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TRANSFORMING TRADITION FOR SUSTAINABILITY THROUGH ‘TCUSM’ TOOL

Abstract

The idea of transforming tradition is to keep various old-but-valuable traditions alive. It connects tradition with contemporary lives, and makes traditional things sustainable. During my work, both as a designer-maker and a researcher, I have built a model, named as TCUSM (an abbreviation of technique-concept-utility-structure-material) that functions as a tool for artists, craftspeople, designers, and art-design students, to help them transforming many aspects of tradition into a new object/product. This tool operates by arranging five components of tradition and modernity - technique, concept, utility, structure, and material - in resulting rich variations of new objects, a blend of the old and the new; in a new shape, new function, or new context. My paper aims to illustrate how this TCUSM tool works, with providing some design cases including also my own work. By presenting the cases, I will show that “To preserve tradition is to continuously develop it”. As long as some fundamental components of tradition – or at least one of them – are continuously transformed in the production of new objects, a part of our tradition will be kept alive and be sustainable.

Background: Seeking a tool for transforming tradition

I became a student in the faculty of art and design in Indonesia in 1983. At that time, following the rapid growth of industrialization in the country, many art and design educations often targeted their graduates to suite with contemporary life styles. In some extent, the education seemed to put too much weight to their students to deal with modern technology and new materials, but paid little attention in developing articles that rooted from local traditions. In design fields, for instance, the students were trained to be able to work mostly for industrial manufactures. They knew very well about new materials and processing technologies such as plastics, metal, and various composites, but they were unfamiliar with their own local materials such as various types of bamboo, wood, rattan, or natural fibre.
This concern has been continuously expanding in my mind until I became a teacher at the faculty of art and design in 1990. Being a teacher, I had a chance to run the courses for BA students that aimed to develop new things from our local traditions. These new things, might be as art, craft, or design objects, should have link with traditional materials, rural knowledge, or folk designs. Together with the group of art and design students I visited villages for working and experimenting new ideas and products with traditional craftspeople.

In 1991, with colleagues who were graduated from art and design school, and some from industrial management, we established an organization, named as ‘Design Service Foundation’. The organization aimed to give various traditional Indonesian crafts a new life. Together with craft community we were seeking ways to revitalize traditional material and technique. Here, our main intention was not only to encourage the sense of proud and independency among craft community, but also to strengthen cultural identity in designed object. It was highly considered that each village would have its own identity in its products or services, reflecting the availability of local sources, technology, and culture.

Doing those works, both in educational and design practices, yet I did not have any sophisticated method that could be used as a model, or guidance in the process of creating new object. It would be very helpful for the art, craft and design students, or craftspeople, to have such tool that can assist their work on developing something new from tradition. This searching for model has become the main spirit of my research: I have been seeking a model that can be used as a tool for transforming traditional value and cultural identity into a new object.

In this paper I will present the model I have been developing during my doctoral research work at the University of Art and Design Helsinki (now is Aalto University). I will discuss the issue begin with explaining the model I proposed, why it is needed, how it got its structure, and how it works, by providing some cases including my own works.

**The model: TCUSM tool**

I named the model as TCUSM tool. TCUSM is an abbreviation of technique-concept-utility-structure-material. It is a tool or device that can be used by artists, craftspeople, designers, and art-design students, to assist their work on transforming various aspects of
tradition into new objects or new products. One uses TCUSM as a model, a guidance in the process of creating new object. TCUSM tool helps artists or designers conceptualising ideas systematically. This tool operates by arranging five components of tradition and modernity - technique (T), concept (C), utility (U), structure (S), and material (M) - in resulting new objects. When designing new object inspired from tradition, TCUSM tool guides the user to deal with the issues involved: what factors should be considered, what elements of tradition can be used in producing new objects/products, and how to combine tradition with modern elements?

TCUSM tool has been continuously reshaped in every design project I conducted during my research. Through conducting production of objects and two workshops for craftspeople and art-design students, the models were repeatedly developed and tested.

Why TCUSM tool is needed?

