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International Journal of Arts Architecture & Design (JAARD) draws its contributions from academicians/practitioners/researchers working in the field of Visual Arts, Performing Arts, Architecture, and Design. It publishes peer-reviewed papers that engage with critical study, innovative practice, and creative pedagogy, addressing themes that may be domain-specific (e.g., theatre, dance, music, fine art, films, visual arts, architecture, architectural design, fashion design, textile design, communication design, product design, interior design, animation etc.) or situated at the convergence of two or more domains.

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Editorial Note

It is with great pleasure and enthusiasm that we welcome you to the inaugural volume of the International Journal of Arts, Architecture and Design (JAARD). We as Editors are honored to be a part of this scholarly endeavor and to introduce you to the world of artistic exploration, architectural innovation, and creative design thinking.

JAARD aspires to be a hub of intellectual discourse and creative expression in the realm of arts, architecture, and design. We are committed to providing a platform where original research, critical analysis, and innovative practices can thrive. This journal is not only a repository of knowledge but also a dynamic space for dialogue and collaboration among scholars, practitioners, and enthusiasts in these fields.

Our editorial board comprises distinguished members who bring a wealth of experience and expertise to ensure the quality and rigor of the content published here. We encourage diverse perspectives and cross-disciplinary exchange, embracing a wide spectrum of topics from music to user experience design.

We invite you to explore the articles, essays, reviews, and commentaries presented in this volume. Your engagement and contributions will be vital in shaping the future of JAARD. We look forward to your scholarly pursuits and creative endeavors as we collectively explore the fascinating world of arts, architecture, and design.

Thank you for being a part of this exciting journey, and we eagerly anticipate the scholarly discoveries and innovations that will emerge through JAARD.

Editors

Design for Working from Home: Lessons Learned from Architects and Designers during the COVID Era

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ABSTRACT

Technology has revolutionized information and communication, with platforms now enabling employees to work remotely. The COVID-19 pandemic has further changed how people work worldwide. Several challenges have been identified for those working remotely, including uncomfortable work environments, increased stress, and depression. However, there is a lack of research on the working from home (WFH) challenges, successes, and conditions for design professionals. In this study, an anonymous online survey was administered to 93 remote architects and interior designers. The survey aimed to explore remote designers' experiences, physical work environment, and required equipment. Most respondents reported experiencing distractions, lack of social interaction and physical activities, and inadequate internet/tools while working remotely. However, 60% of participants reported higher productivity while working remotely and desired improved working conditions to continue WFH. Based on the study's findings, researchers aim to develop and evaluate a pervasive virtual reality enhanced WFH environment for designers in the future.

Keywords – Technology, Working from Home, Architects, Designers, Pervasive Virtual Reality

1. Introduction

The concept of remote work has been considered since the 1920s (Westfall, 1998), with the emergence of telework as a means of enabling work from home predicted by Allan Toffler and Jack Nilles in the 1970s (Nilles et al., 1976). The development of information and communication technologies, including smartphones and computers, has facilitated the ability to work from anywhere at any time, reducing the significance of geographical distance between workplaces and companies (Messenger & Gschwind, 2016). The trend towards remote work has gained momentum in recent years as individuals increasingly value flexible and mobile work styles. According to the American Community Survey, only 6% of Americans worked entirely from home in 2019, representing an increase of 2% from 2009 (Patrick Coate, 2021). However, the Covid-19 pandemic has caused a significant increase in the number of people working from home with an 8% increase in US workers reporting that they were working from home during the lockdown period (Brzezinski et al., 2020). In this regard, the US Census Bureau reports that over a third of US households have reported working from home more frequently since the onset of the pandemic (Marshall et al., 2021). A study by Dingel and Neiman (2020) found that 37% of US jobs can be performed entirely remotely, with this figure varying significantly across industries and cities. While developing economies may have less capacity for widespread remote employment, they are more susceptible to lockdowns. However, the rapid adoption of remote work during the pandemic has led to changes in work styles and time management

in many countries and has raised questions about the future of the workplace. While working from home may be a suitable decision under these forced circumstances (Langè & Gastaldi, 2020), it remains to be seen how the trend toward remote work will continue to evolve in the future.

Although numerous studies have examined the impact of remote work on employees' psychological well-being (Bellmann & Hübler, 2020; Grant et al., 2013), including job satisfaction (Niebuhr et al., 2022), stress levels (Seva et al., 2021), loneliness (Deutrom et al., 2022; Mann & Holdsworth, 2003) and performance (Jalagat & Jalagat, 2019), this particular study specifically investigated the physical work environment and required equipment of employees working from home, as well as their psychosocial states. Previous research primarily focused on the remote work experiences of various professions including software engineers (Smite et al., 2022), IT specialists (Dingel & Neiman, 2020), institutional staff (Afrianty et al., 2022), and bank employees (Borgia et al., 2022), whereas there is a dearth of information regarding the unique challenges and successes of WFH for design professionals. Therefore, this study aims to investigate designers' physical remote work environment conditions including furniture, required equipment, environment dimensions, and lighting conditions, and to explore the experiences and challenges these professionals encounter while working in a home-based office.

The literature suggests that working from home (WFH) can have both positive and negative impacts ((Bolisani et al., 2020; Galanti et al., 2021; Moretti et al., 2020). The COVID-19 pandemic has particularly highlighted the ways in which personal and work-related factors both facilitate and hinder WFH. Studies have identified a number of benefits associated with WFH, including increased autonomy and self-leadership (Galanti et al., 2021), enhanced productivity and flexibility (Jalagat & Jalagat, 2019), and the ability to better balance work and personal commitments amongst middle-aged employees (Piszczyk & Pimputkar, 2021). In this regard, Kurland and Bailey (1999) found that remote work can enhance workplace productivity and improve job performance ratings (Bailey & Kurland, 1999). However, there are also negative aspects of WFH that have been identified in the literature, such as the blurring of work-life boundaries leading to increased anxiety and difficulty disconnecting from work (Grant et al., 2013), and increased social interaction among family members at home (Grant et al., 2013). Moreover, one study, contrary to most studies, stated that WFH negatively affects employees' performance and it is even worse when teammates are working remotely (Van Der Lippe & Lippényi, 2020). Additionally, stress can have a negative impact on employees' productivity when working remotely (Seva et al., 2021). Galanti et al. (2021) found that conflicts between work and family life and social isolation can affect WFH engagement and productivity.

The COVID-19 pandemic has continued to influence all aspects of working from home (WFH) and work styles. Recent research has found that WFH during the pandemic has provided a significant degree of opportunities and flexibility, as well as helped to contain the spread of Covid-19 by keeping the majority of people at home (Birimoglu Okuyan & Begen, 2022). A study by Moretti et al. (2020) found that those who worked from home during the pandemic reported feeling less stressed and as satisfied as those who worked in an office. However, WFH after the pandemic has also been accompanied by a number of challenges, including difficulty maintaining contact with colleagues, heavy reliance on communication systems (Bolisani et al., 2020b), and distractions from family members that can increase stress levels and impact performance (Guantario, 2020).

Table 1. Benefits and Challenges of WFH

<i>Authors</i>	<i>Benefits of WFH</i>	<i>Challenges of WFH</i>	<i>Sample</i>	<i>Sample Size</i>	<i>Method</i>
(Beck & Hensher, 2022)	<ul style="list-style-type: none"> - Reduced transportation costs - Possibility to work from anywhere and not from a centralized location - More flexible time management - Having more family time 	<ul style="list-style-type: none"> - Children and family interruptions during working hours - Less concentration at work 	Australian employees	3460	Three waves of online surveys
(Aczel et al., 2021)	<ul style="list-style-type: none"> - Enhanced efficiency - Enhanced wellbeing - Better at writing, reading, and evaluating data among researchers 	<ul style="list-style-type: none"> - Reduced connection with team - Researchers are less likely to collect data while working remotely 	Researchers working from home	704	Survey
(Galanti et al., 2021)	<ul style="list-style-type: none"> - Self-leadership - Autonomy 	<ul style="list-style-type: none"> - Conflicts between family and work life - Social isolation - Increased stress - Decreased productivity 	WFH full-time employees in Italian public and private organizations	209	Online self-report questionnaire
(Ipsen et al., 2021)	<ul style="list-style-type: none"> - More balance between work and life - Enhanced productivity - Improved management control 	<ul style="list-style-type: none"> - The constraints of home offices - Uncertainties at work 	Knowledge workers working remotely in 29 European countries	5748	An online survey in Danish and English
(Moretti et al., 2020)	<ul style="list-style-type: none"> - Reduced stress level 	<ul style="list-style-type: none"> - Absence of ergonomic office furniture - Less productive during pandemic - Less job satisfaction - Less physical health 	Remote administrative officers	51	Cross-sectional study, Questionnaire
(Bolisani et al., 2020b)	<ul style="list-style-type: none"> - Reduced transportation time - Eating and drinking food that you prepare yourself - Concentrating on your work without interruptions 	<ul style="list-style-type: none"> - Uneasy interactions with people - An inability to avoid lengthy meetings - Uncomfortable work environment 	Italian employees	931	Online survey
(Lupu, 2017)	<ul style="list-style-type: none"> - Flexible scheduling - Reduced expenses for organizations - Fewer interruptions - Improved concentration - A greater sense of motivation - More satisfaction - Better employee commitment 	<ul style="list-style-type: none"> - Technical issues that cannot be resolved remotely - Inequalities in salaries between office employees and teleworkers - Isolation among employees - Limitations to normal interactions with coworkers 	-	-	Review article

	- Reduction of time and disruptions increased work energy	- Difficulties in managing union activities			
(Johansson, 2017)	- Simple and inexpensive alternative of working in an office space - Privacy - Increased concentration in the quiet and peace that a home environment - Freedom - More flexible office hours - Parallel work with other household tasks	- Lack of surfaces or working space in the space that you designated for WFH - Lack of space for storage and organization - Difficulties in setting boundary between working hours and free time - Everything is taking place in the same environment. - Numerous distractions, which make it difficult to focus - Isolation at home as opposed to working with several colleagues in an office setting.	Swedish employees	7	Observation and Interview
(Bloom et al., 2014)	- Increased performance - More work satisfaction - Halves attrition rate	- Reduced performance-based promotion rate	Employees of Ctrip, a Chinese travel agency	249	Between-subjects design
(Grant et al., 2013)	- Technology access - Enhanced flexibility - Individual competencies - Enhanced work-life balance	- Decreased well-being because of overworking. - Lack of time for recuperation - Increased workload - Job insecurity	Remote employees from different organizations and sectors in UK	11	Semi-structured interview
(Tremblay & Thomsin, 2012)	- The ability to save money and time on commuting. - Allowing for more family time - Enhancing quality of life - Balancing work and family life - Increasing workplace flexibility and autonomy	- Increased dissatisfaction - Social isolation - Loss of team spirit	Management and staff members of a large ICT organization in Belgium	1343	Survey
(Forgacs, 2010)	- Wellbeing - Productivity and efficiency - Satisfaction - Increasing employment opportunities	- Individuals' lives and careers are weakening - Limiting job opportunities - Precarious environment	Medium and large enterprises in Hungary using telework	473	Screening survey

As Table 1 illustrates, the most frequently cited benefits of working from home (WFH) include improved work-life balance, more flexible scheduling, increased productivity, and reductions in costs. The most common challenges associated with WFH include social isolation, decreased work performance, and distractions. Although the aforementioned studies focused on the psychological and social impacts of working from home on employees, none of them inquired about the environmental

conditions and challenges of the employees' home-based workspaces, such as furniture, required equipment, environment dimensions, and lighting conditions, which employees are required to consider as part of their designated WFH environment. Moreover, none of these studies specifically focused on challenges faced by designers working from home. Designers typically require more collaboration with other team members such as project managers, developers, and other designers, which may not be easy to achieve when working remotely. Communication and collaboration may be hindered, leading to misunderstandings and delays in the design process. Furthermore, designers may require a larger workspace to accommodate their equipment and physical materials such as printed drawings, large format printers, and 3D printers. This lack of space and equipment may further hinder their productivity when working remotely.

Therefore, this study aims to address the gap in existing literature on the impact of WFH on designers. This study's goal is to investigate the physical environment and equipment needs of remote designers, as well as the psychological challenges they may face when working from home. The findings of this study will inform the development of a pervasive virtual reality (PVR) environment that will overlay on top of the actual environment (Valente et al., 2016), providing remote designers with access to more technology, facilities, and an ideal workspace. The PVR environment is expected to minimize distractions from the physical work environment and minimize the challenges that remote designers face, ultimately improving their focus and productivity.

2. Methods

2.1. Participants

An online questionnaire was sent to 30,800 people who work in the design and construction industries and asked them to fill out the survey if they had worked from home even for a short period of time and if they were architects or designers. The survey was completed by 93 participants (50 ± 0.5 years), including architects, interior designers, design project managers, and digital artists who occasionally or often worked from home. Although the survey was distributed to a significant number of design professionals, the response rate was low. This was likely due to the inclusion criteria of the survey, which stated that participants should only complete it if they worked from home and if they are an architect or interior designer.

Of the 93 participants, 39 participants (43.3%) identified as female, 51 (55.5%) identified as male, and 1 (1.1%) preferred not to disclose their gender (see Table 2). The age range of the participants varied, with one participant (1.1%) being between 18 and 24 years old, 18 participants (19.3%) being between 25 and 34 years old, 17 participants (18.3%) being between 35 and 44 years old, 11 participants (11.8%) being between 45 and 54 years old, 18 participants (19.3%) being between 55 and 64 years old, and 28 participants (30.1%) being over 64 years old. In terms of occupation, the majority of the participants were architects, with 63 participants (72.4%) identifying as such. Thirteen participants (14.9%) identified as interior designers, while five participants (5.7%) identified as design project managers or design students. Only one participant (1.1%) identified as a digital artist.

Table 2. Demographics of participants

<i>Variable</i>	<i>Total (%)</i>
Gender ^a	
Female	39 (43.3%)
Male	51 (55.5%)
Prefer not to answer	1 (1.1%)
Age (years)	
18-24	1 (1.1%)
25-34	18 (19.3%)
35-44	17 (18.3%)
45-54	11 (11.8%)
55-64	18 (19.3%)
>=65	28 (30.1%)
Occupation ^a	
Architect	63 (72.4%)
Interior designer	13 (14.9%)
Design project manager	5 (5.7%)
Design student	5 (5.7%)
Digital artist	1 (1.1%)

^a The gender and occupation questions were not answered by all participants. The percentages presented in the table are based on the total number of participants who answered these questions.

2.2. Procedure

An anonymous online survey was conducted among interior and architectural designers who had previously engaged in remote work, even for a short period of time. The survey was distributed via email to the participants and aimed to investigate the type of equipment, furniture, lighting condition and settings that these professionals used in their designated home work spaces, as well as the average size and environmental characteristics of these spaces. Additionally, the survey sought to identify the experiences and challenges faced by these designers while working from home.

