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Sources of Design Inspiration in Architectural Studios at Ahmadu Bello University, Nigeria

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ABSTRACT

The study was aimed at uncovering the trend in which undergraduate students of architecture at Ahmadu Bello University (ABU) Zaria acquire design inspiration. A quantitative approach was adopted for the study, where data was collected from a total of 205 questionnaires and analysed using descriptive statistics in SPSS v.23. The study deduced that a significant ratio of the students often find it difficult to acquire design inspiration for their projects in the studio; however, it was also established that the frequency of such difficulty reduces significantly as they progress into the higher levels. The study gathered that influences of nature (69.3%) and functionality (53.7 %) are the most dominant sources of design inspiration for architecture students in ABU. Similarly, inspiration sources like arts (25%), culture (36.60%), and symbolism (41.80%) are gathered to cast more influence on the lower levels, while themes like sustainable design (44.43%) and technological innovations (37.33%) exert more influence on the higher levels. The study also revealed that social media (84.67%) and mainstream media have an overwhelming influence on architecture students within context, with affirmed traces of waning influences of books and magazines (27.07%) as secondary sources of design information. Although a review of the studio pedagogy in ABU has shown a substantial attempt to expose students to various sources of design inspiration

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within the curriculum, the paper nonetheless recommends that the students should be exposed to all the outlined avenues of expressing themselves without ambiguity or restrictions. Studies on ethical incorporation of the influences of the media must also be considered within the studio pedagogy to form part of the learning process in architecture education.

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1. INTRODUCTION

One of the most challenging aspects of the architectural design studio for students in their early years of architectural education is the ability to find design inspiration and the adaptive processes necessary to execute its interpretations, development and delivery. Studies have shown that the ability to find design inspiration and bring it to light is individual-dependent (Hosny, Soliman, & Farag, 2023; Tafahomi, 2021). Although architectural design students sometimes exhibit such independent abilities to develop their design skills, many of them often require an instructor's involvement in the early stages of the process for necessary guidance on the appropriate approaches and methods of architectural design from inception to delivery (Dazkir, Mower, Reddy-Best, & Pedersen, 2013; Tafahomi, 2021; Maina, & Ibrahim, 2019). Unfortunately, despite these individual differences in the ability to conceive and execute design schemes in the studio, the students are typically confined to collective mentorship, time of delivery and a common jury. It is therefore imperative to mould architectural studio pedagogies with methods that can facilitate easy and collective access to design inspiration with little or no ambiguity/difficulty for students.

Design inspiration sources come from numerous dimensions depending on the nature of the scheme. In architecture education, design communication skills are firstly embedded within the curriculum for the students to assimilate as they progress through the study years (Najafi, Faizi, & Khanmohammadi. 2020). Consequently, typical school curricula focus on the expressions of history, design theory, building science, structures, sustainability and urban planning; all of which culminate in the design studio to train the students on how to solve environmental and social problems in the built environment (Hosny, Soliman, & Farag, 2023; Ghonim, 2016; Abdulkarim, 2011). These courses primarily shape the students' minds on different architectural styles driven by precedence (existing practices), culture, religion, and politics from different locations and eras (Roth, 1993).

Design inspiration automatically facilitates the development of a design concept which evolves as an architect goes through the design process (Najafi, Faizi, & Khanmohammadi. 2020). This statement is somewhat less flexible in practice where budget, structure, and clients' aspirations are paramount (Roth, 1993). In the design studio however, the students are largely grounded on the site and its surrounding context, culture, and heritage, studying from architecture grandmasters, architectural styles/aesthetics, uniqueness in typology, and function of the building (Matthew, & Gabb, 2000; Roth, 1993). Therefore, avenues of accessing design inspiration in the architectural studio are purposefully embedded in the curriculum to encourage the students to explore different aspects of architecture as a learning process. However, although the curriculum has provided these learning avenues, there is a need to conduct studio mentorship according to a spectrum of learning groups in the studio from the novice level down to the proficient-level students.

