

FORMS OF HOUSE UNIT DESIGN IN THE FISHERMAN FIBER BOAT IN CILACAP

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ABSTRACT

The form of housing units planned by fishermen is solely for convenience in increasing marine catches. The housing unit is made as a support unit for outrigger fiber boats. Although the comfort aspect is not really needed, at least fishermen are protected from weather disturbances, in this case a form with a security function is the main basis. The form of the housing unit is made simply by using the traditional materials available and placed on the structure of the boat. The difference in the design of each shipyard in the design produced by the fishermen's group is the main issue that will be revealed. The use of form function theory from Victor Papanek will examine the design of housing units produced by shipyards in Lengkong Village or produced by Cilacap local fisherman. The study of needs aspects, usability aspects, method aspects, aesthetic aspects, associative aspects, and consequences aspects, will guide the form of housing units for outrigger fiber boats designed by shipyards and fishing communities in this area.

Keywords: *Design, Fiber Boats, Form Function, Housing Units.*

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A. INTRODUCTION

Fishermen's expertise in making modifications cannot be separated from their empirical experiences, this can be categorized as part of their creativity. Modification is interpreted as an additional system, not a change in elements in general. Tools which are simple technological systems are an important instrument for supporting fishermen in living their lives. In line with this, the instrumentation phenomenon is the core idea of Don Ihde. Ihde explains how intense and perceptual human sensory experiences exist through technology, human relational systems, and technological instruments as existential modes of understanding the world of life (Hartanto, 2013: 36). The need for additional work tools in the form of supporting units that do not receive support

from shipyards is an opportunity to be used as a new idea to increase catches. Secondary data related to the material object of the housing unit on the boat is taken from the documents related to it. The review of data sourced from scientific journals and other literature is attempted to avoid biasing the meaning of the core subject matter, and also to maintain consistency.

The home element in the traditional Cilacap fishing boat is in the form of a simple house, essentially a roof as a protection for fishermen from weather changes. Some housing units are made by fishermen, and some are made by shipyards above the hull. The essence of the existence of houses planned by fishermen is solely for convenience in increasing catches, that fishermen will extend their fishing time or go to sea at night. The roof on the structure of the house plays an important role in determining the beauty and comfort of the shape of the building (Iswanto, 2007:130)

The form in the home element system has three basic construction elements, namely; (1) the foundation, (2) the support for the roof, and (3) the shape of the roof itself which becomes important as a protection from the weather. Selection of the shape and installation of a roof that is not good at risk of leakage so that residents feel uncomfortable. Although comfort is not really needed, at least fishermen are protected from the sun, in this case the function of home technical construction becomes the main basis. The characteristics of the home form on traditional fishing fiber boats built by fishermen are reflected in the elements of meaning contained. The meaning of the function of a house is as a protective device against various types of weather, fishermen who are in it will be protected. The meaning of security is how the shape of the house is able to be strong when the waves and storms do not weaken the construction.,(4) the meaning of comfort, and (5) the meaning of beauty.

The embodiment and development of the form of housing units on traditional fiber fishing boats in Cilacap, has stories and experiences that can be traced. The incident of the creation of a fishing boat housing unit has been going on since the fishermen in Cilacap held a life with him. The geographical location and topography of this area are very influential in determining the quality conditions & characteristics of its natural ecology, thus affecting the creation of marine cultural products. Meanwhile, fishermen who adjust to the nature of the natural ecology, then develop the nature and cultural system that reflects their needs, desires and fears. The three units of reflection encourage fishermen's creative efforts in realizing tools that can make it easier to make a living at sea. The problems mentioned above are the results identified from the phenomenon of material objects and are summarized into main problems that can be formulated as follows; What is the shape of the housing units on traditional fiber fishing boats in Cilacap?

