

# THE DYNAMICS OF CREATIVE THINKING AND VISUAL PERCEPTION FOR THE 21<sup>st</sup> CENTURY CERAMIC DESIGNER

**DOKYOUNG, E.<sup>1</sup> & NYAGER, E. A<sup>2</sup>**

1. Department of Industrial Design  
Faculty of Environmental Sciences,  
Modibbo Adama University of Technology,  
Yola, Adamawa  
endless\_arts@yahoo.com  
2. Department of Theatre and Film Arts  
University of Jos, Plateau

## **Abstract**

*The 21<sup>st</sup> Century ceramist faces the visual crunch of competition - "survival of the fittest". Creative competitiveness in Africa and globally has shifted into a different paradigm, how we perceive things to a large extent determines the entire sphere of our influence. The desired direction, reforms, and synergy required for ceramic advancement requires diversification into large sectors in Information Communication Technology, healthcare, real estate, and sustainable economic, and social development. Apparently top global designers perceive design in a much broader dimension, designing not just an item a 'pot' or a card, but an element of joy, therapy, retribution, innovation and invention! Ceramics is seen lately, as an IT enhancer, architectural material, mediator, technological reformer, life booster, an emulsifier, and therapeutic medium. The ceramic industry can grow in Nigeria if we move beyond Kaizen thinking and delve into transformational thinking and actively engage in eight fundamental fields in the global market.*

## **Introduction**

According to the most extensive research in this field, creative people possess in quantity the abilities identified by Torrance: sensitivity to problems and deficiencies; ability to flesh them out; and ability to perceive in a way different from the traditional or established method. In addition, highly creative people share the following traits: flexibility rather than rigidity, openness to new ideas and experiences, tolerance of ambiguity, a wide range of interests, curiosity, enthusiasm and energy, vivid imaginations, playfulness, commitment and concentration, comfort with change, capacity for hard work, persistence, and divergent thinking.

Creativity - a word that connotes excitement, fun, inspiration, risk, novelty, the unknown, imagination, surprise. A fascinating dimension

of mental functioning, creativity has been the subject of intensive research since the 1960s. Experts on creativity generally agree on the phases a person goes through in the creative process: 1. Preparation -- acquiring skills 2. Concentration -- focusing intensely on the problem 3. Incubation -- sorting, integrating, clarifying at an unconscious level 4. Illumination -- The Aha! Stage involving the emergence of an image, and idea 5. Verification, Elaboration -- Testing out the idea (Guildford 1973). These stages are not necessarily distinct and usually involve a complex recycling of the process. Creative thinking therefore is the process of challenging accepted ideas and ways of doing things in order to find new solutions or concepts.

Everyone is creative but then having an eye for detail is important for design. We acquire inspirations for design through various ways however, through friendships, where we source our raw materials and beauty is created in photographic representations. Although we do not have evidence to prove that cave painters in the past were not money driven in their creativity, we can safely reach the conclusion that it is for voluntary purpose that they transcend history; they gave attention to detail in their design. We also assume that those cave artists gained a lot therapeutically. Design has shifted from using crude tools to technologically advanced machines and equipment, coupled with the use of 'strange' materials like nylon stockings and bubble gum for sculpture, operating remote controlled robot in archaeological excavations, underground mosaic floors, and interpreting sensory messages

The need to engage whole thinking is the way to transformational ideology. The growing drive for science and ICT leaves the ceramic designer with several opportunities; the research world is also encouraging interdisciplinary, multi-sectored research. Except we delve into partnerships with others, little or no trace of progress will we make in the near future. People the world over value creative endeavours that impact on them not minding the cost! A typical case is the case of Judge Gary agreeing to pay \$150,000 to Napoleon Hill, the author of the *Laws of Success* to lecture every employer of his steel company.

Teays (2003) assert that critical thinking encompasses much more than argumentation and so is a broader discipline than logic. Critical thinkers are receptive, flexible, open minded, careful listeners, attentive to detail, observant, questioning, and willing to persevere. The critical thinker also has personal traits which include being unbiased, nonjudgmental, willing to take risks, and able to look at problems from a different vantage point.

