Federal Polytechnic Ilaro

Journal of Pure & Applied Sciences
{FEPI- JOPAS}

Published by:

The School of Pure and Applied Science

The Federal Polytechnic Ilaro, Ogun State, Nigeria.

https://fepi-jopas.federalpolyilaro.edu.ng

E-mail:fepi.jopas@federalpolyilaro.edu.ng

ISSN: 2714-2531

Federal Polytechnic Ilaro
Journal of Pure and Applied Sciences
(FEPI-JOPAS)

DECEMBER
2022
EDITION

Vol. 4
Issue 2

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FOREWORD

It is with great delight I welcome you to volume 4 issue 2 of Federal Polytechnic – Journal of Pure and Applied Sciences (FEPI-JOPAS). It is a peer-reviewed open-access multi-disciplinary Journal of global recognition which is referenced and indexed in African Journal Online (AJOL). It is a highly commendable Journal that publishes excellent research contributions and exhibiting also special attention to experience papers coming from the many application areas of pure and applied Sciences. FEPI-JOPAS publishes full-length research work, short communications, critical reviews and other review articles.

The aim of FEPI-JOPAS is to provide intellectual bedrock for both indigenous and international scholars with quality research outputs to express and communicate their research findings to a broader populace. It serves as a valuable platform for the dissemination of information to 21st Century researchers, professionals, policymakers, manufacturers, production staff, R & D personnel as well as governmental and non-governmental agencies. It also aimed to provide a platform for academics and industry practitioners to share cases on the application of management concepts to complex real-world situations in pure and applied sciences and related fields.

This volume 4 issue 2 of FEPI-JOPAS is loaded with quantum and well-featured diversity of trending topics in applied and basic research. These hot and trending topics are: Sustainable Art and Design: Activating Sighting as the Phenomenon of Representational Drawing; Assessment of Heavy Metals in Processed Meat (Tinko) Sold within Igbesa Community; The Hypoglycemic Effect of Musa Sapientum in Alloxan Induced Diabetic Albino Wistar Rat; Rainwater Quality Evaluation for Agricultural Use: Case Study of a Portland cement Producing Area; Analytical Approach to Investigating the Influence of Blood Group and Blood Genotype on the Performance of Students of Federal Polytechnic, Ilaro; Dough Mixing Time: Impact on Dough Properties, Bread-Baking Quality and Consumer Acceptability; Chemical Composition of Harvested Rainwater Around a Cement Factory in Ibeshe, Yewa North, Ogun State.

Furthermore, other topics to be encountered in this issue that have added colour and beauty to this edition are: Physicochemical properties and sensory evaluation of milk candy ‘toffee’ (a

NIGERIA candy) enrich with coconut, tigernut and groundnut; Informal Settlements in Developing Countries: Issues, Challenges and Prospects; Comparison of Sensory Properties of Meals Produced from Cowpea and Pigeon Pea; Automated Lecture Timetable Generation Using Genetic Algorithm; Septic Tanks Contamination in Groundwater Quality around Elementary Schools in Ibadan, Oyo State Nigeria; and Waste Disposal Systems in Some Selected Abattoirs Located in Ilaro Metropolis. FEPI-JOPAS has been centered on discerning the changing needs of the academic world and is committed to advancing research around the world by publishing the latest research in various academic fields and ensuring that the resources are accessible in print, digital, and online formats.

In addition, I would like to thank many people who worked so hard to ensure that publishing this issue 2 of volume 4 is a reality. I would like to thank the Editorial Board for their guidance and the publishing team for the continued support and effort in streamlining the publication process. I am grateful to the reviewers who provided timely and constructive reviews for the papers assigned to them. The authors are solely responsible for the information, date and authenticity of data provided in their articles submitted for publication in the Federal Polytechnic Ilaro – Journal of Pure and Applied Sciences (FEPI-JOPAS).

I am looking forward to receiving your manuscripts for the subsequent publications. You can visit our website (https://fepi-jopas.federalpolyilaro.edu.ng) for more information, or contact us via e-mail us at fepi.jopas@federalpolyilaro.edu.ng

Thank you and best regards.