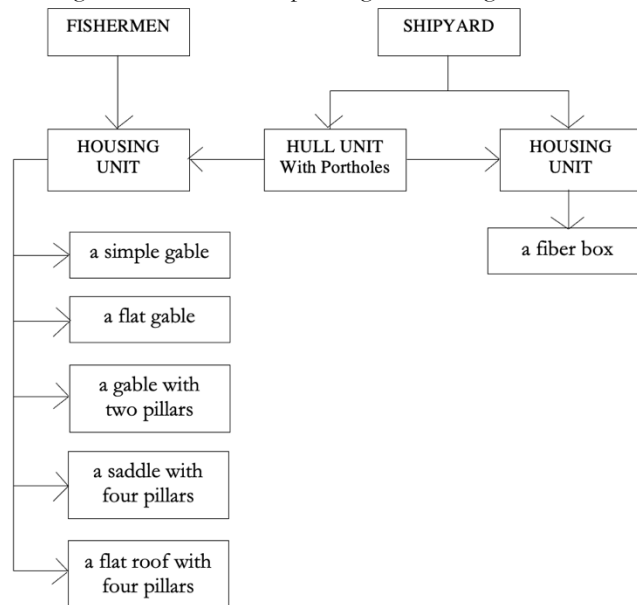
The purpose of this study is to fully or paradigmatically explain the elements that make up the housing units on traditional fishing fiber boats in Cilacap. The research was conducted aimed at knowing the shape of the traditional fishing fiber boat housing unit produced by shipyard workers or produced by Cilacap fisherman, the formal object of knowledge about the holistic system aspects of the home unit supporting the boat's function as a whole. The theoretical benefits of this research are: (1) The benefits of developing knowledge from a culture of the Cilacap fishing community, which can be utilized as part of a maritime science group, namely industrial product design science in the maritime context, and (2) as a guide and tool for shipyard workers and fishermen independently in the form of awareness of their capabilities that can be developed into a potential business for similar product industries independently. The practical benefit of this research is in the form of competency values possessed by craftsmen to make a shipyard is to have intangible assets and shipyards have more value than those recorded in the physical asset book.

The literatures on the categories that make up the knowledge of engineering and design are as follows; Fuadi et al. (2020) said that the design and construction of fiberglass reinforced plastic (FRP) boats as an alternative material to replace wood in the manufacture of boat tools is based on the natural conditions of Cilacap (Fuadi et al., 2020). Yulianto et al. (2013) added that fishermen are able to form their own, armed with guidelines from previous boat designs, so that the process of planning drawings is not used (Yulianto et al., 2013: 43). Saputra et al. (2019) said that the factors that must be considered in the formulation of the design, especially those related to water characteristics (Saputra et al., 2019: 33). Boat craftsmen who have a fishing background or who are not fully aware of the situation at hand, for this reason, shipyard workers carry out a formation strategy to provide values for fishermen. To present this, Bastaman in Kusuma (2019) mentions several actions as concepts, namely; creativity, appreciation, and attitude (Kusuma 2019, 66). The literature on categories that form the knowledge about inherited knowledge, namely: according to Sunani (2019) this is the basis of traditional boat building, which refers to the foundation of belief (Sunani, 2019: 75). Horridge (1986) argues that regular changes and developments in ship design occur when the minds of craftsmen are pushed out of consciousness or rationalized, and they are made honorable in the cloak of cultural traditions in the form of beliefs (Horridge, 1986: 239). Sugiarto et al. (2020) stated that the construction design and technology for making additional tools are cultural heritage (Sugiarto et al., 2020). Horridge (1986) concludes about boat modifications, that for today's boat owners it is in the same boat that their ancestors had, but only made of different materials or trees or something else (Horridge, 1986: 200).

Phenomenological is natural things that are scientific. Just as the results of subjective research reflect conditions that are truly objective. In other words, the more subjective the phenomenological research, the more objective the research is (Kuswarno, 2009). Thus, the use of qualitative research methods in the ethnoart paradigm based on the philosophy of phenomenology, this research needs to be supported by an emic approach as a strategy to explain material objects. While the ethical approach is to strengthen the scientific basis of the object.

The shipyard produces hull units by only providing foundation points for the establishment of housing units that will be made by the fishermen themselves. The form of the housing unit consists of a home made by a shipyard and a home made by a fisherman. The housing units made by the shipyard use a basic structure made of wood which is then covered with a layer of fiberglass resin as the roof and walls. House units made by fishermen are all constructed using wood. Houses made by fishermen without using walls, only using roofs of the type and shape that suit their needs. The shape of the roof of a fisherman-made house unit has several types, namely: (1) a simple gable shape, (2) a flat gable shape, (3) a gable shape with two pillars, (4) a saddle shape with four pillars, and (5) flat roof with four pillars.