Based on the results of a study conducted by Aysel, (2023); Oluwatayo, Ezema & Opoko, (2017) and Dreyfus, (2004), design students are classified as novices, advanced beginners, competent designers, and proficient design students. According to level distribution in the two-tier (BSC/MSc) system of architecture education in Nigeria (Abdulkarim, 2011; Fashuyi, 2008); this tallies with the first-year undergraduate students grouped under the novice category, the second-year students regarded as beginners, while the third and fourth years technically fall into the more competent and proficient category. This classification between students in the studio

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inescapably exhibits different traits in search of design inspiration. Oluwatayo, Ezema & Opoko, (2017) iterated that, while the novices search for ideas in precedence, the advanced beginner can identify exceptions to the rule and work as the situation requires. Unfortunately, it is also at this level that beginners tend to lose interest and focus due to learning pressure from workload or frustration of not finding the appropriate inspirations (Hosny, Soliman, & Farag, 2023). This is why exploring the methods of instructional applications of design inspiration within the pedagogy is of paramount importance for the instructor in his mentorship sessions. As noted by Cardella, Atman & Adams (2006), a teacher must understand how students learn to design, it is only by doing so that students can be supported in developing their design conceptualisation abilities and personal learning style. The studio mentor therefore is saddled with the responsibility to nurture the students' potential by impacting on them all possible pointers of where to search for inspiration and also how to bring their incubated ideas to life in a more acceptable and practical manner.

In response to the highlighted issues, this study deems it necessary to obtain a clear understanding of the highlights and constraints of students' ability to identify and conceptualise design inspiration in the course of executing their design projects in the architectural studio. Although many students end up contented with their design outcome, many of them fail to understand or acknowledge the sources of the initial design inspiration and the processes involved in actualising them (Dazkir, Mower, Reddy-Best, & Pedersen, 2013). This phenomenon is often attributed to an important line of inquiry that tends to establish the need to know how much the studio instructor is required to intervene in the initial stages of students' method of finding design inspiration on their own.

The study is therefore aimed at exploring the sources of design inspiration and its influences on students in the undergraduate design studios in the Department of Architecture, ABU Zaria. The department is the oldest school of Architecture in Nigeria and produces a large number of practicing architects in the country (Ahmed, 2009; Mukhtar, & Salisu, 2009). Ascertaining the design inspiration of students is critical as it directly affects the quality of future architects. It also serves as a feedback mechanism for managing outcomes and design careers of its students in the near future. These in turn, influence their employability potentials as architects now have to compete with allied professionals for similar jobs (Maina, Adamu, & Sarafadeen, 2023). Design creativity and construction related skills are what gives architects an edge over all others even within the construction industry.

2. LITERATURE REVIEW

The review was focused on design inspiration and its influences on the design process in general. This is because it is the major catalyst that drives design learning and conceptualisation in architecture studios. It also covered some background information about studio practice and mentorship patterns in the case of the Department of Architecture at ABU Zaria.

2.1. Design Inspiration and its Influences on Design Process

Design inspiration is the initial component of the design process not only in architecture education but design industry in general. It is the process of being mentally stimulated to do or feel something creative, after which such inspiration is explored to provide valuable information about successful and creative design solutions (Dazkir, Mower, Reddy-Best, & Pedersen, 2013; Halskov, 2010). Aspelund, (2010) iterated that sources of inspiration are a form of knowledge

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that is crucial to creativity, and that design inspiration can be found anywhere; thus designers should look for inspiration in different mediums around them. Critical thinking is also important to finding inspiration, it can be enhanced by providing students with a variety of influences from culture, history, literature, and popular culture in films and art (Al-Haj, Hosni, & Ghannoum, 2022; Caplescu, 2015;). This is buttressed by Mete, (2006) and Matthew, & Gabb, (2000); that when students are given a specific inspiration source like nature as presented by the site, or influences from products of social and commercial relevance (logos and colour scheme), they tend to be more creative than when not provided with any specific hint.

Analogy and similarity have been proven to be very essential for human cognitive processes. In architectural design, analogy-based design has been used by many great architects throughout history, it is also used in the architectural learning process to inspire and educate novice architects to think visually and graphically (Najafi, Faizi, & Khanmohammadi. 2020). An example of analogy is as seen in the Beijing National Stadium structure which is analogous to the bird's nest, and the Longaberger Basket Building in the United States shown in Figure 1 and 2 respectively. It is believed that analogy-based design is one of the most powerful sources of creative ideas in architecture and it can be classified into direct analogy, symbolic analogy, personal analogy, and imaginary analogy (Taneri, & Dogan 2021; Broadbent 1973).

Design inspiration is theoretically personal, so the methods employed in finding it are not necessarily the precise way to approach a design but can offer hints and ideas. Inspiration comes in different classifications in architecture; Celadyn, (2018); and Venturi, Scott, & Izenour (1977) forwarded that primary inspiration for architectural design is classified into natural elements like plants and animals and man-made items. However, another submission by sources from Najafi, Faizi, & Khanmohammadi, (2020) logically went further to explain that architectural inspiration can only be perceived as a mental figment of form, structure, mechanism, process, function, system, theory, abstract rule and concept. Therefore design inspiration is all around us, it is but a matter of perspective.