Prof. Olayinka Oyewale AJANI

(Editor-in-Chief)

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Sustainable Art and Design: Activating Sighting as the Phenomenon of Representational Drawing

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Abstract

Over the centuries, the proportion has been a strong principle in art and also in architecture, building, civil, and other engineering professions. It is an obvious fact, when the proportion is absent in art, architectural or engineering works, the result is not only dangerous but it makes such works abnormal. Lack of this knowledge or deliberate refusal to use it, maybe the reason for the collapse of buildings in some cities. This paper, therefore, intends to emphasize the use of what is generally called rule or unit of measure in art as a panacea to ideal proportionate artworks or even construction works. The research also aims at encouraging artists to master the ideal proportion first before dashing into abstraction or purposeful exaggeration of forms. This will encourage more attention in the area of realism and naturalism not only in drawing, painting or sculpture but in art generally. The methodology used for this quantitative research includes observation of studio practice, literature review, and interview of a few artists and students. The paper concludes that rule of measure contributed immensely to the huge success recorded in the Classical period of art and was also the reason for the unparalleled glory attained during the Renaissance era. Therefore, the study recommends that for a sustainable environment, schools especially art schools should create more space in their curriculum for the teaching of the rule of measure in art and also recommends further research on this topic.

Keywords: *Sighting, Phenomena, Rule of Measure, Drawing, Proportion.*

INTRODUCTION

Generally, drawing is unanimously believed to be the foundation of every creative endeavor. (Cooper, 2021). It could be defined as the act of observing a three-dimensional subject optically or illusionary, and then visually recreating it on a two-dimensional plane using shape, value, and perspective.

Every human endeavour particularly Art, Sciences, Architecture, Engineering, Medicine, Building, Urban and Regional Planning, and Fashion requires the knowledge of drawing at one point or the other (students of tertiary institutions, as part of their foundational courses, are compelled to enroll for drawing classes in the department of art and design or otherwise drawing lecturers are employed to take care of such needs at the beginning of their graduate courses. (Winslow, 2009). Hence, the subject matter of Sighting should be given serious attention in related professions. For example, accurate and proportional measurement of materials needed for the production of bricks and concrete in building and construction should be well taken care of in order to have strong and reliable structures (including visual arts). Art especially representational forms in drawing, painting and sculpture should focus on the nitty gritty of the rule of measure or unit of measure also called Sighting in order to attain correct and standard forms.

The history of drawing is traceable to the prehistoric era. France's oldest known cave art discoveries reveal primitive drawings of animals drawn or scratched onto the surface of cave walls. Subsequently, drawing styles and techniques evolved at different periods of civilization. Silhouetted figures in geometric designs

adorned Pottery surfaces of 800 BCE Greek which eventually metamorphosis into naturalistic images towards 500BCE. From Roman period through Baroque, Classical realistic drawing in lines and color of past events' stories were created in styles that are similar to the artworks produced in bible manuscripts. 15th through 16th century Renaissance brought back the love for drawing, believed to be the bedrock for every creative exploration. The portrayal of human forms became more realistic as attention was drawn to the Golden Mean Ratio application in the drawing of the figure by Leonardo da Vinci, Rembrandt Van Rijn, Lorenzo, Lotto, etc. realistic nature drawings of 17th and 18th Neo-classical movement reveal the high minded, intimate and decorative art of the period.

The definition of drawing became expanded at the beginning of 1900s when past traditions could no longer hold down art and it became whatever the artist desires his creation to be. Picasso, Paul Klee, and others took drawing exploration through unique Abstract Expression, Pop Art, Conceptual Art, Minimal art of 1960's – 1980's and Neo-expressionism of 1970's – 1980's. Since then proportional drawing became less relevant as artist shy away from the representational approach to the production of their art.

Drawing is one element that can never be challenged if it emanates from a strong foundation. In Figure drawing, some artists will not compromise the proper positioning of forms by identifying a useful measuring unit while others couldn't care less.

The process of Sighting helps determines accurate proportional relationships. Winslow (2009) opined that knowing proportions is indispensable when painting or drawing anything other than life size and very important when working at life size. Most importantly when parts are related to parts or whole, comparison of the hand to the foot or face, the length of the little finger compared to the thumb etc. He further reiterates that knowing basic proportions and training oneself to see them in every object of the seeing process, is a great shortcut, not only in painting people but everything that goes the creative way.

Sighting is simply seeing as artists do see, by relating elements within the perceptive environment and recording them as influenced by their creative endowment. This is a process of relating elements within the picture plane. The sighting could be described as a creative phenomenon applied by both students of art and professionals alike in varied creative explorations. Many draftsmen go through the motions of its application with little understanding of the role it plays and the reason behind its effectiveness, involving a language translation of observed three-dimensional forms onto a two-dimensional surface such as paper or canvas. The need to do the translation with some degree of accuracy brings to bear the application of rule of measure which is referred to as 'Sighting . A unit of measure is first identified from any part or portion of the proposed object of observation that could arguably go round it (the object) relatively with ease and referentially transferable. A good example is the head' or 'foot' as a unit of measure in a figure or life drawing (Fig. 2 and 3). Basically, sighting is the only sure method of recording some level of accuracy in rendering proportional drawings.