Henry Ford designed the model T and for decades became its dominant player. This plain spoken mechanist by 1918 controlled half of the world's automobile market. Gestalt psychologists in their pioneering writings on perception state fundamental ways in which

the eye & brain organize visual sensation. Bragg et al (2005) further provide us a beautiful example of creative thinking. The success story of Bill Gates and with the president of Altair makes it is abundantly clear that creative thinkers can hijack that which has been designed by others. "Paul Allen a likeminded friend of Gates spotted an article in *Popular Electronics* - the world's first home computer; the Altair 8800. Primitive by today's standards, the Altair lacked software which would allow it to achieve something".

Gates not only perceived the opportunity, he sensed that he and Allen were capable of writing a software program for the Altair. Gates got the consent of Altair's manufacturer's president to create a program which worked perfectly. Today we know more of Microsoft than Altair home computer. "In an increasing competitive world, we believe it is quality of thinking that will give you the edge – an idea that opens new doors, a technique that solves a problem, or an insight that simply makes sense of it all. The more you know the smarter and faster you can go." ([www.pearsoned.co.uk](http://www.pearsoned.co.uk)).

Another account is that of 18<sup>th</sup> century English portrait painter Thomas Gainsborough. Gainsborough combined exquisitely right brain skill with a finely developed left brain financial instinct. Having prudently married into money, he moved from the relative wilds of Ipswich to the splendour of Bath, which was rapidly becoming a fashionable winter resort for wealthy Londoners, in order to pursue what he described in his private letters as 'The Curs'd Face Business'. He would often paint only the face and sometimes the hands of his subjects, leaving his lesser qualified staff to paint the backgrounds, while charging a price as if the entire creation was his alone.

According to Young-se (2004) a design that looks good should harmonise appearance with utility, a balance should be kept between emotion and logic. This means that for excellent design to be achieved whether in drama, music, art or literary work, the art of creative thinking must be involved. Logical thinkers own conventional ideas/products; most logical thinkers are rational, analytical, convergent or vertical thinkers. On the other hand, 'creative thinkers' express original ideas or novel products. Creative thinking is a

departure from convention, a rejection of conventional logic, a shift in paradigm and negation of dominant assumptions. It has no fixed procedures to rules obey or break (Effiong 1992).

China is presently investing in motivation; At the World Economic Forum 2015, it was found that Global investments have shifted from production to consultancy. Machinery industry are facing challenges reviving passive and subservient way of production in whose destiny was to remain in perpetual subjugation and bondage. It is generally assumed that ceramists major in making dishes and vases using a potter's wheel, for example, while a ceramist who makes figurines will usually use several different plaster molds. Some ceramists create their pieces freehand, using no equipment and tools other than their own two hands. This assumption is true as the majority of professional ceramists work as freelancers in studios, designing and creating different ceramic pieces for sell. However, the sales climate is quite difficult for those who open their own stores. Teaching is another possible career path for ceramists. High schools and colleges sometimes hire ceramic professionals to teach classes, and some ceramists may be able to give private lessons. This position makes the profession unattractive to many youth in Nigeria.

In a world of information overload, dealing with the relevant, cogent and necessary takes centre stage in the mind of the creative person. The world is experiencing astronomical advances in the use of machines that are replacing humans. This is to say that with innovation and unending inventions in science and technology the arts are gradually been ignored or sidelined. The leading sectors in the arts that are leading Nigeria's economy i.e. music, theatre, and digital publication are doing so based on Information Communication Technology (ICT) and good financial instinct. With the present dynamics of competition, it is difficult to know if our indigenous ceramics can survive, yes Nigerian ceramics will survive if we integrate our field to fit with events that drive the 21<sup>st</sup> Century. Design - Film production – Music - Animation - Interactive media - Computer games - Digital advert – Gastronomy - Cultural heritage. I foresee the right path for

indigenous ceramics to be through Dramatization and design, Preservation of culture and Promotion of friendship, Cooperation with national and International organizations.