Figure 1: Analogy between bird nest and stadium structure
Source: Najafi, et al. (2020)

Figure 2: A Basket Building in the United States. Source:
Sandler, (2011)

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The review clearly shows that design inspiration can come primarily from sources like nature, through the use of organic shapes, patterns, and materials (Venturi, Scott, & Izenour 1977); as masterfully showcased in the "Lotus Temple" shown in Figure 3. It can also come from the site and its features, cultural and historical contexts, and traditional/vernacular architecture (Ching, 2015; Widera, 2021). Architects also acquire inspiration from technology and innovation in building materials, construction techniques, and sustainability/environmental awareness (Celadyn, 2018; Ripley, & Bhushan, 2016; Bhushan, 2016). Others are inspirational sources like precedence from famous architects, iconic buildings, and the use of symbols and motifs (Matthew, & Gabb, 2000; Roth, 1993). There is also the use of unconventional sources from movies (Al-Haj, Hosni, & Ghannoum, 2022; Caplescu, 2015), like in the case of the "Crypto City" in Senegal inspired by *Wakanda,* a city from the movie "black panther" shown in Figure 4. Inspiration can also be derived from contemporary culture and leisure that stem from concept art and comics, and also the indispensable influences of social media handles like Facebook, Pinterest and Instagram (Kosasih, & Sangaras, 2022). Table 1 shows a general summary of potential sources of design inspiration for the students in the architecture studio.

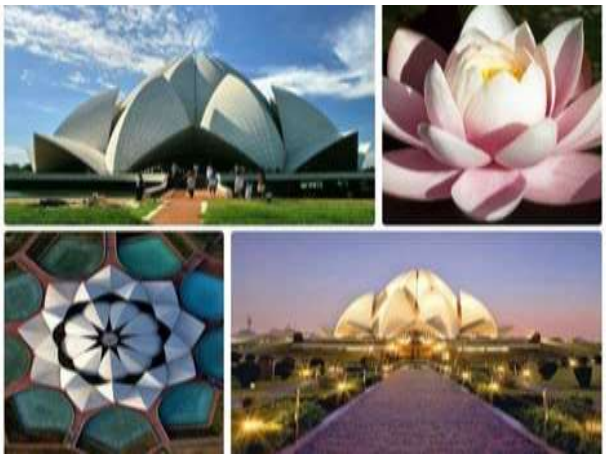

Figure 3: The Lotus Temple, New Delhi, India. Source; history to heritage.com (2022)

Figure 4: Akon's crypto city, Senegal inspired by a movie.
Source; Dezeen magazine (2020)

Within this premise therefore, sources of inspiration for the students must be guided in the conventionally laid down strategy like the studio pedagogy in schools of architecture. This is achieved by first identifying the students' credibility and ingenuity of identifying a source of

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inspiration, and then assisting them to actualise it using the established design procedure. This can be achieved using the four stages of creativity forwarded by Graham Wallace in his book "The Art of Thought", which involves, preparation and information gathering, incubation of ideas from the subconscious mind, illumination of ideas, and verification through testing.

Table 1: A general summary of potential sources of design inspiration for the students

Type	Description	Source
Primary	Nature & Site Function/Space	Celadyn, (2018); Venturi, et al (1977); Matthew, & Gabb, 2000; Mete, (2006)
	Culture & History Precedence Symbolism Styles & Aesthetics	Hosny, et al (2023); Ghonim, (2016); Roth, (1993) ; Najafi, et al (2020); Taneri, & Dogan, (2021); Broadbent (1973); Widera, 2021
	Technology/Innovation Sustainability	Celadyn, 2018; Ripley, & Bhushan, 2016
Secondary	Books & Magazines Art & Sculpture Popular Culture Media (mainstream and social)	Al-Haj, Hosni, & Ghannoum, 2022; Caplescu, 2015; Kosasih, & Sangaras, 2022

Source: Authors, 2024

2.3 Teaching Design; the Case of Department of Architecture, ABU Zaria

In Nigerian Architecture schools, the philosophy was developed on the British, American and Western European models of architectural education where the design studio is the nucleus of the entire program and the acquisition of thinking and design execution skills is impacted therefrom (Maina, 2015; Olotuah, 2000; Fashuyi, 2008). This model was first adopted in the Department of Architecture, Ahmadu Bello University (ABU) Zaria from the practice-based model up to the course credit system. Initially the courses directly responsible for harnessing design inspiration for students comprised of courses like design thought and theory, history of architecture, art and history, sculpture and composition (Abdulkarim, 2011). Although these models have undergone many reviews over the years, in ABU it is instituted that providing students with proper guidance to acquire information on appropriate sources of design inspiration must remain one of the key objectives of the design studio culture.