Diagram 1. Rationale Explaining of Housing Unit Forms



The housing structure has three building units, namely; (1) foundation construction, (2) roof support construction, and (3) roof construction itself which becomes important as protection from the weather. The characteristics of the housing unit construction are reflected in the four units of meaning contained, such as; (1) the meaning of function, (2) the meaning of security, (3) the meaning of comfort, and (4) the meaning of beauty. The hull unit on a boat is the part of the boat that rises to float, or floats either in or on the water. The hull of the boat does not include any masts, sails, rigging, machinery or other equipment. According to Satoto et al. (2019), that the hull

on a boat or ship is a useful part to provide buoyancy to the ship. The buoyancy functions as a force in supporting the load from passengers and the contents of the ship's cargo (Satoto et al., 2019: 20). Provision of points for housing units in the form of holes for foundations by shipyards aims to make it easier for fishermen to plug roof supports. Holes are made using pralon pipes of the same size for each.

The idea of a housing unit on a fishing boat is a solution to solving problems related to weather protection. The problems that were successfully mapped and collected by fishermen and shipyards became an opportunity to plan a change. The forms of housing units made by fishermen are fairly simple, in contrast to the forms of home units made by shipyards. Fishermen form units according to budget conditions and material convenience, while shipyards form units according to the function and style of the shape of the boat. For fishermen, each element of the housing unit has a concrete role and function. This is in accordance with Louis Sullivan's slogan Form Follows Function, a first principle for all modern design (Sabatari, 2006: 241). The statement explains the intention that the shape and outward appearance of any tool or item is made to follow or is a result of the operation of its function. According to Fieldman in Sabatari (2006) of the view, that there are real relationships and relationships. An object should be as it is and according to what it was made of (Sabatari, 2006: 242). Based on this principle, the form of a housing unit consists of a unity of elements based on their respective functions and roles.

B. METHOD

The qualitative paradigm is used to reveal the big picture of a housing unit form of a traditional fiber fishing boat as it is. The research of this model is to study objects in their natural context, to understand, or to interpret, phenomena in terms of the meanings that humans attach to them, and to seek answers to questions that highlight the ways in which socio-cultural experiences arise and acquire meaning. (Denzin & Lincoln [Trans. Dariyanto], 2011: 6).

The primary data sources were collected directly from the research location, namely: (1) Lengkong Village, Mertasinga Village, North Cilacap District, is a gathering place for traditional boatyards (2) Beaches along Cilacap Turtle Bay, as a gathering center for traditional fishing outrigger fiber boats, and (3) Karang Talun Village, South Cilacap District, is a gathering place for river fishermen and old fishermen and old boat craftsmen. Primary data from interview results are divided into several categories, namely; (1) Fiber boat shipyard owners, (2) fisherman shipyard workers (3) non-shipyard fishermen, (4) fiber boat experts, and (5) traditional boat observers.

Observation of the traditional fishing fiber boat structure in the form of its elements, and linking into the context of meaning, so that its aesthetic values will be revealed. Literature study collected data in the form of descriptions of fiber boat housing units up to the typical ones, while the socio-cultural conditions in the research area were needed as context. The literature on the social structure of the coast and the anthropology of fishermen explains the reality of the material object. To get the types of quantitative data such as working drawings, demographics, and statistics of the object being studied, it is done by viewing or recording the data that has been obtained. Interviews are directed to informants who are considered to be able to provide information or information about the ins and outs of material objects for housing units, while still taking into account the criteria and the reasons for selecting information, including taking into account the credibility and reputation of the informants. The informant retrieval technique uses purposive sampling, namely by selecting the informants who are considered to know the most, and who are in accordance with the research needs. The main informants are from four observer's perspective, three expert perspective informants, and three informants from the user's perspective or the fishermen themselves. Photographic documentation of housing units on fiber boats was obtained directly in the field. Other documentation is also widely spread in online and offline media. The data from the interviews were documented in the form of written notes and notes recorded through a tape recorder. The validity of the data was obtained by using an applicative technique with the implementation of data triangulation with three comparison procedures, namely: (1) by comparing the results of interviews with observational data, (2) comparing data from scientific documents related to informant information, and (3) comparing sources with one another. With data from other resource persons (Moleong, 2017: 100). A multi-perspective view with data triangulation techniques can be used as a way to draw conclusions that are not only from one point of view (Sutopo, 2002: 108). Analysis of the data obtained in this study is the result of continuous, repeated, and continued efforts (Kuswarno, 2009).

