Ranjit Makkuni (whose bio you can read on the right) may have his roots in India and California, but he also has a history with Piedmont. In 2001 he was asked to be part of the Advisors Committee of Interaction Design Institute Ivrea. When I met him there over five years ago, I was immediately attracted to his approach to technology and culture, and to the work he has been doing, which resulted then (2003) in a **first interview** with him. My deep fascination has only grown since.
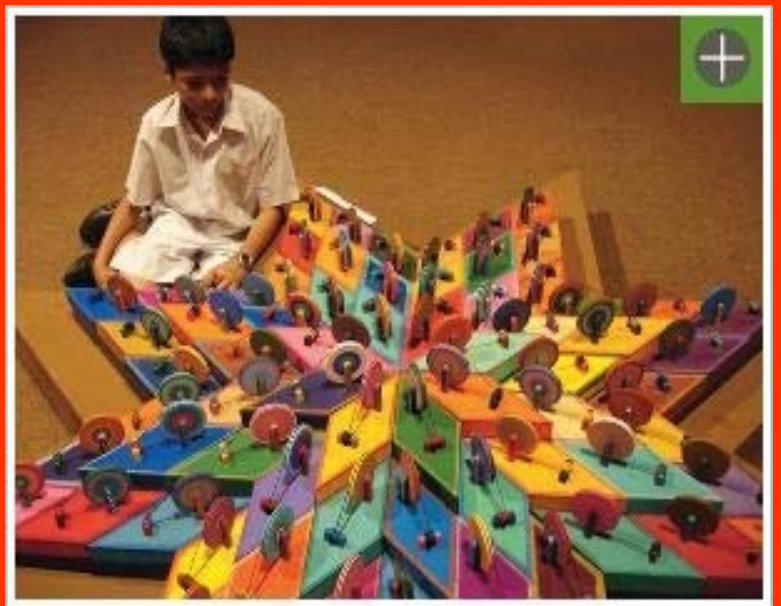
His work and his thinking were recently **featured in Business Week.**

Makkuni is not only building bridges between technology and traditional, spiritual cultures, but also creating new paradigms for modern computing (based on the aesthetics of developing nations) and making new links between technological interfaces and the body, by an emphasis on the sense of touch, texture, gesture and craft.

Looking at your work, one first interprets it as a way reinvent technology from an Indian point of view, but then you start thinking and you realise that you are also using the Indian cultural context to change how we all interact with computers. Can you tell us something more about that?

My work in the Sacred World Foundation is exploring bridges between technological cultures and traditional cultures. Through various demonstrations of culturally reflective computing technology and product design we illustrate how culturally embedded computing provides greater, richer and intuitive forms of information access. The works are inspired by Gandhian philosophy, and traditional mythology which are universal.

Therefore, I think my work is not only about India, but in a sense about South-East Asia and Asia as a whole... and that the research results from this work are applicable to all developing countries and to all societies that value harmony between man and nature, as well as cultures rooted in mythologies. I also want to be inclusive to modern technologically developed nations I believe that the question of technology personalisation and technology as a vehicle of identity is applicable to all.

We are also exploring another research trajectory in which the interaction with computing will address questions of cultural meaning, through a sense of richness and ornamentation.

Business Week recently wrote: "Much of Makkuni's research is focused on freeing us from what might be called the modern posture: slumped with belly sagging, eyes restlessly scanning the screen, fingers twitching on computer keys. This posture is a result of the western paradigm in which data comes in through the eyes, makes a loop through the head, and exits through the mouth or fingers. We might as well be brains in jars, at least for the duration of the workday. In many eastern traditions, however, it is believed that intelligence is distributed throughout the body, and that thinking and moving are inextricably connected."

This reminds me of critiques I also hear in Europe and especially in the Mediterranean area of an Anglo-Saxon technological paradigm that doesn't allow much space for emotions, gestures and tactile expression. How do you think this will change now that technology is becoming increasingly mobile and omni-present?

At the level of the hand-machine interface, it is important to note that many cultures may not agree to the subject-object divisions that we find in modern productivity tools and modern media, and that models preserving a traditional viewing of the worlds need to be preserved. Second, many craft cultures all across the world, from Brazil to Bali, share the intuition that intelligence lies in the hands more than just in the brain. Hence, interfaces will need to be designed differently for cultures that place a lot of value and meaning in the acquisition of hand skills.

I would hope that there would be opportunities for re-design and rethinking as pervasive technology begins to animate urban landscapes.

Thinking about the future of Man in the city, I would hope that hand-based crativity, and heart-based creativity will have an important role. The world's craft and music traditions show us the rich involvement of the hands in the act of craft and music making. Inspired by these examples, there is an untapped opportunity for us to design computers interfaces with better expression for the users. This also reflects another shift from the iPod model of pure information retrieval to the exploration of people's hand-based creativity, and the shift from "remix' aesthetics to actual 'creation'.

I also hope that the questions of personalisation and the need for technology to reflect cultural identity will be addressed. While software applications allow for personalisation of work spaces and screen appearances, I hope also hardware will become customisable. The Sacred World Foundation recently did a study on how taxi drivers in Mumbai personalise their technology (in the Fiat car!). It showed how personalised dashboards, amulets, talismans, and the graphic decoration of interiors and rear windows indicate that they consider the entire car as a technology, and indicates how communities can and will create worlds of meaning. Technology becomes a vehicle for extending one's identity instead of homogenising its users. By extension, we hope computing devices will allow for such personalisation.

Western designers currently do not tend to get involved very much with the spiritual and the sacred, and much less so technology designers, as was rightly pointed out by Intel anthropologist Genevieve Bell in her article No more SMS from Jesus. Should designers deal more with this subject or is it a subject that you chose because it allows you to make a wider point about the culture of technology?

