

CULINARY TOURISM CENTER AND CREATIVE SPACE WITH GREEN ARCHITECTURE APPROACH

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Abstract: The goal to be achieved from this planning is to Design a Culinary Tourism Center and Creative Space with a Green Architecture Approach by maximizing the existing land according to the concept taken. The limitations of this planning discussion are guided by the objectives and targets that have been set, namely the Design and Planning of a Culinary Tourism Center and Creative Space. Comparative studies are conducted to increase insight into similar building designs from several regions as a discourse in the Design and Planning of a Culinary Tourism Center and Creative Space with a Green Architecture Approach. The analysis was obtained from collecting data from the internet to support the Design and Planning process of a Culinary Tourism Center and Creative Space with a Green Architecture Approach. The Culinary Tourism Center and Creative Space is expected to become a new destination that is present as a combination of culinary tourism and creative space that answers our needs besides food, communal open spaces that function as a place for creativity, and encourage youth movements to be able to carry out healthy and collaborative activities. With the communal open space available, it will also become a place for creative people and their communities to channel their creativity, exchange ideas, and produce new creations without abandoning its architectural approach that minimizes harmful effects on human health and the environment.

Keywords: Green Architecture, Culinary Tourism, Creativity

1. INTRODUCTION

The importance of the relationship between food and tourism cannot be ignored. Each destination has its own level of appeal that can attract tourists from various countries. In addition to food, environmentally friendly creative spaces answer our need for communal open spaces that function as a place for creativity and encourage youth movements to be able to carry out healthy and collaborative activities. With the available open space, it will also become a place for creative people and their communities to channel their creativity, exchange ideas and produce new creations. In designing this final assignment, the Green Architect approach concept is taken. Where Green Architecture is a building approach that minimizes harmful effects on human health and the environment (Hermawan, Fiyantoro, et al., 2023).

Architectural design can be done with many approaches. Combining approaches can be done as long as there is a common thread from both approaches. In doing design, various aspects need to be considered so that the resulting design will be more attractive and more mature. The built environment needs to be made in such a way that the resulting product can have a good impact on the development of architecture (Primanda et al., 2022). The design of a building needs to be seen and adjusted to the function of the building. The approach also needs to be adjusted to the purpose of the architectural design. Sustainable design can be applied to all building functions but it is necessary to pay attention to the environmental aspects around it. (Santoso et al., 2021). Green building will



create a healthy building with the use of clean air in the building. Sick buildings often occur in unhealthy environments due to environmental pollution (Cheung & Jim, 2019). Mathematical equations are currently needed to predict a healthy environment so that residents can carry out activities healthily (Hermawan, Faqih, et al., 2023).

2. METHOD

The methodology are determining the site or footprint according to the concept to get the selection of the appropriate location and site, easy to reach, close to the main road, close to the city center, showing a facade that supports and meets the criteria of the green architecture concept, building form, spatial layout that is in accordance with its function, determining the concept to get a physical building that supports bona fides (function, service factors, safety, security, and comfort as supporting spatial layout). The limitations of this planning discussion are guided by the objectives and targets that have been set, namely the Design and Planning of the Culinary Tourism Center and Creative Space.

3. RESULT AND DISCUSSION

Location Determination

To determine the location of the Culinary Center and Creative Space with a Green Architecture Approach, consider the function of the building. The existence of a Culinary Center and Creative Space with a Green Architecture Approach that has a function as a new destination that is present as a combination of culinary tourism, and creative space without releasing its architectural approach that minimizes harmful effects on human health and the environment. To determine the location of the Culinary Center and Creative Space with a Green Architecture Approach, consider the function of the building. The existence of a Culinary Center and Creative Space with a Green Architecture Approach that has a function as a new destination that is present as a combination of culinary tourism, and creative space without releasing its architectural approach that minimizes harmful effects on human health and the environment. The planning of the Culinary Center and Creative Space must meet the criteria in designing the building. Therefore, this sub-chapter explains and discusses the Analysis of users and their activities, space requirements and space needs, space structure.



Fig 1. Location

User and Activity

Analysis of users and activities that discuss user activities in the building, activity patterns, and building/area operations. The types of activities are divided into 3 categories, namely visitor activities, managers, and services.