2.3. Instrument

The survey was designed by research team members to examine the experiences of architects and interior designers while working from home using a variety of design criteria. After undergoing review by three specialists on the survey, some modifications were made to the survey. The survey was subsequently administered to ten students to assess its comprehensibility. Firstly, the survey sought to elicit information about the designers' experiences and conditions of WFH through defined categories and the opportunity to provide open-ended responses, allowing participants to articulate their own perceptions of the current situation. Secondly, the questions were based on existing information about remote working, management, and the impact of the pandemic on respondents' lives as discussed in the media. Thirdly, the questionnaire was designed to be completed within approximately 10 minutes in order to minimize the likelihood of respondents leaving the questionnaire incomplete. The survey included 26 questions organized into six sections, covering topics related to the respondents' experiences of the following:

- a. Demographic questions (3): questions regarding participants' age, gender, and occupation.
- b. Work situation (2)
 - *Do you have a designated room for working from home?*
 - *Where in your home is your designated workspace?*
- c. Interior, furniture and equipment condition of their workspace (12 multiple choices questions): questions regarding participants' remote working space furniture, equipment, space materials, lighting, and space dimensions.
- d. WFH habits and physical activities (4)
 - *Do you have furniture that promotes physical activity like a sit-stand desk, a treadmill desk, or a float height-adjustable desk in your working from home environment?*
 - *When you work behind your laptop or PC, do you do any kind of physical activity? If so, please describe.*
 - *When you're working at your home office, do you frequently change locations during the day?*
 - *Have you considered getting a treadmill desk, sit-stand desk, or height-adjustable float desk for your home office to remain healthy?*
- e. Advantages and disadvantages of WFH (4 open-ended questions)
 - *Do you look forward to returning to the office? Why or why not?*
 - *Do you feel as productive at home as you are at the office? Please explain.*
 - *Would there be a main challenge that you would face on a regular basis while working from home? Please explain.*
 - *Are there any additional comments you wish to make regarding your working from home / mobile working conditions?*
- f. Overall quality of participants' working space (1 main question with 8 sub questions)
 - *Please rate the overall quality of the space that you work from home in terms of the following: Adequacy of Space, Artificial Lighting, Natural Lighting, Acoustics, Temperature, Aesthetic Appeal, Flexibility of Use, Air Circulation*

2.4. Analysis

The analysis of the open-ended, qualitative questions was conducted using NVivo qualitative data analysis software (version 2022). Descriptive statistics were reported and organized into seven clusters of quantitative variables and reported as frequencies and percentages. The responses to multiple-answer questions were analyzed using the Qualtrics analyze options and reported as percentages.

3. Results and Discussion

According to the results, 89.2% of the participants stated that they designated a space or room for working from home. The bar chart below (see Fig. 1) shows the current furnishings, equipment, and environmental setting that the majority of construction industry designers have in their homes. It

showed that 44.7% of participants claimed they had a separate home office where they could work from home. While the remainder designated guest rooms, living rooms, bedrooms, dining rooms, and other areas as their working spaces. Approximately 46.8% of respondents indicated their home offices were small or tiny, ranging between 70 and 130 square feet. Nearly 28.7% claimed that their designated space for working from home is medium, measuring around 224 square feet, while 12.8% responded that their home offices are large enough, measuring around 300 square feet.

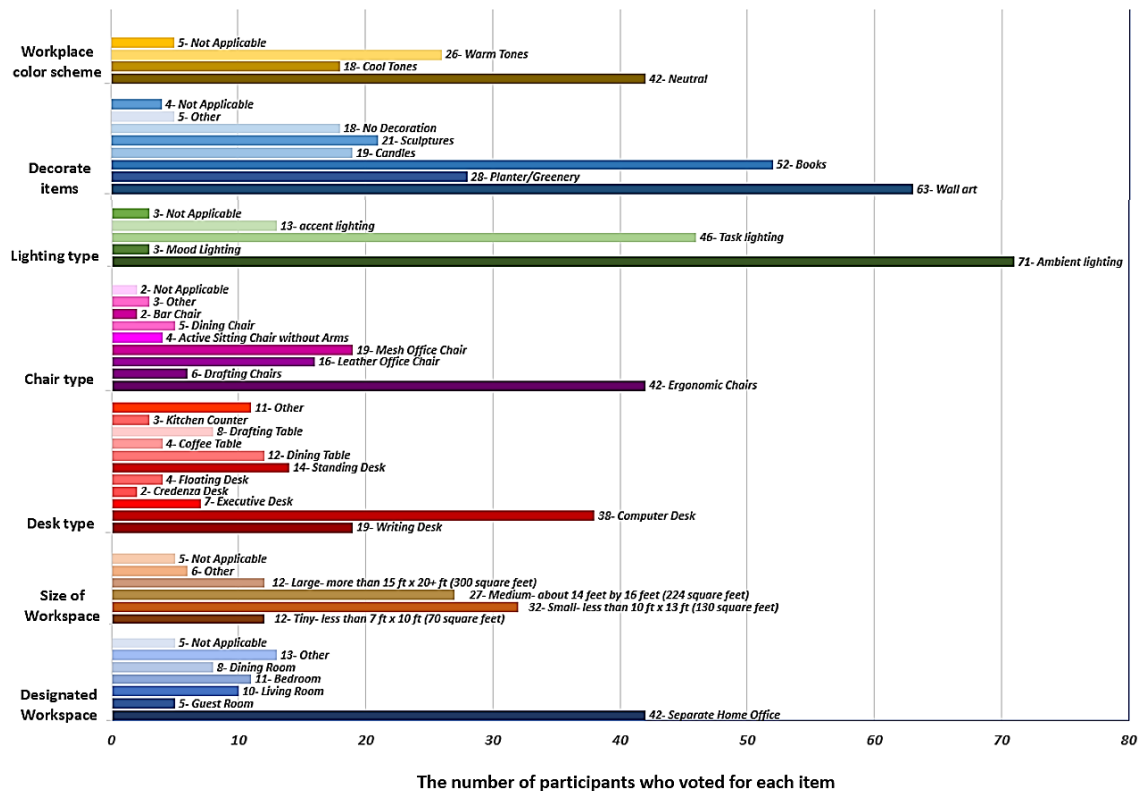


Fig.1. Participants' current furniture, equipment, and environmental setting

Regarding furniture, 30.6% of respondents replied that they were using a computer desk, while the rest of the participants were using a writing desk (15.3%), standing desk (11.3%), dining table (9.7%), drafting table (6.5%) and others. There is a growing trend among designers to use computers and digital software, rather than manual drafting techniques, in their work. This is largely due to the availability of a wide range of software options in the digital realm that allow designers to work efficiently and cost-effectively on multiple projects. However, it is important to note that manual drawing skills should not be overlooked, as they are valuable hand skills that does not require any tools (Keengwe, 2015). In 2020, a survey of interior design students found that the majority preferred using digital design tools and believed they were more practical than manual drawing. The participants cited the convenience and speed of digital tools as key factors in their preference and reported that they were able to accomplish tasks quickly and easily, regardless of location (Farooq & Kamal, 2020). Around 42% of respondents claimed that they use ergonomic chairs while they are working from home, while the rest claimed that they use mesh office chairs, leather office chairs, drafting chairs, dining chairs, and others.

With regard to lighting conditions in their WFH spaces, 52.2% of respondents reported having an ambient lighting source in their workspace, which is a type of general light that illuminates an entire area. Other responses included 33.8% using task lighting, such as table lamps, desk lamps, and swing arm lamps, and 9.5% using accent lighting, such as picture lights, candlelight, directed track or recessed lights, niche lighting, and wall sconces. There has been a longstanding focus among researchers on the relationship between indoor lighting conditions and factors such as employee health, engagement, and performance (Deng et al., 2021; Heschong & Mahone, 2003; Konstantzos et al., 2020). According to a review study by Konstantzos et al (2020), in the majority of the research, the effects of increased illuminance were favorably related to performance. Regarding color, research has shown that white lights and highly correlated color temperatures increase subjective and objective task performance. Additionally, it has been demonstrated that lighting has an impact on alertness (Sahin et al., 2014; Smolders et al., 2018), cognitive performance (Fostervold & Nersveen, 2008; Knez & Hygge, 2002), and melatonin suppression (Bellia et al., 2013). While previous studies have largely focused on the intensity and temperature of environmental lighting and its impact on employee performance (Boyce, 2014; Konstantzos et al., 2020; Mills et al., 2007), few have examined the preferred or optimal type of lighting for use in office settings. Moreover, Konstantzos et al. (2020) found that horizontal illuminance in relation to task performance was one of the major variables tested in previous studies. However, since computer screens are widely used these days, vertical illuminance also needs to be studied. There has been very little research on vertical illuminance and task performance.

Furthermore, the survey asked participants about the decoration items they use in their home offices. The most frequently mentioned items were wall arts, books, planters, sculptures, and candles with 30%, 24.7%, 13.3%, 10%, and 9.0%, respectively. As for the workplace wall colors, 46.1% of respondents stated that their workspace has neutral colors, 28.5% have warm tones, and 19.8% have cool tones.

3.1. Comparison of technological tools that participants currently have and what they need

As part of the survey, participants were also queried on the technological resources available to them in their WFH environments, as well as any resources they require to complete their tasks. Certain occupations may necessitate more technological or electrical devices for successful task completion, while others may not. The majority of architects and designers require scanning and printing devices and storage devices to save their projects and produce hard copies of their designs and drawings, which may not be available to all employees in their home offices, thus hindering their ability to complete their work effectively.

Participants were asked to identify the equipment they use in their home offices to carry out their tasks, and the results indicated that 68 participants utilized laptops, while 51 participants relied on PCs with multiple screens. Additionally, 26 respondents used tablets and 18 participants used single screens to complete their work. The study also asked about the additional equipment necessary for participants to perform their tasks. The majority of participants (69) stated that they required input devices such as scanners and mice, while 58 participants specified output devices like printers and speakers as necessary. In addition, 50 participants mentioned that storage devices like external hard drives and flash drives were critical to their work. A small number of participants (3) also noted the need for e-readers in their workplaces.

The findings from the study emphasize that numerous employees were not adequately prepared to work remotely during the Covid-19 pandemic due to a lack of necessary technology in their home offices. Therefore, it is crucial for companies to provide sufficient resources to their employees to facilitate efficient remote working.

3.2. Physical activity of participants when working from home

Previous studies indicate that remote workers tend to be less active and more sedentary during work hours compared to their counterparts who work in the office (Fukushima et al., 2021; Massar et al., 2022). However, the lifting of lockdowns has led to an increase in physical activity and improved mental well-being among workers (Massar et al., 2022). In this survey, participants were asked about their physical activity while working from home, as well as the equipment and furniture that promotes activity in their home offices. The survey revealed that a significant proportion of respondents, almost 84%, do not engage in any physical activity while working on their PC or laptop. Moreover, more than 70% of participants do not have any equipment that encourages physical activity in their home offices. The survey also asked respondents if they had considered purchasing furniture such as a treadmill desk, sit-stand desk, or height-adjustable float desk that promotes physical activity. Only 34% of participants reported that they had considered buying these equipment, while the majority had not thought about these equipment at all.

Some participants shared details about the physical activities they incorporate into their WFH routine. Three individuals reported using a small pedaling bike and stationary cycles either as a standalone piece of equipment or a smaller pedaling machine that fit underneath their desks, providing a low-impact way to keep their legs moving while they work. Others mentioned doing leg raises, squats, and stretches to stay active during their workday. Another strategy shared by four participants is to stand and walk around occasionally, taking short breaks throughout the day to move their bodies. In addition to these more traditional forms of exercise, some participants mentioned using unique strategies to incorporate physical activity into their workday. One individual reported standing on a wobble board, a piece of equipment designed to keep the legs in motion when standing. Others mentioned rocking, walking, jumping, or doing yoga during their work breaks. The comments emphasize various ways of incorporating physical activity into the WFH routine, regardless of the equipment or space available, whether through specialized equipment, traditional exercises, or unique strategies.

3.3. Challenges of working from home

After collecting and analyzing 70 comments in response to open-ended questions about the challenges of WFH, we categorized the comments into six primary categories based on their content:

Challenge 1: Lack of social interaction and communication & loneliness (37.1 %)

“Reaching team members in a timely fashion / Communication”

“Loneliness. There are times when it'd be nice to have a face-to-face conversation.”

...

Challenge 2: Distractions (24.3%)

“Yes, as you know, the most of designer and other [sic] must provide the isolation thinking time and make better concentration to his/her work. That [sic] is so Important in my point of view”

"Noise, distraction of child, pet, other."

...

Challenge 3: Work burn out & no clear boundary between work and home (8.6 %)

"Working too much because there is less clear separation between home & work"

"Getting away from work. It is always there."

...

Challenge 4: Inadequate tools and documents (7.1 %)

"I need better tools and facilities. I need a better computer system and internet for work. I think the rest is good."

"The main challenge I had was with the remote desktop setup I was using. It did not operate as smoothly/quickly as when I was at the office. I have to run various large programs, and this would sometimes present issues."

...

Challenge 5: Internet and VPN problems (7.1 %)

"Internet connectivity can be weak or intermittent."

"Just video meetings, when we want to be participating meetings [sic], the main challenge was that we could not hear each other well"

...

Challenge 6: Inappropriate work environment (7.1 %)

"My WFH space is in my room, so my bed is a distraction."

"Yes, it is a home and not an appropriate work environment."

...

Challenge 7: Other challenges (8.6 %)

"Distance to where my projects are located."

"Yes, the main one I've noticed is getting color schemes together from our material library. Online pictures of items aren't the same as in person and ordering a bunch of samples from home trying to guess the color is wasteful."

"Staying physically active is a challenge. Also, my work wardrobe has suffered. I don't have to dress for the office, so I haven't updated those items in years."

...

Based on the aforementioned comments provided by the participants, it appears that the most significant challenge faced by designers when working remotely is the lack of social interaction. Many designers work in groups, and there are limited applications that support real-time collaboration on projects, which can lead to feelings of isolation and disconnection from colleagues. The second most common challenge mentioned by participants is distractions, which has also been noted in previous study (Johansson, 2017). Participants reported difficulties in staying focused and productive due to distractions from family members, pets, and household tasks. Other challenges mentioned by

participants include working burnout and the lack of clear boundaries between work and home life, Internet and virtual private network (VPN) problems, and an inappropriate work environment. Inadequate tools and documents were also identified as a challenge for designers, particularly difficulties in printing large drawings and scanning documents. Overall, it is clear that designers face a range of challenges when working from home, and addressing these challenges will be critical for their efficiency and productivity.