Scientific studies have confirmed that many traditional objects, so called ‘indigenous’ that have been inherited from one generation to another have excellent qualities in use and design. Some of them are still in use (Howes, 1980). In the traditional artefacts, we often find undoubtedly harmonious balance between aesthetics and function, physical and ideological purpose, economic and ecological decision, embodying thousands of years of collective wisdom and practice experience. There are some factors why tradition receives many great concerns. According to Alver (1992), tradition has become important to many nations as a ‘counter-culture’ against the dominant culture or globalization. Giving tradition a new life becomes a national pursuit; everywhere in the local society today there is a strong need to state one’s identity. Another factor is based on concern of the lost of valuable knowledge. Most of the traditional knowledge and practices that people carry is silent, known as tacit knowledge. As Dormer (1994) argues, if the practitioners fail to pass on their knowledge, there is a risk of losing it. Reconstructing lost knowledge can be hard and time consuming.

In addition, the most reason why transforming tradition is worth doing is that it supports things becomes sustainable. For example, when we redevelop a specific traditional technique that is about to vanish from daily lives, we are in fact working to preserve it alive, and keeping that technique develops.
Today, various studies of artist-researchers have reflected such concerns at traditional knowledge and practices. Kärt Summatavet (2006) has studied how to find new ways to combine tradition, inspiration and innovation. Her concern was addressed to the lost link between most of Estonian contemporary jewellerys with their root, tradition. Based on Estonian oral tradition and traditional crafts she produced the new jewellerys that reflect a strong connection to the values of traditional culture. For Summatavet, tradition is one of the fascinating sources for ideas regarding innovative technological solution. By combining tradition with new technology we can offer traditional jewellery a new living environmental.

Related to Summatavet work, Richard Kabito (2010) has studied on revitalizing indigenous art in Buganda, through interpreting the relationship between oral tradition and traditional arts. His work was based on concern that in Buganda, art produced in the studio is detached from its community. Through his work, Kabito shows that by applying storytelling into the creation of art, he can re-build the link between art and its community. Both Summatavet’s and Kabito’s work demonstrate that revitalizing tradition often relates with the improvements of sustainable culture. Therefore, TCUSM tool would be helpful to facilitate the artists and other practitioners a tool for guiding their work dealing with traditional culture.

**How TCUSM tool got its structure**

The form of TCUSM tool was inspired by Victor Papanek’s (1995) model of ‘six-sided function matrix’. In his model, Papanek has divided six fundamental aspects of designed object, as method, use, consequence, aesthetics, association, and need, which all link to each other. The three Papanek’s components (method, use, and aesthetic) are associated closely with three components of TCUSM: technique, utility, and structure. Component ‘method’ emphasized at the use of tools and processes, includes also material; this is suite with ‘technique’ in TCUSM. ‘Use’ indicates the functionality of the product; this is similar to ‘utility’ in TCUSM. ‘Aesthetic’ corresponds to the quality of shape, form, or colour; this is fit with ‘structure’ in TCUSM. And the rests (need, consequence, and association) which are dealing with psychological, spiritual, and ecological aspects, are integrated in TCUSM model in one category, that is, the concept.

Additionally, the five fundamental components of TCUSM are also based on many conceptions about art, craft and design. From various dialogues on craft and design, there
have come some common aspects of object or product that are considered fundamental. For instances, in her discussion on modern crafts, Ihatsu (2002) frequently mentions such keywords: material, process, craftsmanship, form or shape, and functionality. The lesser mentioned are emotion, spiritual, and sense. Joedawinata (2005) in discussing the model of artefact creation talks a lot about technical skill, symbolic aesthetic, practical utility, spiritual, and form. Zacay (1995) in his essay about redefining aesthetics of art and technology concerns about aesthetic, spiritual, emotional, visual beauty, and technology. Summatavet (2006) when studying traditional Estonian jewellery speaks about ornament, material, technical skill, technology, meaning, and spiritual.

To sum up, the idea of product appears mostly as physical and technical terms in different keywords such as: material, (production) technique, process, technology, tool, process, shape, form, image, colour, function, and aesthetic. They are also words that reflect spirituality, such as emotion, sense, feeling, and value. This spiritual aspects of object in macro level, are often related to social issues (i.e. how particular object might bring social changes), culture (i.e. how to give cultural identity to art objects or commercial products), economy (how to increase competitiveness), politics (i.e. how to construct national pride through designed products), and ecology or environment (i.e. how to reduce waste).