There are different approaches to teaching design students. Although some scholars believe allowing design students' freedom to choose is important, they also believe that more meaningful learning occurs when a student can approach a subject via their point of interest than when assigned a specific process or product (Shreeve, Sims, & Trowler, 2010). However, one of the biggest challenges related to different approaches in design education is the issue of how much assistance to provide students to avert the frustrated effort of "spoon-feeding" them (Smith, 2008). In view of these universal concerns, many Nigerian schools of architecture have developed their respective methods of studio learning in tune with the stipulations and requirements of the National Universities Commission and Architects Registration Council of Nigeria (Abdulkarim, 2011).

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In ABU Zaria, allied studio-based courses together with cognate theoretical and technological courses are tailored to prepare architecture students to deal with open-ended design problems and find creative solutions as part of the architectural training (Maina, 2015). Therefore, the early years cover generalist training in which students are introduced to design in a way that they should be able to integrate imagination, creative thinking, information gathering, and synthetisation of data to formulate optimised solutions (Salisu, 2009). The design studio in the department has a long-standing model that is adapted from time to time. According to the studio philosophy of the department, it is expected that the students carry out some background research on the design brief prepared by their studio coordinators. This is similar in all levels; however, the first step of having the need to search for design inspiration in concept development starts from the beginners' level (200 level). The course philosophy at this level is built on an approach that allows the students to explore their thoughts and potentials by shaping their perception of architectural design as a philosophy in general. This is achieved by guiding the students through all the relevant and necessary sequences of actualising their preconceived ideas into the acceptable standard of the design process and delivery as stipulated in the curriculum.

As gathered from the long-standing departmental studio model collected from records in the Departmental archive (Abdulkarim, 2011), the design studio is structured in a manner that each design task has a certain focus that is accentuated by an outlined design stage and submission requirement. Design stage one requires that the students put forward a preface to the project's background and associated design problems. Stage two is for data collection, analysis, and generation of alternative solutions, while stage three progresses to design proposals and production of physical models. Issues related to design inspiration are typically explored in stage two of the studio program as dictated by the curriculum. Table 2 shows a breakdown of the strategy adopted in the studios to facilitate data gathering in a way that adequately informs the concept evolution and development.

Table 2: A concise breakdown of the preliminary stage in the design studio (ABU Zaria)

Step 1	Preliminaries	The problem, data collection/analysis/report	Information gathering
Step 2	The Site	Location, selection/criteria, analysis	
Step 3	Resolution of Alternatives	Brief development, accommodation schedule Functional flow, space analysis	**-Inspiration Finding -** Data Gathering
Step 4	Concept Evolution	Site zoning concept Design concept and development	-Conceptualisation
Step 5	Proposals	Preliminary sketches	Design

Source: Departmental Archives, (2022).

The studio pedagogy has clearly provided a platform for the students to gather enough data upon which inspiration is expected to set in before the conceptualisation and subsequent design stage. In terms of design delivery, it has been established in the literature that the learning style is individualistic and the array of numerous personalities in the studio gives rise to different challenges for the instructors as using a generic approach may give rise to variation in ingenuity, speed, and performance (Pelsmakers, Donovan, & Moseng, 2019). However, a study conducted in the department revealed a trend that students with good academic performance develop better and faster learning techniques than their counterparts within the same learning space (Adamu, Maina, Salihu, & La'ah, 2022). It is therefore imperative for architecture educators to

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trace the trend and pattern of students' way of thinking on the path to discovering their sources of inspiration. In so doing, the instructors could be better informed on the pre-emptive and counteractive adaptations necessary to harness students' creativity in the architectural design studio.