3.4. Challenges while working remotely

The following table (see Table 3) highlights the frequency of words extracted from NVivo application in relation to the disadvantages mentioned by participants. The analysis of keyword tendencies and clusters indicates that there are six main clusters including 1. Inadequate tools and documents, 2. Internet and VPN Problems, 3. Lack of social interaction and communication/Loneliness, 4. Distractions, 5. Work burnout/No clear boundary between work and home, and 6. Inappropriate work environment. Among the most mentioned challenges, distractions and lack of social interaction and communication were mentioned most by participants with coverage of 4.0% and 4.1%, respectively.

Table 3. Challenges of WFH clustered by keywords tendencies and counts

	<i>Count</i>	<i>Coverage^a</i>
Challenge 1: Inadequate tools and documents <i>Equipment, facility, tools, scan, print</i>	5	0.84%
Challenge 2: Internet and VPN Problems <i>Internet, VPN, server, internet connecting, internet connectivity, VPN connectivity</i>	6	1.68%
Challenge 3: Lack of social interaction and communication, and loneliness <i>Collaboration, human contact, coordinate, coordinating, connection, collaborative, collaboratively, communication, personal contact, personal connection, face to face, teamwork, loneliness</i>	15	4.07%
Challenge 4: Distractions <i>Distraction, concentration, noise, focus, interruption, disturbs, distracted, distract</i>	20	4.11%
Challenge 5: Working burn out, and no clear boundary between work and home <i>Burn out, working too much, work more, boundary, separation</i>	4	0.6%
Challenge 6: Inappropriate work environment <i>Workspace, work environment, workplace, space, environment</i>	3	0.55%

^a Coverage percentage refers to the proportion of the dataset that has been coded or analyzed.

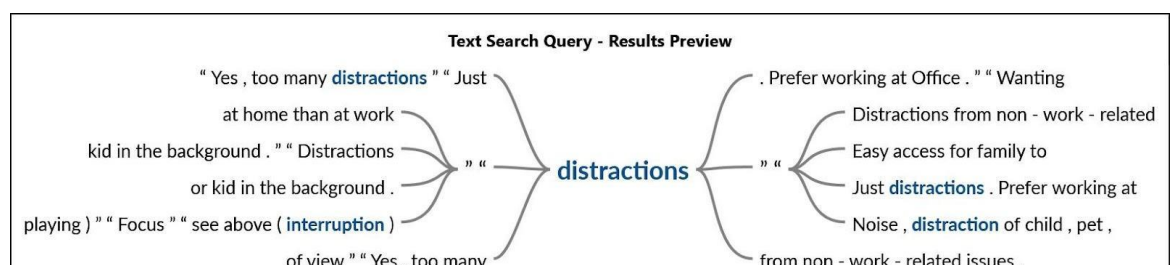


Fig. 2. Text trees according to distractions



3.5. Productivity while working remotely

The following are the responses of those who feel more productive when working from home to the question "Do you feel as productive at home as you are at the office? Please explain":

“A flexible schedule allows me to be just as productive at home with a more positive attitude.”

Following are the sample responses of those who do not feel productive while working remotely

“No, because I have more space to doing my tasks in office and also have possibility to resolve some mistake through of talk [sic] with my friends”

In the following sample responses of those who feel the same level of productivity regardless of the working environment are provided:

“Depends on the task. If I am reviewing drawings or writing reports for proposals, I can be more productive at home. Getting my comments across to junior staff is better done in person.”

...

Based on the participants' comments, the majority of architects and designers expressed that they experienced increased levels of productivity while working from their homes. This sentiment was attributed to several factors, including improved concentration, reduced stress levels, a greater degree of scheduling flexibility, and a decrease in both time and financial costs. In contrast, one-third of those surveyed indicated that they were more productive when working within an office environment due to enhanced collaboration and communication capabilities, greater access to technology, and fewer distractions. Lastly, a small subset of respondents indicated that their level of productivity and performance was contingent on the task at hand and that they may be more or less productive when working from home depending on the specifics of their work.

3.6. Preference to return to office

Participants were also asked if they would prefer to return to their offices or continue working from home or in a hybrid manner. Approximately 40% of participants indicated that they would like to return to the office, citing factors such as improved communication and collaboration, as well as access to better office equipment and a more conducive work environment (see Table 4). However, a majority of respondents (60%) stated that they would prefer to continue working from home or in a hybrid capacity, citing benefits such as cost savings, time savings, and increased flexibility and efficiency.

Table 4. Preference to return to office

Vote	Themes	Quotes
YES 35 (41.1%)	Better Communication and Collaboration (42.8%)	"Yes, better collaboration" ...
	Less distraction (7.1%)	"Yes, too many distractions working from home." ...
	More and better equipment (7.1%)	"I appreciate [sic] equipment (printer/scanner etc.)." ...
	Better environment (21.5%)	"Yes! I prefer working in my office, not at home. I enjoy the environment there." ...
	Better work-life balance (3.6%)	"Yes. I appreciate the separation of my home and my work environment. Being back at work allows me to better separate myself from work when I am home."
	Higher productivity and efficiency (10.7%)	"Yes, seemingly more productive" "Yes. Being back at work has made me more efficient and focused." ...
	More focus (7.1%)	"I can focus on my task when I'm working in the office." ...
NO 35 (41.1%)	No Commute (16.7%)	"No, because there is no need for transportation to the office." ...
	Save time (22.2%)	"No, because I work more easily at home, and I waste less time" ...
	More convenient and flexibility (27.8%)	"No, I work [sic] from home for seven years and like the convenience" "No. I appreciate the flexibility of working from home" ...

	Less cost (11.1%)	<i>"The cost of attendance [sic] is reduced."</i> ...
	Better mood (5.5%)	<i>"No, I am at home with my family and my mood is better"</i>
	More productivity (5.5%)	<i>"No, because I work more easily at home, and do more useful work"</i>
	Less distraction (5.5%)	<i>"No. Working from home gives me a space where I can design without distraction."</i>
	Healthier life (5.5%)	<i>"I also eat much healthier food at home."</i>
Hybrid 20 (23.5%)	Project priority (12.5%)	<i>"Sometimes - depends on the project I am working on"</i>
	Communication/ Proximity to coworkers (12.5%)	<i>"Yes and no; I miss being around people"</i>
	Preference (62.5%)	<i>"I prefer working from home 2 days a week and in an office for the rest of the week."</i> ...
	Less distraction (12.5%)	<i>"I only work one day a week from home now. I appreciate the balance of seeing people but also [sic] focus I can get working from home."</i>

In summary, approximately 40% of respondents preferred returning to their workplace, however, 60% preferred continuing to work from home or in a hybrid capacity. The reasons for preferring to work in their workplace varied. Some cited better communication and collaboration, saying it was easier to work with a team face-to-face and interact with colleagues. Others liked the social aspect of work and did not work well from home. Some preferred their workplace environment and equipment, while others appreciated the convenience and flexibility of working from home. Additionally, some respondents believed that working in the office increased their concentration and improved their mood, productivity, and efficiency. However, others did not like commuting, found working from home less distracting, and believed it gave them more focus, a healthier life, and a better work-life balance. Ultimately, the preference for working in the office, remotely, or in a hybrid model varied depending on personal circumstances and work requirements.

3.7. Limitations

One limitation of this study is that it was conducted with a relatively small sample of designers, including architects, interior designers, and design project managers who were working from home. This means that the findings may not be generalizable to employees in other disciplines or those working in office settings. In order to address this limitation, it would be beneficial to conduct future research using a larger sample of survey participants. Additionally, with a predominantly male and older audience participating in this study, future studies may want to consider ways to attract a more diverse group of participants.

Another limitation of the study is the potential for social desirability response bias, as respondents may have been influenced by a desire to present themselves in a certain way. Additionally, although anonymity was assured to the participants, there may still be some potential for bias in

participation. To mitigate these limitations, it would be beneficial to use more rigorous research methods in future studies.

3.8. Future Direction

In order to enhance generalizability and inclusivity, the sample size could be expanded, and the participant pool diversified. It would involve recruiting individuals from a variety of backgrounds in the design professions and including both remote workers and office workers. As for the methods, future studies should be more rigorous to address potential social desirability response and participation biases. This could include implementing measures to minimize bias, such as double-blinding techniques, and comprehensive data collection procedures. Researchers can also consider other qualitative research methods, such as interviews or focus groups, to complement quantitative findings and provide a deeper understanding of participants' experiences and perspectives. It would be valuable to allow designers to influence the quality of workspace in WFH environments, and more parameters enabling focus on design professionals can be included in the questionnaire.

4. Conclusion

The COVID-19 pandemic has compelled many organizations to adopt remote work as a way of maintaining productivity while ensuring the safety of their employees. This shift has been made possible by modern technology, which has revolutionized communication and information sharing. Although it is difficult to predict whether remote work will continue to be the norm post-pandemic, it is clear that it has the potential to significantly impact the way companies and government institutions manage their projects. However, despite numerous studies that have focused on the pros and cons of remote work, there is a gap in research on the physical work environment and the required technological equipment for employees who work from home. Additionally, there is a gap in investigating the unique challenges of remote designers' conditions. To address this gap, this study provides critical insights into the physical work environment conditions of designers, including their furniture, required equipment, environment dimensions, and lighting WFH conditions. The study also explores the experiences and challenges that these professionals encounter while working in a home-based office.

The findings indicate that 44.7% of participants had a separate home office where they could work. Additionally, almost half of the respondents indicated that their home offices were small or tiny, ranging between 70 and 130 square feet, which is not an adequate space for large printed drawings and printing and scanning facilities. Regarding furniture, around 30.0% of participants claimed to use a computer desk, while only 6.0% of participants use a drafting table. This trend indicates that architects and designers are increasingly using computers and digital software instead of manual drafting techniques. The availability of a wide range of software options in the digital realm enables designers to work efficiently and cost-effectively on multiple projects. Half of the respondents reported having an ambient lighting source in their workspace, which is a type of general light that illuminates an entire area. Also, since computer screens are widely used by designers these days, vertical illuminance needs to be considered. As for equipment that participants mostly use while working from home and the equipment they need to have, most participants use laptops, PCs, and tablets. Some of them also mentioned needing input devices such as scanners and output devices like printers to print large format drawings. Lastly, half of the participants mentioned that storage devices like external hard drives and flash drives were critical to their work.

Though numerous studies have been conducted on the productivity of remote workers, there exists a dearth of research concerning the challenges faced by remote designers and architects who work from home. Certain participants have highlighted several specific obstacles they encounter, such as a scarcity of material library samples in their houses to choose and match swatches and materials, the distance from project sites, the inability to work on large format drawings due to limited space at home, and the absence of software that facilitates simultaneous design collaboration. These individuals firmly believe that these challenges significantly hamper their productivity and overall efficiency.

Moreover, remote designers' responses regarding their challenges while working from home were divided into six main clusters including inadequate tools and documents, internet and VPN problems, lack of social interaction and communication/loneliness, distractions, working burnout/no clear boundary between work and home, and inappropriate work environment. While some of the challenges and comments faced by remote designers are similar to those experienced by remote workers in other professions, there are specific considerations to be made regarding the conditions and challenges unique to remote designers. One notable aspect pertains to their equipment requirements, with remote designers expressing the necessity for plotters, printers, and scanners, which may not be deemed indispensable in other professional domains. Moreover, certain designers underscore the significance of in-person collaboration with their design team for specific projects or layouts, as it greatly facilitates effective communication. This level of personal interaction may not hold the same degree of criticality in professions with comparatively less emphasis on teamwork. Lastly, we received comments from participants expressing dissatisfaction with their remote work environments. Some designers have emphasized the imperative need for more extensive storage capacities and a dedicated office setting within their homes to accommodate their large format drawings and drawing tools and ensure the availability of necessary materials and swatches.

However, despite these challenges, around 60% of designers feel more productive when they work from home. Nevertheless, around 40% of participants preferred working from the office due to better communication, collaboration, office equipment, and environment. Finally, around 60% of respondents expressed their preference for continuing to work from home or working in a hybrid model due to the flexibility, efficiency, and savings in time and money.

This study underscores the necessity for innovative solutions to optimize the remote work experience for designers. One viable solution is the utilization of pervasive virtual reality (PVR) to establish an immersive and collaborative work environment for remote designers that enable them to design and collaborate simultaneously. By overlaying virtual technology on top of the actual environment, remote designers can access more technological devices including additional screens, virtual keyboards, and virtual webcams. PVR provides a means for geographically dispersed colleagues to collaborate on specific projects in real-time.

In light of these findings, it is crucial to equip remote employees with the appropriate tools and equipment to maximize their productivity while working from home. Furthermore, employers must prioritize creating a culture and environment that fosters communication and collaboration among remote employees. Based on the identified challenges, this study endeavors to design and assess a PVR-enhanced work from home environment tailored to the needs of designers. This PVR environment seeks to minimize distractions, address the challenges faced by remote designers, and enhance their productivity and efficiency.

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Practice-Research in Odissi Dance: The 3 Bindu Approach to Embodying Sacred Geometry

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ABSTRACT

Ideas around sacred geometry in the Indian tradition are most clearly seen in the prolific use of yantras as tools of meditation in tantric art forms. These are typically two-dimensional diagrams or three-dimensional objects, regarded as representing the elemental powers of Earth, Water, Fire, Air and Ether commonly symbolised by a square, circle, triangle, hexagon and a dot or *bindu* respectively. These geometric shapes are combined to create energy fields of varying potencies within which sacred objects are conceived. Temple architecture in India is imbued with such yantras and used as a means of harnessing divine energies through their precision, power and beauty. While Odissi dance has been greatly inspired by the dance rituals of mediaeval Odishan temples, there has been no discussion about the possible role of yantras in actual movement and choreography. This is surprising as the ‘virtual lines’ held between different body parts in static dance postures as used in the dance tradition today, hold strong geometric shapes. This is amplified by movement sequences where the arms, hands, legs and feet create geometric forms in space, making patterns akin to ‘virtual yantras’. This recognition piqued my curiosity and the current paper is a self-reflexive account of a process of engaging with Odissi movement through visualising clarity of shape and form in movement patterns, before embodying them, based on a template of ‘3 Bindus on the body’s central axis’, which was formulated during the course of studio practice.

Keywords -Odissi, Yoga, Tantra, Body Maps, Yantra

1. Introduction

Yantras in the tantric traditions of ritual worship in India represent subtle forces of *shakti* or energy and formed a blueprint on which iconographic representations of different Gods and Goddesses were created. They also formed the basis for sculpting all images of the *alasa kanya* or languorous maiden, that were symbolic of the human soul reaching out to the gods with a heartfelt yearning or in joyous union. It was these images which appeared in profusion on temple surfaces especially from the 10th century onwards, which had inspired Odissi’s dance postures.

