Interface between Dance and Design: Concepts, Dimensions and Illustrations

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Abstract
The discipline of dance is not as narrow as one usually tends to suppose. Its interdisciplinary study with other non-dance disciplines such as design can open new insights of creativity for dancers as well as designers. This article explains how both dance and design make use of four core concepts, namely body, space, time, and aesthetics. It also explains how aesthetic experience, its creation, expression and communication made via a dance-item, is analogous with that of a designed artifact. Taking one illustration from each discipline, the article further reveals how both dance and design are a mode of non-verbal communication to viewers. Lastly the article shows that a conscious embedding of design in every dance-pose and dance-movement brings in it one of its most important factors, the aesthetics, without which dance cannot be complete. The author believes that the interdisciplinary research undertaken in this article will enhance theoretical and practical understanding of aesthetics to benefit students, teachers and researchers of both disciplines while they work creatively in their individual fields of work.

Keywords*: Aesthetics, Body, Communication, Dance, Design, Expression, Space, Time

Introduction:

It is usually understood that one learns dance only to become a performer, choreographer or teacher. That is, the outcome of a dance-training is kept confined to the domain of dance alone. However, the discipline of dance is not as narrow as one tends to suppose. One can learn or study dance in order to develop new insights in other non-dance disciplines as well. One such non-dance discipline is design.

Today dance and design are pursued independently by students at undergraduate and postgraduate levels and by professionals in the respective industries. This shows that the interface between these two knowledge-disciplines is not yet recognized and is far less studied. Additionally, the interdisciplinary knowledge between dance and design does not seem to be utilized, as much in depth as is possible, in the pedagogic manners of either of the disciplines.

Dance and design have a lot in common, and this article studies the same. First, it identifies four core concepts that are common to both dance and design. They are, body (material), space, time and aesthetics. Then it discusses interrelation among those concepts in terms of motion and

stillness both of which are used in a danced item as well as in a designed product. Next it explores further commonalities in terms of creation, passing on and reception of aesthetic experience, followed by one illustration from each discipline. The author believes that the interdisciplinary research undertaken in this article will open new insights of theoretical and practical knowledge to benefit students, teachers and researchers of both disciplines. Also, this article will help students to understand aesthetics and learn to apply it creatively in their individual fields of work.

Four Concepts Common to Dance and Design:

In dance there are various genres such as classical, folk, modern, and postmodern. Each genre includes a variety of dance-forms. Each form such as Ballet, Kathak, Flamenco, Bhangra, and so on possesses its own aesthetic identity. This aesthetic uniqueness is reflected in poses and movements of that dance-form, and also to some extent, in its overall manner of expression and communication. Similarly, in the discipline of design, there exists a wide variety of specializations such as product design, interior design, apparel design, industrial design, and so on. If any of these specialized designs has to be accepted by its users or customers, it needs to have some aesthetic quality in addition to its other aspects such as functionality, efficiency, cost-effectivity, durability and so on. Thus aesthetics is an important factor that links dance and design. Moreover, in dance and in design, aesthetics is expressed through three elements namely body, space and time. Scientifically speaking, these three elements always co-exist, and neither dance nor design can exist without them. The fourth element of aesthetics which brings artistic sense to a dance-item or a designed product can be utilized in varying degrees and kinds depending upon the worker and the work undertaken. Thus interface between dance and design can be understood with the help of these four core concepts. Below is the explanation of how each plays a role in dance and in design.

1. Body

A design is usually made from a material such as plastic, wood, gold, paper, wool, and so on. When a designer moulds this material into a particular shape and size, what gets created is called a product, an output, or a work of design. Thus every designed product has a 'body'. Depending upon the design of this body, it can be either stationary, or, it can be flexible so as to be set in motion.

When it comes to dance, it is the dancing body which is given various shapes. Sometimes the dancer takes a pose and remains stationary, while the rest of the times he/she moves, dances and creates various movements with his/her body. Thus there exists a commonality between the product (body) of a design, and a dancer's body. In the language of pure science, both are nothing but 'matter'. In the discipline of design we have a 'product' whereas in the discipline of dance we have the dancer's body.