The function in theory of Papanek is used to examine the meanings of home design buildings as part of a traditional fishing boat system. There are six categories of functions in the study of a house unit design on a boat, namely: (1) needs, (2) uses, (3) methods, (4) associations, (5) aesthetics, and (6) consequences (Alif et al., 2015: 394).

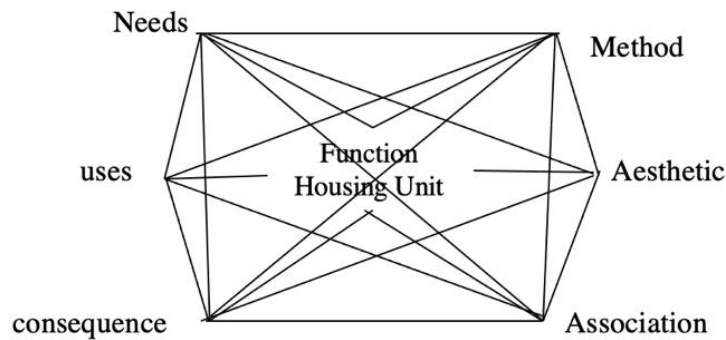


Figure 1. The function in theory of Papanek Diagram

This study borrows these six categories, First; The function of the category of needs referred to by Papanek is that the outrigger fiber boat is designed and implemented because of the importance of meeting the needs to fulfill their life. Second; the function of the usability category is that each element must display a performance so that fishermen can use it, third; the function of the method category is that it relates to the combination of tools, processes and materials in realizing the aforementioned needs, fourth; function in the consequence category from the fisherman's point of view, that's a good outrigger fiber boat design or design is one that is able to reflect social and cultural meanings. (Alif et al., 2015: 403). Papanek's theory of function will be used as a guide to knowledge of the form of housing units consisting of elements that function and strengthen one another.

Samples of the home design were taken from several fiber boats owned by fishermen along Penyu Bay of Cilacap, and some were taken from the harbor and downstream of the river. Samples were taken from several different places with the aim of being able to represent the types of home design variants made by traditional fishermen in Cilacap.

C. RESULT AND DISCUSSION

Housing Unit Foundation Structure. According to local fishermen said, that home element means function, security, comfort and the meaning of beauty. Design a system of home elements made by fishermen in a simple way, using wood or bamboo tied to a fiber boat structure. While the structure as a foundation to support bamboo or wood is in the interior of the hull. The foundation for building housing units has become the same language in every shipyard to provide points for the foundation holes. Local fishermen said that it was important to communicate to the boat craftsmen in advance, so that it was made according to the wishes and desires of the fishermen, both in terms of size and location of the foundation construction points. Local fisherman 1 mentions:

"That it is important to first communicate to the boat workers at the shipyard, so that it is made according to the wishes and desires of the fishermen, both in terms of the size and location of the foundation construction points."

The need for the foundation has been identified by the shipyard since the beginning of the construction of the hull, because the shipyard workers are from fishermen. Sometimes the shipyard adjusts to the demands of fishermen. This is done because they adjust the home units made by fishermen for their own convenience. The purpose of the foundation provided for fishermen is to put the pillars supporting the roof of the housing unit they make. The foundation method applied to the hull is by placing the foundation point at the latitude of the center line of the hull, this method is carried out as a standard for providing the foundation point of the shipyard. See the information in Table 1 below:

Table 1. Home Unit Foundation Tubes


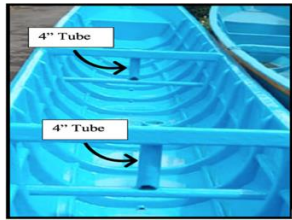
Figure	Information
	<p>The roof foundation uses a paralon pipe material with a diameter of 4-8 inches, which is installed and placed on the center line of the boat. mounted on sheer (sheer or transverse boat bone reinforcing bearing)</p> <p>The foundation pipe is cylindrical in the form of PVC material with a hole diameter of approximately 10cm or 4” inches, with a pipe (tube) height of 40cm to 50cm.</p>
	<p>Pillars for home unit foundation on the inside of the boat fiber glued to the sheer and tied to the wooden cross (Reinforcement)</p>

