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Path of Life in Mixed Reality

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Abstract. This paper presents a new direction of research in cultural computing: *symbolic cultural heritage*. The problem addressed is drawing on results from different disciplines: religion, sociology, design, and engineering sciences to create an interactive installation that enable visitors to experience deeply routed cultural dimensions. Based on seven Christian rituals several interactive stages are described: (1) the gateway of origin and entering, (2) the gateway of opening up, (3) the gateway of union, (4) the gateway of connection, (5) the gateway of creation, (6) the gateway of letting go & maturing, and (7) the gateway of farewell & destination.. Hence cultural computing is based on a form of cultural translation that uses scientific and engineering methods to capture and represent essential aspects of a particular culture to support cultural development.

Keywords: cultural computing, religion, Christianity, ritual, sacrament, societal transformation

1 Introduction

For all citizens of current and future generations, it is essential to increase understanding of the cultural basis of our own lives and those of neighbors and distant people [1]. It is also crucial for deepening the scientific understanding on human development through cultural heritage [2]. With modern interactive technology new dimensions are available to bring cultural heritage to live. In the West monotheistic religions like Christianity had deep influences on cultural developments over the last millennia [3].

An important element to be used in the redecoration of important aspects of life is the idea to symbolize the 'path of life' of man in seven steps or gateways through interactive experience inside a church space. The three universal phases of life that stand for 'birth', for 'communion', and for 'passing on' are part of it [4]. The following discussions are the first attempt to such a design challenge from a Western religious perspective.

Every human being walks his/her own unique path through life. What happens in his/her life is in essence the salvation history of this person [5], Gods path towards him, in whatever religious or non-religious way this person understands or expresses him/herself. Probably all people on this planet have that in common. In the depth of what is and what happens, in the questions that come towards a person and in the answers s/he gives, her/his conversation, her/his struggle with God transpires. Respecting that without judgment or direction is foremost. Symbolizing the 'path of life' as going up to the light, a journey through many landscapes, passes and marshes, a passage through phases, offers an image to the visitor of 'walk your path in confidence'. The central events in the human life are invitations, gateways to a fuller life, to a new understanding and unfolding of the depth of what life and death are (see **Fig. 1**). "Our images of God and humanity are in need of continual refurbishing, because language changes, people change, and the world and our knowledge about the world change. Therefore, the so-called eternal questions about meaning, about the ground of all being and becoming and about what it is to be human in this world, need to be constantly and contextually reworked and reworded" [6].

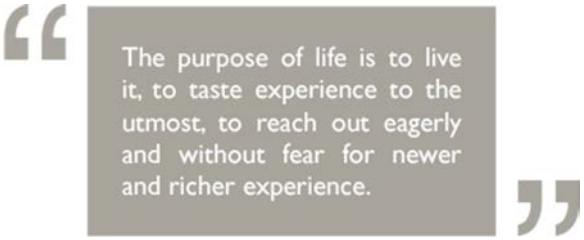

Fig. 1. A famous statement made by Eleanor Roosevelt [1884-1962]

The same event (e.g. being born, engaging in a relation, giving birth) in life will be seen by a religious person to be the carrier of a divine dimension, while another person may interpret it inner worldly. Still they answer the same life questions and are able to enlighten each other with their experience. In all religions and cultures there was this understanding that life happens in distinctive eras with each a specific content, that there are thresholds that give entrance to it and that it is important to cross them consciously and with the right effort. When the time was right the community prepared together with that person, symbolized the transition often with a rite and celebrated the moment. This partition of life was an attempt to procure conscious life. Even though little is left in present society of the earlier relative union of rites, still the perception of phases and transitions is present in religious and non-religious people [4]. The moments are still marked, at least in the family circle. Recognizable for instance are birth, moving into lodgings ('standing on our own feet'), taking part in the labor process by getting a job, engaging in a relationship, retiring, saying farewell before dying.