2. Space

Whereas body is visible, space is invisible. Or, one can say that, space becomes visible only when one or more objects (bodies) are placed in it. For example, when one stands inside a room and looks around to see the 'space' he/she actually sees the room, its walls, windows, objects kept inside the room, and so on. Then depending upon the rest of the empty area available in the room, one observes whether or not the room is sufficiently 'spacious'. In this way invisible space becomes 'visible' and makes a meaningful sense because of the presence of various objects or 'bodies' placed inside it.

In case of dance too, space is essentially invisible. It is understood as the empty area that exists around the dancing body. When a dancer stretches her arms and legs, she recognizes the space that can be utilized for her dance. Even when she moves about on the dance-floor, the space used for her dance at any given moment is always the space that surrounds her body.

In case of a designed product, space has a similar meaning. However the space used by a designed product has an additional aspect. Depending upon the design, it can use the space not only around it but also inside it. For example, the blades of a ceiling fan use the space that surrounds the blades (space-outside-body); whereas the blades of a cross-flow fan inside an air-conditioner use the space inside the body of that air-conditioner (space-inside-body).

3. Time

Time is that which flows continuously. Its flow can never cease because, in case it ceases, it will no more be called as Time. Like space, time too is invisible, or rather intangible. It becomes tangible only when it is broken into bits and pieces such as seconds, minutes, hours, days, months and so on. The scientific term for these various ways of breaking the flow of Time for the sake of measuring it, is 'unit'. Second, minute, hour, et cetera, are various units used for measuring Time.

In dance as well as in design, the element of time has a great importance. Any movement done by a dancing body or by a designed product requires certain number of units of Time; say two seconds, or three minutes, and so on. These units are nothing but the duration of time starting from the beginning to the end of a body's movement in a given space.

In addition to duration, the element of Time has two more aspects namely; tempo and rhythm. Tempo is the speed with which the body moves. Tempo can be measured scientifically, as well as, it can be understood relatively and approximately as slow, medium or fast speed. The meaning of rhythm on the other hand is different than that of tempo. Suppose a given movement of a dancing body or a designed product takes five seconds to complete. Suppose; for first two seconds the body moves very slowly, for next two seconds suddenly very fast, and for last second it moves with a medium speed. Thus in a given duration of five seconds, one sees that the body has moved in three different tempos. This variation of tempo within a given movement gives rise to what is called as rhythm.

4. Aesthetics

Aesthetics is a widely researched topic in disciplines of dance as well as design. According to the Oxford dictionary, aesthetics is "a set of principles concerned with the nature and appreciation of beauty". It is also "the branch of philosophy which deals with questions of beauty and artistic taste" (Oxford Dictionaries, 2016).

The earliest aesthetic study for a performing art like dance is found in the *rasa*-theory of Bharata's *Natyashastra*. This theory understands aesthetics as a matter of experience. It is a theory that

> "visualizes a total process, comprising first the aesthetic experience of the artist-creator, second the content, form and technique of artistic-creator, second the content, form and technique of artistic expression and third the evocation of an analogous state of aesthetic experience in the spectator and audience" Vatsyayan K, 2016

Karl T. Ulrich discusses aesthetics of a designed artifact as follows.

> "The aesthetics of an artifact are the immediate feelings evoked when experiencing that artifact via the sensory system. I consider aesthetic responses to be different from other cognitive responses in at least three ways. Aesthetic response is rapid, usually within

seconds of exposure to the artifact. Aesthetic response is involuntary, requiring little if any expenditure of cognitive effort. Aesthetic response is an aggregate assessment biased either positively (e.g, beauty or attraction) or negatively (e.g., ugliness or repulsion) and not a nuanced multi-dimensional evaluation... Aesthetic response is most frequently stimulated by visual information, largely because the vision system provides data more immediately and at higher rates than do the other senses. Nevertheless, aesthetic responses can be stimulated via senses other than vision." Ulrich, 2006

Thus the concepts of aesthetics in both disciplines match with each other. Both have a creator of aesthetics on one side and viewer of the same on the other. What connects the creator and the viewer is the aesthetic experience, its expression and communication either through dance or through a work of design.

