Indonesian's Convivial Society Products

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Abstract— Indonesia has an endless diversity of natural resources and human craftmenship expertise resources, saving a million potential to be developed. Many products are functional and aesthetic have been produced a long time ago, such as carts, *gendongan jamu, kentongan, bedug, becak, delman, angklung*, etc. Those products are appear without the participation of product designer which earned formal education in the modern era. These genius product design appear without known the history, product concept. Suddenly, the product has been attending in community since ancient times.

Ivan Illich, an Austrian Design Sociology expert, wrote a theory in Tools for Conviviality (1973). Illich saw one other alternative to posti ndustrial society, namely the implementation and development of technology convivial form of integration of ethics, morality, and social change that is more humane. Illich assess, design science of nature can also be used to simplify the tools to enable ordinary people to build their own environment.

Convivial society is a society that has freedom in running their daily life. They are built with the possibility of each of its members to run its system of social life independently without the help of others. Designs that living in such a society, must be the designs that are actually understated, easy to use, the material there is around and the community to create their own.

This theory underlying the exploration from the writer to open the eyes more clearly and make observations of products around us that have emerged, which still continues to use modern society. So we can more proud to use products made by our own people.

*Index Terms— **convivial society, vernacular design, design sociology, craftmenship, Indonesian's cultural heritage***

I. INTRODUCTION

When talking about the convivial society, can not be separated from the theory of Vernacular Design. Architecture Without Architects is a book written by Bernard Rudofsky was published in 1964. This book provides an overview of the wealth of artistic, functional, and culture of vernacular architecture .. Vernacular design is influenced by a large variety of different aspects of human behavior and the environment, which leads to the shape of the building / different products for different contexts almost every, even the neighboring villages may have a slightly different approach to the construction and use of their residence, even if they at first appear similar. Despite this variation, any building or product is subject to the same laws of physics, and therefore will show significant similarities in structural forms.

Vernacular product is a term used to categorize methods of construction which use locally available resources and traditions to address local needs and circumstances. Vernacular product tends to evolve over time to reflect the environmental, cultural and historical context in which it exists. It has often been dismissed as crude and unrefined, but also has proponents who highlight its importance in current design.

It can be contrasted against polite architecture which is characterised by stylistic elements of design intentionally incorporated for aesthetic purposes which go beyond a building's functional requirements.

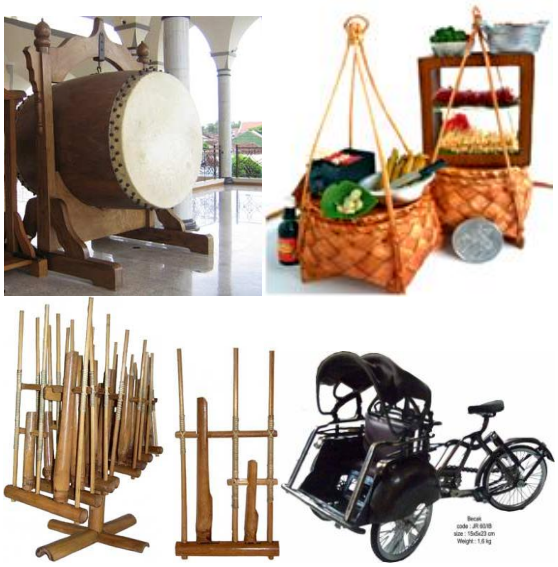

Fig 1. (Up-left to bottom-right), Bedug-pikulan-angklung-becak, Indonesian's *convivial society* product (Source:http://images.djawatempodoeloe.multiply.com)

II. FUNDAMENTAL THEORY

Sociology of design as a new study area[1]

The three figures below are the authors assessed the pioneering studies of sociology of design, although less so popular in the social sciences, but among the designers, many of the ideas that inspired the design of various policies.

1. Nigel Cross

• Design is not like a crossword puzzle or guessing game.
• Problems contain design aspects of the problem of overlapping and complex.
• Designers usually work in a “dark” situation and design issues is a 'hard' matter.
• Prickly all social problems is a designer’s 'crime'.

2. Victor Papanek

• The designers are required to consider social behavior.
• Desigenr must have a social responsibility, provide alternative designs for the handicapped and the poor in the world.
• Papanek give attention to social inequality.

3. Ivan Illich

• Implementation and development of technology and the concept of convivial society.
• Science is used to simplify the design of tools to enable the cloud to be easy to use, completely unpretentious and can be made by the public.