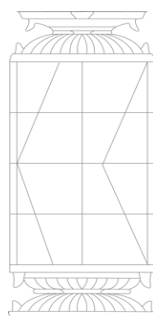


Fig. 1 Proportions of the rectangular yantra used to sculpt the human form of the ‘languorous maiden’ from the Shilpa Prakash, a 12 century AD text on Orissan temple sculpture,

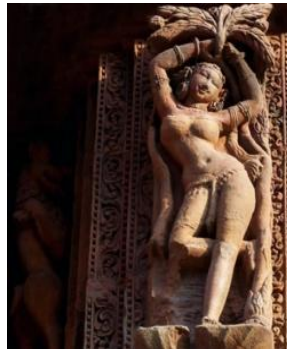


Fig. 2 An example of the languorous maiden motif, holding a flowering tree, 11th century AD, Bhubaneswar, Odisha.

Yantras were needed to provide the ‘energetic portal’ for making divine contact and it was within this environment that the dance ritual by women ‘married to the deity’ in Odisha, had flourished as an important ritual patronised by successive rulers, up to the 16th century.



Fig. 3 A dance performance in progress, 11th century AD, Bhubaneswar, Odisha

The current Odissi tradition re-visioned this dance for contemporary theatre audiences in the mid 20th century¹. I had been introduced to the strong spiritual underpinnings of Indian classical dance by my Gurus in the tradition and by writings in Art History by Dr. Kapila Vatsyayan whose works included discussions on the sacred symbolism of geometry and with whom I was fortunate to be in close proximity in the 1980’s and early 90’s². It was evident that Odissi’s technique adhered to symmetric, geometric movement sequences, especially in *nritta* (often called ‘pure dance’) or non-referential movements designed solely for the purpose of creating beauty. This was a feature Odissi shared with all other classical Indian dance forms across the country. Geometric form, its possible purpose and symbolism, did not however seem to be part of any discourse in dance classrooms in my experience.

The Indian aesthetic tradition is extensive in its textual descriptions and commentaries on the Theory of Rasa and the importance of being the experiencer/taster of the experience being invoked

¹ The efforts to create Odissi as a ‘classical Indian dance style’ has been discussed by several authors including this one (Tandon 2017) pgs 15-23.

² She would come for Odissi practice with Guru Surendranath Jena at Triveni Kala Sangam in New Delhi between 1978 and 1984 while I was a young student beginning my training. She published her book on this subject, *The Square and the Circle of Indian Arts*, Abhinav Publications, New Delhi in 1997.

through a performance³. Excellence in dance is only achieved when the dancer is able to ‘step out of the way’ and allow the dance to unfold its *rasa*, according to the canons of the *shastra*. I wanted to explore an experience of myself as a dancer from the perspective of this *sakshi* or witness self and was looking for a means to do so through extensive but haphazard readings on Indian philosophy, yoga, art and religion. These efforts acquired more shape when I was introduced to Choreological Studies at the Laban Centre for Movement and Dance, London UK in 1994⁴.

At Laban, after many years of Odissi training in India, I encountered a vocabulary with which to articulate and focus on some simple facts which I had always just taken for granted. These included the fact that the Odissi technique had a movement system that privileged the central vertical axis and that symmetry dominated its use of body and space. It also consistently employed a grounded open knee stance as a means to energise the body’s dynamosphere, or the space around the body where its movements are executed. The footwork created an acoustic template with the feet, that the upper body would then express. Basic body stances were limited and fairly consistent, while there were ever-unfolding and sophisticated movements in the torso, face, arms, hands and fingers⁵. Laban was a contemporary dance school where different body languages and approaches to movement were being discussed; looking at these features in my own tradition with reference to other forms from different cultures made me see very clearly that I was dancing within the boundaries of set movement parameters, and this made me question the reason for their existence in Indian classical dance.

2. The Objective

The desire to explore yantras in movement, consciously, was my understanding of how *rasa* could be tasted through a clean technique⁶. The hypothesis was that this just may be a very useful approach to both learning technique for a new student and perfecting it for myself. Personally, the hands and fingers shaped into *mudras* moving from the wrists, felt very much like an artist’s paint brush in the act of painting such yantra-forms. I set out to investigate how holding clear shapes and patterns in the mind imbued with reverence towards them as sacred symbols, would translate into dance in terms of clarity of expression and power in communication.

My personal understanding of the meaning of concepts such as ‘bringing divinity into matter’ has been mostly influenced by Advaita Vedanta, a practice of tantric meditations and the writings of Sri Aurobindo. In these teachings and practices, our fundamental nature is understood to be Consciousness and not matter⁷The premise I had begun with was that if Consciousness is the basic nature of all reality

³ Tandon (2017) pp 92-4

⁴ This has been discussed in Tandon R. (2017) chapters 4 & 5 entitled Strand Body and Strand Movement.

⁵ Except for Kathak where the knees are not maintained in a bent stance, these features are common to different classical Indian dance forms. Several scholars, especially Dr. Kapila Vatsyayan, have written extensively on the common moorings of all classical Indian dance forms in the *Natya Shastra*, an exhaustive treatise on dance, drama and music. The much later *Abhinaya Darpana* is also an invaluable and very popular resource in terms of the actual usage of the body in different dance practices today. Neither of these two seminal texts, nor any other regional texts to my knowledge, have broached the subject of yantras as a device to be utilised in the articulation of body movements and hence perhaps this discussion has remained absent in current discourses.

⁶ Looking at energy patterns behind movement has been discussed in Tandon (2017) chapter 7, Covert Structures

⁷ The ‘matter of both the body and mind’ whether it be the body of flesh, or thoughts/ feelings/sensations/perceptions, experienced as arising in the mind, are ‘constantly morphing appearances’ made of the same substance as Consciousness. They exist temporarily like ‘whirlpools’ forming in an ocean of water which is Consciousness. Rupert Spira, among other popular contemporary teachers of Nonduality have used this analogy in several lectures on utube when describing the nature of Consciousness.

(including what I was experiencing as solid matter in the body) how I viewed the ‘matter of the moving body’, would have far reaching implications on dance practice.



Fig. 4 Drawing circles in space in the *chowk* open-knee stance of Odissi

3. The Practice

3.1. Chowk



Fig. 5 Standing on a flat floor called a ‘table plane’ while holding a similar second ‘table plane’ with the arms.

I had experienced the pivotal *chowk* stance of Odissi as providing ‘grounded stability’ for many years, as symbolising the form of Lord Jagannath, presiding deity of Odisha and Odissi, and understood it as representing Earth through tantric symbology.

In my practice after encountering Choreological Studies, I had added the understanding that the arms held in a rectangular shape in front of the heart space, mirroring the flat surface of the floor where the body stood on a ‘table plane’, was forming an additional ‘table plane’. These parallel horizontal surfaces established a framework for viewing the *chowk* posture as a square-shape and indeed, the technique did become ‘cleaner’ than when dancing without this reference. The arms played with their rich array of directions and levels with repeating reference to this second table plane, which was what gave the technique its visual clarity. Movements originated from the central axis and were also far more free to create fluid circles, diagonals and triangles in the upper body than were the legs and feet in the lower body, even though the geometries of the upper body were very often being echoed by movements in the lower body.



Fig. 6 Dissolving the boundary between the space within the body and the space outside the body

I had also related to dance as a consciousness-transforming practice whereby when ‘caressing and dissolving the boundary between the space within the body and the space outside the body’, my Awareness transited between these two areas without any tangible obstruction. Repeated experiences of this kind when dancing had made me recognise that my ‘sense of self’ could expand beyond the boundary of my physical body quite easily.

3.2. Tribhanga



Fig. 7 Odissi’s archetypal ‘thrice deflected axis’ forming the *tribhanga* posture, echoing the lines of temple sculpture.

When the body was static in the pivotal posture of the *tribhanga*, the arms combined to hold triangles formed by the negative spaces around the body between the elbows and torso. These would reappear and punctuate movements between phrases where the arms moved in changing lyrical patterns. This sculpting of geometric forms was also seen in the positioning of the legs, knees, ankles and feet, as the lower body held its open-knee stance through different permutations and patterns. The lateral deflection of the central axis at the level of the heart, served to ‘tug’ at the emotional core of the body and give Odissi its languorous flavour. Viewing these ‘peripheral geometries’ created by the limbs with

the 'S' curve of the body's central axis as its reference, led to focussing on the point of origin of movements of the upper and lower limbs from specific points on this curving central axis.

3.3. The Axis with 3 Bindus

Many years of dancing Odissi to texts that addressed or described the Gods, cautioned me that while it was now inevitable that I would keep watching for the presence of geometric forms during movements, approaching practice in this prosaic way alone would not be as fruitful as doing so with the intention of 'making an offering of the body'. That is when I turned to working very slowly and improvising extensively with simple ritual gestures while simultaneously verbalising *mantras* in set repeatable sequences.

When holding the body vertical and still in a gesture of *namaskar*, and then shifting body weight in this upright position from one foot to another, the centre of gravity of the body in the abdomen could be located. This was positioned on the central axis and 'consecrated' with the colour red, and called the Red Bindu. The hands when pressed together in the *namaskar* created a point of pressure on the spine at the level of the heart. This was 'consecrated' with a white-gold colour and became the White Bindu. These two points were joined into a line along the body's axis and visualised as extending down into the Earth and up towards the sky. The thread created a sense of being 'suspended' from the heavens and 'linking' the Earth to the Sky. That image allowed the whole skeletal system to relax its weight and 'give in' to gravity and the Earth, while remaining in an upright posture.

About 4 finger widths above the head, I placed another dot on this thread that suspended the body. It became the Black Bindu and served to connect the body's axis with external space at all times. This Black Bindu was particularly useful when 'relaxing' the body into a *tribhanga* posture, as it allowed the centre line above the head to be continued in space outside the body⁸. Remaining aware of this axis through dance sequences helped the sternum to release and the breath to be steady through long movement passages. These three Bindus became my 'shrine' in the body and the place of reference from which all geometric patterns were created during movement. It allowed danced forms to have far more clarity and purpose than before, establishing a strong bridge between intangible thought and the tangible body.

During the process of arriving at this 3 Bindu template, I had been investigating the validity of information I was reading about how to deepen the effects of *Yoga Asanas* from a wide range of textual sources including several publications on yoga, tantra and meditation by the Bihar School of Yoga⁹. Many journals were scribbled and drawn on, creating a written record of 'aha' moments where body postures and movements resulted in a feeling-sensation of deeper grounding, integration, balance and harmony in body and mind simultaneously. This helped me remember for example, how I had felt when I had played with moving levels in the *chowk* stance using my breath, or with the image of parallel lines along both sides of the spinal cord on the door plane of the body. It became a process of witnessing the

⁸ Many dancers in Odissi, especially new students, articulate movements in *tribhanga* with tensions in the neck and shoulders, which the placement of the Black Bindu alleviates.

⁹ I was following the dictum of *saravanam*, *mananam*, and *nididhyasana*, where you read something, cogitate on it and then embody it to see whether it works for you, considered to be the '3 pillars of vedic self-enquiry'.

dance experience and comparing the differences to the movement that resulted between holding an image in mind while embodying it through dance, and doing so without such a mental tool.

4. Articulating a Methodology



Fig. 8 The axis with 3 Bindus

Practice-research in dance has many shades of difference¹⁰, but always requires defining a task or a question and then choosing a credible and shareable means of arriving at an answer that can benefit other dancers looking at similar issues¹¹. All dancers dance with the desire of doing so with excellence and work consistently on improving their skills. Having found good results with my own explorations of geometric forms in movement while aspiring to dance more skilfully, a natural progression became sharing this with other dancers. Christopher Johns (2020) states “Knowledge derived from reflexive narrative is the personal knowledge used by the researcher in pursuit of realising a vision within their everyday practice. It is a particular and contextual knowing yet informed and synthesised with a relevant extant knowledge¹².” Since I had maintained journals recording my progression of ideas about the body held within a kinesphere centred around an axis with three Bindus, these provided a valuable point of reference in this endeavour and map time for me from 2010 onwards¹³. Two early samples are included below:

- 4.1. This body has planes. It forms a ‘door plane’ and stands on the floor which is a ‘table plane’. It stands along the vertical line of an upright spinal cord. This line, a gossamer thread, connects Earth to Sky and suspends my skeleton like a puppet held up by the universe. It holds a virtual vertical line in space when the skeleton moves. I am being the witness. I am viewing my own process so I am not the body. (2010)

¹⁰The approach to understanding Odissi as a movement system used in this paper is rooted in the discipline of Choreological Studies. See Tandon (2017) pp 49-73.

¹¹ Sullivan, Graeme. 2009. “Making Space: The Purpose and Place of Practice-Led Research, p 48”. Article included in Practice-Led Research, Research-Led Practice in the Creative Arts, Hazel Smith and Roger T. Dean, editors, Edinburgh University Press.

¹² Christopher Johns, Self-Inquiry Toward Self-Realisation and Its Performance, Qualitative Research Methods Vol 57 Sage Publications, 2020.

¹³ Later, I came across the Indian Philosophy Institute in Pondicherry and their description of First-Person Exploration through journaling in the Introduction to Foundations of Indian Psychology on their website, by R. M. Matthijs Cornelissen, Girishwar Misra, Suneet Varma. It was interesting to discover that what I had been doing instinctively during dance practices, was a well-known technique in yogic studies. Website accessed 4 Oct 2021.

- 4.2. The Taittiriya Upanishad describes the body as five interpenetrating sheaths. The body made of the food I eat; the body made of the air I breathe; the body made of my instinctive mind; the body of Consciousness that holds my individual programming and the elusive anandamaya kosha, where I am bliss...just Awareness, free and unconditioned. Perfect Alignment of the spinal cord joins these bodies on the thread that connects Earth and Sky, Matter and Spirit. Alignment allows me to be Right Here Right Now, in equipoise, balance, harmony. When I move the body in dance, I move an object ... separate from me that sees the body. When it sits in a chowk like Shiva's drum, my elbows and knees open into clear triangles around the Red Bindu. Ready to create rhythmic vibrations in the ether around me through patterned footwork on the floor that are echoed with the arms.(2011)

I would position my journals as a bricolage of performative and reflexive¹⁴ writing within a broader framework of self-reflexive practice-research, as they focus on “creative practice, leading to new knowledge of operational significance for that practice, in order to advance knowledge about or within practice¹⁵.”

Over the last few years since the publication of *Dance as Yoga* (Tandon 2017), the 3 Bindu template has been shared with many students from different nationalities and movement backgrounds. It has served as an efficient tool for internalising classical movement sequences, taking ‘ownership’ of technique as well as heightening self-awareness while practising Odissi¹⁶. As I revisit them even now, more clarity keeps emerging on the sequence of readings and subsequent movement explorations I was following in each practice session and what can be carried into classroom environments today with other dancers. However, this is not a discussion of the work of teaching but merely of my own practice. Hence this remains a self-reflexive account of practice-research in Odissi and not an Autoethnographic one¹⁷.