In the Christian (i.e. primarily Catholic) tradition the same phases were initiated or marked with holy rituals traditionally known as 'sacraments' [7], indicating that in this vision engaging in them means a special God encounter. "We can see the sacra-

mentum with our bodily eyes, but only with the eyes of our hearts can we perceive that of which it is a sacramentum" [8]. Through the subsequent phases of life there is advancement, a deepening and ever more essential an unconscious encounter [9]. We could also say ever more bearing, after our first steps we go on exploring, then choosing into what or whom we will invest ourselves, then towards resignation, then again to leaving be, maturing, letting go. We could also say; it is the ongoing process of learning to discover that it is not about our ego, about achieving, but about living from love, receptiveness and thus becoming a mild, responsible and peaceful human being. A truly free human being who knows what resignation is.

Ancient Chinese philosophical conceptions of the 'wise man' differ from those in the ancient Western tradition, and also from contemporary Western conceptions. Recognizing these ancient Chinese conceptions of the 'wise man' will help us better understand how the very important Chinese culture influences people's thinking and behavior, and will also help us broaden, deepen, as well as re-examine our own conceptions of wisdom [10]. In the gospel of Christianity life is described as setting out to find our treasure, to look for our pearl and then go for it. Another indication is; no longer live from darkness, but from light, from blind become sighted. A human being must after his/her first birth from nature, be born again and this time more real, from within. It appears to be a central discovery in life that turns us into a free person, something that we will experience as being given to us. It is about a transition point, a sudden or gradual transformation, and an experienced reversal.

Other religions describe comparable experiences, and also with non-religious people, in a more diffuse, varied way, the question is raised; what will make us into a free person, how will we find peace? The expression of the path of life (the spiritual path, the mythical path available through an interactive installation) in the middle of a church space offers the opportunity to see the 'pages of life' before us. It connects believers and non-believers in the realization that they are not far apart, maybe to talk to each other about how they experience these phases.

Making the effort to add this symbolism is also important to make the interactive space more expressive to the visitors who will come outside the worship, normal gatherings and celebrations. These quiet times are for these arbitrary visitors, who are most distanced from any organized form, the moment that could be fruitful for their experience. In the silence which will be the most prominent that is offered to them, the symbolism could touch them, because it is about their own life [11]. The same signs can be experienced completely from a Christian perspective by one person, but also completely secular by another. It is the path of all humans on earth, not reserved for the baptized only. Being baptized may be a richness to walk the path [12]; it doesn't give an unconditional right of judgment about how other humans walk the path of their life [13].

2 The path of life in three phases and seven stages

Our interest in human emotional concerns lies in those that are universal. We call them major concerns and advocate that these major concerns are generally related to:

(1) depending on love (e.g. happiness, bonding, friendship, caring, and lust); (2) taking power (e.g. self-confidence, maturity, autonomy, responsibility, and preservation), and (3) preparing for death (e.g. anxiety, fear, violence, destruction, and dissolution) (see for more at [4]). In this paper we introduce a more detailed version of the three universal phases, in which each phase is characterized by two to three separate symbolic stages; we call these stages 'gateways' to emphasize the symbolic nature of such ritualized experiences. The whole interactive experience will be build inside the Eindhoven Student Chapel (ESK [14]; see **Fig. 2** left and right).

Fig. 2. The front side (left) and main hall (right) of the Eindhoven Student Chapel

2.1 Phase-I: The gateway of origin and entering (stage 1)

When we enter that church (ESK), directly in the middle in front of us, we will find the first symbolic interactive experience, a 'fountain'/'waterfall' with (over)flowing water (projected on fog; see **Fig. 3**). The symbolism of this beginning-stage will be preceded by sentences from the bible book of the genesis of the world, intermingled with words out of the evolution theory. Alongside the fact that living water has a lot of beauty in itself, it is also a rich symbol, playing a big role in virtually all religions and cultures: the baths and washings of Jews, Muslims, Hindus, African religions, the shower you start your day with, etc (see also [15]).