Statement of the Problem

The rendition of proportional drawing in every aspect of creative endeavor can never be over-emphasized in this generation where Students and learners always look for short cuts to everything. But in recent times, modernism as represented in abstraction is gradually relegating the application of Proportion's principles to the background and the importance is no longer relevant to many who would rather rely on assumption to gauge the proportional demands of chosen drawings.

Creative personnel in the Arts, Architecture, and Engineering, especially Fine arts needs to go back to the basics and revive the age-long Rule of measures principles in creative foundational drawings to forestall the collapse of the system that is supposed to stand the test of time.

Objective of the Study

The major objective of this paper is to underscore the position of Sighting as an important tool of actualizing proportional drawing, a foundation for other conceptualized creative drawings. Other objectives include: (1) to redefine the term Sighting or Rule of Measure, (2) to clarify the importance of the term conceptually and practically.

This paper, therefore, intends to reiterate the importance of applying sighting's principles or rules of measure in art and other constructive drawing exercises as a panacea to ideal proportional drawing. Thereby encouraging artists to master the ideal proportion first before dashing into abstraction or purposeful exaggeration of forms.

The theoretical framework for this study is based on "the representational theory" which describes the essential place of arts as copying reality in an intricate sense. Art is seen as showcasing nature's obvious forms from schematic rock and cave pre-historic drawings of animal to the emergence of entire sunset's landscape.

MATERIALS AND METHODOLOGY

This research is studio or practice-based, hence the methodology used is studio observation and analysis of the processes of sighting which is found in the result section of this paper. Relating to social representations, drawing is seen as a process of identifying meaning, where subjective experiences integrate with socio-cultural meanings.

Green Legacy Resort

The green legacy was established in 2013 by former president Olusegun Obasanjo. It is located near Olusegun Obasanjo presidential Library Complex along the presidential boulevard way, NNPC Bus stop, Oke-Mosan, Abeokuta, Ogun State. The luxurious 4-star resort offers breathtaking scenery with world-class facilities over a large expanse of land. The resort has 250 staff and 120 rooms that come in the categories of standard rooms, Deluxe, Easter package., family connecting room standard suite and the Ambassadorial suite. The Green legacy Resorts offer a wide variety of top class hospitality facilities.

For effective drawing to take place, the following materials are needed:

Papers	**Pencils**	**Other Drawing Media**	**Tools**
Drawing Sheets	Hb Pencils	Chalk Pastel	Drawing Boards
Cartridge Papers	B Series (2B, 3B, 4B, 5B etc	Oil Pastel	Donkeys
Card Boards	Charcoal Pencils	Drawing Pen	Erasers
Embossed Cards	Graphite	Drawing ink	Kneaded rubber
Bond Papers	Coloured Pencils		Fixatives

RESULTS AND DISCUSSION

The Act of Drawing

Getting into the act of drawing is not automatic no matter how gifted, talented or well-endowed an individual is. Most especially when drawing instructions are more verbal than visual and the student is unavoidably restricted to brief glances over the teachers' shoulder. The one-on-one direction required to enhance necessary drawing abilities and skills might not come until probably an opportunity arises for employment that demands commercial draftsmanship. Fuller (2011) opines that lack of adequate instruction, threatens the growth of natural talent which fades with time, often giving way to other life's pressure. Provident care to associate with professional artist and receive subjective demonstrations will increase the quality of creative artwork produced.

Brooker (2015) observes that drawing could be likened to a photograph, the result of a translating process by which you re-create the physical three-dimensional world onto a flat, two-dimensional surface. Visual memory is further enhanced through an observational study by memorizing what it sees/draws in a manner that lets one recall its details with greater nuances than is possible from any photograph. She further notes that, unlike quick idea sketches, longer study drawings allow you to scrutinize what you see intensely. The experience leads to further development of the creative ability that Ching, (2013) opines, "we can use the drawing process to gain understanding, insight, and perhaps even inspiration" in lieu of recording the optical images before us. Whatever the quality of experience in the draftsmanship exercise, improved drawing skills come as one draws more and makes drawing a part of the daily chores.

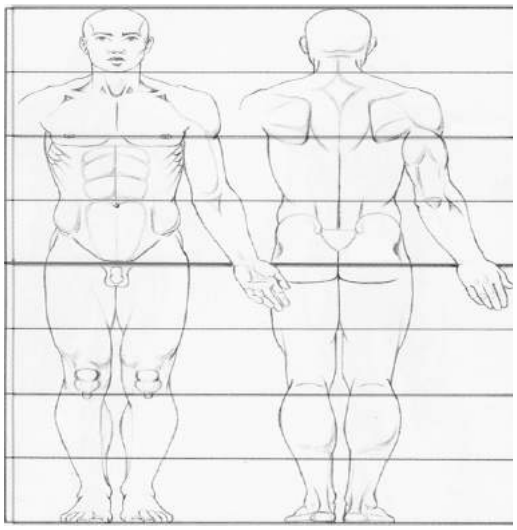

Figure 1: Human body based on standing- figure that measures eight-head- length. Courtesy: Classic Human Anatomy, Winslow, 2022