Table 1. user and activity

User	Jumlah	Keterangan
Direksi	1	Sebagai orang yang bertanggung jawab atas pengurusan perusahaan.
Direktur Utama	1	Orang yang membuat kebijakan pada perusahaan.
Manager	1	Sebagai pengawas karyawan.
Manager pemasaran	1	Sebagai pengawas karyawan di bidang pemasaran.
HRD	3	1 HRD karyawan. 1 HRD manager, dan 1 HRD pelatihan.
Sub. Bidang Keuangan	3	1 Kepala Bidang keuangan, dan 2 staff, sebagai pengelola keuangan Perusahaan
Sub. Bidang Kesekretariatan	3	1 Kepala Bidang dan 2 staff.
Sub. Bidang Administrasi	3	1 Kepala Bidang dan 2 staff.
Sub. Bidang Publikasi	5	1 kepala bidang dan 4 staff
Supervisor	5	Masing-masing memegang di bidang yang berbeda.
Pedagang di Pusat Kuliner	100	Berdagang di area Pusat Kuliner
Jumlah		126 Orang

User	Jumlah	Keterangan
Bagian maintenens bagunan	4	Terdiri dari: Kapala bagian (1) Teknisi (3)
Bagian Office Boy (OB)	5	Terdiri dari: Kepala Office (1) Office Boy (4)
Petugas Parkir	3	Terdiri dari: Kepala Parkir (1) Petugas Parkir (2)
Bagian keamanan	5	Terdiri dari: Kepala keamanan (1) Security (4).
Jumlah		19 Orang

User	Jumlah	Keterangan
Tamu	20	Asumsi tamu datang perharinya
Supir	50	Asumsi Supir yang ber istirahat
Pengunjung	500	Asumsi wisatawan yang berkunjung di setiap hariny
Jumlah		570 Orang

From the table above, the total number of users in the Culinary Center and Creative Space is obtained, namely: 570 visitors + 126 managers + 19 service personnel = 715 people. So the users or actors in the Culinary Center and Creative Space are 715. Analysis of the size of the space needed in the Culinary Center and Creative Space, after obtaining the space requirements, the next step is to calculate the size of the space, a. Standard space calculation: Neufert Architect Data (NAD), b. Special calculation: based on the number of users, size of furniture, circulation, and activities, c. Calculation of assumptions: based on comparative studies and assumptions from similar buildings and spaces. Grouping of spaces in the Culinary Center and Creative Space includes: a. Visitor Facility Space, b. Management Facility Space, c. Supporting Facility Space, d. Service Facility Space.

By determining the flow percentage based on Time Save of Building Type, 2nd Edition, namely: a. 5–10% is the minimum standard of movement space, b. 20% is the need for freedom of movement, c. 30% is the demand for physical comfort, d. 40% is the demand for psychological comfort, e. 50% is the requirement for activity specifications. The location of the planning for the Culinary Center and Creative Space with a Green Architecture Approach is located at Alternative 2, Jl. KH. Abdurrahman Wahid, Kalianget, Wonosobo District, Wonosobo Regency, Central Java. Site Assessment: The site is located on Jl. KH. Abdurrahman Wahid, Kalianget, Wonosobo District, Wonosobo Regency, the site is close to the Al-Qur'an Science University (Campus 2) is not in a densely populated area. In front of the Dieng Jaya Mushroom Factory area, the main road on the Dieng tourist route. Easy access and close to the city center, included in BWK II, site conditions are empty land, topographic conditions of lightly contoured land tend to be flat, performance and Technical Aspect Approach, the analysis of performance and technical aspects is to determine the structures and materials that will be used as a reference in the planning and design process of the building.

Building Structure Analysis

Some considerations used in the structural analysis include: a. Resistance to loading, b. Flexibility of spatial arrangement, c. Ease of work, d. Building equipment, e. Ease of maintenance, f. Space module guidelines in buildings, g. Application of architectural forms, h. Soil bearing capacity, i. Economic value. In the planning and design of the Culinary Tourism Center and Creative Space building with the Green Architecture Approach, the building structure is divided into 3, namely: a. Lower Structure In the planning of the Culinary Center and Creative Space, footplate and bore pile foundations are used in the core structure because the planned building is three floors with an area of approximately 2,000 m²/floor, b. Middle Structure The middle structure is the part of the building that is located above the ground surface and below the roof structure. This structure consists of walls, columns, and rings. The wall structure elements in the planning of the Culinary Center and Creative Space are in every main structure in the building. Glass walls are also used in the public areas of the Culinary Center and Creative Space. The main structural column of the building uses concrete-covered steel, c. Upper Structure The roof structure of the building partly uses a flat roof. A roof with a concrete slab is used in the main building and

as a place for service rooms such as elevator machines and other arrangements. Building Material Analysis Building materials are one of the important aspects of realizing a beautiful building that is in accordance with what is desired and safe and comfortable for the users themselves. The following are alternative materials for floor finishing: 1)Parquet/Wood, 2)WPC, 3)Ceramic, 4)Granite. The following are alternative materials for wall finishing: 1)Exposed Brick, 2)Skendary Skin, 3)Wall Panel, 4)Natural Stone, 5)Wall Paint. The following are alternative materials for roof finishing: 1)Metal Tiles, 2)Fiber Glass, 3)Zinc / Galvalume Concrete Roof.