5. Concluding Remarks

Since 2019, I have worked intensively with international students from backgrounds in yoga and contemporary dance both online and in-person. With everyone, I have been teaching movement by utilising the Axis with 3 Bindus along with parallel lines on the door plane, and geometric patterns, as the ideational blueprint, before the movement phrase to be used in dance is introduced.

¹⁴ See Ben-Asher Smadar, The virtuoso art of bricolage research, “Originally, the term “bricolage” referred to a variety of non-professional occupations carried out in an improvised and amateurish way. It has been used to describe a postmodernist technique of creatively recycling leftover items. The technique can be applied in a variety of fields, including visual art, industrial design, music, architecture, philosophy, and linguistics. The term was coined in the field of social sciences by Claude Lévi-Strauss (1908–2009), the founder of the structuralist school, considered to be the leading anthropologist of the 20th century.” JOURNAL=Frontiers in Psychology, Vol 13, (2022) . <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.1068703> DOI=10.3389/fpsyg.2022.1068703 ISSN=1664-1078), Accessed January 2023.

¹⁵ R. Lyle Skains (2018) Creative Practice as Research: Discourse on Methodology, Media Practice and Education, 19:1, 82-97, DOI:10.1080/14682753.2017.1362175. p85-6 . <https://doi.org/10.1080/14682753.2017.1362175> Accessed 13 May 2023

¹⁶ Over time, some sets of improvised instructions have been more efficient than others, and these have become part of a toolbox that I now use on a regular basis.

¹⁷ See Autoethnography: An Overview, Carolyn Ellis, Tony E. Adams & Arthur P. Bochner (2011) “Autoethnographers must not only use their methodological tools and research literature to analyse experience, but also must consider ways others may experience similar epiphanies; they must use personal experience to illustrate facets of cultural experience, and, in so doing, make characteristics of a culture familiar for insiders and outsiders.” Accessed online, 30 May 2023.

The results have been that the learning is much more efficient as the geometric scaffolding in the space around the body when internalised, provides an intuitive yardstick for determining correct and incorrect movement. It combines an ‘outside-in’ approach (which is how I had been taught in the tradition myself) with an ‘inside-out’ perspective of movement sequences. Simultaneously, it helps identify areas of blocked energy in individual dancers that need release in the body in order to arrive at a balanced and aesthetically harmonious form during movement sequences.

This approach to Odissi provides the means for far greater self-awareness and self-transformation through its artistic practice. It also opens up space for classical Indian dance to serve as another dimension of yoga with far reaching applications to health, education, creativity and general well-being.

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The Artist-Teacher: A Collaboration of Scholar, Researcher, and Teacher Focused on Art

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ABSTRACT

An Artist-Teacher is someone who is identified in a paradoxical way in South Asia due to the academic artists' contradictory practices; that is, the Artist-Teacher operates separately in the creative fields as a misplaced Scholar, Researcher, Artist-Teacher, and Artist. Therefore, a wide range of people is unable to accept visual art as their future profession. As a result, only skills are developed through academic practices, and other concerns of visual arts in the social structure are not explored appropriately. This article emphasizes the multitude of characters in particular segments of an Artist-Teacher and analyzes and proposes the necessary structure of a sequential curriculum in academic culture.

Keywords - Artist-Scholar, Artist-Researcher, Artist-Teacher, Pedagogy, Visual Arts.

1. Introduction

For the purposes of this essay, an Artist-Teacher will be defined as any teacher in an educational setting who maintains an ongoing artistic practice. This article will focus especially on Artist-Teachers at the university level, who are responsible for ushering future artists and art educators through the final stages of their academic training and thus have a crucial impact on the overall landscape of art education. However, it is important to understand the Artist-Teacher as an influential figure who is present from primary school through university education. Rather than drawing distinctions between different kinds of Artist-Teachers, we must emphasize the need for greater connectivity between the primary, secondary, and tertiary levels. Every stage is important. It is at the primary level that a student's aptitude for visual literacy begins. Generally, Artist-Teachers at the primary level promote children's curiosity about art, expand their foundational knowledge, and teach communication skills to develop cognitive and social capabilities. Secondary art education should include facilities and resources for obtaining indispensable kinds of technical skills in painting, sculpture, digital art, and other media, and should develop a student's understanding of the importance of art in wider social, political, and historical contexts. Ideally, the university program provides a diverse, intellectual, and experimental environment in which undergraduate and graduate students develop their potential as professionals and researchers in their chosen subject area. In this setting, an Artist-Teacher plays a pivotal role not just in regenerating existing cycles of art education but also in incorporating new ideas from the ever-changing fields of contemporary art and scholarship.

In the university context, Artist-Teachers alternately act as facilitators, demonstrators, lecturers, professors, curators of group shows for students, and sometimes even as publicists who promote the department's art activities in the wider community. As facilitators, they help students find the answers to their own work-related questions by discussing the work and suggesting ways of altering their approach to better realize their goals. (McIntosh, 2016) As demonstrators, they often lead workshops on how various pieces of equipment or technology work, or how a skill or craft is performed. As lecturers, they synthesize their own research and knowledge into accessible spoken essays, enriching students' knowledge of art and ability to independently solve their own technical or theoretical problems. And as *de facto* curators, Artist-Teachers are often responsible for putting together student shows or at least guiding students through the best practices of exhibiting their own works either in a solo show or collective project. Considering the above multitude of roles played by Artist-Teachers, art departments are faced with the challenge of seeking out candidates who have cultivated a well-rounded practice that goes beyond the basic technical skills of artistry.

Most academic studio staff members are artists themselves, actively involved in research as well as teaching, and most have a diverse range of research interests and writing proficiency. As noted above, Artist-Teachers need to be able to call upon this wide-ranging historical knowledge, material techniques, and understanding of social engagement through art. This essay argues that an area of necessary growth in Fine Arts departments should be the prioritization of the research element, which is the foundation for all the roles an Artist-Teacher fills. Having experienced the study and practice of Fine Arts within an experimental, discursive, and analytical framework, Artist-Teachers require more opportunities to continue developing their own practices, ideas, and research interests within their professional contexts. MFA (Master of Fine Arts) programs must create the space for this growth through regular seminars, an individually supervised written research project, and assessed written work requirements. All students should follow the same practice-based course.

A standard Fine Art department that includes BFA (Bachelor of Fine Arts) and MFA programs should be intended to progress students' individual prospects within the cultural context of a country or particular area. It also needs to develop an excellent foundation for further doctoral research. Hence, graduates could be able to establish international careers as professional artists through participation in various exhibitions, and research actions, managing the largest commissions around the world, winning competitions, and residential offers, as well as emerging artist-led ideas.

An art critic and art historian G. James Daichendt (B 1975) who serves as the Dean of the Colleges and Professor of Art History at Point Loma Nazarene University in Southern California and also a professor at Boston University, published particular books with the title of *Artist Teacher: A Philosophy for Creating and Teaching* (2011) and *Artist Scholar: Reflections on Writing and Research* (2010). Through these books, Daichendt reintroduced two significant terms: "Artist-Teacher" and "Artist-Scholar." Significantly, he included 'Researcher' as an attributional part with the 'Artist Scholar', Artist-Researcher is also a

precise and comprehensive relevance for an Artist-Teacher. In this case, it is a consequential study of deep knowledge to explore the ‘scholar’ and ‘researcher, closely and details through the lens. According to *Cambridge Advanced Dictionary*, “scholar: a person who studies in great detail, especially at a university (McIntosh, 2016), and researcher: to study a subject in detail, especially in order to discover new information or reach a new understanding” (McIntosh, 2016) Without certain qualities to discover new information as a researcher, it is completely meaningless to be a teacher. A comprehensive attachment to a subject, particularly for discovering new information or reaching an original understanding of a relevant ground is highly important for mentorship. A site-specific performance artist, social choreographer, and educator with an interdisciplinary practice, Ernesto Pujol, wrote, “A professionally active faculty committed to both teaching and pursuing its own extracurricular projects. We also need to stop hiring faculty artists who have no field experience—artists who have jumped from their B.F.A. to their M.F.A. without blinking and have very little to offer students other than textbook ideas and textbook art. This sort of oxygen-lacking wheel is killing contemporary ... art in and out of academia. I believe that teaching should come after the fire of extensive field experience. Therefore, this means a curriculum that goes beyond exhibiting in faculty shows within college and university galleries, being awarded more than just faculty development grants and university-sponsored residencies abroad. This in-house system unfortunately serves to enshrine and promote mediocrity.” (Pujol, 2009).

Pujol also shares “Students should have to develop fully thought-out written proposals before, during, and after painting and sculpture ... to learn how to justify that creation intellectually, beyond the subjective, in our visually dense and materially cluttered world” (Pujol, 2009). Nowadays, art has become more than entertainment or simple self-expression. There are unbound forms and media that artists are applying concepts. Moreover, connecting the social context and reality literature of an art project with meaningful thought is essential. So, at the very beginning of academic practice at the tertiary-level students must focus on writing proposals.

2. The Contradictions of Teaching Art

Around different stages and circumstances, art is recognized as a matter of its characterization by many artists, philosophers, historians, critics, and connoisseurs. Art as meaning, art as utility, art as purpose, art as criticism, art as experience, art as a process, and many more. The simple word ‘art’ is most usually associated with those arts which we distinguished as ‘plastic’ or ‘visual’, but properly speaking it should include the arts of literature and music. There are certain similar appearances in every category of arts, and though in these notes we are concerned only with the plastic arts, a definition of what is common to all the arts is the best starting point for our inquiry (Read, 2017). Mexican painter Frida Kahlo (1907-1954) formed her real-life experiences into art saying, “I never paint dreams or nightmares. I paint my own reality” (Margaret & Lazzari, 2012). The idea of art as sense, world-renowned Painter Pablo Picasso (1881-1973) stated, “We all know that art is not truth.

Art is a lie that makes us realize the truth” (Margaret & Lazzari, 2012). American painter Edward Hopper (1882-1967), thought, “If you could say it in words, there would be no reason to paint” (Margaret & Lazzari, 2012). Seeing art as utility, American artist Andy Warhol (1928-1987), stated, “An artist is somebody who produces things that people don’t need to have” (Margaret & Lazzari, 2012). Thinking of art as a purpose Chinese artist Ai Weiwei (B 1957) thought, “Art needs to stand for something” (Margaret & Lazzari, 2012). Art as experience American philosopher Alva Noë (B 1964) experienced art as, “Art, really, is an engagement with the ways our practices, techniques, and technologies, organize us, and it is, finally a way to understand that organization and, inevitably, to recognize ourselves” (Margaret & Lazzari, 2012). For art as a process, English philosopher John Stuart Mill (1806-1873) believed, “Art is an endeavor after perfection in execution” (Margaret & Lazzari, 2012). Dhaka-based Bangladeshi artist Aminul Islam (1931-2011) said, “... objective writing on art is nearly impossible. Non-verbal art forms like painting or music are not fully expressible in words” (Jaman, 2002).

Given art’s apparent resistance to verbal explanation, is it futile to attempt to teach it? Not at all. We should understand the above statements as ways of deepening our philosophical engagement with art. With the capacity for both visual pleasure and philosophical enlightenment, art calls for an unusual balance of technical knowledge and philosophical understanding. It is only by pursuing a deeper theoretical and historical understanding of art that artists can fully appreciate the peculiar nature of art and its enduring capacity to reveal otherwise inexpressible truths.

3. The Relation between Theory and Practice

Generally, ‘theory’ means resources of basic ideas that need to be elaborated through experiments. The Oxford Dictionary *elaborates on the meaning of theory* as “A formal set of ideas that is intended to explain why something happens or exists” (Hornby, 2000). Likewise, the Cambridge Dictionary stated, “A formal statement of the rules on which a subject of study is based or of ideas that are suggested to explain a fact or event or, more generally, an opinion or explanation” (McIntosh, 2016). However, there are scientific art theories that might be a great part of the theoretical subjects with a set of art historical studies and art appreciation. The Worldwide curriculum of Fine Arts is obligatory to reconsider and develop the rationality that focuses on a higher standard of preparation for an artist. It needs to be divided into two specific *parts*: *universal* academic character and thematic artistic appeal of education. Creative subjects such as Drawing and Painting persist in a diverse way of exercise in academics. An applied-based subject is mandatory to have logical real-life experience. In this instance, to engage in such a creative process one must get real-world historical knowledge within textual accordance. In this type of event, academies must have certain sequential objectives, visions, and missions to execute the appropriate nature of creative studies.

4. Thought Process

Physicist and Nobel Laureate Albert Einstein (1879 - 1955) stated, “When I examine myself and my methods of thought, I come to the conclusion that the gift of fantasy has meant more to me than my talent for absorbing positive knowledge” (Linderman, 1997). The thought process is directly associated with the basic component of philosophy. In fact, the thought process is considered the foundation of creativity. This is how the thought process is highly connected to establishing an idea into a factual matter. Curiosity has been the driving force behind philosophy since its earliest beginnings in ancient civilizations. Rather than simply accept the way things are, we humans have a natural tendency to question the world around us, and our place in it, and attempt to satisfy our curiosity with rational explanations — to philosophize (Weeks, 2019). Likewise, as an Artist-Scholar it is very important to learn how to think – not what to think.

5. Material-Technique

Generally, art institutes facilitate and demonstrate the traditional approaches to art materials in BFA. According to the experience from the demonstration, pupils could prepare themselves and be able to apply their skills through materials-techniques. Is there anything creative that a particular fellow showed as a personal talent? Especially, at the higher stage, this process is completely incorrect. Fellows should get the opportunity to explore and expose their own techniques with regular materials, whether oil color or acrylic color as common media. Sometimes a scholar goes beyond the norms and creates a new medium with an innovative technique.

6. Why Do We Teach Art

The specific objective of why we teach art must be clear. Is there any significant modification in the method and practice between an art teacher at school and a professor of the Fine Arts at the college or university level? Generally, a teacher in the school is confident to test according to the curriculum. In contrast, the professor of the fine arts hypothetically examines, directs, motivates, and encourages the students on the ways of being professional. It is truly irrational that only one motivation is to be an artist after completion of higher study. There is no structured art market or sufficient art dealers. Earning money by selling art pieces is challenging and uncertain, as it depends on the collector’s desire. Unpleasantly, the number of collectors compared to artists is insufficient. Yet, the scenario is difficult in Bangladesh for surviving as a freelance artist. Indeed, most art graduates want to be a teacher for survival and are also recognized as an artist. Precisely, these phases are totally opposite for both students and teachers. This position is ever present in this introduction as we reveal various approaches to teaching art. An awareness of the past brings to mind traditions, vocabulary, and forgotten aspects of our chosen profession as artists and teachers (Daichendt, 2010). A significant contributor toward tendencies in art education is the research or education of imminent teachers. Even though there are frequent chances, the role of art-making can be nearly absent

including the entire program in professional structure. In fact, scholars with an MFA degree distinguish this strong concept among artists and teachers.