Figure 2: The head sighted as unit of measurement**.**

Varied Perspective on Drawing Techniques

The reason behind each drawing exercise or project, including the impact expected of it at the completion of the project makes drawing techniques essential for rendering forms with light and shadow values. Individual artist or draftsman somehow is influenced by the purpose of the drawing at hand which dictates the technique or approach the work attracts. Conversely, the artist is independent to choose or determine what technique is suitable for the exercise. Student and professional alike at a point in time needs to decide the technique he is bound to work with. Tentatively, the elements comprising the image/s to a large extent influence the adopted technique. For instance, urban sketchers simply sketch in a descriptive way that show people their stories. They want you to see what they have seen through their drawing and also feel what it was like to be right there on the spot. The studio artist on the other hand, who is involved in real photographic drawing would not mind spending a great deal of time on a detailed drawing.

Spicer (2018) reiterates, “Drawing can be art, for sure, but it needn’t be restricted to artistic uses . Development of basic drawing skills is beneficial to anyone creating art in any medium. Sketches could be made in varied media as offshoot of pictorial representation in visual reality or subject of imagination.

Communicatively, drawing has played great role in creative activities such as writing poetry, academic papers etc. As a versatile language enshrouded in its own vocabularies of tokens and marks, drawing is adaptable to various application. He further observes that some ideas are just more efficiently represented by drawing . Cognitively, drawing serves as foundation of man-made objects around us including buildings, furniture, stationaries, posters, automobile, and other household utensils.

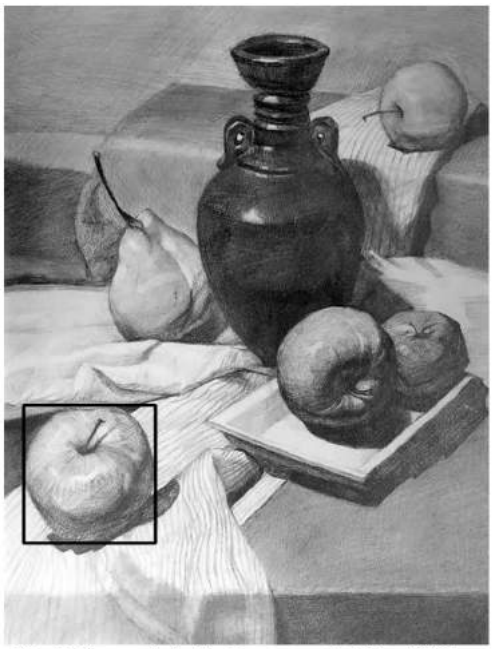

Fig. 3. The apple in the foreground of this still-life composition is boxed in to show relative height and width, makes a good unit of measure.

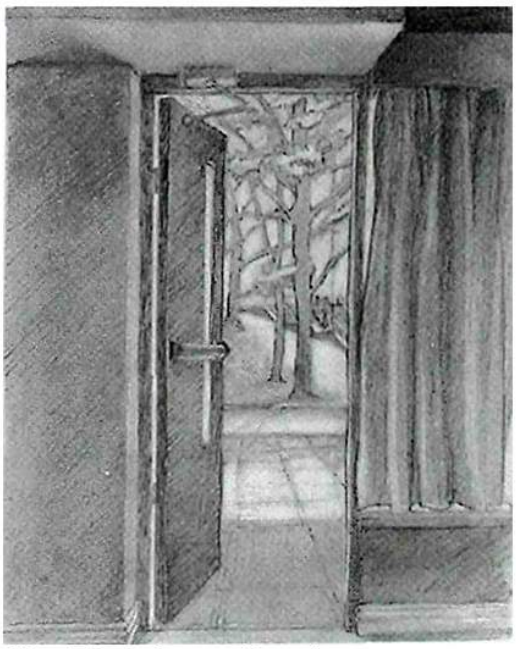

Fig. 4.Drawing on Paradoxes.
© Betty Edwards

Discussion

Sources of Drawing Ability

Drawing ability comes from three sources: the Hand agile, athletic inclination where the hand moves freely; the Intellect understanding the structure of the world and her components; and the Conception – technical input, imparting order to the theme or subject of study. (Cooper, 2001)

Just as the very being of man comprises of the spirit, soul and body, the source of drawing ability is knitted to three structures: the hand, intellect and conception. It takes the act of drawing into the core of visual perception. Cooper (2001) opines that the key issue in draftsmanship above all is active, kinesthetic process apparently perceptible by touch. Subjective mark-making and interaction with the drawing without cognizance for viewers' input and the drawing is made possible in the course of the hand's movement on the drawing's support or paper.