For Christians, of whichever denomination, it stands at the beginning of every new life through the rite of baptism, which actualizes the complete salvation history from passage to resurrection [16]. In a certain sense baptism is God's creation of the Individual [17]. For the Catholics in particular it was retaken with every re-entering of the church by dipping the hand in the holy water and in crossing oneself for cleansing (washing) and blessing.

After the early ages the symbolism of the water has impoverished more and more. The baptism in the river (i.e., Jordan river in Palestine), the big baptismal basins are hard to recognize in the covered, still water of the baptismal font and the mostly empty holy water fonts nowadays).

Offering (anew) the symbolism of the living water, not just to Christians but to everyone entering, is a benefaction (see **Fig. 3**). It has an expressiveness that we cannot keep from the people. It speaks in so many ways; of the ever-flowing source of life, out of which we and every new child originate, of creation, of the amniotic fluid

of our birth, of the cleansing of ourselves, of the irrigation of our thirsty field, of the river that is life, of the living water the gospel speaks of, and of the condition for all that wants to grow. The Catholic can cross him/herself with it, the Muslim can do his washing, children can dip their hand in.

Fig. 3. A waterfall is projected on a Fog-Screen (left). The entrance of the interactive experience through a Fog-Screen [18] (right)

There will also be offered the internet service to upload photos (or birth cards; see **Fig. 4**) of newborns from the whole environment (e.g. city of Eindhoven). This will make this stage into a spot where the whole town symbolically commemorates its origin and birth. It could unite people and in particular the citizens of Eindhoven.

Fig. 4. A projection screen with recently newborn children from the town

2.2 Phase-I: The gateway of opening up (stage 2)

When we move forward through the entrance, we will reach the second symbolic indication. This symbol is about the expression of the second important step in life of every person: 'maturity', standing on our own feet. In most religious traditions this step is marked by a more or less elaborate rite [4]; bar-Mishna with the Jews, initiation rite with Africans [7], confirmation with Catholics and Protestants. In our secular Western culture we will find it in the conclusion of high school, often combined with

leaving the parental house, going into the world, starting to follow the calling from within ourselves [19]. In the gospel it corresponds to the beginning of the public life of Jesus at the river Jordan, where he was filled of the Spirit of God, and going afterwards into the desert on his own. On the path of life it reminds of the necessity and the courage to take on our singularity, our calling as our spiritual gift that we may bring into the world. It is our uniqueness, our 'I' (not our ego) that becomes proficient in us, that we need to be faithful to, with all the joy and loneliness this involves (see also [20]). This sign indicates the threshold of leaving the house of our upbringing, it is the gateway to becoming mature, through which we enter into the world community as a co-actor and co-performer. It is important to enter into it consciously, to take our responsibility, to start again and again from our own singularity and to contribute that, bring it out, and work with it.

2.3 Phase-II: The gateway of union (stage 3)

The three symbols we will describe next (stage 3 to 5), besides each other (under the junction of transept and aisle), concern the concretizing of contributing ourselves. We will leave the width to go in depth, to incarnate. This concern is making a real choice that is no longer free of obligation, or be punished by not being a choice at all. This is the condition for maturity and for fertility. It has everything to do with 'giving our life' without guarantee to find it. This might happen by going through the three gateways of 'communion of humanity and the mystery of her soul' (stage 3), 'engaging in a relationship' (stage 4) and participating in the 'giving yourself in building the house of the world' (stage 5).

This symbolic spot (stage 3), which you will find in the architectural heart of the building, is the most important of all seven. It is the heart where all lines converge, where both the encounter between your life and the whole community and the encounter with the hidden unmentionable with a thousand names are symbolized most intensely. "The term 'human spirit' within the biblical tradition denotes the capacity called the imago Dei or image of God in us. It can include reason and moral conscience, but more importantly it signifies relationships, and our being made for community with God, with each other, and with the entire non-human natural world" [21].