I think the spirituality of our times need to address two of the current problems: violence and global warming, --- and if any technology or design artefacts provoke people to address these fundamental questions, then this would be the implicit spiritual vision for design today.

Designs and artefacts are situated in a larger worldview and therefore, our commitment to the plurality of expression and diversity of thought provides us with a natural problem statement.

I think that violence stems from a lack of understanding of worldviews and we believe that the recognition of differences is a crucial first step in solving violence.

A model of the world as a mosaic, a mosaic of differences will allow us to provide a space for multiple forms of expression. If the recognition of the world as a mosaic is the first step, then

the commitment to non-violence, as inspired by leaders such as Thoreau, Gandhi, the Buddhists and the Jains, is the necessary second step to realise this commitment to diversity.

Second, issues of sustainability inspire nature-based product design and set a whole new space for creativity based on recycling and ecological products.

While we don't want the sms from God, I hope that our technology-- both in appearance, and how it feels like -- will provide us with a mechanism for remembrances of these values, and help us form communities.

For you spirituality is about physicality and this has deeply inspired your work. How is spirituality connected to physical interaction?

There are entire treatises in traditional medicine devoted to the relationships between body, awareness and intelligence. There are canons in Buddhist thought showing the relationships between hand position and the meditative states they evoke and represent.

According to these traditions, enlightenment is possible here and now, and the site of this enlightenment is nowhere else but the body itself. Body and mind are part of the same whole, and the body too snoops in on the mind, that's what the immune system is all about. These represent the wisdom of the ages.

Therefore the engagement of the body in work tools, the acquisition of hand skills, and the creation of energy flows are all central to the notion of wellbeing.

If technology is the primarily focus of how Modern Man interacts, then how this relates to the body, posture and gesture, and to wellbeing naturally shapes the form of interactions. If the creation of wellbeing is an important part of the future design agenda, then we must go beyond ergonomics and understand how interaction with provocative physical objects can create wellbeing!

In the Gandhi museum that I designed, we installed a breath interface that allows people to breathe and blow to review Gandhian Mantras. Breath is fundamental to Mantras, and focussing on breath is a way to balance the body.

You were in charge of the Eternal Gandhi Multimedia Museum in New Delhi. How can the Gandhian ideals be extrapolated to the newer domains of information technology and product design?

The Gandhi museum captures not only the history but also the value of Gandhi as a symbol -- a symbol of ecological movement, a commitment to the equality of all religions and to non-violence.

Most of the hardware designed is presented through village-created and nature-based materials such as bamboo and lacquer. The Gandhi project seeks an integration between village artists and designers, and modern designers. If the world's craftsmen could design our hardware, then both nature-based designers and technology designers would benefit simultaneously.

Mirroring Gandhi's choice of and commitment to non-violence especially against the backdrop of the atomic bomb, the project puts forth a commitment to heart-based energy and creativity, especially today in a world ruled by technological and rational determinism.

Many installations are focused on collaborative interfaces. They require more than one person to activate the presentations, mirroring the need for the coming together of people, ideas and forms. In the unity pillar, for example, people have to touch each other's hands to create a pillar of light thus dissolving all the divides that surround us today -- between caste, religion, hand versus mind skills, urban versus rural.

Many companies believe that "less is more" are aiming to make technology more simple. Simplicity is seen as the main challenge in design of technological products. Yet, you argue that less is not always more, that ornamentation can be a tool of empowerment?

I think that more of identity and reflection of community actually provides more value. I believe that the creation of personalised spaces, and spaces that cannot be copied by others are an important challenge especially given the homogenising force of technology and the reductionist worldview it entails.

Of course people interact with workstations and interior spaces, but there is a point at which meaning takes over and one can't see only the technological components anymore. This is the tipping point. For example when I play my sitar, which also is technology of a bygone era, I don't see the gourds that are the sound box of the instrument. They gourd is not just seen as a sound box, but also as a representation of a cosmic womb from which the world of creativity, improvisation and the magic of notes appears. That is the tipping point.

Torino 2008 sees design as a process, a method to arrive at transformation of a system, be it a school, a hospital, a company, a public service or a neighbourhood. You seem to have a more transcendental view on the power of design: it can create a new way of thinking that will in the end lead to transformation of a system. So transformation of the mind comes first, rather than at the end. Do you think this approach could also be valuable for designers in the West?

As mentioned earlier, we have serious issues -- violence, global warming, loss of identity -- to deal with today. This in itself demands a transformation of Man's Mind.

As designers, whether in the West or the East, an agenda has already been deeply set by problems that are stated by Nature and the World today. I hope the products that we design recognise these problem statements and that these will be remembered and not forgotten.

How do you think your ideas about culturally rooted design of technology could be applied in other context, let's say in Italy?

Culturally reflective computing occurs at multiple levels, At a simple level it is about the ability of technology to provide spaces for personalisation and ornamentation by the communities that use these technologies. At a deeper level, it is about how different worldviews can create new paradigms of technology itself. A minister in a state of Southern India lost his election because he introduced button-based kiosks in the rice fields of his constituents. While most literate people understand buttons and the worldviews of Taylorism and modern work practice they represent, designing for people in the rice fields will require a different metaphor.

The overall theme of Torino 2008 World Design Capital is flexibility. How do you personally think that this could be best interpreted?

I would interpret flexibility as the ability to design systems that are "open systems" - with as thin a layer of technology as possible - so that communities can create personalisation, can foster their communities, and address the values of diversity and commitment to Nature that I spoke about earlier.