International Journal of Vocational and Technical Education Research
Vol.8, No.1 pp.23-38, 2022
Print ISSN: ISSN 2059-1187,
Online ISSN: ISSN 2059-1195

Sculpture and Catering Symbiosis: The Trade of Equals

Samuel Adentwi Bentum,
Takoradi Technical University Box 256, Takoradi, Ghana
PhD African Art and Culture, MFA- Painting and Sculpture,

Mercy Gyamea Atiemoh
Takoradi Technical University Box 256, Takoradi, Ghana
BSc- Hospitality and Tourism Management,

ABSTRACT: *This paper aims to explore the relationships between sculpture and catering in the area of tools, equipment, materials, and techniques in their exposition. It also aims to expose the health, safety, and environmental measures associated with the practices of these great trades. The methodology involves the use of descriptive and experiential methods. The study employed a descriptive method because the tools, equipment, materials and techniques required for these trades needed to be exposed and appreciated. Experiential method was adopted because the researchers were exploring a new merger. The qualitative technique was engaged as the research centred on information obtained from sculptors, caterers, sculpture and catering trainees, vendors and patrons of sculpture and catering products. Primary information was acquired through interaction and observation, while secondary information was obtained from literary materials. This paper resolves that sculpture and catering as trade have working tools, equipment, materials, techniques, and safety practices worthy of embracing. The study concludes that sculpture and catering have a strong relationship in their practice and processes. The research recommends that sculpture and catering trades have common practices, processes and safety measures since the same or similar tools, equipment, materials and techniques are employed in their trades/practices. It can be said that Sculpture and Catering symbiosis as a trade of equals is real and possible.*

KEYWORDS: sculpture, catering, catering- sculpture, sculpture-catering, food-sculpture.

INTRODUCTION

Sculpture and Catering are among the earliest trades in the creation of mankind and have existed as means of human need and satisfaction. Sculpture and Catering trade have mutual symbiosis in tools, equipment, materials and techniques in their practices. Similar health, safety and environmental measures are associated with their exposition.

Sculpture is the act of creating functional and aesthetical forms from plastic and malleable materials to meet the required standards and concepts of man's needs (Thoennes, 2020). Sculpture is also that aspect of fine art that produces three-dimensional imagery of in-the-round and relief through the subtractive and additive methods. Sculpture has moved on from simple, beautiful, and workable products to attractive, tasteful, edible products such as chocolates, cakes, doughs,

candies, etc. Today, sculpture as a quasi-engineering occupation runs through almost all the branches of the technical and vocational trades, for that matter, catering and catering services.
Sculpture as a trade has employment in the following areas; wood and stone carving, artificial human models production, prosthetics for transtibial amputees, sculpture illustration, machine models and parts production, architecture members and accessories production, welding and fabrication, assemblage and construction, interior and exterior art furniture and accessories production, landscape sculpture, food and fruits sculptures, cake art, halls and parlours decoration, events accessories creation and consultancy etc. (Thoennes, 2020)

On the other hand, Catering provides food and drink, typically at social events and in a professional capacity, either on-site or at a remote site, through cooking, frying, boiling, baking, grilling, brewing, and some conventional methods that are applicable. Catering as a trade engages the additive and subtractive processes in food and beverage production in an attempt to obtain the desired edible and attractive food forms for food service and delivery. Catering has employment in food and beverage production and consultancy, food and beverage vendors, food and fruit sculpturing, catering tools, equipment and events accessories vendoring, meat, poultry and seafood vendoring, fruits, vegetables and legumes vendoring, wedding and banqueting events, and wellness services. Others include food packaging, eatery and pub operation and consultancy, food preservation, food hygiene and food safety consultancy. These pleasure-seeking foods and beverage products are synonymous with some sculpture processes and adopt similar health, safety, and environmental measures. Catering as a vocation adopts all the visual art elements and principles of aesthetics in her renditions.

The Objectives of the Research

The paper aimed to investigate the various standard working tools and equipment used in the sculpture and catering industry.
The paper also seeks to enquire into the prevailing materials and production techniques employed in the sculpture and catering industry.
The paper also attempts to identify the health, safety and environmental measures that are relevant to the practice of the sculpture and catering industry.

Statement of the Research Problem

In recent times, the identification, selection and the use of effective and appropriate common working tools and equipment between the practices of sculpture and catering trades have become bleak to the practitioners and amateurs, as such trade seclusion has become a matter of concern. Also, the identification, selection, and use of effective, efficient, and common materials and production techniques have become major concerns to sculpture and catering practitioners. Additionally, the identification, adoption and enforcement of the appropriate common health, safety and environmental measures within sculpture and catering trades are unseen. There is a need to situate the symbiosis between these industries.

Scope of the Research

This research attempts to identify the common working tools, equipment, materials, techniques, health, safety, and environmental measures related to the sculpture and catering trade and industry.