Ivan Illich profile[2]

Illich was born in Vienna to a Croatian father—engineer Ivan Peter Illich and Sephardic Jewish mother—Ellen née Regenstreif-Ortlieb and had Italian, Spanish, French and German as native languages. He later learned Serbian, the language of his grandfathers, then Ancient Greek and Latin, in addition to Spanish, Portuguese, Hindi, English, and other languages. Thereafter, he studied histology and crystallography at the University of Florence (Italy) as well as theology and philosophy at the Pontifical Gregorian University in the Vatican (from 1942 to 1946), and medieval history in Salzburg.

In 1961, Illich founded the Centro Intercultural de Documentación (CIDOC, or Intercultural Documentation Center) at Cuernavaca in Mexico, ostensibly a research center offering language courses to missionaries from North America and volunteers of the Alliance for Progress program initiated by John F. Kennedy. His real intent was to document the participation of the Vatican in the "modern development" of the so-called Third World. Illich looked askance at the liberal pity or conservative imperiousness that motivated the rising tide of global industrial development.

In the 1970s, Illich was popular among leftist intellectuals in France, his thesis having been discussed in particular by André Gorz. However, his influence declined after the 1981 election of François Mitterrand as he was considered too pessimistic at a time when the French Left took control of the government. In the 1980s and beyond, Illich traveled extensively, mainly splitting his time between the United States, Mexico, and Germany. He held an appointment as a Visiting Professor of Philosophy, Science, Technology and Society at Penn State. He also taught at the University of Bremen.

Concepts :

1. Counterproductivity

The main notion of Ivan Illich is the concept of counterproductivity: when institutions of modern industrial impede their purported aims. For example, Ivan Illich calculated that, in America in the 1970s, if you add the time spent to work to earn the money to buy a car, the time spent in the car (including traffic jam), the time spent in the health care industry because of a car crash, the time spent in the oil industry to fuel cars ...etc., and you divide the number of kilometres traveled per year by that, you obtain the following calculation: 10000 km per year per person divided by 1600 hours per year per American equals 6 km per hour. So the real speed of a car would be about 3.7 miles per hour.

2. Radical monopoly

He invented the concept of radical monopoly: when a technical medium is or appears to be more effective, it creates a monopoly which denies access to other media. The mandatory consumption of a medium which uses a lot of energy (for example motorised transportation) narrows the fruition of use value (innate transit ability).

By "radical monopoly" I mean the dominance of one type of product rather than the dominance of one brand. I speak about radical monopoly when one industrial production process exercises an exclusive control over the satisfaction of a pressing need, and excludes nonindustrial activities from competition.

3. Conviviality

Illich worked to open new possibilities. He argued that we need convivial tools as opposed to machines. Tools accept more than one utilisation, sometime even distant from its original means, so a tool accepts expression from its user. On the contrary, with a machine, humans become servants, their role consisting only of running the machine in a unique purpose.

[1] Sachari, Agus, 2002, Sosiologi Desain
[2] www.wikipedia.com

Fig 2. Indonesian (left) and European (right) *convivial society*
Source:(http://siswa.univpancasila.ac.id& http://www.winesongfestival.hu)

Vernacular Design[3]

The term vernacular is derived from the Latin *vernaculus*, meaning "domestic, native, indigenous"; from *verna*, meaning "native slave" or "home-born slave". The word probably derives from an older Etruscan word.

In linguistics, vernacular refers to language use particular to a time, place or group. In architecture, it refers to that type of architecture which is indigenous to a specific time or place (not imported or copied from elsewhere). It is most often applied to residential buildings.

Ronald Brunskill has defined the ultimate in vernacular architecture as: ...a building designed by an amateur without any training in design; the individual will have been guided by a series of conventions built up in his locality, paying little attention to what may be fashionable. The function of the building would be the dominant factor, aesthetic considerations, though present to some small degree, being quite minimal. Local materials would be used as a matter of course, other materials being chosen and imported quite exceptionally.