Dimensions of Interface between Dance and Design:

1. Stillness, Motion and Interrelation among Body, Space, Time and Aesthetics

Dance is composed of static poses and dynamic movements of a human body. These poses and movements happen in given space and time. However, a pose or a movement of a human body can be called as a 'dance-pose' or a 'dance-movement' only when there exists in them the aesthetic element. This interrelation among body, space, time, aesthetics, dance-pose and dance-movement can be stated as follows.

i. In a dance-pose, the dancer's body like any other static object 'occupies' certain space but in an aesthetic manner. In a dance-movement, the body not only occupies but also 'utilizes' the space that exists around it. This too it does in a certain aesthetic manner. By doing so, a dancer's moving body makes 'space' visible to viewers, which is otherwise invisible.

ii. A dance-pose lasts for certain time-duration. That is the only way it 'utilizes' the flow of time. A dance-movement too lasts for certain time-duration. However, it also 'expresses' the flow of time, but in an artistic way. This it does in two ways. One, by expressing the slow, medium or fast tempo of a movement, and two, by expressing the rhythm that can be created by varying the tempo of one or more number of movements. Thus a dancer's moving body makes 'time' tangible which is otherwise intangible.

In this way, dance is an aesthetic interplay of body, space and time. To be more precise, dance is composition of poses and movements that are in turn an outcome of the aesthetic interplay of three fundamental elements, body, space and time.

In the discipline of design, the artistic sense that is applied while designing an artifact varies depending upon the project, whether it belongs to industrial design or interior design or graphic design or apparel design, and so on. Accordingly the importance given to the role of aesthetics in a work of design also varies (Cook, Colton & Pease, 2012; Venkatesh, Joy, Sherry & Deschenes, 2010; Schummer, Taylor & MacLennan, 2009; Thorlacius, 2007). Yet the interrelation among the four elements of body (material), space, time and aesthetics, remains same as explained above in case of dance, where a stationary product in design becomes analogous with a dance-pose, and a mobile product with a dance-movement.

2. Aesthetic Experience

As discussed previously, aesthetics is a matter of experience that gets created, passed on and received. In other words, the element of aesthetics (the fourth element) makes use of first three elements (body, space and time) in order to give rise to what can be called in totality, 'the aesthetic experience'. In the field of design, a designer willingly and consciously creates the element of aesthetics while working on a product. The designed product then acts as the medium. It passes the same aesthetic experience to those who view or use that product. In the field of dance, the work of a designer is done by a choreographer and a performer. Dance-poses and movements when performed, say on a stage or a dance-floor in the studio, act as the medium and pass the aesthetic experience to audience. Thus, in both disciplines aesthetics acts as the driving force behind the framework of body, space and time. (See Table 1)

Table 1: Analogy of Aesthetic Experience in Dance and Design

	Aesthetic Experience in Dance	Aesthetic Experience in Design
Created by	Choreographer & Performer	Designer
Passed on via	Dance-Poses & Movements	Designed Product
Received by	Audience / Viewers	Viewers / Users

3. Communication to Viewers

It must be noted that, in any dance or a designed product, not only the viewer but also the creator must experience the aesthetics in order to be able to create it in the first place. What happens then, when a viewer sees a dance-item or a designed product, is actually the communication or transmission of that experience. In this way, a dance or a designed product becomes nothing but the mode of this communication or transmission. Thus the communication happens in three steps. First, the creator experiences the aesthetics. Second, the creator expresses it in terms of a dance-item or a designed product. Third, the same gets communicated to the viewer, and the viewer receives it and also responds back.

Importantly, aesthetic experience thus created does not remain confined to beauty of lines, curves and shapes alone. It is because, intelligently drawn lines and curves have a potential to carry in them some or other message which the creator intends to convey to viewers. Thus dance and a designed product communicate 'non-verbally' that which otherwise two human beings would have 'verbally' discussed with each other. Below are two illustrations, one from design and another from dance, to explain the same.
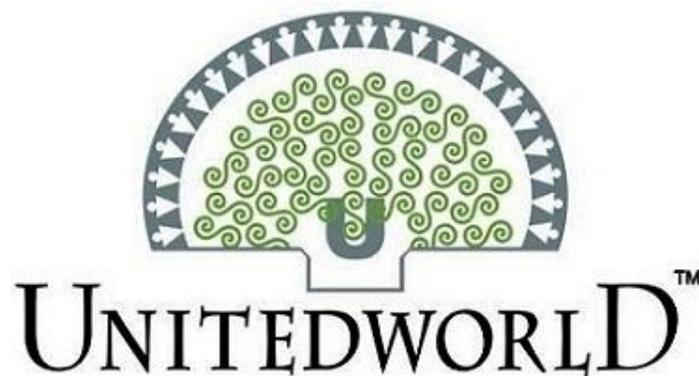