3. METHODOLOGY

A quantitative approach was employed in conducting the research using a questionnaire survey to evaluate the outlined variables that influence design inspiration on the students in the architectural design studio at ABU Zaria. Data was collected to identify the trend and student's attitude toward obtaining design inspiration and their approach to learning styles. Because the first-year (100-level) students are regarded as novices who offer only the initial foundation courses, data was collected for the 200, 300, and 400-level students for necessary evaluations. The survey was grounded on five levels of association from the lowest score (1) to the highest score (5). Binary responses (yes/no) and open-ended questions were also provided where applicable to obtain more explicit responses from the respondents. Table 3 was generated to guide the respondents' participation in the survey. The table is a breakdown of the structured findings as illustrated in the summaries from the literature review. Table 4 shows a framework of the sampled questions mapped to their pertinent variables designed to obtain expressive responses from the students.

Table 3: A respondents' guide to potential sources of design inspiration and descriptions

Type	Source		Description
1. Primary	i.	Nature	Organic shapes, patterns, materials
	ii.	Site	Landform and site features
	iii.	Function/Space	Building typology
	iv.	Culture & History	Traditional, vernacular
	v.	Precedence	Famous architects, iconic buildings
	vi.	Symbolism	Motifs, brands, logos and figures
	vii.	Styles & Aesthetics	e.g. high tech, minimalism, constructivism
	viii.	Technology/Innovation	Materials/construction techniques
	ix.	Sustainability	Energy, environment, sense of place
2. Secondary	x.	Books & Magazines	Education, theories, principles, and critique
	xi.	Art & Sculpture	Art, sculpture, graffiti, & colour schemes
	xii.	Popular Culture	Movies, concept art, comics & animation
	xiii.	Mainstream media	Websites and television channels
	xiv.	Social Media	Facebook, pinterest & instagram.

Source: Authors, 2024

Table 4: Sampled questions for the respondents

	Variables	Respondents' required perception
1	Difficulty in finding design inspiration	i. Level of difficulty in finding design inspiration for a project
2	Uncovering the most recurring sources of inspiration adopted by students	ii. Most frequently used primary sources of design inspiration iii. Most frequently used secondary sources of design inspiration
3	Evaluating students' understanding and	iv. Full understanding of adopted design inspiration/concept v. Acknowledging the source of design inspiration

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	Variables	Respondents' required perception
	acknowledgment of inspiration sources	
4	Assessing students' attitudes toward actualising preconceived design	vi. Level of success in actualising adopted concepts in design vii. Common difficulties in actualising a preconceived concept
5	Involvement of instructors in students' search for inspiration	viii. Reliance on instructors' assistance in search of inspiration ix. Free will to formulate concepts without instructors' interference x. View on the effectiveness of the studio curriculum in general

Source: Authors, 2024

To obtain adequate data for the study, sample size was obtained using $N/1 + N(e)^2$; where e is margin of error (0.05) as forwarded by Yamane, (1967). To answer the questions raised from the study objectives, data collected from the questionnaire survey was analysed via illustrated frequencies and percentages using SPSS V.23 for relevant statistical analysis.

4. FINDINGS AND DISCUSSIONS

The current population of 200, 300 and 400 level classes are 123, 98, and 101 respectively which sums up a total number of student to 322. To adequately collect data from all the levels within the scope of the study, 250 questionnaires were distributed, and 205 representing 82% were returned. As shown in Table 5, the demographics showed that 69.3% of the respondents are male while 30.7% are female. The majority of the respondents are between the ages of 20 to 25 years of age (83.5%), and the samples comprise 30.2, 30.7, and 39.1 of 200-level, 300-level, and 400-level students respectively.

Table 5: Summaries of demographic data for the respondents

Variable	Category	Number	Percentage (%)
Gender	Male	142	69.3
	Female	63	30.7
	Total	205	100
Age	<=20	29	14.2
	20-25	171	83.5
	>25	5	2.3
Level	200	62	30.2
	300	63	30.7
	400	80	39.1

Source: Field survey, 2024

4.1. Most Recurrent Sources of Design Inspiration by Students

Figure 5 illustrates the results from the first segment of the survey which is aimed at uncovering the most recurrent primary sources of design inspiration adopted by students. The survey shows that 69.3% of the respondents indicated that they derive inspiration from nature and site conditions when conceiving their designs, this is followed by the function and space variable with 53.7%, and architectural/aesthetics styles with 51.7% responses. Conversely, the survey also revealed that only 25% of the students consider inspiration from Arts and sculpture whereas culture and history recorded one of the lowest scores of 36%.