Figure 2. Pillar Foundation Pipe
Source: Photo Rochyat 2022

Figure 3. Foundation Pipe 4”
Source: Repro photo of Seno Nusakambangan 2021

Aesthetic elements can be seen from the creativity of fishermen in the results of home designs that produce several foundation points, which are then followed by other fishermen. The foundations that fisherman has made housing units were found, that; (1) The foundation is provided by the shipyard according to the orders and wishes of the fishermen, but there are times when the shipyard prepares without being ordered, (2) the shipyard only provides foundation tubes (on the bow sheer and stern sheer) only. (3) it is very rare for fishermen to order more foundation tubes than what fishermen usually order, (4) in some special cases fishermen order more than 2 tubes placed in a rectangular shape, usually for other types of roof construction, and (5) the function of this foundation, it will not only be used as a roof pole but also widely used by fishermen

as a pole to hang lights. The consequence of making the foundation of the tube model, has an impact on the lack of creativity of fishermen and shipyards. Changes in the structure will occur if there is interference from the outside, such as weather that causes damage to the structure of the pile and its foundation. This foundation structure can be interpreted associatively as a form of appreciation by the shipyard to local fishermen. This award is certainly highly expected by shipyards by continuing to order hull units from them.

Several types of home elements are the result of fishermen's creativity based on their respective needs when operating at sea or when operating in rivers. Various models of home design elements are made from the simplest forms to forms that cost more. Classified based on observations, that there are two types of roofs on the housing unit system made by fishermen, namely; (1) housing units with a gable roof, and (2) housing units with a triangular roof. Both models are made and planned using materials as needed.

A Simple Gable Model, a simple saddle roof model is made with a support construction of bamboo. This design is called a home element with a roof made of plastic tarpaulin. Bamboo stick construction is installed in the middle by extending from the bow to the stern of the boat. Plastic sheeting is placed on top of the bamboo that goes down, and tied to the plisir of bamboo or attached to the right or left side of the boat.

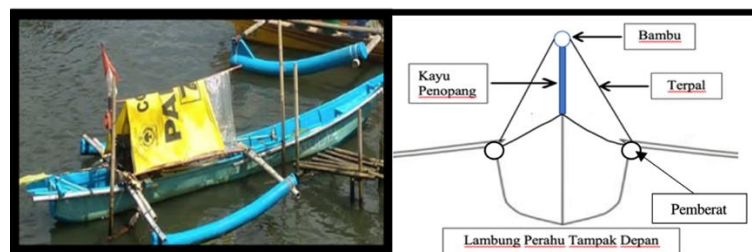


Figure 4. Simple Gable Roof House With Bamboo Pole Construction
Source: Repro From Teguh 2021

The need for fishermen to use a simple saddle model is when they don't have to spend a lot of money. The way to install a simple saddle model is with bamboo or wood rods as the main supporting tool for the gable roof plastic sheeting for the housing unit, which is placed in the foundation hole that has been prepared by the shipyard. Two bamboo sticks are placed in position, namely at the stern and bow vertically following the center line of the hull unit. The ends of the bamboo rods in the stern position of the boat are connected to bamboo that has been placed on the bow, both of which are connected by a horizontal bamboo rod. Then spread a plastic tarp or cloth or woven bamboo (*samak*), after which bamboo is tied at each end as a ballast. Bamboo weights are placed on the outer of the boat as a barrier. The usefulness of using this model according to the fishermen, namely: (1) that the load is light on the boat, (2) control and control

of the rudder do not affect the level of strong winds, (3) it is easy to dismantle and install quickly, and (4). Doing home building construction is easy to do. The consequences of using this model are several obstacles, including: (1) the passenger capacity in the house only fits in a parallel position looking for the bow, (2) the use of plastic sheeting or cloth is easily torn or damaged, due to the activities of fishermen in high sea waves. Unstable, this is because the service life of the material is short, but (3) the roofing material will be easy in terms of storage in the boat. For fishermen, the roof of the home unit with a simple saddle model is not too concerned with the beauty of the roof, the function as a protector is enough to give the value of its beauty. If fishermen find plastic sheeting with beautiful patterns, it is possible that there is an aesthetic value there. For observers, this model is associated as a reality for fishermen with the lower economic class.