Here in the midst of the "holy of holies", a table stands as a symbol. This could also have been another symbol or a void (see e.g. **Fig. 5**). But choosing a table is not just about the Christian tradition, but in a broader sense about what a table evokes. A table stands in the center of every house. It is not something people just look at or bow to. It invites, speaks of coming together, of living at it by eating, drinking, talking, seeing each other and listening to each other. It speaks of human society and lingering on that. That is why all people, religious or not, can unite around a table, can recognize the other and themselves.

This table could even have a shape that reminds of the earth (see **Fig. 6**), to express that the earth for us all is the table that we eat and drink of, that we share and that is our mutual house. To Christians this table evokes the multilateral symbolism of the Eucharist and Thanksgiving. Giving oneself becomes sacrifice; breaking and sharing become the reception of communion with each other, Christ and God. When the keep-

ing of the Eucharistic remnants of bread would be brought back to this table, it would focus the attention more like it was before. Burning fire (candle, oil lamp or holographic projections) will support the symbolic presence.

Fig. 5. A holographic project of the earth on the table

During the normal opening at our exhibition the space around the table will be arranged in a way that it would be natural for people to sit down to pray or to meditate. Maybe this place should rather be called a 'house' than a gateway. A house where the mystical movement of unification in the gift of the self, thanksgiving and transformation is at hand for everyone individually, but only when entering into and partaking in the movement of the complete community of all people. This then is every time a passing and in that sense a gateway to life out of the source that flows towards us.

Fig. 6. A family dinner table with praying before

2.4 Phase-II: The gateway of connection (stage 4)

The realization of the union with humanity and with God happens in daring to take the step of giving oneself to a concrete person: "You can count on me, I connect with

you" (see **Fig. 7**; [22]). A covenant entails a choice, a letting go of all other possibilities, concentrating on this other human being. This is what happens in friendship relations, but most of all in partner relations. Here the resignation of the "ego" happens; the 'I' is no longer floating around [20], but dares to lose itself to someone else and becomes fertile (e.g. in parenthood) because of it.

The symbol for this will be to the side in close proximity of the community spot (stage 3), because it is the result of it. This is about the meaning in our adult life of the concreteness of marriage, relationship, physicality and sexuality, love in hope of reciprocity; the flow that goes out and the flow that comes towards us, overwhelms us, reversal of orientation, willingness to bear the fruits of the field.

Fig. 7. Marriage as a deep symbolic unification between two partners

2.5 Phase-II: The gateway of creation (stage 5)

On the other side of the middle symbolism the visitor will find a spot that indicates the concretizing of entering into the community that exists of giving ourselves in engaging ourselves to work in a certain profession. We will go through this gate when we invest ourselves into our creating power in a distinct choice of (education and then) labor. It is the 'building of the house' for our loved ones, but also of the house of the world. It is also following our calling, our kind of 'priesthood'. This entails realizing that our strength will wear out. We change the world, but the world changes us too. It is the gateway to procreation of new life and a new world. This experience in this stage will be enhanced through an interactive light show triggered by the behavior of the visitors (see **Fig. 8**).

2.6 Phase-III: The gateway of letting go & maturing (stage 6)

At the end of all stages in phase II a stage is situated that is harder to express. It is in its most prosaic form connected to retiring. But also to the 'empty nest' (e.g., children have left home), to reducing our position in society. It is transforming our life experiences into wisdom, getting at ease, daring to leave the active role to others. Already

Lao Tzu [23] clearly emphasized this aspect of the “egoless” wise man who can persuade and influence without intentions and desires. It also contains in its joyful way the harvest of our active life (i.e. phase II); becoming and being a grandparent. But this gateway also means daring to be human in all its nakedness. This means; having found the insight or trust that one will not be ‘seen’ based on achievements or great realizations in the field of work or family or relationships, but based on the knowing and deep understanding that one has not built the flow of life out of own strength, but has received it not as earned wages, but out of grace ‘for free’ from a divine origin.