[3] www.wikipedia.com

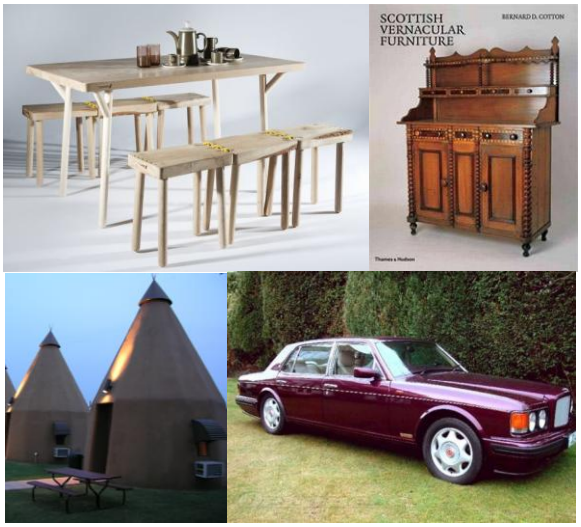

Fig 3. Vernacular product (up-left to bottom-right), superfolk furniture, scotish furniture, Mexican house, bentley 1990
(Source: http://autopolis.wordpress.com)

The Encyclopedia of Vernacular Architecture of the World defines vernacular architecture as:
...comprising the dwellings and all other buildings of the people. Related to their environmental contexts and available resources they are customarily owner- or community-built, utilizing traditional technologies. All forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and ways of life of the cultures that produce them.

Fig 4. Vernacular product as a support for Indonesian's *convivial society*
(Source:http://images.djawatempodoeloe.multiply.com)

III. METHODS

The purpose of this study are as follows:
1. To mapping Indonesian's convivial society products
2. To know the history of the concept-development-products
3. As an initial study of this type of product diversity in Indonesia, which will be poured in the bank book uniquely Indonesia's product design data

The study will use descriptive method that is the exposure of some literature and a study excursion to observe related products:

1. Visits to the cities that has a specific social and cultural life such as Jogjakarta, Bali, Aceh. also areas that have unique geographical contours such as mountains, beaches, islands region such as Bromo, Karimun, Lombok, Batu-Malang

2. Reviewing these data are based on the theory of convivial society and vernacular design as a basic theory
3. Compare with products in the modern era and post modern.
4. Analyzing the concept of convivial society product design
5. Recorded the findings of these case studies as a typical Indonesia's product design data bank

IV. RESULT

Vernacular product is influenced by a great range of different aspects of human behaviour and environment, leading to differing product forms for almost every different context. Despite these variations, every product is subject to the same laws of physics, and hence will demonstrate significant similarities in structural forms.

There are hughes amount of vernacular product in Indonesia, from Locarno Agreement about Industrial design, we will classified the product on to 31 categories, then we can map the Indonesian's convivial society product into it as we can see on Table 1 below