In Nigeria, there is a window of opportunity for ceramic designers to mass produce high quality souvenirs because parents save and spend a lot on marriages, buying accessories, highly valued furniture, cars, to affirm and express affection and or show off to others. Mass production of these items and services need therefore to be carefully and intricately ornamented, designed, planned to impress the customer. That is why top publishers offer a range of leading imprints to create world – class print publication and electronic products bringing knowledge, skills and understanding to their readers. These publishers work with the best minds in business and finance to bring cutting edge thinking and best learning practice to a global market

#### **Developing a Creative Approach**

The classical synergy and interplay of fashion, culture, theatre, music and sculpture, science, technology is producing multifaceted products/services which always captivate the customer at all cost. Ceramists need to dive into various fields and disciplines Real Estate, ICT, Foods and beverages' which are among the top ranking thriving businesses in Nigeria. Ceramists' refusal to integrate with others with the view to redesigning products, combining raw materials, and attracting the world is not an option. Architects, musicians, information communication designers/engineers, and the list go on are some of the professionals that we need. One of such indigenous service/product: is "Kwagh-hir" a total kind of theatre involving various components including dance, mime, story-telling, songs, pantomime and drama. Comprising also of masquerades, its full staging can be viewed as a veritable festival of arts. It is hallmarked by much spectacle and the sheer volume of costumes and props underscores this spectacle which often ensures grand performances. Tiv story-telling sessions were usually occasions for dramatization. Music and dance were also important aspects of these performances since most Tiv folk-tales contain songs. It must be partly for this reason that Leo Frobenius is reported by Keil, (1979) as having considered the Tiv the best story-

tellers that he had encountered anywhere in Africa!

Ancient Egyptian model and Hausa architecture are classical records of creative thinking of the past which is still making impact to date. Ancient Egyptian actually reached unmatched high levels in architectural design and construction engineering. Even at present it is still hard to conceive how they could have all these buildings and structures erected with such high level of perfection and precision, using only primitive and naive tools far incomparable with modern machinery and equipment. Even a layman would think that ancient Egyptians' knowledge of theoretical and applied sciences was as advanced as ours today. Ancient Egyptians had no steel tools to use in consummating such works that cannot be made at present without special tools such as power drills. In this context, anthropologists argue that although working methods used by ancient Egyptians were slower and harder, they were no less effective than ours today. Studies of remaining ancient tools and illustrations of sculptors at work show that their working modalities were as follows: The overall design was made, using a global-shaped hammer of more solid stone, then cut with a saw and sanded out. Stone was carved with pointed-end tools and drilled with a tool counterpoised with a bag of pebbles. Cutting devices were made of hammered copper sharpened with an abrasive material like modern sandpaper (Coquet, M. 1998).

At that early time in history, stone blocks were moulded with solid stones, copper or bronze tools. Courses of block work, column bodies and crowns, beams and ceilings were hoisted to the required level over mud and earth ramps up to the top of sand heaps adjacent to walls. Lifting devices used consisted of wooden gliders, rollers, ropes and levers. Well-trained teams of workers rowed stone-carrying boats across the Nile, then pulling the huge boulders overland to their destination. The process demanded backbreaking efforts and considerable endurance and patience on the part of huge numbers of workers and other staff, working in harmony and unison. Undoubtedly this was a significant success factor for ancient Egyptian architects. Exterior and interior walls, as well as the columns and

piers, were covered with hieroglyphic and pictorial frescoes and carvings painted in brilliant colours.

Rough stones were used in building interior walls and foundations, while fine stones, cut out with special care, were used in decorating main walls or erecting colossal temples. Beads or aesthetical fashion holds a priced position in the heart of many globally. Semi-precious stones were used most adroitly in making amulets or inlaid into wood or gold, especially lime stone.

Another core need is apprenticeship. It is indeed a necessary ingredient for building creative thinking. We require internal mechanisms to hold sway areas of our competitive advantage, bearing in mind ceramics value chain. We learn about the history and successes of Hausa builders and designers (*magina*) from the research work of Schwerdtfeger (2007) their professional organization, training, livelihoods and practices of craftsmanship. A *magina's* long apprenticeship lasts eleven years on average, followed by an interim period during which he broadens his skill-base by working with other master craftsmen.

Hill (1928) in his book the law of success enumerates the aim of preparing the course is twofold.

