 10:30 pm / 11:00 pm | Song Writing Club       |
| Tuesday   | 8:00 pm - 10:30 pm / 11:00 pm | Music Video Club       |
| Wednesday | 9:00 pm - 10:30 pm / 11:00 pm | Open Stage             |
Earhouse is located in Ruko Pasar Kita Pamulang, Blok R-2 No. 9, Pamulang Tangerang Selatan. Open every day at 15:00 - 23:00. The building's position is round the corner, makes Earhouse a strategic location, and has a large enough parking area to accommodate many customers. On the outside, there is a seat that becomes the smoking area. Orders can be made directly at the cashier counter inside. Payment can be made immediately after ordering or just before leaving the coffee shop.

4.2. Design concept

![Figure 13. Mind Mapping](image)

The concept is based on the activities, vision, and mission of the coffee shop. Its vision, among others, supports young people's productive dynamic for expression, especially in the music industry [7]. Its mission is to create a social forum and a place for young people with a homey atmosphere. Then get a few keywords to be the basis of interior and furniture design [6]. The keywords are young, dynamic, productive, homey, and collaborative. Then the author combines these keywords into the design wrapped with a theme that matches the keyword. The theme used is Casual Ethnic.
To explain the concept briefly, the concept image refers to the appropriate space image, which will help change one's mood in the room. The desired image of space in interior planning is to make the room and furniture comfortable, 'warm' and 'familiar'. On top of that, there is also the concept of form or shape, which for the Earhouse design uses geometric shapes. What has been redeveloped into creative forms to produce a shape transformation in the form of a reduction or addition of composition or even create a new pattern. Meanwhile, the color concept used in the coffee shop is a natural deep warm color. The dominant colors used are brown, red wine, mahogany, and brown tortillas. The dominant colors are to create a relaxed and comfortable impression. There are other colors that will support, such as a white, black, and red clock. Other colors that will be accented include yellow, gold, and deep sea-blue.

The material and lighting concepts completed the explanation about the whole conceptual design of the Earhouse coffee shop. Concerning material, the place needs furniture that is easily moved. Wood has characteristics that are easily formed and processed. Furthermore, the selected wood is Dutch teak wood, which characteristics are easy to process and lightweight, making it suitable for the coffee shop. As for the lighting, the Earhouse coffee shop will combine the use of sunlight and artificial lighting from lamps. The types of lights used are down-lights, LED (Light Emitting Diode), and the type of spotlight.
5. Conclusion and suggestions

The process of designing furniture and accessories according to conceptual design will make the resulting products more valuable than those with no conceptual design. The author makes furniture and accessories in a coffee shop for housing the activities of the pop music creative community, to create furniture and accessories which designs are catering and supporting the ergonomics of the activities at the coffee shop. The main material used is Dutch teak wood. It is hoped that the design of this furniture and accessories can advance the coffee shop and the existing pop music creative community.

Based on the results of research and analysis conducted by the author, there are several important points that need to be considered in designing furniture and accessories for the pop music creative community coffee shop. Firstly, it is important to identify the needs and activities of the users of furniture and accessories in the coffee shop. We need to also take into account the long-term expansion plan of the place. Next, it is also necessary to make the furniture as detailed as possible, because the furniture that will solve the problem of ergonomics is based on the activities of the users and in harmony with interior design that impacts the comfort of the visitors. Lastly, the prototype of furniture and accessories must be in accordance with the design concept. Making rational and objective decisions in design will make the products useful for a long time, satisfactorily meet user needs, and environmentally friendly.

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