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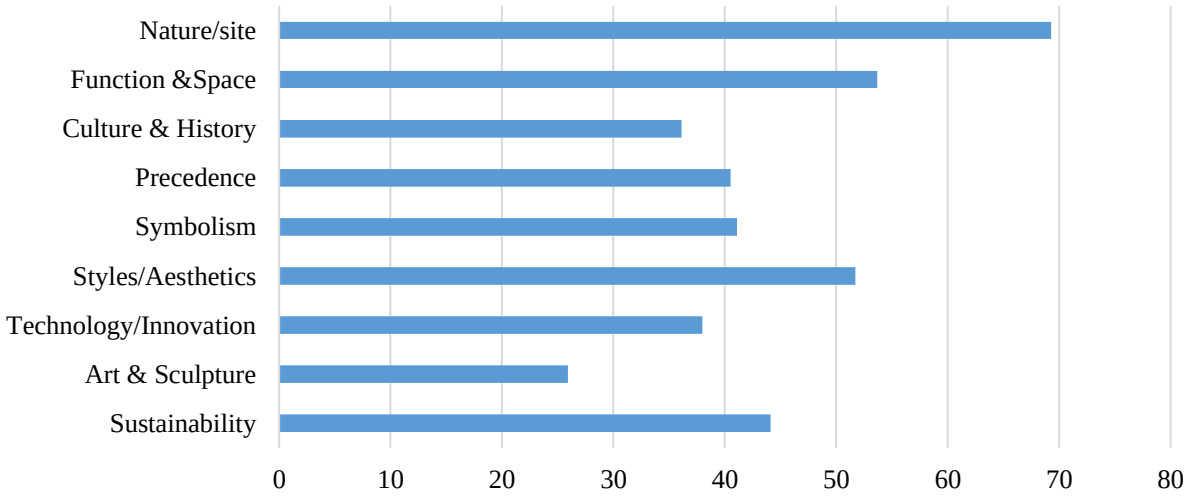

Figure 5: level of using primary sources of inspiration by students'
Source; Field survey, 2024

As shown in Table 6, further analysis of the result showed that the trend of using nature, site conditions and functionality is consistent in all the undergraduate levels. However, it appears to be higher in the 300 and 400 levels respectively. On the other hand, art and sculpture, culture and history, and symbolism recorded higher scores in the 200-level than in the higher levels; while sustainability, technology, and functionality are higher in the 400-level.

Table 6. Scores on primary sources of design inspiration by undergraduate levels.

Variables	Undergraduate levels			
	200	**300**	**400**	**Total%**
1. Nature/Site	64.20	69.40	74.50	**69.37**
2. Functionality	37.70	55.90	67.80	**53.80**
3. History/Culture	25.80	54.00	30.00	**36.60**
4. Precedence	56.50	41.30	27.50	**41.77**
5. Symbolism	51.60	41.30	32.50	**41.80**
6. Styles	45.90	49.20	58.00	**51.03**
7. Technology/innovation	30.60	47.60	33.80	**37.33**
8. Art/sculpture	24.20	30.20	22.80	**25.73**
9. Sustainability	29.00	49.00	55.30	**44.43**

Source; Field survey, 2024

Being the major drivers for information gathering as well as influential avenues of searching for design inspiration, the study revealed that an overwhelming majority of 84% of the students patronise the pertinent social media handles in search of design inspiration. This score is led by the students' use of mainstream media outlets with a frequency score of 44% and popular culture at 39% (Figure 6). ~~Unfortunately,~~ the non-electronic avenues of books and magazines are the least patronised secondary sources of inspiration by the respondents as shown in Table 7 with 27%.

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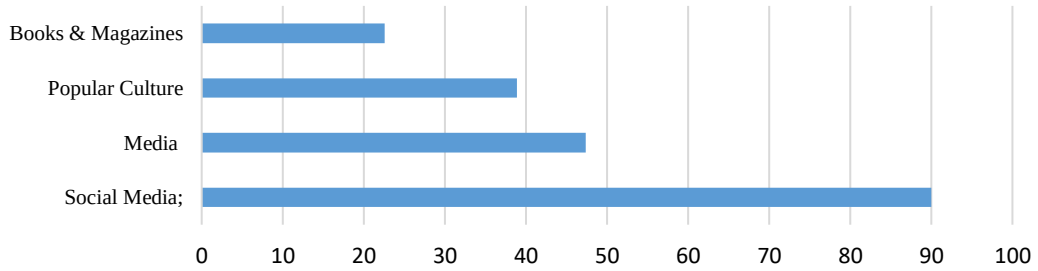

Figure 6: level of using secondary sources of inspiration by students'
Source: Field survey, 2024

Table 7. Scores on secondary sources of design inspiration by undergraduate levels