LITERATURE REVIEW/THEORETICAL UNDERPINNING

The word symbiosis comes from the Greek term for 'living together, which refers to a relationship between two or more organisms that is advantageous and necessary to both. (Merriam-Webster, 2022) Today, as professional boundaries give way to larger alliances, increased discussion and interchange are imperative. Kisho Kurokawa, a Japanese philosopher, infer that we can identify a strong current tradition in the history of Japanese culture for seeing people and nature, past and future, the part and the whole, art and science. (Watanabe, 1974).

Conceptually, the term Symbiosis; indicates that symbiosis is an evolved interaction or close living relationship between organisms from different species, usually with benefits to one or both of the individuals involved (Hall, 2019). Therefore, symbiosis is the art of living together. Hence, Bentum (2021) infers that this paper adopts one of the four types of symbiosis, mutualism—a mutually beneficial symbiosis relationship between sculpture and catering trades and industry. Sculpture as trade started during the creation of the earth (universe) and man. During the prehistory era, the trade grew when man's quest to fashion out tools and weapons for survival overpowered its prey psychologically and reverence Almighty God (Faherty, 1969–72)—on the other hand, catering as a trade begun when men had to provide food energy for human activities through the roasting and grilling of their prey. Later on, cooking and baking served as a medium for food preparation and the offertory of sacrifices to the Almighty God, deities and ancestors, Wilson, T. A. (2002).

In the past, sculpture evolved by cutting hard and soft materials, modelling soft and flexible materials and the assemblage of members (parts) into complex whole. Traditionally, sculpture had engaged the subtractive and additive methods to obtain the desired form. Today, sculpture has developed several techniques such as casting, assemblage, construction, installation, tiring, trussing, glueing, masking, welding, soldering, pinning, stapling, sewing and other conversional technique. These techniques have relied on numerous tools and equipment and accompanying health, safety and environmental measures (Health, 2014). These sculpture products (relief and in-the-round) are related to the catering trade

However, the history of the catering trade goes back much further than that of the prehistory era, Adams L.S. (1999). Catering dates back to the 4th millennium BC in China. The ancient Greeks are credited with making catering a trade by offering free services at their inns and hostels, which continued into the Roman Empire (TGIS Catering Services, 2013). Catering developed the cutting of hard and soft materials, modelling hard, soft and flexible materials, and assembling same into an edible complex whole. Catering production techniques have, from the beginning, required domestic and basic tools and equipment and later industrial ones. These techniques in foods and

beverage products of pleasure-seeking are synonymous with some sculpture processes and practices.

WORKING TOOLS AND EQUIPMENT SCULPTURE AND CATERING SYMBIOSIS

Sculpture production has, from its inception, required the use of basic tools and equipment, of which the majority has been fashioned out by the artists and other practitioners who existed then. Sculpture working tools used in the sculpture industry are as follows; wood carving tools (chisels and gouges), axe, stone carving tools (cold chisels), modeling tools (metal, wood, rattan, plastic and steel spatulas), cutting wire (metal and rubber strings), mallets (wood and plastic) metal headed hammers (claw, sledge, ball point and others). Other working tools are brushes, rollers, stamps, scrapers, drivers, scissors, shears, and clay slab wheels (Hamilton, 2016). Sculpture equipment used in the sculpture industry is as follows; weighing machine, routers, cutters, planers, rollers, vibrators, sprinklers, grinders, smootheners, mixers, glitters, heaters and boilers, blowers and extractors, hammers, staplers, riveters, rotary tables, stands; modelling stands, tables. These equipment may be manually, electrically, pneumatically or digitally operated. (Murray, 2018)

Catering working tools used in the Catering Industry include cutting tools (knives, corer, scooper, slicer, scissors, pastry wheels, cleaver-axes and hatchet), spoons and forks, cutting wire (metal and rubber strings), sharpening tools (stone and steel files), modeling tools (metal, wood, rattan, plastic, aluminum and stainless-steel spatulas), hammers; meat tendering mallets (wood, plastic and metal), peelers, tongs, graters, pressers, mashers, metal headed hammers, brushes, rollers, stamps, glitters, scrapers, drivers, etc. (Britannica, 2016). Catering equipment found in the Catering industry are as follows; pots and pans, bowls and jugs, cutters, mixers, rollers, sprinklers, spreaders, creamers, dispensers, freezers, moulders, crushers, squeezers, graters and grinders, beaters, cookers, ovens, fryers, grillers, heaters and boilers, blowers and extractors, hammers, pestle and mortar, weighing machine, weighing scales, thermometers, timers, openers, strainers, staplers, riveters, glitters, sealer, moulds, rotary tables, working and display stands, containers and cleaning utensils (Thoennes, 2020). Some of these common tools and equipment may be manually, electrically or pneumatically operated and may exist in the sculpture and catering industry.