The second structure solely deals with the nature of what is being drawn: the three-dimensional world. Architects and designers, as a matter of course, must identify with the prospect of an established general process. It supports an appreciation of the natural endowment associated with the existing visual world and an understanding drawing as a relative output of that order. The required exercises at this level have an analytical character that allows for getting things done in the right perspective.

The third has to do with what the artist brings to the process. Here, the artist s conceptions birth order through his technical input. Drawing however is understood as a definite way of projecting order into the visualized three-dimensional world. For example, the environment is guided by the laws of perspective. Representation of light and color and perspective drawing form the study's basis. Whatever the subject or intention of the drawing's demands, when confronted with how to draw the natural world, Cooper (2001) concludes, one ultimately proceeds with various proportions of these three approaches in the mix- the first being directed at the body, the second at the mind, and the third at the spirit".

Sources of imagery

When we make observational drawings, we are gathering visual information; we select important elements of what we see and simplify those elements into marks. Observing nature involves recognizing the patterns that determine growth and movement, like the structure of a tree or the flow of a river. The practice of

looking keenly at the landscape allows the artist to move from generic, symbolic representations toward a fuller understanding of depicting what is seen through direct observation and evoking that insight into painting. When we look from our subject back to the drawing, we briefly hold a memory of the subject in our heads before we put it down, so observational drawing partially relies on memory. Everything we observe and briefly memorise contributes towards the schemas that make up our understanding of the world, creating stock images of objects in our heads that in turn inform our imaginative drawings. For example, every chair we have ever seen contributes to our idea of what a chair looks like, and this is what we are imagining when we draw a chair from our heads. Our knowledge of the visual world and our imaginative capacity feed back into our observational drawing, helping select interesting and relevant elements of our subject to draw. Making any drawing will always involve
utilizing observation, memory, and imagination at once. (Jake Spicer, 2018)

Difference between Seeing and Looking

Learning to 'see' and not just 'look' is very important, while using the natural world as a source of inspiration. Closer observation of rural and urban spaces of different sizes and shapes, ranging from genre scenes of towns, and cities to intimate courtyards and grand palaces is inescapable. Spicer (2018) notes that "observational drawing is a means of exercising our visual faculty, and it allows us to practice looking, a powerful tool for focusing our attention thereby teaching us to select a subject's most important qualities and make visual discoveries that encourages curiosity and improved understanding".

Ching (2013) submits that drawing has two sides, represented as the past, images that are right in front of us for direct observation; and the future, that which exists in our mind's eye with the present serving as a link between the two. Richards (2013), retorts on drawing directly from observation, "Even though we are in the moment, as soon as we turn our gaze from the subject to the blank page or to the drawing in progress, we have to rely on our visual memory of what we have seen". Naturally, people recognize countless objects at a glance but when efforts are made to draw them from memory one rarely recalls detailed information to create good drawings. Simply because key pieces of visual information around us is recorded by the memory and the brain only feeds back glimpses of the environment, the details are lost, the quality of drawing drops because seeing physically is taken out of the equation.

The more we look and record in drawing the better we become at drawing from memory, most especially repeated drawing of definite motifs. No matter how good the memory is, it does not compare to what we see by looking at the real world. Spicer (2018) notes that, "becoming more visually literate allows us to be more discerning about how we look and how we are affected by the images we come in contact with". We must learn how to look at things as if we are seeing them for the first time. There is need to upgrade the motifs or images we have in our memory as we draw by committing new information to memory through identifying objects that are not common and recording them as we see indeed. Sighting processes become handy in getting it done accurately, studying them as though you were seeing them for the first time, learning how the parts connect and relate in size and shape to the whole.

The Concept of Sighting

Sighting is simply relationship between the acts of seeing and drawing through the process of optical perception. Edwards (1999) describes it as, "learning how to draw in Perspective and in Proportion". Adept visual knowledge that weaves edges, relationships, spaces, shadows and lights to come logically together. She sees it as skill learning that is quite comparable to the reading and writing rules of grammar, when the subject and verb synergizes through demands of word order and structure in sentence's composition. Where clear perception of relative differences in parts to whole and whole to part is established, representation of the environment's three-dimension (3D) elements on a two-dimension (2D) surface becomes easier to achieve. Failure to get the nitty-gritty of Sighting from the foundation leads to questionable mistakes or error in proportion.