Based on those various conceptions I have categorized all keywords into five fundamental components of tradition, which are divided into two main groups: first, physical and technical category includes: material, technique, utility, and structure, and second, immaterial category is represented by concept.

Material

Material covers all kinds of raw materials that are used to make traditional objects. Usually (but not always) the traditional materials are classified as natural material, such as wood, bamboo, clay, stone, and rubber. Some materials, such as natural fibber, rice straw, leaf, root, rattan, coconut shell, and stone might be strongly associated with local culture. Many of them are quite specific – very local – available only in certain areas. Interestingly enough, many traditional materials appeal strongly to human senses: the smell and the tactile feeling of smoked bamboo basket stays in our memory.
Technique

Technique consists of any kind of traditional technical knowledge, such as production technique, technology, the way of making or producing an artefact, processes, skills, tools and other facilities. Tacit knowledge, such as the traditional technical skills will survive only if the practice stays alive. If not passed on to other people during the practitioner’s lifetime, many of the indigenous skills will disappear.

Structure

Structure covers the performance and physical property of the object, such as size, gestalt, form, aesthetic, and shape. The shapes of the traditional objects seem to inspire artists and designers to make new objects of art, craft, and design. Today, ceramic artists continuously produce new teapots that are often inspired by the old designs. Structure can also be of any form that emerges from nature, ornamentation, colour, myth, people and artefacts. E.g. Buddhist and Hindu temples, rice fields, noodles and woks seem to be strong Asian images. In a smaller scale, each Asian country, each region, each culture has its own specific images, which are often used as icons or identities to mark distinction from others. Panda seems to be one of China’s icons, while city public transport ‘jipney’ belongs to Manila.

Utility

Utility covers functionality and usability of the product.

Concept

Concept is the hidden factor that exists beyond objects and forms. It is the most durable and not easily extinguished. This factor deals mostly with things that can be measured qualitatively, such as local custom, belief, characteristic, feeling, emotion, value, ideology, spiritual, and culture. The role of the hidden factor is vital. New systems and new artefacts can effectively contribute to sustain societies only if they can match with the local custom, spirit, norm and culture. In other words, any new application that operates without any correlation with traditional or local culture will be unsustainable.
How TCUSM tool works?

First of all, the user should identify potential factors of (local) tradition that are worth developing. They can be local materials, the production technique or tools, specific function, the shape, or the story behind the product. Then, identify the potential factors of the existing recent conditions that can be mixed with specific features of tradition. Here, TCUSM tool will bring all the potentialities of tradition under today’s specific conditions: what traditional elements can be combined with contemporary technology, new material, new function, or new way of life?

However, an essential question has to be clarified: “Why the new object is worthy produced?” or “Would the production of this new object bring merely non-sustainability in a wider scope?” Knowing all risks of the creation and production is fundamental, since any type of production will create objects –even in a small scale- that will end up as wastes. Transformation of tradition, as Abdul Wahab (2008) argues, brings two consequences of either purposeful or useless. In this concern, TCUSM tool should be only used, when the preliminary study of the designed object has confirmed all feasibilities in relation to sustainable development of either culture, social, economic, and environment. The model of TCUSM should not used to legitimate to produce a non-sense useless object or product.

Only after completing the risks identification process, we can continue to the next step. Here, the process of integration between tradition and modernity can be illustrated by metaphor of the work of molecules as illustrated in Figure 1. Both tradition and modernity act as molecules consisting of five atoms that represent the five fundamental components: technique, concept, utility, structure, and material. As shown in figure 1, I use two distinct colours to differentiate between components of tradition and modernity: tradition in white colour, and modernity in black.