A Flat Gable Model, the need of saddle/gable model house element has been modified, to get a wider space for fishermen's activities at night or just to rest. The modified design of this simple saddle model uses the method of two bamboos attached to the roof support connection made of wood/bamboo. The covering/roofing material still uses tarpaulin or cloth tied to the port and starboard of the boat.

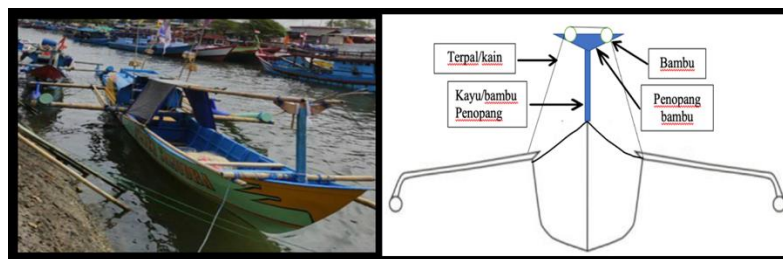


Figure 5. Flart Saddle Roof House Model
Source: Repro From Teguh 2021

Fishermen use this model with the aim of increasing the space in the passenger. Fishermen use this model by bringing more than one crew on their voyage. The consequence of using this model is the construction of bamboo supports on the roof against bamboo/wood foundations that are easy to loosen and shake, caused by swaying waves. So there is an additional structure as a reinforcing construction in the form of wooden supports on the front and stern. Aesthetically, the use of this model gives the impression of strength and a solid impression than a simple gable roof model. The observed association considers that the development of the flat palate model housing unit will add to the load on the boat, although the change in weight is not too significant, but what happens is that it adds to the stability of the boat according to the fishermen.

A Gable with Two Pillars, the modified saddle model housing unit uses two supports at the front and the stern of the boat, which is needed to get more space and a more open view of fishermen. This roof model is usually not used for overnight fishermen, but rather not for long use not far from the mainland.

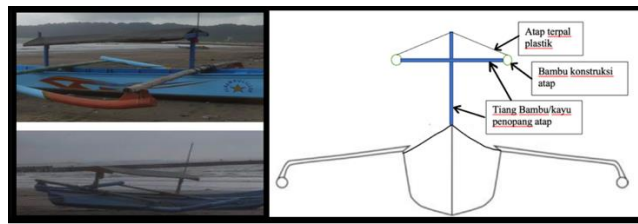


Figure 6. Modified saddle housing design on the roof support
Source: repro from Perahu Kahuripan Nusantara 2013

The installation method is that fishermen use a roof made of tarpaulin or waterproof cloth in this design, just to protect it from the sun. Plastic sheeting into a single unit with bamboo as a rolling tool. Fabrics or tarpaulins can be used as curtains to block out the sun or other weather. The value of convenience for: (1) Easy to be dismantled and reassembled, according to the needs of fishermen and fishing boat, renters, (2) not too burdensome, (3) the level of stability of the steering wheel with this type of roof is still in the tolerance stage, which is an advantage. The uses of the use of a gable roof design with two pillars are: (1) easily broken during high tides and strong winds, this is caused by the load of the bamboo roof and tarpaulin resting on top, and (2) there is no storage area for the roof that has been dismantled (rolled), it will disturb the boat crew if it is placed lengthwise in the cabin. This model is associated by observers as one of the frail designs or designs that break easily.

A Flat Saddle with four Pillars, flat roof model housing units are needed for use on rivers or not far in the middle of the sea. The need for this model is specifically for makeshift head protection by fishermen. This fisherman's design is not to be used in seas that are far off or closer to the mainland, and is only used when the weather really supports marine fishing activities, therefore river areas with calm waters are very suitable.