Figure 1: The Logo of United World (www.unitedworld.in)

Figure 1 shows the logo of United World [i]. The design placed on top of letters 'United World' has captured the meaning of these letters. Below is verbal explanation of how this symbol communicates aesthetically and non-verbally the concept of 'a harmoniously united world' to its viewers.

i. The design makes use of a simple semicircle with a small trunk at bottom. It makes the viewers think of a tree. A tree gives its fruits and provides shadow to everyone without any discrimination. In literature, tree is used as an icon of selfless sacrifice for others. The 'S'-shaped artistic lines drawn in green colour inside the semicircle enhance this resemblance with a tree. The design thus brings forth the idea that 'United World' is an organization which does not discriminate among people but rather helps everyone equally and selflessly, and thereby it truly unites the whole world.

ii. The arrows drawn along the circumference are pointed inward and display a one-pointed focus. What appeals aesthetically in this is that, each arrow is attached with a small circle which makes the arrow resemble a person. The United World being an educational institute this aesthetic representation of people in the logo can be interpreted to be a group of students, parents and-or teachers. The letter 'U' in bold font is placed in center to show as if the symbol is 'speaking' to its viewers, and is saying that 'you' the viewers are given a prime focus. The aesthetic quality of the logo further enhances because the letter also stands for 'U' of the name 'United World'.

Figure 2: Dance-Pose from 'Atah Kim' (www.kadamb.org/main_p_reptiles.htm, 1981)

Figure 2 shows a dance-formation used in 'Atah Kim', a dance-production choreographed by internationally acclaimed danseuse and founder of Kadamb Centre of Dance and Music, Ahmadabad, Ms Kumiudini Lakhia, in 1981 [ii]. Like figure 1, figure 2 makes use of a semicircle though in this case it is invisible or subtly visible. Its presence is indicated by the invisible curve that joins finger-tips of all the seven dancers. The semicircle ends on the toes of the dancers seated on extreme right and left. Unlike figure 1, the dancers point in directions away from the center, and yet they all are perfectly placed inside a common semicircle. The aesthetic expression and communication done through this dance-formation would be as follows.

i. Viewers cannot see the facial expressions of the dancers. Yet they express feelings through their sitting-posture of a stretched spine, raised arms and upward gaze, as if, they are

either asking for help, or, are in search of a path, to come out of the invisible semicircle, or, both. This dance-pose symbolizes the theme of 'Atah Kim', the dance that represents the 'struggle', 'frustration' and 'spiritual emptiness' felt by all people (and by all artists of today) by which they find themselves 'at crossroads' and intensely ask the audience: 'where do we go from here? (*Atah Kim?*)' (Anon-ii, 2016). The aesthetic element here is that the choreographer has not only created a semicircle 'invisibly' but also has given out a meaningful message in a non-verbal fashion.

ii. The door-like structure erected on the stage seems to have a connection with the dancers, and also with the theme of 'Atah Kim'. The dancer at the center looks straight through this door, outward and upward, as if he knows that there is a pathway through the door. Yet all dancers are sitting down and seem to be unwilling to pass through the door. The interpretation for this can be that, the dancers do not want to tread the conventional path as the 'answer' to their question, but are rather looking for 'new' answers. The aesthetic element here is that this expression of the message is at once intense yet subtle.

Concluding Remarks:

The aforementioned discussion shows that the aesthetic aspect of the discipline of design is embedded in the discipline of dance. That is, when one tries to embed design in dance, one is compelled to add aesthetics to its choreography and performance. Though both dance and design commonly use the four core concepts, namely body, space, time and aesthetics, a mere combination of the first three concepts cannot be called as a dance-pose or a dance-movement unless there is creation, transmission and experience of aesthetics. Moreover, this embedding of design in dance can be done by using various body-parts of one or more dancers, who can then be kept stationary or made to move in a given space and time. In this way, dance demands a conscious application of design in its poses as well as movements, be it a solo dancer or a group. When this is done, the discipline of dance converges with the discipline of design. One can also say that, in the artistic talent of every choreographer and dancer there resides a designer. And, a designer who has a background of dance can get new insights to create and express aesthetics through his/her designed product.

Endnotes:

i. Logo of United World from website: www.unitedworld.in

ii. Photograph from website: www.kadamb.org/main_p_reptiles.htm (1981)

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