	Variables	Undergraduate levels			
		200%	300%	400%	Total%
1.	Books	45.2	22.2	13.8	27.07
2.	Popular Culture	50.0	31.7	32.5	38.07
3.	Media	43.5	49.2	40.0	44.23
4.	Social Media	93.5	90.5	70.0	84.67

Source; Field survey, 2024

These results imply that right from the beginning, the exposure to site explorations and analysis embedded in the curriculum casts a perpetual influence on the students at all levels as buttressed by Ching, (2015). Similarly, functionality as also embedded in the curriculum is the primary requirement for the requisite success of any design jury and appears to be a focus of inspiration for the students in line with submissions of Najafi, Faizi, & Khanmohammadi (2020) and Ching, (2015). Higher scores in art and sculpture, culture, and symbolism gathered from the lower levels infer that imagery and derivative concepts are understood better by younger architecture students than the more technical and philosophical concepts derived from sustainability and technology in the case of the higher levels as rightly gathered from Broadbent, (1973).

Results from the secondary sources show an overwhelming influence of social and mainstream media in design endeavours as hitherto reported by Kosasih, & Sangaras, (2022); there is also a semblance of the waning influence of conventional hard-copied books and magazines. However, further scrutiny revealed that students in the lower levels appear to patronise the use of social media, books, and magazines more than the older students, especially in the 400-level. This is in tune with submissions of Oluwatayo, Ezema & Opoko, (2017), who pointed out the fact that the novice typically draws from principles already established in process and precedence, while the more advanced beginner can intuitively identify exceptions to the rule and work as the situation requires with fewer standard solutions.

4.2. Level of Difficulty in Finding Design Inspiration for the Students

Results from the survey studied the level of difficulty for students to find design inspiration in a typical studio project. As shown in Table 8, the results revealed that on a general scale, difficulty in finding inspiration is recorded higher in the lower levels than the higher ones. However, it also shows that the frequency is higher in the mid-scale values (high, fair, and low) in all the levels. In the 400 level a lower score of 12.8% (very-high) and 24.8% (high) difficulty score was recorded, while in the 200-level, 17.5% (very-high) and 31.0% (high) responses were

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recorded. Similarly, only 2.5% of the 200-level students claim that they experience little difficulty in finding design inspiration, while 7.5% of respondents from the 400-level claim that they experience a very low level of difficulty. Generally, this deduces that in both the higher and lower bands of difficulty, the level of difficulty is slightly higher in the beginners' studio and reduces significantly in the advanced levels.

Table 8: Level of difficulty in finding design inspiration in undergraduate levels

		Undergraduate levels		
		200	**300**	**400**
1.	Very Low	2.5	6.3	7.5
2.	Low	16.3	16.2	12.5
3.	Moderate	32.7	38.7	42.5
4.	High	31.0	26.3	24.8
5.	Very High	17.5	12.5	12.8
	Total 100%	100%	100%	100%

Source; Field survey, 2024

Table 9 shows the respondents' level of full understanding of their design inspiration and design concept in their respective projects. It also shows the level at which they actualise their design inspiration into a full pledge design project and the level at which such inspiration is utilised to guide them through such a project from start to finish. The result shows that although the respondents claim to have some level of understanding of the source of their design inspiration (11.7% very-high and 27% high), the level at which it is fully actualised in design delivery bears a rather low score of 15.2% on the very-high scale and 19.1% on the high-scale. Also, only about 14.2% of the respondents fully use their design concept from start to finish on a very high scale, and 26% on a high scale while 4% admit that their level of implementation of the design concept is on a very low scale. In consonance with the level of application, 12.7% of the respondents recorded a high level of full acknowledgement of their sources of inspiration, while 24.5% of respondents claimed to also do so on a high scale. Conversely, about 8.8% of the respondents admit to a very low level of practice of acknowledging the sources of their design inspiration.

Judging by the overwhelming frequency of records on the mid-scales over the lower scales, the results in this segment imply that the respondents have a reasonable level of understanding of the sources of inspiration that drive their design concept in the studio. It also shows the level at which they actualise their design inspiration into a full pledge design project and the level at which such inspiration is utilised to guide them through such a project from start to finish is sufficiently considered. The results also show that the practice of acknowledging the source of inspiration that leads to design concept is only fairly considered even though it is a requirement embedded in the stipulations of the studio curriculum under a segment titled "concept evolution/development".