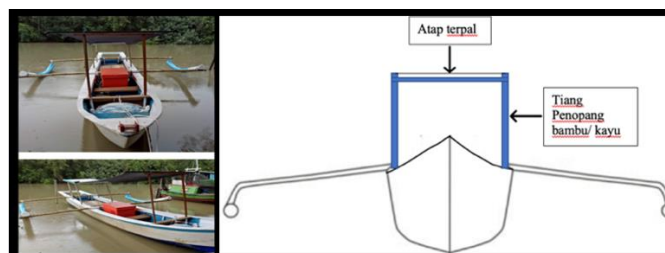


Figure 7. A Flat Saddle with four Pillars

Fishermen who use this house model with four supporting pillars use a new foundation method that is inserted at the edges of the hull. The use of the foundation provided by the shipyard is sometimes used in addition to reinforcing pillars, although this is rare. This model house is often seen at the entrance to the Cilacap port and at the flow of rivers. Boats with houses like this are used by fishermen as a place to sell their catch directly from the boat. Consequently, many types of houses like this are made semi-permanent so as not to be dismantled and reassembled. The

serious impact for fishermen who will change to return to marine mode will require strong measures to dismantle the houses caused by semi-permanent treatment. The meaning of the flat roof shape with four pillars is very liked by fishermen who directly sell their catch without going through fish auction places. In addition, it means that it does not require disassembly and does not require storage space. The aesthetics of this form is the useful value that is present in these meanings. The shape of the flat roof model with four pillars is associated as a trading place with mobility by some observers.

A Triangular Roof With Four Pillars, A triangular roof housing unit is needed with the meaning as a useful tool to facilitate the flow of rainwater down. Many fishermen who use the triangular roof model are based on their aesthetic experience as Javanese. Javanese houses generally use a triangular roof model. The part of the house that is easiest to identify in physical form is the embodiment of the roof of a traditional Javanese building, the roof of a traditional Javanese building takes the philosophy of the mountain (Hermawan & Prihatmaji, 2019: 388).



Figure 8. A Triangular Roof With Four Pillars

Same as like flat roof model with four pillars. Fishermen who use this triangular roof house model with four supporting pillars use foundation method that is inserted at the edges of the hull. The use of the foundation provided by the shipyard is sometimes used in addition to reinforcing pillars, although this is rare. For fishermen, the advantages of the triangular roof housing unit are: (1) increasing the area of the passenger cabin, (2) housing poles can be used as a sway retaining handle, (3) increasing the attraction for boat buyers if the owner wants to sell it, and (4) this type of housing It is preferred by tourists and fishermen who will rent a boat. The house with a triangular roof shape like the roof of a house in general (saddle model), which is supported by 4 columns (pillars) made of wood or bamboo adds to the impression of a solid impression of this fisherman's design. The associative unit on the roof of the house as a real reality for fishermen adds confidence in their business. The roof of this model house is often associated with the real house by fishermen. The consequences in the form of complaints from fishermen regarding this design are: (1) The boat load becomes heavier, if it is added to the catch and the addition of the boat crew, and (2) the lower level of stability of the boat against big waves, especially when hitting coastal waves when going to sea.

Housing Units Made by Shipyard, so far, shipyards will only make home-based units based on orders from fishermen. Shipyards do not make various kinds of home models, but according to the number of buyers' wishes. With the characteristic of fiber boats made by the shipyard in Cilacap which are fast boats, the design of the home elements adjusts to the shape of the hull of the boat. This is more due to the understanding of the aesthetics of workers in the shipyard based on their visuals. Workers as well as observers of objects that have the properties of speed objects will tend to direct the idea of the shape to the nature of the object. Understanding or appreciation has a logical dimension. Appreciation requires skills and aesthetic sensitivity in observing works of art (Dharsono, 2020: 38). There are two shipyards that produce home units for sale to fishing buyers, namely the Narsam shipyard (N-Sam) and the Sahroni shipyard (Roni Marine).

N-Sam Shipyard Housing Unit, same with the Roni marine shipyard, that the design of the housing unit made by the N-Sam. The shipyard is made to follow the shape of the boat hull, but with the need for additional places to store goods or other equipment above the housing unit. The need for a design that adapts to the shape of a flat hull, so that the shape of the home element is adjusts to the shape of the hull of the boat, so that it has a unity with the shape of the boat.