Edwards further gives certain reasons why the skill learning seems so difficult, It is a two-part skill. The first part is sighting angles relative to vertical and horizontal, and the second part is sighting proportions relative to each other. She further reiterates that the skill requires working with ratios and comparisons that are quite tasking. Also, it requires that one confronts and deals with paradoxes. For example, we can know that a ceiling is flat and the corner is a right angle. But on the picture plane, the edges of the ceiling are not horizontal and the corner angles are not right angles at all. They are oblique angles (Fig. 4)

Sighting is all about comparisons that are made relative to constants either in Angles (vertical and horizontal - What is an angle compared to vertically or horizontally?) or Sizes (proportions based on Basic Unit of Measure - How big is an egg compared to mango, the carrot to banana? How long is the arm compared to the leg?) including Ratios derived from the relationship, an artist sees a thing representative of

a unit and uses it to rationalized with other parts. Ratios are unarguably connected in our minds with mathematics, expressed as numbers (2:3 means two of a kind to three of another type).

The process demands that various parts of the project are seen in their definite relationship. See things as they are outside habitual thinking, false interpretation based on preconceived thoughts about what should be without taking time to really see or observe what is placed before you.

Sighting Guidelines

The process of Sighting involves the use of a sighting stick. Any thin or slender straight object from the knitting needle to a length of wire from cloth hanger is adaptable. The drawing pen or pencil could serve as alternative in the absence of a more suitable tool so far it is straight and would not obscure detail information on the object of study. It is necessary to ensure the tool is slender to avoid interference with observation of the form or forms under study.

Sighting is a complex process that involves translation of three-dimensional information onto a two-dimensional surface. In sighting, the objective is to translate observed physical information into a two-dimensional language, it is therefore very important to understand that the language translation of two-dimensional information (Photograph) on to two-dimensional surface is easier and cannot be compared with direct study of the 3-D (real world environment) translation to 2-D, because the information of the three-dimensional image had already been done by the camera. Therefore, all of the necessary observation will take place in an imaginary two-dimensional plane parallel to the face, which could only be accurately achieved through the process of Sighting.

The Process of Sighting

Establishing a constant scale at the beginning of the exercise is necessary and important when sighting for relative proportional relationship which includes; angles' relationship to verticals plus horizontals; vertical and horizontal relationships between distant points. The working arm should always be fully extended with the elbow locked during sighting. The sighting stick could be rotated left or right, but should not be tipped backward or forward. To start with, identify which object or part of the composition within the picture plane could be used as the unit of measure, a visible object seen without any obstruction from other elements and could be broken down into two definite and clear relationships visually (Fig. 3). The head makes a good point of reference or unit of measure when working with human figure or life reference (Fig. 2).

Rockman (2000) reiterates, it is necessary to close one eye during sighting, the act reinforces the translation to a two-dimensional language by using monocular vision (one eye) rather than binocular vision (two eyes) . Close one eye and move the sighting stick, needle or pencil so that the end coincides with one side of the selected unit of measure (apple), right or left. Then, with one eye still closed, move the thumb along the sighting object until the thumbnail coincides with the other side of the apple. Hold that measure, the apple's sight is taken (Fig. 3). Rockman (2000) further states, "when sighting, you are often dealing with what is referred to as landmarks. A landmark is any identifiable point on any form that you can refer back to. It will not necessarily have a name or appear to be a significant part of the form, but will be an easily identifiable reference point (Fig. 2 & 3).

Sighting for Relative Proportion

This exercise requires that you start with establishment of relationship between total width and height of the object. i.e., the distance from farthest left to right point and the distance from highest to lowest point (Fig. 5). Begin to sight the width of any object of your choice by extending the sighting stick arm's length at its widest point and record the distance from one edge to the other. With the thumb still in position on the sighting tool, rotate it and notice the number of times the width of the form repeats itself in the height of the form. Subsequently, maintain the same relationship in drawing the form however large or small your choice of representation on your drawing surface. It is advisable to sight the smallest measurement first and then relate it to the larger measurement ensuring the process start with the desirable form chosen as the unit of measure (Fig. 6).

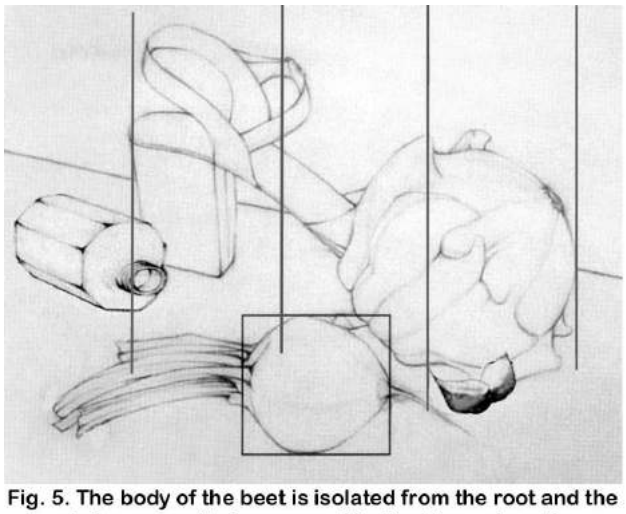

Fig. 5. The body of the beet is isolated from the root and the stalks as a unit of measure. Vertical lines show the width in relation to the entire still life.