1. Help the learner find out his or her weaknesses and
2. help create a definite plan for bridging those weaknesses

Creative thought of men of ideas; has raised countries from one mood of despair to that of optimism. That is why General Ibrahim Babangida's outcry in 1986 was for the intellectuals to use their creative thinking faculties to hatch ideas which will launch our nation to self reliance (Effiong 1992)

### **Barriers to Creative Thinking**

Designers should accept the fact that problems are the food of creativity. Without needs and challenges in the art world breakthroughs cannot be recorded. Parker (2006) highlighted positive attitude, opportunity from skill, passion, contacts, problems from the unexpected, improved stages, for sales, to improve business, keeping the focus, talent management, building a brand and systems, and

communication as six secrets of self-made success. Nigeria is endowed with both human and natural resources that can translate the economy from a developing nation to a developed economy. Unless we add value to existing Nigerian ceramics researches by identifying new opportunities, investing more time and doing things differently we would certainly remain a dormant sector. The breakthroughs in the Nigerian film industry today (Nollywood) is a clear example of perseverance and changing their style (saharareporters.com). Nollywood is the second movie industry in the world, \$5 billion industry surpassing Hollywood.

### **Positive Cultivation of Creative Thinking and Transformational Thinking**

Transformational thinking is the release of old thinking and the adoption of radically new ways of thinking and behaving in order to achieve quantum leap in results. Success depends among other things on the ability to take risk, not making decision based on past experiences. Transformational thinking and Transformational life/work enhance resilience, and optimum resolve in entire organization (Scheele 2013).

In other to build capacity, one must bypass assumptions and use imagination so that one is not constrained by rules. Transformational Thinking approach for life, work, and play is based on personal accountability, authenticity and vision. Its basic and simple yet seemingly universal truths which enable individuals and teams to create generative change build sustainable success and perform at the optimum in any circumstances. Transformation is the radical shift in thinking, perception and behavior altering the basic elements of an organizational culture, including the norms, value and assumptions under which the organization functions. The change affects how persons perceive their roles, respond to relationship. Transformative thinking connects who you are with how you perform. Success in life is measured by how well you perform. Transformational thinking can help individuals and organizations to make 1. Better decisions 2. Solution thinking 3. Improve relationship. Terrence [www.linkedin.com](http://www.linkedin.com)

Everybody has an innate intuitive side which can be developed, nurtured and used at every

step of the process. The key to success is risk thinking, seeking and shaping opportunities, generating new ideas, evaluating, selecting ideas, planning and implementing business plan. Ideas are crafted, moulded and reinvented into valuable business opportunities. According to Bragg et al (2005) developing new borne ideas should follow an idea development generation, which employs a creative strategy

- Challenge a proposal
- Explain your plan
- Design questions
- Discuss the proposal
- Write up ideas
- Question decision makers
- Record the results
- What has changed?

In applying creativity it has been recognized that the need to analyze ideas, and develop creativity plan is the proper path to follow

Develop a plan  
Monitor action  
Manage problem

At the heart of every proposal are six basic values lens approach.

Technological- can the task exposure to loss, be accomplished, use technological technicians

Economic- potential – what is the economic benefit?

Ethical- legal- law/ethical behavior

Environmental- ecological systems, safeguard and aesthetic selling

Power- Political or leadership influence

Social psychological- organizational law, personal behavior, this makes a clear need to integrate, and collaborate.

Adopting the six lenses guide according to Saperstein et al (2002) is what improved Taiwan invention history. In essence research & development is a high priority. Taiwan has invented technology and investments, manufacturing Hsinchu Science Based Industrial (HSIP) Parks - the hub of technological industry in Taiwan. HSIP are integrated circuits with peripherals, telecommunication, optoelectronics, precision machinery, and biotech, universities all integrated into this park. The pattern is creative research and development, Cargo storage and transshipment centres, Supply

chain management networks, High tech industry capital accumulation systems and Value added financial service systems

Transforming something known into something else involves inventing completely new ways of doing things, relating or moving ideas and things. The source of new ideas is a person, which is the reason it is so crucial to educate and empower people to innovate by distributing assignments attached to rewarding their efforts. (Rosabeth M Kanter 1963).