Tab. 1 Convivial society product based on Locarno agreement

Class	Categories	Convivial Society prod.
01	**Foodstuffs**	Categories as service product
02	**Clothing & Haberdashery** Lingerie, corsets, brassieres, nightwear, Garments, Headwear, Footwear, socks & stockings, Neckties, scarves	*Setagen, Kopiah, Blangkon,* cultural clothes
03	**Travel Goods, Cases, Parasols & Personal Belongings** Trunks, suitcases, briefcases, bags, keyholders, cases specially designed for their contents, wallets, Umbrellas, parasols, sunshades & walking sticks,	*Kain sewek*
04	**Brushware** Brushes & brooms for cleaning, Toilet brushes, clothes brushes & shoe brushes, Brushes for machines, Paintbrushes	*Sapu ijuk*
05	**Textile Piecegoods, Artificial & Natural Sheet Material** Spun articles, Lace Embroidery Ribbons, braids & decorative trimmings Textile fabrics, or natural sheet material	*Songket, batik, ulos*
06	**Furnishing** Beds & seats, Tables & similar furniture, Storage furniture, Composite furniture Other furniture & furniture parts Mirrors & frames, Clothes hangers Mattresses & cushions Curtains & indoor blinds Carpets, mats & rugs Tapestries Blankets & other covering materials, household linen & napery	*Amben, tikar anyaman, kasur samarinda,* traditional tapestry
07	**Household Goods** China, glassware, dishes & other articles of a similar nature, Cooking appliances, utensils & containers, Tables knives, forks & spoons, Appliances & utensils, hand-manipulated, for preparing food or drink, Flatirons & washing, cleaning & drying equipment, Fireplace implements	*Alu padi, kapak perimbas,* washing wood,
08	**Tools & Hardware** Tools & implements for drilling, milling or digging, Hammers, Cutting tools & implements, Screwdrivers, Handles, knobs & hinges, Locking or closing devices, Fastening, Metal fittings & mountings for doors, windows & furniture, Bicycle racks Gloves	Traditional knives, traditional weapon
09	**Packages & Containers for the Transport or Handling of Goods** Bottles, flasks, pots, carboys, demijohns, & containers with dynamic dispensing means, Storage cans, drums & casks, Boxes, cases, containers, tins or cans, Hampers, crates & baskets, Bags, sachets, tubes & capsules, Ropes & hooping materials, Pallets & platforms for forklifts, Refuse & trash containers &	Cart, *pikulan, pedati, anyaman rotan, sabuk kelapa* ropes, *legen* bamboo containers
10	**Clocks & Watches & Other Measuring Instruments, Checking & Signalling Instruments** Clocks & alarm clocks, Watches & wrist watches, apparatus & devices Instruments, Signalling, Casings, dials	*Bedug*
11	**Articles of Adornment** Jewellery Trinkets, table, mantel & wall ornaments, flower vases & pots, Medals & badges, Artificial flowers, fruit & plants, Flags, festive decorations	Traditional jewelry, clothes, *sekaten,ngaben*
12	**Means of Transport or Hoisting** Vehicles drawn by animals, Handcarts, wheelbarrows, Locomotives & rolling stock for railways, chair lifts & ski lifts, Elevators, Ships & boats, Aircraft & space vehicles, Motor cars, buses & lorries, Tractors, Cycles & motorcycles, Special-purpose vehicles, Tyres & anti-skid chains for vehicles, Parts	*Andong,* stair for harvesting enau, *phinisi, becak, karapan sapi, sepeda kebo, tambangan* boat
13	**Equipment for Production, Distribution or Transformation of Electricity** Generators & motors, Power transformers, rectifiers, batteries	Traditional windmill
14	**Recording, Communication or Information Retrieval Equipment** Equipment for the recording or reproduction of sounds or pictures, Communications equipment, wireless remote controls & radio amplifiers	Tin can
15	**Machines** Engines, Pumps & compressors, Agricultural, Construction, Washing, cleaning & drying machines, Textile, sewing, knitting & embroidering, Refrigeration & apparatus	*Songket* maker, *canting, bajak, bebegig*
16	**Photographic, Cinematographic & Optical Apparatus** Photographic cameras & film cameras, Projectors & viewers, Photocopying apparatus & enlargers, Accessories	*Layar tancep, layar wayang*
17	**Musical Instruments** Keyboard, Wind instruments, Stringed, Percussion, Mechanical	*Angklung, gamelan, bedug,sasando , kulintang*
18	**Printing & Office Machinery** Typewriters & calculating machines, Printing machines, Bookbinding machines, printers stapling machines	*Sempoa*
19	**Stationery & Office Equipment, Artists' & Teaching Materials** Writing paper, cards for correspondence & announcements, Office equipment, Calendars, Books, Materials & instruments for writing by hand, for drawing, for painting, for sculpture, for	*Batu bertulis*

	engraving & for other artistic techniques Teaching materials, Other printed matter	
20	**Sales & Advertising Equipment, Signs** Automatic vending machines, Display & sales equipment, Signs	Traditional gate, kampung signage, leaves map
21	**Games, Toys, Tents & Sports Goods** Games & toys, Gymnastics & sports apparatus, Other amusement & entertainment articles, Tents	*Patil lele, lompat tali karet, bakiak, batok kelapa*, traditionalsport
22	**Arms, Pyrotechnic Articles, Articles for Hunting, Fishing & Pest Killing** Projectile weapons, Other weapons Ammunition, rockets, Targets & Hunting & fishing equipment, Traps	Rat trapper, *ketapel, tulup*. Fish stick
23	**Fluid Distribution Equipment, Sanitary, Heating, Ventilation & Air-conditioning Equipment, Solid Fuel** Fluid distribution equipment, Sanitary appliances, Heating equipment	Api unggun
24	**Medical & Laboratory Equipment** Apparatus & equipment for doctors, hospitals & laboratories, Medical instruments, instruments & tools for laboratory use, nursing & medical care	*Mini alu, gerobak jamu*
25	**Building Units & Construction Elements** Building materials, Prefabricated or pre-assembled building parts, Houses, garages, Steps, ladders & scaffolds	Bamboo scaffolds, traditional house,
26	**Lighting Apparatus** Candlesticks & candelabra, Torches & hand lamps & lanterns, Public lighting fixtures, Luminous sources, electrical or not, Lamps, standard lamps, chandeliers, wall & ceiling fixtures, lampshades,	*Petromak, obor*
27	**Tobacco & Smokers' Supplies** Tobacco, cigars & cigarettes Pipes, cigar & cigarette holders Ashtrays Matches Lighters Cigar cases, cigarette cases, tobacco jars & pouches	Traditional tobacco maker
28	**Pharmaceutical & Cosmetic Products, Toilet Articles & Apparatus** Pharmaceutical products Cosmetic products, Toilet articles & beauty parlor equipment, Wigs, false hairpieces	River toilet
29	**Devices & Equipment Against Fire Hazards, for Accident Prevention & for Rescue** Devices & equipment against fire hazards Devices & equipment for accident prevention & for rescue	*Kentongan*
30	**Articles for the Care & Handling of Animals** Animal clothing, Pens, cages, kennels & similar shelters Feeders & waterers Saddlery, Whips & prods Beds & nests	Traditional birdcages, seller, tools for *topeng monyet*
31	**Machines & Applicances for Preparing Food or Drink**	Teapot