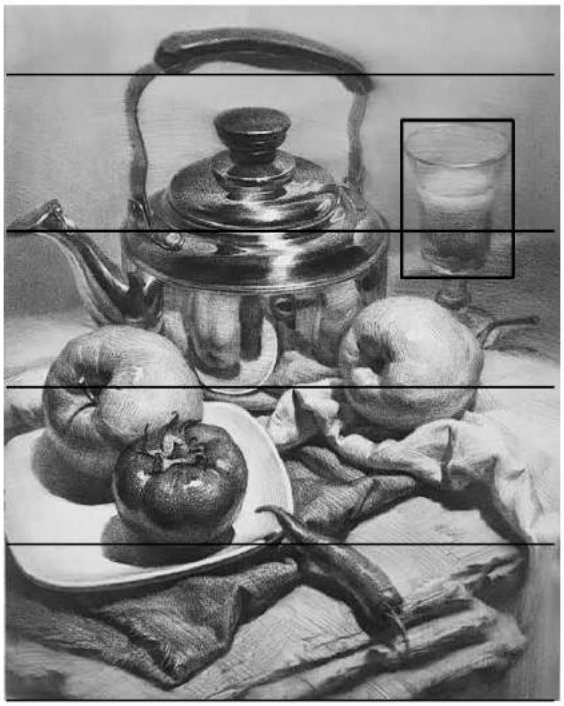

Fig. 6. The body of the wine glass serves as a unit of measure. Horizontal lines show the height of the unit of measure in relation to the entire still life.

Where the composition is complex, Rockman (2000) advises breaking down the form, "into component parts, sighting the size relationships between different parts, working from general to specific, observing and recording the larger, simpler relationships before attending to more detailed information". Sighting can be applied in any direction, diagonally, horizontally, or vertically and the same relationships can be observed between a form s size, part of it and other forms and their parts. Take note of Points of Articulations or Landmarks where there is sudden directional change along the edges or surface of a form (Fig. 7).

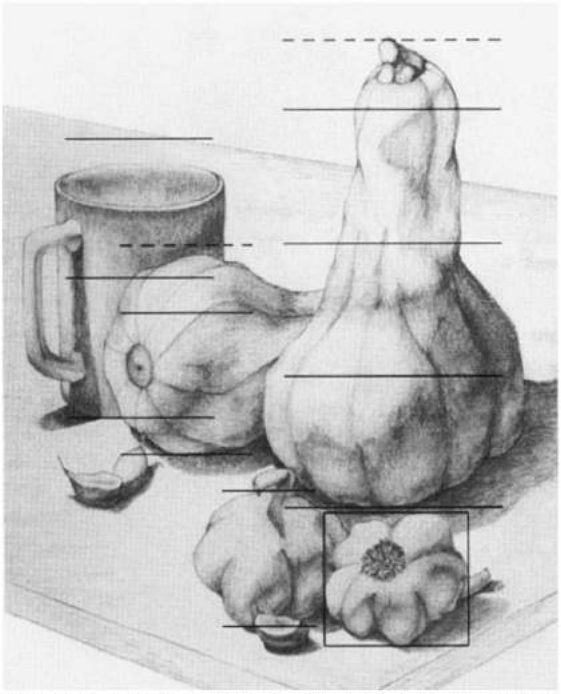

Fig. 7. The garlic bulb in the foreground is the unit of measure. Its height in relation to each individual form in the still life is shown. Broken lines indicate half the height of the unit of measure. (Rockman 2000)

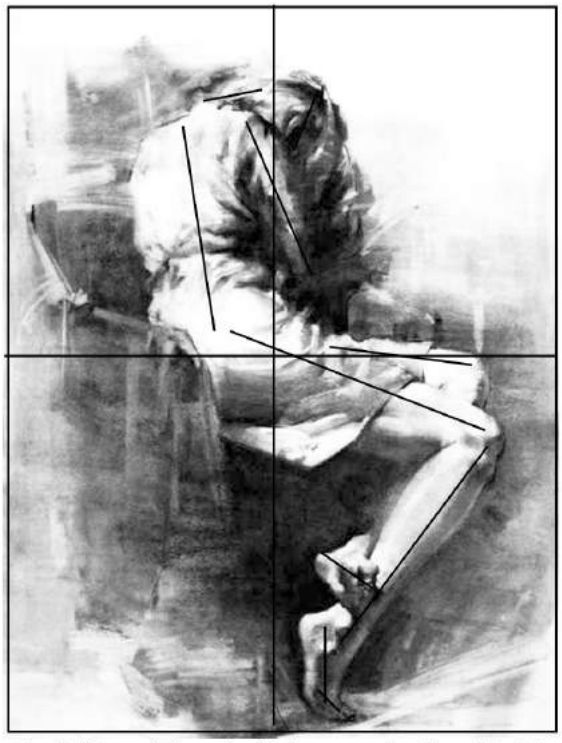

Fig. 8. Many different axis lines can be found in this drawing of a seated figure. The angles of the axis lines are compared to fixed verticals and horizontals