Table 9: Levels of understanding, actualisation and acknowledgement of source by the students

	Variable	Very high	high	moderate	Low	Very Low
1.	Full understanding of adopted design inspiration/concept	11.7	27.8	37.1	16.1	6.8
2.	Actualising design inspiration/concept in design projects	15.2	19.1	33.3	29.4	2.9

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	Variable	Very high	high	moderate	Low	Very Low
3.	Using the inspiration/concept from start to finish in a project	14.2	26.5	32.8	22.5	3.9
4.	Acknowledging the source of inspiration	12.7	24.5	33.8	20.1	8.8

Source; Field survey, 2024

4.3. Level of Involvement of Instructors in Students' Search for Design Inspiration

With respect to the issue of students' reliance on the instructor's assistance in search of design inspiration in the studio, Table 10 shows the results from collected responses. Between the very high and high scores, a cumulative 23.3% of the respondents admit that they rely on the instructors' guidance while in search of inspiration. An affirmative response on how helpful the studio mentorship is in accomplishing designs in the studio recorded a frequency score of 31.9% and 34.8% scores for high and very-high scales respectively. Similarly, between the high and the very high scales, 53.9% of the respondents admit to the effectiveness of the enshrined studio curriculum.

By implication, the results show that many of the students, especially in the lower levels require instructors' assistance in search of design inspiration as also gathered from Maina & Ibrahim (2019). They also admit to the effectiveness of mentorship in the studio as stipulated by the effectiveness of the enshrined studio curriculum in the department.

Table 10: level of reliance on instructor's assistance and Effectiveness of curriculum

	Variable	**Very low**	**low**	**moderate**	**high**	**Very high**
1.	Reliance on the instructor's assistance in search of inspiration	14.2	26.0	26.5	23.0	10.3
2.	Helpfulness of mentorship in the studio	2.0	10.8	20.6	31.9	34.8
3.	Effectiveness of the studio curriculum	1.5	12.7	31.9	28.9	25.0

Source; Field survey, 2024

Another set of responses from the studio instructors' involvement and the nature of the studio curriculum is as shown in Table 11, an overwhelming 84.4% of responses show that the students prefer that the studio instructors always offer them some hint or guide in concept development for their projects. Conversely, 36.1% of the respondents prefer a sense of free will in formulating their concept without the mentors' interference, while 62.4% do not share that opinion. On the issue of rigidity and cumbersomeness of the studio curriculum, the opinion is split among respondents where 47.8% agree and 51.7% disagree.

Table 11: Preference on level of mentors' guide and nature of studio curriculum

	Variable	**Yes**	**No**
1.	Preference and dependence on mentors hint/guide in finding design concept	84.4	15.1
2.	Preference of free will in formulating concepts without the mentors' interference	36.1	62.4
3.	Rigidity and cumbersomeness of the studio curriculum	47.8	51.7

Source; Field survey, 2024

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5. CONCLUSIONS, RECOMMENDATIONS AND FURTHER RESEARCH

This study was aimed at determining the trend in which undergraduate students in the Department of Architecture, ABU Zaria acquire and actualise design inspiration in their design studios. Results of the study revealed that the use of nature and the impact of predominant site features is the most dominant source of design inspiration for the students in the department. As also embedded in the curriculum, the use of functionality is typically the focal point of every scheme at all levels. However; sources like arts, culture, and symbolism are gathered to cast more influence on the lower levels over themes like sustainable design and technological innovations as in the case of the higher levels. The paper also revealed that social and mainstream media have an overwhelming influence on architecture students within context, with affirmed traces of the declining influence of books and magazines as secondary sources of information. A majority of the respondents appear to have a reasonable level of understanding of the sources of inspiration that drive their design concept in the studio. It also shows the level at which they actualise their design inspiration into full pledge designs is sufficient for the stipulations of the long-standing studio pedagogy of the department. Within the bounds of the studio curriculum also, responses show that the students acknowledge the relevance of instructors' efforts and guidance from aiding the search for design inspiration to concept development and practical completion of their design projects.

The paper therefore recommends that the students should be exposed to all avenues that can aid their search for design inspiration without ambiguity or restrictions in the studio learning environment. Ethical incorporation of the indispensable influence of the media must also be considered within the studio pedagogy by the instructors in the learning process. Having covered the magnitude and influences that the various sources of design inspiration have on undergraduate students, a follow-up study on postgraduate students is hence necessary. Further research within context may also cover;

1) Influences of gender on sources of design inspiration for students in Architecture Education
2) Architectural learning styles and influences of "inspiring space" in Architecture Education

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