Building Utility Analysis

1) Lighting System

As a building with a Green Architecture approach, an optimal lighting system or natural lighting is very much needed considering the climate in Wonosobo with high rainfall and less than optimal sunlight. With natural lighting, the spaces in the building are not humid. The lighting system that is needed in addition to natural lighting also requires an artificial lighting system as lighting at night and parts of the private and service zones. Natural lighting can be obtained from glass walls or roster walls and artificial lighting can use lamps.

2) Ventilation System

The ventilation system in the building is useful for making the building healthier and not easily humid, natural ventilation can be used in the Culinary Center and Creative Space. Natural ventilation comes from outside winds through the help of open building elements so that air circulation in the room can provide comfort for visitors. In addition to natural ventilation, there is also artificial ventilation such as AC and blowers that are applied to closed rooms.

3) Electrical Network System

The source of electricity supply comes from PLN as the existing electricity supplier and as assistance when the power goes out, this building uses a generator as a power source. In addition to PLN, the Culinary Center and Creative Space will use Solar Panels as a natural power source

4) Clean Water Network System

The source of clean water needs at the Culinary Center and Creative Space comes from PDAM which is distributed through a water meter to the ground water tank which is then pumped to the roof tank and distributed to taps to meet daily needs

5) Dirty Water and Rainwater Network System

The dirty water network includes waste from clean water that has been used so that it becomes dirty water. The dirty water disposal system from the toilet is channeled to the septic tank and channeled to the infiltration well so that solid materials will be filtered and not pollute the environment. While dirty water from the washbasin is channeled to the reservoir and channeled to the infiltration well and some is channeled to the city sewer. For the drainage of rainwater from the roof, it is channeled to the gutter and then channeled to the control tank, some of which will be channeled to the reservoir for watering plants and gardens, the rest of which will be channeled to the city sewer.

6) Fire Prevention System

For fire prevention efforts in buildings, it is necessary to provide extinguishing devices such as: Fire Hydrant, Smoke Detector, Fire Alarm, Sprinkler, Fire Extinguisher. Detectors and Sprinklers will be placed on the ceiling of the room at a certain distance. So that smoke detection in the room can be immediately resolved with Sprinkler spray and does not cause a major fire. For fire extinguishers placed in each room or certain points to facilitate rescue and easy to see. In addition, FireHydrant is placed at a point that is easy to reach and visible to facilitate rescue.

7) Lightning Protection System

The application of the lightning protection system in this area is with an electrostatic system or radius lightning rod installed from the top of the roof and channeled to the wire to the ground. This lightning rod is environmentally friendly because there is no radiation generated by utilizing static energy caused by the movement of electrically charged clouds so that it does not endanger humans

8) Security System

The security system in this building uses a surveillance system via CCTV which is placed in every corner of the room so that supervision of the items in the building can be guaranteed.

Basic Planning Program



Based on the planning and design approaches that have been described previously, the basic concept that will underlie the physical design process of the Culinary Tourism Center and Creative Space building with a Green Architecture Approach is as follows: a. The Culinary Tourism Center and Creative Space building with a Green Architecture Approach must be able to accommodate existing functions and support the activities within it. As well as providing convenience, security, and comfort for users optimally in accordance with the functions it accommodates. b. The Culinary Tourism Center and Creative Space building with a Green Architecture Approach as a tourist building must have the impression of being welcoming, attractive and providing comfort for visitors and managers. c. The Culinary Tourism Center and Creative Space with a Green Architecture Approach is designed with attention to strength and must be sturdy so as to create a sense of security and comfort for users



Fig 2. Perspektif of Building

4. CONCLUSION

The final project entitled "Culinary Tourism Center and Creative Space with a Green Architecture Approach" located in Wonosobo Regency, Central Java is a planning for a Culinary Tourism Center and Creative Space that applies Green Architecture. The Culinary Tourism Center and Creative Space is expected to become a new destination that is present as a combination of culinary tourism and creative space that answers our needs other than food, a communal open space that functions as a place for creativity, and encourages youth movements to be able to carry out healthy and collaborative activities. With the available communal open space, it will also become a place for creative people and their communities to channel creativity, exchange ideas, and produce new creations without releasing its architectural approach that minimizes harmful effects on human health and the environment. With the planning basis that has been made, it is used as a basis for designing to the design stage that is in accordance with the program basis that can help various processes of making the best decision, and is most in accordance with the main objective of the results of this planning program basis, namely to achieve a level of effectiveness in architectural design that is in accordance with the needs and objectives of the Culinary Tourism Center and Creative Space area.

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