MATERIALS AND TECHNIQUES OF SCULPTURE AND CATERING SYMBIOSIS

Sculpture materials used in the sculpture industry are as follows; stone blocks and slabs, Plaster of Paris, clay, cement, sand, tree parts, wood planks and boards, metal (sheets, bars and pipes), fabrics, papers, plastics (sheets, pipes, blocks), Styrofoam, fiberglass, epoxy, silicone, wax etc. Other sculpturing materials include laminating agents (shellac, butter, oil), glues, paints, inks, dyes, stains, varnishes, solvents, patinas, fasteners (nails, screws, pins, bolts, studs), thinning agents (water, oils, thinner, ethanol, solvents, etc.), thickening/filling agents (dust, chips, shreds) etc., (Rogers, 2020a). Sculpture materials may be categorized into main and subsidiary depending on the nature and purpose of the sculpture in production.

Sculpture techniques employed traditionally include carving, modeling, casting, welding, fabricating, assembling, constructing, installing, collage and others, but in recent times, tilling, cladding, embossing, billowing, whittling, soldering, gluing, pining, chilling, heating, foiling and others have emerged (Rogers, 2020b).

Catering materials used in the catering industry include fruits and vegetables, roots and tubers, cereals and legumes, seafood, meat, poultry and game, fats, oils and dairy products, coffee, cocoa, tea, sugar, icing, fruit juice and squash, smoothies, alcoholic and non-alcoholic drinks.
These materials are categorized into flour, creams, paste, dough, cereals, steaks and grains, ice, gooey, fluid and puree. These may be fresh or processed, dry or wet, canned or bottled, vacuum packed, frozen, salted or dehydrated (Allwood et al., (2013). Catering materials include laminating agents (butter, margarine and oils), binds/glues (paste, slip, oil, syrup), paints (food and Beverage colourants, stains, dye, peroxide etc.), patinas (margarine, oils, self-clinging plastic foil, etc), thinning agents, (water, oils) and thickening agents (flour products). other materials include plastics, fabrics, paper, Styrofoam, fibreglass, epoxy, silicone, wax, varnishes, solvents, fasteners (nails, screws, pins, staples), etc. (Allwood et al., (2013). These materials may be categorized into main and subsidiary depending on the nature and purpose of the catering task.

Traditional Catering techniques include baking, grilling, toasting, frying, boiling, steaming, cooking, chilling, freezing, and others. Recently, carving, modelling, casting, fabricating, assembling, installing, collage, soldering, glueing, pinning, cladding, embossing, pressing, billowing, whittling, foiling and others have been introduced to create versatility in catering practices (Burton-Hughes, 2017). It is revealing that there are common materials and techniques that exist between these practices

HEALTH, SAFETY AND ENVIRONMENT MEASURES IN SCULPTURE AND CATERING SYMBIOSIS

When performing sculpture as a professional, amateur or trainee in the quasi-engineering field, health and safety measures and compliance is paramount. Bentum, (2017). Protective clothing and Personal protective equipment (PPE) usage and compliance are of the essence. The following are some of the items and gadgets used to stay safe and healthy in the sculpture industry; safety apparel and gears— overall, overcoats, reflective jackets and trousers, reflective slacks, aprons, leather striped apron, rubber gloves, safety gloves, nose and face mask, socks, safety helmets, wellington safety boots, rubber safety shoes, high grip safety shoes, safety shoes, rubber slip in shoe, etc as a quasi-engineering (Beschizza, 2007) . Also, sculpture workshops must have floor markings and safety coordinating movements. Safety signage and instructions must be visibly displayed and enforced to prevent injury to your fingers, feet, toes, and body and prevent falls, trips, and accidents. (Clayton et al., 2004). Wear a respirator when working indoors on hazardous chemicals, working on rotary tools that produce fumes or welding indoor. Wear hearing protection, eye goggles, safety glasses and face-shield when working on power tools and equipment. Do not wear loose apparel when working with revolving equipment since they may pick them up (Vinger et al., 1988).

Environment issues in the sculpture industry include water and air pollution, loss of wildlife and natural habitats of the wild and depletion of natural resources. Introduction of Eco-friendly sculptures, up-cycling and recycling of plastic, paper and metal waste, and the tolerance for mal-functioned and broken tools and equipment as raw material for sculpture project. Sandstrom, S. (1977).