7. Artist-Scholar-Teacher-Researcher

Artist-teacher is a conceptually rich term in the field of art and design education used to describe the professionally distinct roles of artist and teacher. The Association of Teaching Artists, the Teaching Artists' Journal, and the Artist/Teacher Institute are just a few professional organizations that employ the term. The formation of the concept of 'artist-teacher' by George Wallis in 1845 (Daichendt, 2011) is a creative act and utilizes research and theory from the field of creativity to emphasize the many aspects that led to this accomplishment. George Wallis (1811–1891) was an artist, museum curator, and art educator. He was the first Keeper of the Fine Art Collection at South Kensington Museum (later the Victoria & Albert Museum) in London. From 1843, he served as Headmaster at Spitalfields School of Design, then after the Manchester School of Design and some more design schools organized by the Government. However, the development of this new identity did not happen instantly in most of the countries in South Asia. On the other hand, Western countries have started to reveal the hidden essence or attribute of an artist-teacher. An American New Thought writer Wallace Delois Wattles (1860–1911) remains personally somewhat obscure, but his writing has been widely quoted and remains in print in the New Thought and self-help movements. In the evolving systems approach to the case study method, there are three guiding ideas: "The creative person is unique, developmental change is multidirectional, and the creative person is an evolving system. The necessary uniqueness of the creative person argues against efforts to reduce psychological description to a fixed set of dimensions. The creative person is not conveniently "far out" along some well-charted path: She or he is unique in unexpected ways. Indeed, it may never be possible to make more than a few obvious generalizations about ways in which all creative people are alike." (Wallace, 1999).

However, the idea or concepts are badly needed to be explained. Like- what is a creative case? What do we mean by creative work? Like most definitions of creativity, ours includes originality and value: The creative product must be original and must be given value according to some outer criteria. Nevertheless, there is the third criterion, purpose—creative products are the result of purposeful behavior—and a fourth, duration—creative people take on hard projects lasting a long time (Wallace, 1999). Now it is clear that only external beauty is not considered an art piece. The art piece should have revealed four qualities.

An artist and professor Deborah Rockman in the BFA and MFA drawing programs at Kendall College of Art and Design. In 1992, she was the first woman and the youngest person ever to be awarded the rank of full professor in the history of Kendall College. She remarks on dynamic parts of her teaching experience, "In a field of study where there are few absolutes and where self-expression and personal experience are vital elements, recognizing and nurturing the individual temperaments and natural abilities of the students in my charge is

perhaps the most important and difficult challenge facing me as an instructor of art.” (Acockman, 2000).

When an art instructor heartily gets the assigned responsibility it is connected to something personal more than academic attitude. In this case, self-motivation and involvement are the essentials that support identifying the pupils’ quality. Furthermore, the proper development of art students’ strategies and appropriate techniques is highly appreciable. This is a strong backup for artist-teachers to reform their own strategy with appropriate structure. The following idea from Deborah Rockman would be a considerable basis for art instruction: “Lectures, handouts, class discussions, gallery visits, demonstrations, and slide presentations are important aspects of my instructional approach, with the work of both historical and contemporary masters as well as student work serving as examples and inspiration. Individual and group critiques are held in all courses and consider technical, formal, and conceptual issues in both a contemporary and historical context.” (Acockman, 2000).

The link between contemporary and historical topics could be a suitable way to understand and take responsibility to create something new. Sometimes, art classes become difficult, boring, and meaningless to students without proper explanation by the teacher. Deborah Rockman Students often go through the motions of sighting without really understanding what they are doing and why it works. A little understanding of the principles of sighting goes a long way toward encouraging students to use the process to their advantage (Acockman, 2000). So, this is very much essential to understanding and being an artist-teacher.

8. Teacher

In the general and regular character of teachers and their actions, it is quite typical to consider the teacher as a well-mannered, thoughtful, and conscientious individual whose practice is consciously planned and initiated. Dennis Atkinson, the assumption here, of course, is that the effective teacher is a rational individual, who is able to bring rational [judgment] and reflection to evaluate the quality of his or her teaching (Atkinson, 2004). To describe essential individuals, it is required to clarify and understand every term and definition deeply. Generally, an artist is a person who paints, draws, or makes sculptures (Atkinson, 2004). ‘Artist’ is an alternative to a great responsibility that contains various artistic approaches. Therefore, an artist should be a person who has an aesthetic attitude that helps to get renowned and significant recognition of a national identity that must contain intelligent and intrinsic instincts to connect a social attachment to the talent of timeless creation. A scholar who studies in great detail with an analytical point of view, especially in college or university (Atkinson, 2004). A keen observation of the term ‘Scholar’ will reveal true and stimulating scope. Like, when a pupil is able to be involved with progressive matters by devoted accountability, then the apprentice is considered a scholar. When scholars’ devotion involves a study and examination to the ultimate finding of the original information the scholar is called a researcher. Basically, the actuality of a ‘Teacher’ is a powerful responsibility that should not be considered a general job or profession. Despite this, we accept this responsibility by way of occupation. A teacher is a

collective character of many responsibilities with evaluating acting as a motivator to develop a profound nation. To be an artist-teacher one should have achieved the required attributes first as an artist-scholar and artist-researcher.

9. A Chronological Structure of A Sequential Curriculum

Every particular academic subject needs a way of expression with appropriate instruction in academic practice. Therefore, it is very important to organize a common method of art education for a better way of academic approach. Individually, art offers ways to visualize our inner minds, both intellectually and spiritually (Linderman, 1997). So, creating a meaningful connection between our intellectuality and spirituality is highly required to follow a certain direction with sequential curricula. From preschool to higher study, art education should offer a rationale course in the syllabus at every stage. The syllabus must have certain credit hours with objectives, missions, visions, and intended learning outcomes. Art can be introduced as such involving kids playing with materials at the preschool stage. They will be encouraged to play with materials like paper, colors, brushes, erasers, and so forth. Gradually, they will learn about the elementary objectives. The introductory part of Elements of Art with the vocabulary of visual arts terms. Academy should be concerned with art for students with special needs education, to identify their learning domains at the school level. For instance, drawing, painting, music, and dancing. etc. could be discovered in the active domain of learning or the type of study capacity of a specific student. At the school level students will learn elements of art with practical skills and the significance of art within the basic history of world art to acquire a basic and general knowledge of world art as a visual language. Thereafter, at the college level, Artist-Students will focus on creation through a blended combination of knowledge with skills. Artist-Students must have the capacity to absorb meaningful creative practice according to the academic structure. Gradually, at the tertiary stage in the BFA level apprentices will start the process to be considered scholars in the creation through the exploration of the innovative approach to creating art. Finally, MFA/Ph.D. Artist-Scholar is completely prepared for advanced research and generating state-of-the-art attribution for society as a professional researcher.

10. Conclusion

The development of art agendas within institutional frameworks is acutely necessary to understanding and resolving the paradoxical nature of teaching art. There has been a wrong concept that artists and teachers are incapable of working in the same space as a resident character; the conditions—including tradition, culture, and context—play the main characters in considering art's values. With attention to Bangladesh, the Fine Arts Academy's theoretical, and practical practices are moving in a perplexing direction. What is more, research is not appropriately encouraged academically or personally. For this reason, Bangladesh's people are unable to enjoy advanced applications of visual art. Most of the drawings and paintings have been displayed only for the purpose of beautification. The academic curricula need to follow a sequential structure of a sequential curriculum in academic culture.

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Abu Kalam Shamsuddin (B 1982):

At heart I'm an artist; my passion is creating engaging and inspiring works of art in various media. But I'm also committed to the development of Visual Arts in Bangladesh; in fact, I believe that Visual Arts, the study and making of visual art, is crucial to the holistic advance of my country. As a faculty member in one of our country's finest institutions, Khulna University, I am privileged to have the opportunity to share my joy for Fine Art every day with my students. I hope that I can be an inspiration to them, an encouragement to my highly-valued colleagues, and a small part of the unstoppable cultural movement in this world, called art. I completed my Masters of Fine Arts in Drawing and Painting at Rajshahi University, Bangladesh. Before that, I worked on the faculty of Daffodil International University in the Multimedia and Creative Technology Department and at the Shanto-Mariam University of Creative Technology in the Graphic Design and Multimedia Department. My research interests are vernacular painting, contemporary painting of Bangladesh, and environmental and ecological painting.

The Dynamics of Living Art Matrix

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ABSTRACT

The essay explores India's contemporary art matrix as a living cultural continuum. Drawing on sound philosophical principles of the classical, sacred and courtly traditions on the one hand, and linked to tribal-folk art/craft forms on the other, its multitude of interdisciplinary aesthetics are living expressions by living people. Some of the work in the varied genres of art matrix is created by professionally trained urban artists while other by their rural primarily family-trained counterparts. Both are innately contemporary as they draw inspiration from their roots, while opening up to their lived experiences, surroundings and evolving technologies. However, the dichotomy between the two remains a challenge. The essay makes a case for affinity and a shared platform on equal terms, space, credit and returns for the two distinct but interconnected and innately contemporary genres to eschew marginalisation and appropriation of the lesser or folk/tribal artists' from subaltern India by their more market savvy urbane colleagues.

Keywords – Contemporary art matrix, Living cultural continuum, Living expressions by living people, Folk/tribal artists, Market savvy urbane colleagues.

1. Introduction

The civilizational footprints around the world and over the millennia can be seen in diverse forms of arts and cultures defying a singular thrust. Emanating from the East and West, arts span across ancient, classical, traditional and contemporary creative domains. In the Indian context, the universe can be perceived through its arts and aesthetic milieu inextricably intertwined with life. The terracotta figurines of the Indus Valley civilization dated over 5000 years ago or the monumental structures and sculptures built during the subsequent Mauryan and Gupta era or the Shiva Nataraja (lord of dance) and other iconic forms dated to Chola period, continue to be created in tweaked variations even today, be in clay, metal, stone or as paintings or in newer modes and materials. Drawing on sound philosophical principles of classical traditions of the sacred and the courtly on the one hand, and linked to the tribal and folk-art forms on the other, Indian art draws from the wellspring of the living traditions, while it evolves in an interface with the changing global scenario. Mapping the country's dynamic cultural legacy, one needs to transcend diverse ethnic, linguistic, geographical, political and cultural boundaries to get an overview of its multifarious artistic whole. The eclectic art matrix, free-flowing and heterogeneous, appears to assimilate the old and the new, with equal élan. Unique handmade creations continue to be made taking recourse to experimentation and evolving technological innovations.

2. Intuitive Expressions

India's living cultural continuum encompasses a multitude of interdisciplinary aesthetics in varied genres of visual and performing arts, as elaborated in 'Aadi Anant: Creative Continuum & Unsung Heroes' book listed among references. The integral connects across the two streams, be it in classical, traditional, contemporary or newer métier of art forms is best elucidated in Indian classical text Vishnudharmottara Purana (encyclopaedic text on cosmology, astronomy, genealogies, law, politics

and arts etc.) dated around 4 CE. It illustrates the significance of intertwining varied art forms through the story of King Vajra who was advised by sage Markrandeya to learn at least rudimentary knowledge of various disciplines such as dance, music and literature, before attempting to paint and make sculptures or vice versa. The analogy emphasises the need for a coalescence of the diverse creative streams. The intermingling of the classical, tribal and folk arts with performance and contemporary practices including the use of newer media, is exemplified in the art of illustrated manuscripts and painted scrolls to accompany Katha-gatha (story-telling and singing) performances. While such traditional forms are kept alive; newer forms of art, beyond the confines of 2-D paintings or myth-inspired statutes, the shifting gaze and trajectory of contemporary Indian art can be seen to make a bridge across primitive, classical, modernist and academic steaks. Besides painting and sculpting, the artists are increasingly making videos, digital art, designs and multimedia work etc. to represent the changing face and facet of the multi-genre contemporary creative scene.

Encompassing classical, tribal, decorative, colonial, and contemporary domains, Indian art brings alive the true diversity of its rich culture and artistic trajectory as elaborated in Partha Mitter's seminal book 'Indian Art'. Historically though, the dichotomy between traditional art often treated as primitive and modern or contemporary more masterly, continues to be a subject of concern for scholars and aesthetes. Interest in traditional Indian art, has remained confined more or less, as collectible antiquities, idols, utilitarian or exotic curiosities. The art colleges set up in some of the Indian cities initially by the British and since Independence by the State, have also not done much to support the cause of folk and tribal traditions. It is only through the legacy of single-minded efforts of social reformers and cultural activists like Kamala Devi Chattopadhyay (1903 -1988), and Pupul Jayakar (1915-1997) that attempts to revive the traditional arts began to be made. Subsequently it is artist- researcher Bhaskar Kulkarni, cultural anthropologist Haku Shah (1934 -2019), artist activist Jagdish Swaminathan (1928-1994) whose work brought folk and tribal arts onto the open exhibition arena alongside their modern compatriots. Among other eminent modern masters who returned to their roots, and worked with their traditional counterparts, worth mentioning are Jamini Roy (1887 - 1972) whose paintings imbibe simplicity of Kalighat style and Meera Mukherjee (1923 - 1998) who following her art training in India and Europe, revisited her Indian roots to make sculptures in Dhokra metal casting technique learning it from artisans in Bastar. Also KG Subramanyan (1924 – 2016) whose artistic vocabulary focused on reworking traditions through modernist mediations, and Gulam Mohammed Sheikh whose work entails impressions of miniature art along with new media often lined with socio-political articulations. There is also senior artist Manu Parekh, among other contemporary professionals, who found their experience of working with weavers exciting and opening up fresh creative panoramas for them.

3. Current Creatives

More recently attempts have been made to assimilate the divergent streams and enrich current creative flow. Some of the platforms at railway and metro stations besides street corners in different Indian metros are examples at hand. The murals painted by Madhubani artists in Patna feature their rural landscape in an interface with city culture and its hectic lifestyle. One landmark project that set the ball rolling for bringing folk and tribal artists into the lime-light was 'Other Masters Five Contemporary Folk and Tribal Artists of India' publication dated 1998 which accompanied the exhibition curated by Dr. Jyotindra Jain. It documented the dilemma most traditional artists encounter as they attempt to come out of their shackles and enter the public domain so often restricted to their 'academically trained market savvy' modern counterparts. Also, similar projects undertaken by

designer Rajiv Sethi, credited with putting together the GVK New Museum at Mumbai T2 terminal, craft activist Laila Tyabji founder of Dastkar who has helped revive dying crafts, and handicrafts expert and writer-curator Jaya Jaitly who founded the Dastkari Haat Samiti and Dilli Haat market space for artisans. 'Crafts Atlas of India' along with other seminal books and projects that she has led on, document Indian arts and crafts. All such endeavours have helped provide shared platforms and level playing fields for the traditional and modernist artists.