Effiong (1992) & Bragg et al (2013) gave the following classification of the Osborne product and service development list. Which task designers to Adapt, modify, magnify, minify, substitute, rearrange, reverse and combine other products or services by creating structural changes and other uses

Put to use underrate  
New ways to use it  
Other ones if modified

#### **Transforming something known into something else not precisely known or thought of**

- Soap from waste palm bunch
- Polished stones as paper
- Household utensils and decoration
- Items from bamboo and or coconut shells
- Floor tiles from sea shells
- Dye from herbs
- Glue from evaporated milk
- The path of transforming

#### **Extending the use and usefulness of exciting ideas and things is finding new ways of to use existing things for example**

- Dogs as mail couriers
- Boarded truck vehicles concealed into stand by generators
- Discarded injection bottles (cullet as glaze materials)

#### **Re arranging familiar things into new, better, and more useful patterns**

- Internal re organization and structural reform/rationalization
- Organizational mergers and institutional collaboration

- Regional/state operation of CERAN

#### **Adaptation: Borrowing ideas, concepts, procedures and practices from one domain to solve problems in another and different domain**

- Clay Therapy
- Fishing net from cob webs
- Cat eyes road demarcation from cat eyes
- Explosives from thunder
- Underground highways, Railways lines from fox and rabbit holes
- Exploring natural phenomena to human ends
- Henna dyes for surface design on ceramics
- Hydro electricity from waterfalls. Mechanical power (wind mills from mind.
- Electric energy from the sun
- Firing and glazing from

#### **Conclusion**

In the world of multiplicity of ideas it may be shocking that one has a novel idea yet in another part of the world something has broken even already with that product/service. The successful ceramic designer is that person that analyzes his/her idea Vis a Vis the current global trends and practices. Transformational ceramist discards obsolete ideas by adopting, and adapting the Osborne product and service development patterns to their studio or product development. Poor sales may weigh down the designer, so how can we harness the opportunities in the ceramic market in Nigeria to improve our businesses? Should we continue to insist that Nigerians should patronize our products which have remained the same in the past thirty years? Certainly unrealistic! We should replace our dark coloured glazes with bright colours – whites, blues and even add indigenous motifs with these oxides for our table ware.

Then we should categorize our ideas to secure partners and fields where such a product/service will be best suited. Let us harness the competitive advantage we have over others and the required synergy to enhance the ideas. The challenges facing international ceramics field leaves one wondering what must be done at our local

level to revamp the sector. Even in the best managed projects problems occur, viewing problems as an impetus spurs the designers to go on even if success is not insight. If the plan runs into a road block let us try collaborating with other positive creative fields like architecture, information technology, engineering, theatre and film industry to advance ceramics in Nigeria. Remember that two heads are better than one.

According to Gianavis (2001) economic progress is to a large extent the result of the division of labour. Division of labour means splitting the process of production into small and simple processes which leads to higher productivity and growth because the workers and the machines become more efficient through specialization. In these regard, let us expose our ceramic and theatre researches to

professionals in marketing and development practice. We need to diversify and dive into various strata of ceramic value chain; those with breakthroughs in equipment and machinery, studio practice, material science and developmental ceramics i.e. poverty alleviation, psychosocial care and rehabilitation through ceramics need to make their findings known to manufacturers and development partners. This calls for specialization which in turn leads to professional independence of the various stages of production and distribution. Scheele (2013) in Kegan and Lachey (2009) identified built in immunity to change that which fights the status quo. Creating safe environment in which we can foster deep dialogues that challenge the status quo in productive ways will enable us survive the highly competitive visual world of arts and ceramics in particular.

**Table 2 Osborn Product and Service Development List**

<b>Act</b>	<b>What to do</b>	<b>Action</b>
(adapt) Adaptation	What other product or service	What else like other ideas?
Modification (modify)	How could I change the elderly product	change name, colour, motion, sound, odour, form and shape
Magnification (magnify)	How could I add to the product or service	Creating frequency stronger, lower, thicker, multiply
Minification (minify)	What could I take away	what to subtract, eliminate, smaller, shorten, condense, lighter, less frequent
Substitution	What could I use instead of product or a po	Who else instead, what else, other places, processes, materials approaches
Re arrange	Interchange other component	Interchange, other component, Layout, pattern, sequence, pace, schedule
Reverse	Opposites	Turn it backward, upside down, inside out, reverse rules
Combination		How about blend up, combine ideas, combine purposes, multisectoral
Shorten	Condense	Less frequent, understate,

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