In Catering industry, Health and Safety measures are paramount. Whether a chef, a cook or a food server, there is a high level of health and safety measures for all catering practitioners. Catering clothing is the most effective and easiest way to look smart, prevent the spread of bacteria, and protect oneself from prep injury. Appropriate use of safety tools and equipment essential in the catering industry is critical. Items and gadgets used to stay safe and clean in the catering industry are; safety apparel and gears (protective clothing and PPE); traditional chef uniforms, chef jackets, long sleeve shirts (black or white), black elasticated trousers, slacks, aprons, cotton striped butchers apron, waterproof bib apron, tabards, tunics and skull caps, hair nets, warm clothing, rubber gloves, disposable food safety gloves, nose and face mask, socks and safety holes, food wellington safety boots, rubber safety shoes, high grip safety shoes, steelite slip on safety shoes, rubber slip in shoe (FSB, 2017). Floor markings, safety signage and instructions, and personal safety measures are paramount in the catering industry. Catering trainees and professionals are to wear work gloves and steel-toe boots and food gloves, and rubber kitchen or pantry shoes to prevent injury to your fingers, feet, and toes prevent foot and bodily injuries, falls and trips. Long sleeve shirt keeps arms free for more movement and flexibility. Chopping and handling food and food commodities requires a long apron or tabard. Catering work shirts give the ideal impression of professionalism when dealing directly with customers. They can even team it up with a multi-pocket apron to help you make payments and orders efficiently. Does and don'ts in the catering trade includes the following; When using power tools and equipment, wear hearing protection, eye goggles, safety glasses and a face shield. Prevent wearing loose apparel when working with revolving equipment and around a blazing fire. Wear a respirator when working indoors or using rotary tools that produce fume(s) (FSB, 2017)

It can be noticed that there are some common health, safety and environmental issues that are within the sculpture and catering practices. Environment issues in the catering industry include water usage and water pollution, air pollution, loss of wildlife of natural habitats, environmental contaminants and pollution, depletion of natural resources and eco-friendly groceries. Also, the use of plastic-free groceries, zero-waste grocery, food waste, remnants and scum and improper disposal of mal-functioned and broken tools and equipment, food and beverage packaging material, and the presence of pests and their eradication pose problems to the catering industry. (Tanner, 2021).

METHODOLOGY

This study employed both qualitative and descriptive approaches to conducting the research. The study collected primary data by interviewing respondents using an interview guide. As much as

possible, face to face interview was employed to ensure that the collected data was of the right quality. It also allowed the researcher to observe the respondents for clues that might benefit the study.

Target Population; The study focused on practitioners, trainees, vendors and patrons in the catering and sculpture industry across Sekondi-Takoradi of Ghana.

A total number of 80 respondents were sampled to acquire the needed information about the relationships that exist between sculpture and catering in the area of tools, equipment, materials and techniques in their exposition, and health and safety. Sampling Design and Sample Size; Purposive sampling techniques were used in selecting the respondents**.**

The table below is the summary of the category of the respondents.

Category of respondents	Numbers
Professionals & Amateurs	20
Trainees	20
Vendors	20
Patrons	20

RESULTS AND FINDINGS

A total of eighty respondents were interviewed across Sekondi-Takoradi. These included twenty (20) sculptors and caterers and twenty (20) sculpture and catering trainees, twenty (20) vendors of sculpture and catering products, and twenty (20) patrons of sculpture and catering services and products.

Table 'A': Respondent's knowledge or awareness of sculpture and catering symbiosis in terms of tools and equipment

Conversion; A respondent who attains 60% or more of the questions asked on the sculpture and catering symbiosis regarding the tools and equipment right is deemed a YES qualifier. Otherwise, then a NO qualifier.

Category of respondents	**Yes**	**Yes**	**No**	**No**	**Total**	**Total**
	(Freq)	**(%)**	**(Freq)**	**(%)**	**(Freq)**	**(%)**
Professionals & Amateurs	19	95	1	5	20	100
Trainees	16	80	4	20	20	100
Vendors	12	60	8	40	20	100
Patrons	10	50	10	50	20	100
Grand Total	57	71	23	29	80	100

Source: Field Survey 2019-2021

It can be observed from table "A" that the majority of the respondents (19), representing 95% in the category of professionals and Amateurs, are aware of sculpture and catering symbiosis in terms of tools and equipment identification and usage, whiles the minority (5%) said otherwise.
Again, in the trainee's category, most of the respondents (16), representing 80%, stated their knowledge of sculpture and catering symbiosis in terms of tools and equipment, while the minority (20%) said otherwise.

Moreover, most of the Vendors (12), representing 60%, are knowledgeable about sculpture and catering symbiosis in terms of tools and equipment.
Lastly, 10 respondents representing 50% of entire respondents interviewed in the patrons' category, are aware of sculpture and catering symbiosis in terms of tools and equipment, while the other 50% were unaware.