With a similar thrust comes 'Vernacular in the Contemporary' exhibition curated by Annapurna Garimella. Such initiatives are helping dismantle the ruptures of the existing artificial hierarchy in traditional versus modern, old versus new, local versus global, Western versus Eastern, worldview versus peripheries, high versus low art and academically trained versus hereditary artists. As such divisions become irrelevant, the artists are beginning to opt for 'this and that' rather than 'this or that' approach in working across genres. In the current context, the professionally trained urban artists draw inspiration from the same traditions that they had at one stage opted to forget and forego, in their pursuit and validation from the West. Similarly, the rural artists are opening up to using digital tools and featuring city and global culture within their rural art-scape. This trend is illustrated by painter Kalyan Joshi from Bhilwara in Rajasthan who uses his traditional Phad style to paint a colourful picture of people as they go through the stressful period of coronavirus pandemic. Such work illustrates that all artists be they folk or modern, are aware of and sensitive to, the current happenings. All of them belong to this day and age. They are equally contemporary, none less and none more.

A mythical golden past is no longer a contested terrain in contemporary Indian art and thought. Many artists turn to history and myth for their inspiration. There are others who opt to reinvent, remix, renew traditional techniques colouring them in new ideation and materials as in the diptych painting by young Anant Mishra titled New Age Avatars incorporating the impact of science fiction films in his work. There are other creative experiments where traditional and contemporary artists work jointly on projects. For the Vistaar exhibition artist-printmaker-sculptor K Laxma Goud from Hyderabad paired with Thomas John Kovoov. Thomas worked in his bronze casting workshop in Jaipur to make a cast and turn Laxma's work into a collectible bronze. To make it a worthwhile experiment for both, working arrangements for such ventures need to be on equal terms. The space, credit and terms for both sides should be just and fair to avoid appropriation of the 'lesser' or folk/tribal artists by their more market savvy partners.

4. Living Arts

Within this premise, a study of the current scenario presents an engaging assemblage of living arts. Their intertwined dualities engage with visual- performance arts, spiritual- material, fact- fiction, old-new, art- technology, and creativity- commerce. Dislodging the closed doors across disciplines and genres, merging in and out of varied materials, modes and manifestations including the hybrid ones, today's artistic expressions may be simple or grand. What appears on the horizon is art created using varied strands, materials and techniques, often routed through a mixed matrix of art-craft or fine-popular art in visual, virtual, performance, multi-media or collaborative form. The work in the eclectic matrix of living art may be decorative, pleasurable, provocative, funny, narrative, conceptual or political. It may be in abstraction, landscape, narrative, meditative, spatial, or kitsch. It could adorn the form of paintings, murals, sculptures, installations, prints, drawings, crafts, photography, video, animation, performance, ephemeral, multimedia, public and digital art, besides collaborative, conceptual,

interactive, issue-based projects and research or group work in addition to architecture, design, artefacts, fashion, cinema and more.

Evidently, a vast array of stylistic, chronological, ideological, materialistic and technological diversity is manifest in the depth and diversity of current Indian creativity across the varied forms and genres of living arts. In myriad styles, shades and shapes, artists present a panoramic view of the society and the surrounding atmospherics of the world. With sweeping winds of change, art is in a constant flux. The artists engage with on and off-site happenings from an experiential perspective. They explore socio-economic-political scenarios and document historical and cultural legacies. They navigate the past, study the present and dare to explore what lies ahead. The themes they engage with range from the sedate to violent, politics to erotic, mystical to sexual, funny to hard hitting. Their issue-based work may raise concerns around gender discrimination, violence, sexuality, regional identity, politics, marginalisation, and environment. An artist may create art for art's sake or for a purpose. Each one of them brings something distinct to the platform. It may be an intimate encounter to a dramatic social outpouring, folklore of the past or a lived experience of the present. All work appears afresh in today's context and in new age variations.

5. Technological Traits

A synergy of technology with art, can be used effectively in providing an interface between traditions and modernity, classical and popular, personal and collective and the sacred and profane. It can help dissolve the dichotomy between the city-bred, often trained professionals, and the home-grown indigenous artists as both groups draw from traditions and traits. While the metro-based ones increasingly work in multimedia, digital and video art, those from mufassil India are attempting to take their impressions of the urban landscape into their renderings. Both creative streams run in parallel. Both involve comparable commitment and input of ideas, skills, materials, and handwork. There may however be some difference in their aesthetics, purpose, execution, scale and approach. What the urban artist creates is more often for the museum or gallery set-up for exhibitions, enjoyment and sales; whereas the pastoral artist's work is intended primarily for utility, decor and reverence besides earning a living. The gap in the price tag of the two forms can be huge with the avant-garde city-based group getting a much better appreciation, valuation and space for their work.

Given the ready availability of a wide expanse of digital tools and technologies a great deal of border crossing and experimentation in different forms and styles of visual arts is happening. Architects are seen to work in design as in the 'Temple Honda Puja' video work by architect Vineet Kacker. Visual artists experiment with performing arts as does N. Pushpamala and Radha Gomati to raise issues around gender discrimination. Atul Bhalla's work centred around water issues combines photography with site specific installation. The seated Buddha made with old discarded and junked scissors welded together by fashion designer Rajesh Pratap makes an interesting archival documentation of his creative track while it also speaks for reuse and conservation. There are other designers and sociologists who dare enter the creative domain with a bold play of experimentation and innovation.

In a juxtaposition of metaphors and cross connections, art enriched with technological intervention, opens up the scope and scale for varied interpretation. As against fixed patterns or homogenization, the symphony of contemporary Indian art straddles across domains, ready to play around freely, and in varied combinations to create art that speaks and sparks. Also, no longer confined to the privileged few from elite classes in metros hubs, many of today's artists hail from small semi urban mofussil societies

and cities of India to make it big in the art world. To name a few one could list Ravi Chunchula from Rayadurg in Andhra, Bharat Dodiya from rural Saurashtra and Sonal Varshneya from Agra and Lucknow, besides several others from the marginalised, women, self-taught and traditionally trained artists, among them.

6. Dynamic Moves

The dynamics that triggered the pace of development in Indian art include the invention of printing press in the 15th century, photography in the early 20th century, the moving picture, computer software and the internet in the later part of the last century, and the subsequent developments through the 21st century in the form of image and film making. Such path breaking developments have provided an open and accessible framework for digital intervention in visual arts, communication, entertainment and documentation. The emergence of multiple contemporaries and different schools of art and thought seem to run in parallel, as a simultaneously divergent and assimilative collective. Beginning with the Nobel laureate Rabindranath Tagore's efforts, who took lead in connecting Indian art with the East and the West, the Progressive Artists group emerged on the scene pushing for an interface with the west and the world. In contrast the Bengal School and the Chola Mandal and Delhi Shilpi groups of artists attempted to rediscover their roots to find space for modern Indian art for its own merit on a global scale. The post-independence period has seen a revival of abstraction followed by new figuration in 1980s and then the application of digital media in art 1990s onwards. This has been facilitated further with the opening up of economies, new modes of communication, ease of travel, penetration of new technologies, media and democratisation of the world. Artists have been quick to absorb the changes and evolving technologies, thereby extending their playing fields further in the 21st century.

There are artists who have mastered the art of designing and creating work using digital tools and technology including AI (Artificial Intelligence), VR (virtual reality) and AR (augmented reality), NFT (Non-fungible token), 3D printing, emerging newer technologies and social media to extend the playing fields for contemporary art while also rediscovering their roots. India's National Institute of Design (NID) trained designer-artist Kapil Sharma takes to digital printing technique to refresh his inherited roots in Pichwai art and present it in a new garb. The creative expressions that use mass media technologies, computer graphics, animation, and other digital and internet based electronic and telecommunication tools in one or another form, also blur the existing divides amidst the arts, humanities, sciences, design, architecture and more. Readily accessible for conception, creativity, production, communication, presentation and dissemination of the arts, digital platforms open up new voices, visions and vistas for creativity.

Much of the multidimensional framework entails interdisciplinary formulations, in virtual or mixed media. Artists also experiment working with sound and light besides film and design. Some of the work is process oriented and performance based. Other artists focus on site-specific and technology driven multimedia as in artist Charuvi Agrawal's repertoire. Her assemblage involving a large scale installation with creative inputs from painters, image makers, animators, sound recorders, filmmakers and editors, with recitation by Amitabh Bachchan for work titled Hanuman Chalisa, which was on public display at an upmarket mall in Delhi, stands testimony to technologically enriched artwork.

The use of technology also helps bridge the gap between fine art and product design or high art and kitsch as in the work of artists-designers Jiten Thukral and Sumir Tagra amongst others. For large scale projects, where art demands work in enormous scale, the artists setup factory-like studios with assistants

in trail. An example in hand is much of Subodh Gupta's enormous sized installation made up of hundreds of traditional steel utensils including buckets and lotas (metal containers normally for liquids) meant for functional use in homes, that are made to his design in his own studio, for significant platforms. The large tree installation made largely with steel buckets on display in the outdoor space at the National Gallery of Modern Art in Delhi, is an example at hand.

A contrast of sorts is offered in work by artist Mahaveer Swami. As featured here he extends the notion of finely painted miniature art, in his composition inspired by mythology while making a dig at the society's current preoccupation with mobile phones featuring a sadhu holding a Kamandal (water pot also used to collect donations) in one hand and a mobile phone in the other.

Modernism and traditions need to be reevaluated as they oscillate between contemporary vacillation and the treasure trove of ancestral knowledge. Miniature format and objects of rituals and domestic use are recast in mural- scale narratives lined with mythical, ceremonial and political dimension. Manjunath Kamath's huge mural installation of Vishwaroopa made up of 1008 small works on paper illustrates this school. There is also a larger than life sized 'Metamorphic Mantra' sculpture by Paresh Maity using 4005 brass bells which recalls the ritual of ringing bells that his mother followed every morning. There are artists who re-discover and work with indigenous materials and objects while others employ new techniques and media to make art in fibreglass and digital devices. Works like Ravinder G. Reddy's colourful terracotta and fibreglass deity heads, juxtapose high art of the temples with kitsch of the streets. Sudarshan Shetty's unified large-scale sculptural assemblages that function as giant fairytale toys, often involve working with technicians, craftspeople and assistants as understudies.

7. Conclusion

The multitude of expressions and aesthetics, mirror the country's living art dynamics. The creative practices and trends are dynamic, constantly undergoing change. Within this rapidly transforming scenario, the age-old artistic traditions run in a continuum. In contemporary context, the assemblage of living arts entails enormous ethnic, linguistic, geographical, political and cultural diversity along with a selective assimilation of the newer influences of media and technological innovations. The artists adapt and absorb the new, enriching the subcontinent's culture in the process. The dynamics of the living arts reflects a montage of diverse oeuvres equally rooted and adept at assimilating the changing currents and gaining a rapidly growing market value, both nationally and internationally. The multiple ways in which contemporary art is being created, consumed and shared, need to be nurtured with participation of all stakeholders be these artists, gallerists, museums, connoisseurs, public-private enterprises, scholars, academicians, and general public.

Indian art stands marked for its technical finesse and high aesthetic merit. It represents one of the rare phenomena, where exquisite artworks akin to the antique masterpieces held in prestigious museums around the world, are being re-created even today. A case at hand is Niranjana Jonnalagadda from Sri Kalahasti whose Kalamkari compositions painted in organic palette take forward his father and grandfather's masterly work, like the ones held at the Victoria & Albert museum in London and Govt. Museum in Chennai. As in this case, several distinct pieces continue to be made by living artists who keep the traditions alive. Many of them use the same materials and techniques that the earlier generation of principal artisans, who in most likelihood were their distant forefathers, had applied to create the master pieces, in the first-place aeons ago!

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Roots of Design Futures in art, architecture, and design

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ABSTRACT

Design Futures is herewith proposed and discussed as a conceptualization of existing methodological streams in corporate design history, in the analysis of Italian Design Districts, and in other creative industry fields, inspiring a fundamental tension to anticipate what will come next, which artists, architects and designers naturally embody. Purpose of this paper is to identify some examples of anticipatory movements, to then contextualize them in their historical background, thereby scoping the domain of Design Futures at least at the level of a first draft, in progress. In the rich history of art, architecture, and design, the selection herewith presented is purely exemplificatory and not intended yet as a systematic, complete, critical review on universal terms.

Keywords -Design Futures; Strategic Design; High Design; Foresight; Futures Research

1. Introduction

At the time of writing of this paper, Royal Philips NV has rolled out a restructuring plan to minimize the size and the role of Philips Experience Design. The refocusing of the Dutch corporation, once the largest technology enterprise in Europe, into a smaller size High Tech medical company, has erased the natural diversity of a portfolio, which once included consumer and business-to-business divisions and business units. High Design was conceived in the early 1990's, as a response by designers to the faith in scientific research and engineering, which characterized industrial practices before postmodernism. Nevertheless, through the decades Philips Design generated a lot of advancements in the practice of design, including several theoretical and methodological developments, e.g. the High Design approach.

While the portfolio of interdisciplinary dialog between design and foresight only expanded, the last two decades saw the end of postmodernism and more recently, of globalization. On the one hand, these paradigm-changing processes positively opened new possibilities for BRIC's and other emerging countries. On the other hand, the world negatively slipped into geopolitical turmoil and, increasingly, war as an extension of politics. On top of these macro-trends, the impact of innovation, from cybercrime to climate change, became the engine for generational conflict and increasing insecurity. The spotless optimism of High Design is therefore no longer justifiable, as we bitterly discovered how preferable longer-term visions might contradictorily generate dystopian shorter-term conditions, in line with the complexity of Post Normal Times (Saddar, 2017). From this foundation, Design Futures stretches to Dr. Marzano's recent work with LaSapienza, Rome, on the "dark side" of design, focused on incorporating dystopia in futures thinking (Bevolo, 2022-a). Further than 1990's High Design, Design Futures has therefore the ambition to adopt Design Research approaches to explore major planetary, societal, and political conflicts and challenges, incorporating trauma and dystopia in its very body of reference.

The convergence of fine arts, design, and cultural sector practices into beneficial business insights was explored by the author of this paper in his first independent book (Bevolo, 2010): a new synthesis of future visions through design and humanities seems more necessary now, than ever before. With unforeseen macro-scenarios developing in this “brave new world”, designers and design are increasingly challenged to think beyond marketing and sales within corporate diagrams. With Artificial Intelligence being a reality, which potentially challenges the very nature of both foresight and design (Bevolo & Amati, 2020), with digital worlds increasingly becoming standard realities, from Fortnite to Metaverse (Bevolo, 2021-b), Design Futures has the ambition to restore qualitative research and cultural studies at the heart of applied creativity, extending its reflection beyond the limits of the Anthropocene, to include the natural environment. This paper explores some possible historical and contemporary references from art and architecture, and it sketches some possible lines of development for Design Futures, with a constant reference back to High Design as the foundation of Design Futures. Delimiting external borders of Design Futures, instead of defining its core processes, is the focus of this paper.