The process of assimilating tradition and modernity takes place in the plat form, which is drawn in Figure 1 as a conical form. This conical form represents the volume of the production of objects we are willing to produce. The more up, the lesser the production has, and the more down, the more volume the production has. As an extreme, the cone’s peak points to only one-single, or a few numbers of items, while the very bottom surface reflects the most quantity number of production. The implication of this scheme
is, such objects like arts or art-crafts will have best positioning at the peak of the cone, because such items are usually produced in a single or very limited pieces. Accordingly, this scheme of the production capacity correlates also with the type of the actor who produces the object. For instances, a few volume of production suites with independent artist, craftsman, or studio art and craft, while the mass volume of production fits with industrial like firms.

The next step is to merge tradition with modernity. When the molecule of tradition and the molecule of modernity are integrated, they will achieve a new molecule with new atom structure. After this process, there is no more molecule of tradition and modernity,
but only one single new molecule. This new molecule reflects a new object—it can be art, craft, or design—that results from the integration of tradition and modernity: a blend of the old and the new (see Figure 2). The final step of this process is to decide the quantity and the type of production. This is done by locating the new molecule, the new object, in the right platform. An example of the end result of this process is illustrated in Figure 3. The scheme shows the state of the new object or product achieved from combining the old material (M white) and new material (M black), old function (U white), old form (S white), and new technical processing (T black). The product position in the platform indicates that this new product will be produced by craft community in limited number of production.
The project of ‘Coconization’ is an example that derives from this pattern. Coconization was one of my production work projects set to study and develop TCUSM model. The aim of the project was to redesign traditional utensils made of coconut shell, such as cup, bowl, and spoon. Many of utensils made of coconut shell have disappeared from daily use, replaced by new products made of plastics. Figure 4 shows this new development of the utensils, based on traditional material, form, and function. What is new is, I have applied new material (laminated wood), and new technical solution to join the wood to the coconut bowl. Coconization has given a traditional material –coconut shell- a new life. The products have been produced in medium scale workshops in Java Indonesia, and sold in market to alter plastic products.
As discussed previously, this TCUSM tool will help the user in conceptualising ideas systematically. Since there are ten inter-connecting factors used for constructing new objects, this approach achieves great possibilities with abundant results. In principle, the user can freely arrange and make a choice about which elements of tradition and modernity will be used to build a new product. However, there are some cases that some objects can only better suite with some certain elements. Followings are two cases of traditional materials that deal with such issue: Finnish sauna and wood, and Asian basktries and bamboo.

Wood and sauna
Seemingly true, sauna cannot be separated with Finnish culture. The development of Finnish sauna from traditional design to modern shapes reflects the continuously improvements of many aspects, such as technology, design, and material. Traditional building of sauna is usually made of wood, and it uses timber for heating the stove. Today, however, sauna appears in different forms and meanings. Modern sauna might use electric stove, and for its interior, wood can be combined with other materials such as ceramic tiles, stone, or some synthetics. But, it seems that the soul of sauna is still the wood and stone. In many cases wood and stone will always stand as an important part of sauna. This is because they have special properties in relation to the heat, which other material simply cannot compete. They also facilitate human to keep contact with nature. Connecting sauna with TCUSM tool, probably the fundamental element of tradition that would stay in contemporary sauna is the material (wood and stone), and the concept (the
When designing a new sauna, it is much easier to substitute the other elements, such as technique, structure, or utility rather than the material, wood and stone.

_Bamboo and basketries_

Bamboo is one of the traditional materials, which cannot be separated from most Asian cultures. Certainly, many traditional utensils made of bamboo have vanished from daily use. Thankfully, in the hand of visionary artists and skilful craftsmen various types of old baskets have been transformed into new shape often with new functions. Some traditional bamboo food packages have been transformed into new shapes with the use of new technology. On the other hand, some new bamboo products of particular culture signify the consistency of using traditional methods by reflecting the beauty of the handmade. Others have applied new techniques in production, sometimes combined with high technology processing, which makes them compatible with contemporary aesthetic. Similar to the wood and stone in sauna, it does not seem too easy to replace bamboo from various traditional packaging or basketries.