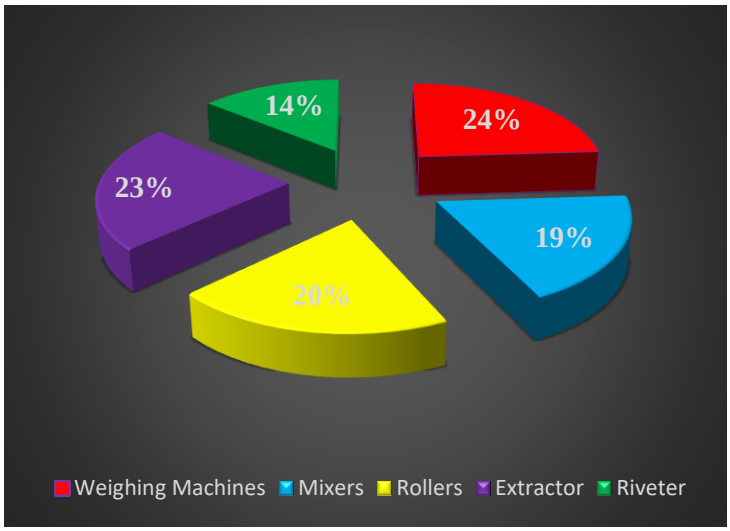


Figure A: Common Equipment Us ed by both Sculpture and Catering Industry.

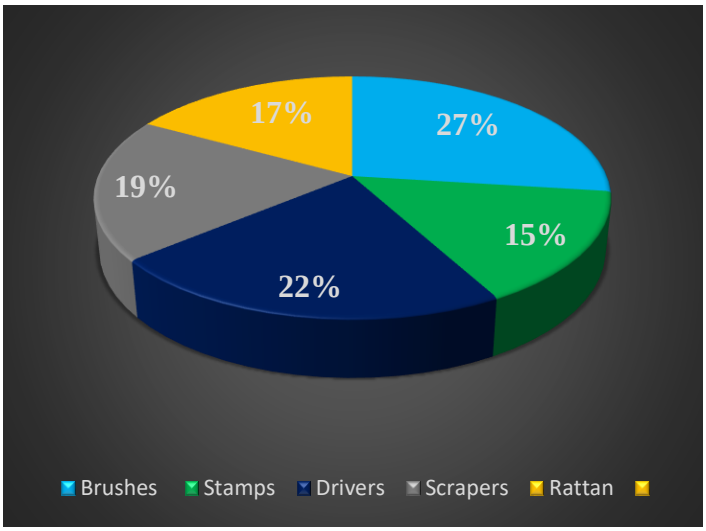


Figure B: Common tools Used by both Sculpture and Catering industry.

Figure A clearly shows that weighing machines, mixers, rollers, extractors, and riveters account for 24%, 19%, 20%, 23%, and 14% of the common equipment used by the sculpture and catering industries, respectively.

Sculpture and catering professionals and amateurs and trainees, on the other hand, indicated that brushes (27%, stamps (15%), drivers (22%), scrapers (19%), and representing 17% have an equal relationship between these two industries, revealing that there are common working tools and equipment existing between these practices.

Table 'B': Respondents' knowledge or awareness of sculpture and catering symbiosis with respect to materials and technique

Conversion; A respondent who attains 60% or more of the questions asked on the sculpture and catering symbiosis regarding the materials and technique right is deemed a YES qualifier. Otherwise, then a NO qualifier.

Category of respondents	**Yes**	**Yes**	**No**	**No**	**Total**	**Total**
	(Freq)	**(%)**	**(Freq)**	**(%)**	**(Freq)**	**(%)**
Professionals & Amateurs	18	90	2	10	20	100
Trainees	15	75	5	25	20	100
Vendors	12	60	8	40	20	100
Patrons	05	25	15	75	20	100
Grand Total	50	62.5	30	37.5	80	100

Source: Field Survey 2019-2021

It can be seen from table "B" that majority of the respondents (18), representing 90% in the category of professionals and Amateur, are aware of sculpture and catering symbiosis concerning materials and technique selection and usage, whiles the minority (10%) said otherwise.

Again, in the category of trainees, the majority of the respondents (15), representing 75% of the respondent in that category, stated that they knew about sculpture and catering symbiosis with respect to materials and technique, whiles the minority (25%) said otherwise.

In addition, the majority of the Vendors (12), representing 60%, are knowledgeable about sculpture and catering symbiosis concerning materials used and techniques adopted, while a minority representing (8) did not demonstrate their awareness.

Lastly, 25% of the respondents in the patrons' category are aware of sculpture and catering symbiosis concerning materials used and technique employed.

Table 'C': Respondents' knowledge or awareness of sculpture and catering symbiosis in health, safety and environmental measures.