Figure 9. A Housing Units Made by N-Sam Shipyard

The method of making the construction of a housing unit made of wood as a reinforcement for the structure of the house, given a wall coated with fiber resin. The walls of the housing units are made of multiplex coated with fiberglass resin according to the size of the construction. The housing unit is placed slightly to the stern. The housing shape covers the sides and back, and forms a cut back. While the position of the housing placement is placed on the stern of the boat right in front of the steering wheel and the outboard motor engine. See figure 10 below:



Figure 10. A Housing Units Placement Made by N-Sam Shipyard

According to the N-Sam shipyard, the home unit must have an aesthetic aspect that gives fishermen a sense of satisfaction. A sense of satisfaction and beauty is cultivated by the shipyard by designing a home unit in a harmonious form. The unity of form that is arranged between the

hull of the boat and the housing. In addition to having a protective function, fishermen's homes are also interpreted as a form of prestige value because they are able to buy houses with good quality. Fishermen order and use housing units made by the N-Sam shipyard because according to them: (1) The construction is sturdy and strong, (2) The disassembly system is easy if you don't want to use it, (3) The colors and writing don't fade because they blend with the gelcoat layer, and (4) given the freedom to determine the style and writing on the walls of the housing unit. The consequences of using housing units from this shipyard are; (1) The thin resin layer is easy to break, (2) there is frequent weathering of the frame on the inside, and (3) fishermen complain that the writing and color designs cannot be changed or as desired. The shape of the housing unit with the sharp style displayed by the N-Sam shipyard forms an associative meaning on the hull unit as a whole, as shown in Figure 10. A boat with fast characteristics combined with a sharp shape is associated with a knife ready to split the waves.

Roni Marine Shipyard Housing Unit, the production of home units made by the Roni shipyard is made based on the needs of fishermen, especially fishermen from outside Cilacap. The housing unit is made larger than the housing unit made by the N-Sam shipyard. The Roni Shipyard accommodates the needs of more fishermen. The shape of the housing unit is widened on the side of the boat hull, with additional places to store goods or other equipment inside the unit, not outside the unit as made by the N-Sam shipyard. See figure below.



Figure 11. A Housing Units Made by N-Sam Shipyard

The same method as made by the N-Sam shipyard, that the construction of the housing unit is made of wood as a reinforcement of the unit structure, then the walls of processed wood are coated with fiber resin. The quality of home crafts from the Roni shipyard is thicker and stronger in construction and structure, this is what attracts fishermen because of the sturdy and strong walls. The consequences of choosing a housing unit from the Roni Marine shipyard have an impact on (1) The weight of the hull unit which is getting closer to the water limit depicted on the wall, and (2) the engine performance becomes heavier which results in fuel consumption efficiency. However, the design of the unit shape The house is adapts to the shape of the hull of the boat, so that it has a unity with the shape of the boat which gives rise to the same associative meaning as N-Sam's.

D. CONCLUSION

Papanek point of view for housing units in general is to see the overall of its function. Housing design is basic to all fishermen activities. The planning and patterning of any act inside shipyard or fishermen produced towards a desired, foreseeable end constitutes of all meanings. For fishermen, the housing unit is to make and mean a protective function from the weather and sunlight, there is no intention from fishermen to further beautify their housing designs. The housing unit for fishermen, it is a means or tool to increase their catch, by providing a sense of security and comfort at work. The construction of wood or bamboo in housing unit design can also serve as a place to put lighting if fishermen are sailing at night.

For young fishermen and seasonal fishermen, housing unit means style or identity, so they rarely use home. Therefore, young fishermen prefer housing units made by shipyards rather than making their own. The foundation for the housing unit is provided by workers at the shipyard according to the orders and wishes of the boat buyers, but there are times when the craftsmen prepare without being ordered. The shipyard has created a housing unit design with an appearance that is tailored to the wishes of young consumers, namely the high-speed design style. For some local traditional fishermen, the traditional design of a gable roof model with four pillars is not preferred, because it will cost more to build it. The low-cost housing units are built and fastened to the boat hull unit firmly in the hope that it will not break in unfavorable weather. Of course, taking into account the supply of bamboo and wood as traditional materials that are abundant in Cilacap. The design of the housing unit by fishermen is not used in seas that are far away or close to land, and is used only in weather that really supports marine fishing activities. The aesthetic value for traditional fishermen lies in the problem of the artificial ability to function when needed. This kind of joy will be shared with other fishermen about their own home units.

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