Based on the convivial society product before, we can see there are some factors we can recognize about the product existence

1. Climate

One of the most significant influences on vernacular product is the macro climate of the area in which the product is made. Products in cold climates invariably have high thermal mass. Products in warm climates, by contrast, tend to be constructed of lighter materials and to allow significant cross-ventilation through openings in the fabric of the building.

Products for a continental climate must be able to cope with significant variations in temperature, and may even be altered by their occupants according to the seasons.

2. Culture

The way of life of building occupants, and the way they use their shelters, is of great influence on building forms. The size of family units, who shares which spaces, how food is prepared and eaten, how people interact and many other cultural considerations will affect the layout and size of dwellings.

Culture also has a great influence on the appearance of vernacular products, as occupants often decorate products in accordance with local customs and beliefs.

Fig 5. (Left) Andong, a transportation product which adopt climate matter for cabin wind circulation; (Right) Alu padi, a rice pestle, beside function there's a cultural matter to celebrate harvest, the magnificent thing is they play music using mortar & pestle) (Source:http://planetmole.org)

3. Permanent dwellings

The type of structure and materials used for a dwelling vary depending on how permanent it is. Frequently moved nomadic structures will be lightweight and simple, more permanent ones will be less so. When people settle somewhere permanently, the architecture of their dwellings will change to reflect that.

Materials used will become heavier, more solid and more durable. They may also become more complicated and more expensive, as the capital and labour required to construct them is a one-time cost. Permanent dwellings often offer a greater degree of protection and shelter from the elements. In some cases however, where dwellings are subjected to severe weather conditions such as frequent flooding or high winds, buildings may be deliberately "designed" to fail and be replaced, rather than requiring the uneconomical or even impossible structures needed to withstand them. The collapse of a relatively flimsy, lightweight structure is also less likely to cause serious injury than a heavy structure.
Over time, dwellings' architecture / product may come to reflect a very specific geographical locale. Bedug is one of the example, sometime can be hanging or having a leg holder, the purpose is to stick

in some place

4. Environment and materials

The local environment and the construction materials it can provide governs many aspect of vernacular architecture. Areas rich in trees will develop a wooden vernacular, while areas without much wood may use mud or stone. In the Far East it is common to use bamboo, as it is both plentiful and versatile. Vernacular, almost by definition, is sustainable, and will not exhaust the local resources. If it is not sustainable, it is not suitable for its local context, and cannot be vernacular.

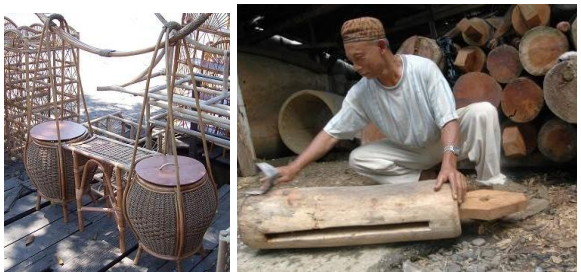

Fig 6. (Left) Pikulan dawet, a handcarry product to sell dawet, using rattan which we can found a lot in Indonesia; (Right) Kentongan, long-distance product for communication use which is made from hollow bamboo or wood
(Source: http://v-images2.antarafoto.com)

V. CONCLUSION

Indonesia has a noble culture, our spirit to creating something based on our highly craftmenship skill lead us became a country which has a good creativity skills. An abudance of natural resources also support it. Many products are functional and aesthetic have been produced a long time ago, such as carts, *gendongan jamu*, *kentongan*, *bedug*, *becak*, *delman*, *angklung*, etc. Are product design without product designer which earned formal education in the modern era**.** Vernacular product tends to evolve over time to reflect the environmental, cultural and historical context in which it exists. It has often been dismissed as crude and unrefined, but also has proponents who highlight its importance in current design to enhance Indonesian's future design.

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