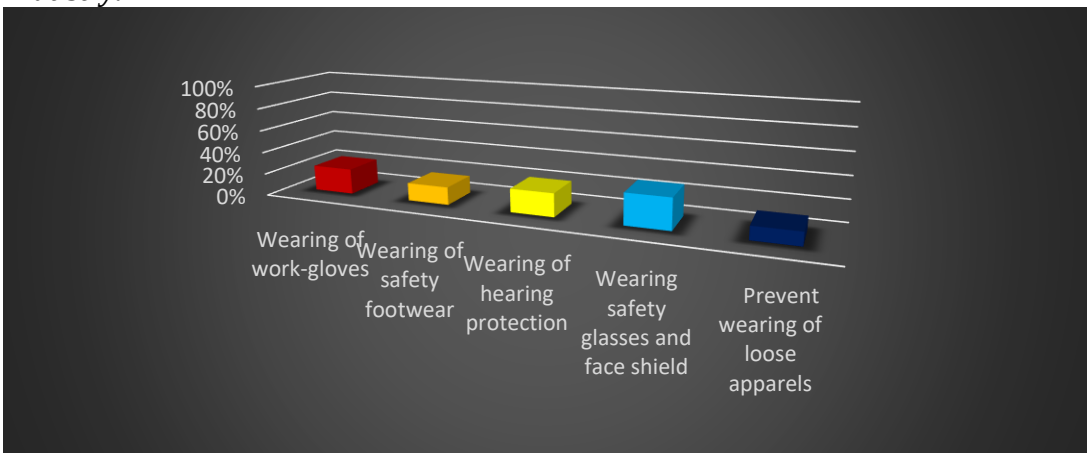
Conversion; A respondent who attains 60% or more of the questions asked on the sculpture and catering symbiosis regarding the health, safety and environmental measures right is deemed a YES qualifier. Otherwise, then a NO qualifier.

Category of respondents	Yes (Freq)	Yes (%)	No (Freq)	No (%)	Total (Freq)	Total (%)
Professionals & Amateurs	18	90	2	10	20	100
Trainees	17	85	03	15	20	100
Vendors	15	75	05	25	20	100
Patrons	16	80	04	20	20	100
Grand Total	66	82.5	14	17.5	80	100

Source: Field Survey 2019-2021

Table "C" shows respondents' knowledge or awareness of sculpture and catering symbiosis in health, safety and environmental measures. The majority of the respondents (18), representing 90% in the category of professionals and Amateurs, are aware of sculpture and catering symbiosis aspects of health, safety, and environmental measures. The minority (10%) said otherwise.
Moreover, in the category of trainees, the majority of the respondents (17), representing 85% of the respondents in that category, stated that they knew about sculpture and catering symbiosis in the aspect of health, safety, and environmental issues minority (15%) said otherwise.
In addition, the majority of the Vendors (15), representing 75%, are knowledgeable about sculpture and catering symbiosis in health, safety and environmental measures.
Lastly, 80% of patrons surveyed, representing (16) of the respondents, are aware of sculpture and catering symbiosis in health, safety and environmental measures, but 20% had some level of unawareness in the precaution category.

Figure C: Health and Safety Measures Relevant to the Practice of Sculpture and Catering Industry.



Source: Authors' Field work (2022)

Figure C intends to identify the health and safety measures relevant to sculpture and catering practices to establish their symbiotic relationship in the industry. As a result, professionals and trainees in both industries indicated they wear work gloves (28%), safety footwear (16%), hearing protection (21%), safety glasses and face shields (28%).
Moreover, 12% of the respondents avoid wearing loose apparel. It has been observed that some common health and safety measures are used in both industries.

Table D: Environmental measures relevant to the practice of sculpture and catering industry.

Response	Frequency	Percent (%)	Valid Percent	Cumulative Percent
Practice eco-friendly cleaning of products and greening.	8	10.0	10.0	17.5
Up-cycling and recycling plastics	24	30.0	30.0	47.5
Usage of energy efficient equipment	24	30.0	30.0	77.5
Tolerate mal-functional and broken equipment as raw materials	18	22.5	22.5	100.0
Total	**80**	**100.0**	**100.0**	

Source: Authors' Field work (2022)

Table D displays the environmental measures relevant to the practice of sculpture and the catering industry. Out of eighty (80) respondents surveyed, twenty-four (24) constituting 30.0% of respondents cited that each were practising the usage of energy-efficient equipment as an environmental measure and the up-cycle or recycling of plastics and papers, respectively, eight (8) representing 10.0% of the respondents who practice eco-friendly cleaning products and greening through the conservation of forests and animals.

Also, eighteen (18), constituting 22.5% of respondents, indicated they tolerate mal-functional and broken equipment transposed into raw material to control environmental issues pertaining to practices of both sculpture and catering.

DISCUSSION OF FINDINGS

The Various Common Working Tools and Equipment Used in the Sculpture and Catering Industry

The search for effective and appropriate common tools and equipment in the catering and sculpture industries has been heightened. It was discovered that 28% of both professionals and amateurs in both industries use weighing machines to determine the weight of materials before applying their techniques.

Furthermore, mixers of similar materials or portions, accounting for 19% of the total, are used equally by both industries to carry out their practices.