Angles and Axis Lines Sighting

Imaginary line running through the center of a form indicating the most dominant directional thrust of the forms at any point in time is referred to as an axis line. Depending on the directional thrust, complex forms could have more axis lines informed by the different directions the form pushes (Fig. 8). Once the right angle of the axis line is established, drawing of edges and contours of the form around it becomes easy. In order to sight obvious or less obvious angles on a form, simply align the sighting stick along the observed axis, and notice the relationship between the angle and a true vertical or horizontal it relates to closely. The paper's sides, to the left and right, top and bottom provide fixed verticals and horizontals for easy comparison.

Sighting Vertical or Horizontal Alignments

This process is closely related to sighting angles and axis lines but is mostly used for vertical or horizontal alignment. Single forms like human figures or groups of forms such as still life composition can be easily observed using this process, most especially when relating the correct position of one part of a form against another part or the correct position of one entire form in relation to another entire form. In sighting, look for two or more major landmarks that fall within a straight line of your sighting stick to create either a vertical or horizontal line (Fig. 9 and Fig. 10).

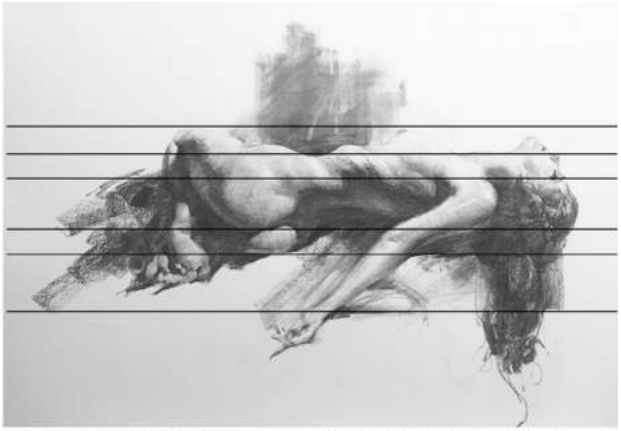

Fig. 9. Horizontal sight lines drawn through a reclining figure show a number of horizontal alignments, lower end of left butt and edge of left elbow, the left shoulder blade and left eyes etc.

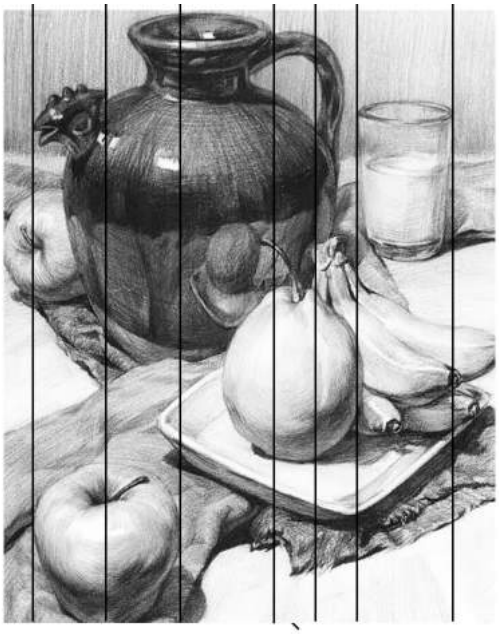

Fig. 10. Vertical sight lines drawn through still life forms. right side of cup and banana end, left side of cup and corner of tray, side of jug's snout and apple's stalk point etc.

CONCLUSION

This paper reviewed the importance of sighting in art especially drawing. It linked the weakness in the anatomical drawing of art students and even some professionals to a lack of adequate knowledge in sighting and the rule of measure generally. Proportion and perspective which are essential ingredients of standard drawings are part of what sighting emphasized. Good naturalistic and realism drawings can best be achieved through the application of the technique of sighting.

As a result of the prevalent likeness for abstraction and non-naturalistic drawing, the treasured knowledge of the rule of measure and sighting will soon be forgotten if serious steps are not taken to reawake it. This study, therefore, recommends that the curriculum of art be reviewed at all levels to give unavoidable attention

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