Fig. 8. An interactive light show for stage 5 inside main hall of the ESK

Here it is also important that human being may stand straight, seeing that s/he has failed in work or in relationships that s/he didn’t succeed. S/he may stand ‘naked’ in the acceptance that comes towards him/her by a despite all loving God. Daring to stand naked with empty hands before God is the essence of confession and makes this into a gateway of forgiveness and (re)conciliation with life and all mankind receiving profound peace; it is all about letting go of the question if we have achieved it or not. So it is the gateway of letting go our own judgment and condemnation in resignation to man and to God (see **Fig. 9**).

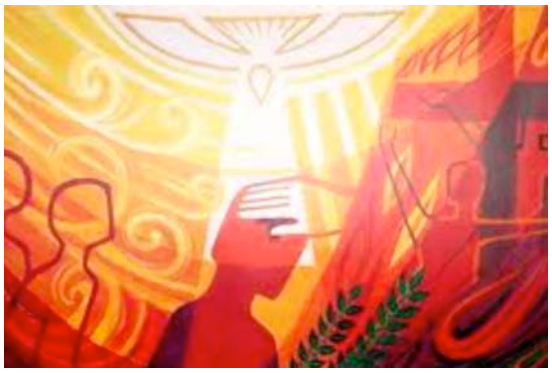

Fig. 9. Symbolic representation of maturing through confession and forgiveness

2.7 Phase-III: The gateway of farewell & destination (stage 7)

At the end of the whole experience under the closing gothic arc at the end of the main hall (see **Fig. 2**) we will finally find the last gateway. Every human being comes into the world alone, passes through the community and goes the last part of the road alone again. In all cultures there are ways of saying farewell and trying to escort man in her/his last phase as far as possible. In the Catholic tradition s/he was strengthened with forgiveness, anointment and food for the journey (i.e., viaticum; see **Fig. 10**).

Fig. 10. A coffin as last shelter on earth to protect the dead body, carried by family and friends to its final destination

Even though opinions may differ about what happens at death, what the perspective is, still every culture has its symbols to express something of a continuation, a suspicion, a trust, or at least a wish and to send off the departed with love and respect. The burial next to close relatives was customary until recent. In the old days all departed in Europe were buried in and around the church, so everyone joined the ancestors, facing east, to wait with them for the youngest day. All religions paint a perspective of progression, of arriving; a symbolism of going into the light is fairly common. The decoration of stage 7 at the end of the main hall will relate to remembrance of the departed, a space of light, forms a meaningful conclusion of the symbolic experience of the presented path of life.

3 Future work

We have described an interactive experience based on the seven sacraments in Christianity. The interactive installation will be designed, created and built in the ESK in the upcoming summer months 2012. This church was build as a chapel as part of a monastery; the entrance hall has stairs leading to the main hall on the first floor (see **Fig. 2**). The layout of the seven stages has to fit on the ground floor of the main hall, including the stair house upfront. The proposed interactive installation is an augmented mixed realty [24]. Koster [25] measured usage of visual media technology (VMT)

by Christian churches in worship events; nearly 60% of churches use some form of VMT, which appears to be part of a significant growth trend. The argument that technology is dangerous by turning man away from her/his true spiritual destiny is questionable [26].

4 Conclusions

The organization and maintaining of a society, community and other cultural features are often taken for granted by people who have experience in only one community. Hence a big portion of the research on human development has been blind to cultural aspects of human functioning. This work is built on the premise that 'Culture matters' [27]. The aim of the project is to advance our knowledge of how it matters. Our theoretical perspective that Rogoff [28] put forward focuses on both the cultural and the individual processes involved in human development. We argue that individuals develop as participants in their cultural communities, engaging with others in shared endeavors and building on cultural practices of prior generations. Understanding these cultural practices, in turn, needs a historical view of the contributions of individuals and generations in dynamic communities. The Christian sacraments are ideal rituals to get deeply in touch with our own unconscious cultural heritage. "We cannot bear the burden of trying to be lonely gods of a purposeless universe we did not make, with no other place to go, and no strength or wisdom but our own to rely upon" [26].

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