Additionally, rollers, extractors, and riveters account for 20%, 23%, and 14% of the total, respectively, and are widely used in both industries. Britannica (2016) has equally attested that catering uses similar tools and equipment as the sculpture industry and that they are symbiotic.
The research also seeks to posit that both the professional and amateur sculptors and caterers have advanced knowledge and awareness of the various tools and equipment common to the sculpture and catering industry and practices than the trainees. This may be due to their industrial exposure and the long practice of the professionals and amateurs. Additionally, it was noticed that the vendors are more knowledgeable in the common usage of sculpture and catering tools and equipment than the patrons. This is because the vendor seeks more information on the tools and equipment used for sculpture and catering production. Therefore, it could be deduced that the practitioner has a higher knowledge of the tools and equipment than the post-production actors in sculpture and catering symbiosis.

The research also reveals that both sculpture and catering professionals and amateurs are more knowledgeable in the common or similar materials in the Sculpture and Catering industry than the trainees. They are also more aware of the common production techniques that exist between these two industries than the trainees. The trainees are equally aware of the various materials used by both industries as the vendors. Also, the trainees have higher knowledge of the techniques and production methods used to turn out products than the vendors. It is observed that the trainees are more aware of the symbiosis that exist between the sculpture and catering industry materials and techniques than the vendors. Additionally, it was noticed that the patrons were less knowledgeable and less aware of the sculpture and catering symbiosis in terms of the materials and techniques than the vendors. This is because patrons do not pay too much attention to techniques but rather the vendors do, since vendors tend to inform and educate patrons on the sculpture and catering products. The practitioner has more knowledge of sculpture and catering symbiosis in terms of the materials and techniques than the post-production actors.

Health and Safety Measures Relevant to the Practice of Sculpture and Catering Industry.
In the industry of both catering and sculpture, performing health and safety measures and compliance is paramount. (Bentum, 2018). It is a secret that the wearing of respirators whiles working indoors on chemicals or tools that produce fumes are detrimental to the health and safety of both professional and amateurs. Sculpture and Catering practitioners indicated they wear work gloves to prevent injury to their fingers. Besides, the majority of both practitioners wear hearing protection, safety glasses and face shields in their practices as it helps them stay safe and healthy from any unforeseen danger, as ascribed by Tranner (2021).

The research indicated that both sculpture and catering professionals and amateurs are highly knowledgeable and conscious of the health, safety and environmental measures in their industry and abide by them judiciously than the trainees. As higher-level industry practitioners, they are more aware of the negative consequences of non-compliant health, safety, and environmental

measures to practitioners than trainees. And that trainees may be less adherent and less compliant with safety instructions and rules.

Additionally, it was observed that the patrons were very much more aware of the health, safety and environmental measures than the vendors. Patrons are very conscious of the health, safety and environmental measures, especially in the procurement of the services and products of the sculpture and catering industry. In addition, Patrons lookout for products' shelf life and the application or the appropriate usage of the product. On the other hand, vendors rather are interested in disposing of their wares and products even at the expense of health, safety, and environmental measures towards patrons. Understandably, the practitioner had more knowledge in the sculpture and catering symbiosis in terms of the health, safety and environmental measures than the vendors. However, equally, the patrons also demonstrate greater awareness than the vendors.

The implication to research and practice/Rationale

This study is to create awareness among stakeholders on the sculpture and catering symbiosis concerning the various tools and equipment, materials and techniques and the health, safety and environment measures associated with the principles and practices of the sculpture and catering industry. Nevertheless, it is essential to note that the study revealed the gabs as the low competence in the trainee's knowledge as compared to the professionals and the vendors as compared to patrons.

Justification

The sourcing of effective and efficient common tools and equipment for the sculpture and catering industry is daunting for the practice. Additionally, identifying and selecting the common materials and techniques in the principles and practices of the sculpture and catering industry is frustrating. Also, the identification and adoption of common health, safety and environmental measures in the sculpture and catering industry is unnerving. The dire consequences have been the delay in production processes and health, safety and environmental challenges for practitioners and the environment.

CONCLUSION

This paper concluded a common trait between sculpture and catering and moves to establish that similar or common tools and equipment are associated with their trades and industry practices in both the traditional the contemporary eras.It was also established that similar materials and production procedures or techniques exist between the Sculpture and Catering trades. The products they turn out to are in similar presentation or fashion.

It was found out that both Sculpture and Catering practitioners are conscious of the health, safety and environmental matters in their trade and are adhering to them in similar or equal measure.
Therefore, it could be deduced that the practitioner had higher knowledge in the tools and equipment than the post-production actors in terms of the sculpture and catering symbiosis.

Patrons are very conscious of the health, safety and environmental measures, especially in the procurement of the services and products of the sculpture and catering industry.
It was noticed that the patrons were less knowledgeable and less aware of the sculpture and catering symbiosis in terms of the materials and techniques than the vendors.

Future Research
Sculpture and catering symbiosis: language culture and finishing techniques.