Bamboo packaging, besides gives specific smell and taste to the food it contains, it also give pleasure to the eyes. From ecological point of view, as Wilhilde (2002) notes, fast growing bamboo is an excellent material to alter the use of wood, since it can be harvested every four to six years. Yet bamboo products will biodegrade after composed, so it brings less damage to environment. Moreover, bamboo as a structure material has many advantages, such as light, flexible, and strong. Like wood in sauna, bamboo as traditional material should stand as a centre of inspiration, while the other related elements, such as technology, form, function, and concept might be always developed. And this co-operates to Larasati’s (2006) argument: the use of advanced technology for bamboo treatment and processing, and the improvement in design and appearance, will gradually put bamboo to be part of contemporary lives.

The previous two cases above have dealt with traditional material, in addition, followings are cases of the implementation of TCUSM tool using other emphasizes: the first case focuses on traditional technique (case: batik painting), and the second case focuses on traditional structure and technique (case: bunga chair).
Batik making

In Indonesia, the number of old way of making –hand drawing- traditional batik has gradually declined, replaced by printing technique. Therefore, some efforts have to be done to preserve this ancient technique from being vanished. Fortunately, some attempts seem to bring significant results. For example, various contemporary batik paintings created by artists reflect a successful transformation of traditional material and technique of batik into ‘pieces of art’. This new use of batik has spread also in the fashion world. Another creative application is to implement the technique to other material rather than fabric. In Central Java, it is now quite fashionable to paint a wood using batik technique. The painted wood is usually an object of craft that is designed as decoration, or functional object. All of these efforts have provided a new space for traditional batik making to continuously develop. One day, traditional hand painted batik fabrics might be vanished, but the skill, the tools continue to live, transformed in new forms and purposes. Figure 5 shows one of the patterns of transforming batik’s material and technique into the wooden bowl. This new product reflects the combination of old material and technique with new material, new form, new function, and new concept. It is produced in limited number in medium scale batik and wood workshops.

Figure 5 Some applications of batik technique into the wooden bowls
**Bunga Chair**

This problem has led the national association of furniture producers to conduct a design competition, and I was one of its participants. Since the major potential of Jepara is on their high craftsmanship in wood carving, my proposal was to transform traditional ornamentation and traditional technique of wood carving of Jepara into a more modern shape that is usually characterized by such features: simple, light, and functional. So I developed a chair, called ‘bunga’, which has less ornamentation. The idea of minimalism of the ornamentation is not only to fit the chair with market demand, but it was also for efficiency. The lesser ornamentation, the lesser time required for production, and the more efficient achieved.

However, it was very important to maintain ornaments to be part of the chair. Besides keeping the valuable traditional craftsmanship alive, an ornament adds also cultural identity into the chair, which strengthens product’s competitiveness. Figure 6 shows how I used TCUSM tool for identifying elements of the designed chair. The pattern illustrates my attempt to combine traditional ornamentation (S white), function (U white), and technique (T white) with a new shape (S black), and new concept (C black). I proposed to produce this chair in the medium and large scale manufacture for relatively big volume.
Summary

The philosophical idea of TCUSM tool is based on concern that it is necessary to design artefacts, whether they are arts, products, or architectures, which in their form, space, and technology, reflects the continuity of traditions of the society who uphold them. In other words, when making art, craft, or design activities are separated from local conditions and traditions, it would be harder to maintain sustainability.

TCUSM tool is useful for the creative process, choosing possibilities, and thinking comprehensively. Therefore, it aims to help in identifying and in making choices about which combination of the elements of tradition and modernity might be relevant. The other aim is to assists in planning how much quantities of production are needed, and which type of production is required.

Followings are those who can benefit from TCUSM tool: (1) artists, craft people, designers, practitioners, professionals in art and design fields, (2) art and design students, (3) teachers in art and design disciplines, (4) art based education institutions, and (5) governmental institutions.

To preserve tradition means to continuously develop it. This paper has proposed TCUSM model, that can be used as a guide for keeping the tradition up dated, through transformation process of its five fundamental components (Technique, Concept, Utility, Structure, and Material) into a new object. When we maintain involving some components of tradition in the creation of new objects, then we keep a part of our tradition alive. It makes things sustainable. The role of actors from different fields that work on transforming tradition is vital. They contribute to keep various traditions alive, make them available for our contemporary lives as well as for the future.
References