2. Argument

The key propositions at the argumentative foundation of this paper, are captured as below:

- a. Design is not isolated in culture and society; on the contrary, design is a creative force in a dialectic relationship with cultural trends and social drivers (Julier, 2000);
- b. Historically and theoretically, design exceeds the footprint of marketing and sales or other insular corporate and business functions, with a structural ability to anticipate the future beyond the organization of labor determining its operational conditions;
- c. Innovation is based on technology roadmaps and paradigm-changing leapfrogging at various horizons and with different timelines, however without design, technology often ends up in solutionism (Morozov, 2013);
- d. Foresight and futures research are dignified disciplinary fields (Lombardo, 2008), with their own literature, validated methodologies, academic representation, professional and scientific associations, therefore they constitute a separate body of reference in the context of both business consulting and social sciences (Bell, 1997 / 2003);
- e. The integration of design approaches and Foresight methods elevates the strategic nature of design beyond conceiving and Imagineering, towards a practice-driven and applicative view on longer-term, planetary futures.

In synthesis, the aim of Design Futures is (also) to reframe “design” in the context of history, where thought leading schools like Bauhaus or thought leaders like Bruno Munari (Munari, 1971, 2001) expanded the very notion of what design is, well beyond the simple contribution to consumption cycles.

3. Methodological reflection

Being tasked with envisioning and crafting the material world to be (Flusser, 1999, 2009, 2010), designers are inventors of what is next and, as such, they have the opportunity, if not the ethical duty (Fry, 2011), to reposition themselves as future-makers. How to pursue such an ambitious goal? It is not the purpose of this paper to detail or even scope the methodologies at the heart of Design Futures. Suffice to state that the core of what is proposed as Design Futures lies in the High Design approach (Bevolo et al., 2011), envisioned, and implemented in the two decades between 1991 and 2011, under the thought leadership and managerial direction of Dr. Stefano Marzano (Marzano, 1998). High Design

represented a pivotal moment and actual movement within Philips, whereby one might say that their 80 years of history reached a climax in terms of thought leadership, organizational relevance, and creative edge (VV.AA., 2005). Departing from such outstanding tradition, at its heart, Design Futures advocates the anticipatory role of the work by designers and architects in close cooperation with multidisciplinary consultants across competencies, from psychology, philosophy, and anthropology, to humanities, e.g. science fiction (Hassler-Forest, 2016), storytelling, and cinema. One might observe how the Italian tradition, since the Renaissance, of framing architectural, and artistic practices into humanities and a social vision played a role in paving the way for High Design. Meanwhile, since the early 1990's, several disciplinary developments occurred, both in foresight and Futures Research and in Strategic Design: speculative design (Dunne & Raby, 2013) and speculative futures (Hoffman, 2022), CLA (Inayatullah, 2015); experiential futures (Candy, 2019), and more positions, whereby Design Futures finds complementary reflexivity and methodological benchmark. Further specifying methods and tools of Design Futures would deviate from the focus of this paper, where exemplification references will be made to ground Design Futures and its framework within High Design, in fine arts history, contemporary architectural practice, and design vision.

4. Fine Arts: Futurismo

The Futurismo movement of the first half of the XX Century was a multidisciplinary current in international arts and design, which developed from literature, painting, and sculpture, to cover architecture, fashion, food, lifestyle, and new media of its time, namely photography, radio broadcast, and cinema. Its main protagonists were F.T. Marinetti, its ideologist and leader; Boccioni, Carra, and Balla (painters and sculptors); Antonio Sant'Elia (architect, who never built but established his legacy by visionary drawings); and, in a second moment, Fortunato Depero (painter and graphic designer). Labeled as: "The other Modernism" by Cinzia Sartini Blum (Sartini Blum, 1996), Futurismo was the first international arts movement created in the first decades of the 1900's Italy, followed by Arte Povera, in the second half of the 1960's and the 1970's, and by Transavanguardia in the early 1980's. Futurismo was politically a right-wing movement, playing in the field of Italian nationalism, reactionary movements, and military interventionism. Politically, the movement was a competitor of the first Fascism, and then affiliated to the regime, although with its own internationalist views and positions. Mainly for these reasons, Futurismo suffered a critical and cultural stigma from the 1940's to the 1980's, when it was relaunched to the masses by means of a milestone retrospective at Palazzo Grassi, in Venice. At the same time, its highly experimental aesthetics and truly international spirit was continued in the 1950's and 1960's in fine arts through Concrete Poetry, Non-objective Art, Non-representational Art, and in fashion, design, and advertising.

There are five traits of Futurismo, which play a role in inspiring Design Futures: a) an intrinsic tension towards the future, with a strong vision for what is preferable (although, of course, not in line with what F.T. Marinetti envisioned); b) an experimental drive to reach beyond the limits of conventions within disciplines and sectors (Perloff, 1986); c) the subsequent ambition to incorporate all aspects of life within their artistic practice; d) the ability to work at the forefront of media of their times, like cinema (Lista, 2001), developing innovative publicity, and propaganda techniques, for longer-term impact; and e) the establishment of a body of theoretical literature, in the form of "manifestos", (Apollonio, 1970) describing and prescribing the applications and implications of Futurismo to specific sectors and practices. The tradition of Futurismo still lives in museums worldwide, from MoMA to LACMA, as well as in concepts like FuturDome, Milan (Bevolo, 2010), a "living museum" where

contemporary art and design are programmed within a creative community of studios in a philologically restored courtyard, and in a program defined by Istituto Internazionale di Studi sul Futurismo, or ISISUF, Milan, the art foundation created in the 1950's, by Carlo Belloli, described by F.T. Marinetti in 1944 as the "future of Futurismo".

Several ideas and ideals of Futurismo completely diverge from the ethos of High Design, e.g. faith in technology; radical rejection of past culture; and aggressive right wing politics. On the contrary, High Design was people-centric, culturally inclusive, and characterized by a belief in sustainability on environmental, social, and personal levels. However, some aspects of the movement might be relatable to High Design. High Design was inspired by a conscious tension towards preferable futures, anticipating people's social values, cultural trends, and aesthetic preferences. In its drive to integrate technology into people's lives, High Design experimented with innovation across emerging digital roadmaps, bending and merging applications with lifestyles. It must be specified how historically High Design served corporate programs and the consulting projects across as diversified Philips sectors as consumer electronics, domestic appliances, personal care, medical systems, lighting solutions, semiconductors, and components, integrated by collaborations within diverse domains, e.g., mobility, fashion, sport apparel, and more. In pursuing public relevance, High Design adopted a conscious communication strategy, whereby publications, conferences, media presence, gallery exhibitions, museum roadshows, and media presence were leveraged to bring the message across, while receiving feedback from press, specialist audiences, and common people, to fine tune insights and ideas. Lastly, High Design was grounded in several books, publications, and other printed features, including Ph.D. monographs, whereby concepts, trends, and visions were contextualized in coeval theory and articulated in actionable methodologies. Design Futures aims at building upon such a visionary foundation by adopting both the mindset as well as strategies and tactics crafted by Dr. Stefano Marzano and his worldwide teams in their tenure.

5. Architecture: AMO at OMA

Just like Boccioni, perhaps the most gifted painter, Antonio Sant'Elia, the architect associated with Futurismo, died relatively young, leaving behind a body of work in drawings only. Even without being able to embody his vision into concrete buildings, Sant'Elia played a relevant role to inspire 1960's architectural studios and international firms. At an ideal opposite end of architectural history, Office for Metropolitan Architecture, founded in 1975 by Rem Koolhaas, have established themselves as both thought leaders (through publications, e.g., the book "S, M, L, XL" design with Bruce Mau (Koolhaas & Mau, 1995); education, e.g., several courses held at thought-leading architectural schools; and major museum events, e.g., "Countryside, The Future" at the Guggenheim, New York) and as master builders, by signing off several iconic projects that determined the birth of trends in design. Within this paper, the specific research branch at OMA, identified as AMO, will be briefly introduced as a key reference for Design Futures. AMO focuses on research, based on design methodologies whereby demographic, economic, social, technological, environmental, political, and other knowledge domains find synthesis in storytelling, concepts, and communications. Multidisciplinary teams converge into solutions whereby rigorous analysis is embodied in thought leading books but also curatorial projects, e.g., the 2014 Venice Biennale; installations; shows, e.g., the Prada catwalk seasonal events; and design projects. Of relevance to AMO is the current tenure as the Director at AMO by Samir Bantal (Bevolo, 2021-c), Moroccan / Dutch trendsetting leader, with deep insights into the Arab speaking world, as well as into the latest trends in fashion, e.g., his collaboration with the late Virgil Abloh on Off White retail. Thanks

to his multicultural roots, established in The Netherlands as a second-generation Mediterranean immigrant, Bantal, who also contributes at board level to key institutes like the Design Academy Eindhoven, manages AMO with his unique combination of architectural pragmatism and intellectual charisma.

Architecture itself as a discipline and a practice is deeply changing (Bevolo, 2019) by opening its processes (Ratti, 2014). High Design articulated programs in urban futures (Bevolo, 2017) for lighting innovation (Bevolo & Rosenius, 2014), which are a solid foundation for a dialog between the different disciplinary silos of strategic design, concept design, product system design and urban architecture. To some extent, the research conducted under the OMA AMO flagship might resonate with what presented in the former paragraph, e.g. the ability to be communicated in a relevant fashion, setting agendas; the elasticity to stretch from societal issues to fashion or commerce, connecting them in innovative insights; and the drive to incorporate relatively unexpected topics and themes in the big picture. These qualities were also reflected in High Design. As much as co-creation, co-design, and dialog are at the heart of Design Futures, individual inspiration and an intellectual edge are necessary factors. Just like Samir Bantal brings at the heart of his practice and contribution his multicultural roots, Dr. Marzano himself designed the fundamentals of High Design based on his Italian background, from his humanist roots in Milan, to his exposure to the informal ways of working of Italian Design Districts (Verganti, 20009), namely in his native Lombardy. In this respect, High Design, unlike earlier corporate industrial design practices, was always characterized by a plurality of testimonials, or individual voices, including speakers and spokespersons from regions as diversified as Europe, Asia Pacific, the Americas, and India (Bevolo, 2022-d) enabled and empowered to represent the approach on conference stages, in educational settings, and in media.

6. Design: Bruce Mau / Massive Change Network

The necessity to shift our focus from dominating ideologies to native cosmogonies is well represented by the intellectual work by Bruce Mau, who developed his practice from graphic design, to thought leadership in court. The biography of Mau incarnates the actual power of the individual in evolving from design practice to game changing world-building. Having risen at guru status within 1990's graphic design with his "S, X, L, XL" with Rem Koolhaas, Mau did not just capitalize on his creative leadership in editorial and visual design but inspired by his dialog with Sir Norman Foster, and by his maverick sensibility moved on to system thinking. His groundbreaking mid 2000's "Massive Change" show in Vancouver, Toronto, and Chicago heralded a grand vision for the future. Based on a research trajectory by the highly multidisciplinary Institute Without Boundaries, as documented in his book, co-authored with Jennifer Leonard, "Massive Change" (Mau, 2004) marked a departure point to rethink the role and the methods of design for a changing world. Mau moved from Toronto, and his Bruce Mau Design Studio, to Chicago, where, together with his partner, Bisi Williams (Bevolo, 2022-b), he founded Massive Change Network, a novel enterprise conceived to address new questions arising from corporations, countries, and a world in deep need to redefine context by verbal and visual renewal. His MC24 (Mau, 2004) distilled the 24 principles that make his approach to design repeatable for the rest of us. In his latest book, "The Nexus" (Ottino & Mau, 2022), with Dr. Julio Mario Ottino, Dean at the Northwestern McCormick School of Engineering, Mau went on to explore the history and the necessity of a new convergence of art, science, and design (Bevolo, 2022-c). The radical optimism that characterizes Bruce Mau's practice is based on the drive to go beyond contemporary frameworks of sustainable development, recuperating, and reinvigorating the philosophical roots of Canadian First

Nation tribes as the starting point of Design-for-Life (Bevolo, 2021-a). The human-centric view of design that served the industrial age might therefore move beyond humans, to include the interests and the needs of all forms of wildlife, which make our natural context at planetary level.

High Design was people-focused but also sustainability-driven well ahead of trends, thanks to the intense and passionate commitments of its leadership and its teams. Mau took further steps in anticipating cultural movements pertaining to decolonization, climate change, and the fundamental need to define and design the new stages of economy and society. Design Futures has the ambition to inspire and deliver solutions or at least to scope and sketch challenges at the heart of our “life essentials” (Bevolo, 2021-d), namely air, water, energy, shelter, and shelter. In line with Mau’s intuitions and visions, this has proven increasingly necessary for any foresight practice. As a design-rooted discipline, the action-oriented nature of Design Futures acknowledges participation in society as a necessity, beyond any reductionist vision of science or commercial allocation of the design competencies to the marketing processes and departments of corporations.

7. Conclusions

This paper is meant to be a first foundation; therefore, conclusions will be open ended. It is an incomplete picture by design deemed to connect and contextualize High Design as a future-forming approach to prominent roots in the past and in the present. However, one direction in development might be highlighted. Beyond any illusion of reductionist positivism, a forward oriented Design Futures practice must consider diversity and inclusion as a deeper principle than representation, enabling the full acknowledgement of personal history and personal values as a source of richness in the texture of analysis, and of value in terms of research. This will be increasingly relevant as the BRIC’s and more regions and countries will strongly emerge as new drivers and polarities of relevance, both economically and culturally. Because, to some extent, all scholarly output might be described as biographical work in disguise, new biographies will drive Design Futures to rethink the future beyond the status quo determined, so far, by dominant cultures in terms of cosmogonies, epistemologies, and socio-cultural values.

This synthesis of Design Futures reflected its acknowledged roots in High Design as well as its humanistic focus in rebalancing technocratic and market-driven notions of design and foresight, with a particular accent on the “H” of SSH (Social Sciences and Humanities). Design Futures finds its natural harbor in education, given the prominent rise of Design Thinking in academia worldwide, combined with the emergence of futures literacy. Most of all, in the forthcoming decade, new generations of digital native students will effortlessly and brilliantly unlock the potential of new technologies, from the metaverse to Artificial Intelligence. Design Futures aims at inspiring those students, who represent the next generation of professionals and scholars in creative industry, and beyond, to mold their talents into context and through vision, for the pursuit of a higher good and a common welfare, reconnecting us, humans, to our societies through our cultures, and to life on Planet Earth.

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