Recommendations
It is undeniable that both sculpture and catering professionals and amateurs can use the same or similar working tools and equipment for their intended task. Sculptors can use catering tools and equipment, and so can the caterers do. This will ease the frustrations and difficulties associated with both trades when sourcing appropriate tools and equipment to undertake a task. It will also make them resourceful professionals and amateurs.

Dealers in hardware in either trades may be able to supply similar or same tools and equipment to meet the needs and aspirations of the sculpture and catering trades for task accomplishment.
It is irrefutable that both sculpture and catering professionals and amateurs have similar or the same materials for their products and processes. Also, both trades have common techniques and methodologies in undertaking their tasks. Similar production techniques abound in their manipulation and finishing of works.

It is important to state that both the sculpture and catering trades have the same and comparable safety rules and instructions on tools and equipment usage and performance when sculpting and undertaking catering tasks.

It is also important to adopt and use proper safety apparel and gears when performing sculpting and catering tasks. Wear work gloves, steel-toe boots, food gloves, and rubber kitchen/pantry shoes to prevent injury to your fingers, feet, and toes.

It is important to use a respirator if you are going to work indoors or use rotary tools that produce fume (s). You will also need a face shield or safety glasses. Environmental contamination and pollution, depletion of natural resources, eco-friendly groceries, plastic-free groceries, and zero-waste groceries must be curtailed.

References

Allwood, J. M., Ashby, M. F., Gutowski, T. G., & Worrell, E. (2013). Material efficiency: providing material services with less material production. *Philosophical transactions of the royal society a: mathematical, physical and engineering sciences*, *371*(1986), 20120496.

BESCHIZZA, R. (2007 , FEBRUARY 24). *Safety Rules for Sculpture*. Retrieved from Wired: https://www.southtexascollege.edu/academics/visual-arts/safety/sculpture.html

Britannica, T. Editors of Encyclopaedia (2016, June 22). tool. Encyclopaedia Britannica. https://www.britannica.com/technology/tool

Burton-Hughes, L. (2017, November 17). *Catering Techniques*. Retrieved from High Speed Training : https://www.highspeedtraining.co.uk/hub/catering-tips-and-tricks/

Faherty, R. L. (1969–72). Sacrifice. *Director of Publications, Brookings Institution, Washingon, D.C. Staff editor, Religion, Encyclopædia Britannica*, . Clayton, D. A., & Griffith, C. J. (2004). Observation of food safety practices in catering using notational analysis. *British Food Journal*.

Clayton, D. A., & Griffith, C. J. (2004). Observation of food safety practices in catering using notational analysis. *British Food Journal*.

FSB. (2017, July 4). *Health and safety in the catering industry*. Retrieved from FSB: https://www.fsb.org.uk/resources-page/health-and-safety-in-the-catering-industry.html

Hall, D. (2019, April 19). *Symbiosis: The Art of Living Together*. Retrieved from National Geographic Headquarters.

Hamilton, A. (2016, October 27). *An Introduction to Sculpting Tools*. Retrieved from Brown Bag Lab: https://www.brownbagfilms.com/labs/entry/sculpting-tools

Health, N. I. (2014, June 6). *Research Tools and Approaches*. Retrieved from Centers for Disease Control and Prevention: https://www.cdc.gov/niosh/docs/96-115/tools.html

Merriam-Webster. (2022, March 29). *Symbiosis*. Retrieved from Merriam-Webster Dictionary: https://www.merriam-webster.com/dictionary/symbiosis

Murray, R. (2018, March 13). *What Equipment Are Used for Sculpting?* Retrieved from Ehow: https://www.ehow.com/list_6690207_tools-used-sculpting_.html

Rogers, L. R. (2020, November 19). sculpture. Encyclopaedia Britannica. https://www.britannica.com/art/sculpture

Tanner, A. (2021, December 29). *Sustainability & Environmental Issues in the Hospitality Industry*. Retrieved from Study.com: https://study.com/academy/lesson/sustainability-environmental-issues-in-the-hospitality-industry.html

TGIS Catering Services, I. (2013, 11 04). *A Brief History of Catering*. Retrieved from TGIS Catering Services, Inc.: https://www.tgiscatering.com/2013/11/04/a-brief-history-of-catering/#:~:text=The%20ancients%20Greeks%20are%20credited,the%20Christian%20pilgrimages%20in%20Europe.

Thoennes, H. (2020, Jan 21). *Catering Equipment and Supplies: List of Most Important Items*. Retrieved from Central Restaurant Product: https://resources.centralrestaurant.com/catering-equipment-and-supplies-list-of-most-important-items

Vinger, Dr Paul F. & John Decker. (1988, Sept./Oct.,). Safety Regulations for Specific Equipment. In *Safety* (p. 70). New York: Taunton Press, Inc.

Watanabe, M. (1974). The Conception of Nature in Japanese Culture. *Science*, *183*(4122), 279–282. http://www.jstor.org/stable/1737600