A PUBLICATION IN
DESIGN FOR ALL INSTITUTE OF INDIA

DESIGN FOR ALL

भारतीय प्रौद्योगिकी संस्थान, गुवाहाटी

AUGUST 2014 VOL-9 NO.8

Content

Chairman's Desk

My mother age does not allow her to walk properly and many physiotherapists visited her but cure was not at sight. I was disappointed by her deteriorating conditions and I was no help to her but behaving as onlooker. One day I noticed that a woman who occasionally visits my mother and I have dislike for her presence because she does not fit into our modern mind because she does not have proper qualification, was conducting some exercise of my mother's leg. I was amazed to see her innovative design of exercise and I appeared as greatest fool compared to her wisdom . She allowed my mother to sit on a chair and requested her to rest her both foot on bathroom plastic stool of height not more than 6 inches. She was making forward and backward motion by dragging that stool and my mother exercise was conducted without experiencing any pain. Woman enjoys mastery in common sense and she uses to design the solution what is available to her to meet her objective. Simplicity is her character and she does not know what a great design she has developed. Her innocence is driving force for innovation. I salute her spirit of innovation. It is woman who has worked as dynamo for progress by designing products and services for any civilizations. One day I noticed a boy was profusely bleeding and a woman came forward and tore her sari to take out the piece of clothe as bandage for controlling his bleeding. She is sensitive toward others and this is her biggest assets to allow everyone to live with peace. Peace is prevailing in this world because of presence of women .This common sense of using the material available to her and bleeding may prove cause of death moved her to act quickly and save life is her inbuilt character. Is it not her common sense above than all knowledge? Does our world move by knowledge or prevailing common sense of the masses? Common sense is what knowledge cannot achieve but knowledge is essentials for enhancing the degree and level of common sense. One day a group of women who were on pilgrimage preparing food by using fire under the rock that was unusually thin and it worked as tawa (a cooking implement used in Asia). I am admirer of her common sense design. Woman has peculiar genes that she never cribs for non-availability of material rather she designs best alternative to meet her objectives. Fulfillment is within everyone's reach but male makes excuses and woman designs to achieve what she is helpful and useful. To destroy the civilization of any country that has lost the war, the victorious country attacks the local women so that their present as well as coming generations should be ruined .The "war on women" is in fact a war against common sense. History is witnessing that wherever women are suppressed turmoil, frustration, unrest and violence is surfacing .Woman's intuition is one of the great assets for society but is it really intuition or just plain old common sense? Women basic instincts are completely based on common sense and they prefer to work with natural rather than unnatural materials. Every woman has inbuilt character of a physician. When a woman suffers with headache she tightly tie her forehead with the long piece of cloth and her attempt is to try hard to control the blood supply to brain. She is not technically qualified to define the reason but she has found the cure by common sense. If bees or wasp has stung someone she will run for a piece of metal and start rubbing on that area so that burning

sensation should go away. She is unaware about why she is doing but this practice is follows without questioning its reasoning and outcome is satisfactory every time .These practices are passed on from one generation to another or say by verbal communication. There is no written materials. Insect sting generates allergy in person and it is simple defense mechanism. Real reason is that scraping the arcea with metal possibly takes away the bee's sting. One it is out of skin burning sensation subsides. Is it not her common sense?

If you are a woman, you can think of the times when you had that gut instinct/feeling that something didn't work well, and later on you find out that you were right all along. Then a woman starts to learn to trust, or to pay attention, to her intuitive strength. I admire woman's common sense of designing the products which have revolutionized the human mind. What force guide them to design the manual fan by using the dry leaf of palm or cocoanut or any leaf that becomes hard after dry and attaching the small dry branch vertically for holding and for easy maneuvering . They might have understood that leaves and branches of trees vibrate with the speed of air and first one is affected by it is leaves and strong wind sometime uproot the tree. It means we can use the vise versa by designing the fan for creating the disturbances in air and it will be reason of blowing air at personal level. There was no possibility to use tree as fan but leaf can be. It was the beginning of era of reverse engineering. As technologies have improved we have designed electric fan for domestic as well as industrial but basic concepts remain same. I remembered an incident of early years of Independent India when my country was suffering from food shortage and on humanitarian ground many countries came forward to save the lives of millions who might die due to starvation. USA offered the wheat under the PL 84 scheme and population was unaware about quality and it was not giving minimum level of cooking that should be fit for human consumption. Women at their domestic level did various types of experiments with their common sense by adding extra water for making fluffy bread or leave dough for extra time before the preparing chapattis or add other edible ingredients that complimented with flour for desired results. Ultimately in some parts of India local people succeeded and information was spread mouth to mouth communication among masses like wild fire is to how to design the foreign wheat for human consumption. It was the result of experimentation of common people especially woman with common sense that succeeded. It is my strong belief that our designing curriculum should be based on rules of common sense but at present it is other way round. We have introduced too much of mathematics and technologies that only allow students who are trained under these concepts to enter in colleges /institutes and never encourage who are master in application of common sense. Is it correct way of evaluating the aspirants of design? Present practices absolutely wrong and as a result design is suffering at grass root level and we may of course claim successes at higher level.

When computer was designed it encouraged people to contribute from every walk of life and it has witnessed manifolds progress. Reason was people with common sense were involved and were busy in solving the problems with their respective knowledge. Experts never solve the problems with their basic knowledge and design that is beyond the concept of common minds. Foundation of growth of all areas for innovations and creativities depends on level of common sense prevailing among masses. Why do we develop the taste of food with certain ingredients as well complement food items? It is universal practice

that rice is eaten with curry where wheat can be with item has less curry or no curry. It means common people designed the various food items with different foods and realized it should be optimum tasty and near to complete food. It was the common sense that has given us variety of food items and it is reason of birth of different technique of preparations. People relish variety but its preparation should be simple and easy then only it will popular among masses. Our ancestors designed the food items after various experimentation with available ingredients and beauty is that ingredients should easily available and prepared in such a way that it never taxes the digestion system and helps in building physical as well mental strength . There is strong scientific background that our body is fit for consuming vegetarian food and it is not meant for non vegetarian. They have also realized that those who are living riverside or close to water bed or seaside they enjoy longer life compared to others. Is it not common sense that allows us to use the spices or kitchen items as medicine for cure for our common diseases and no need to visit doctors?

One day I noticed that a woman street sweeper was preparing her broom with long sticks for easy maneuvering for cleaning the roads. I admired to see her common sense. She tightly tied as she can broom sticks with thin steel wire and made one end of bamboo stick sharp with knife. She allowed the sharp end to go inside the centre of tied broom sticks forcefully by striking on road. Is it not her common sense that fixed the broom in the stick? If I would have been in her place in first I had placed the broom sticks around one end of stick and tried hard to tie the thin steel around so that broom should be fixed. I know this approach never give that result what that woman achieved.

My father bought the refrigerator when it was not popular and affordability was great question. As a child I was not allowed to handle the fridge because my mishandling could have affected its working. We were scared in opening the door. As time passed and better technologies use for manufacturing fridge can bear the rough handling. Our common sense was different that time and it has changed in modern time. Now people use the fridge in normal way as other items. As technologies improve common sense also improve. When there was no telephone common sense was different. As it was invented common sense changed. With the invention of mobile phone common sense is no more same what it used to be in landline phone. Mobile phone has made the dairy, address book, camera, radio, calculator, watch, purse for carrying currency and many more irrelevant those were essentials before leaving the home or office. It has critically changed our common sense and modern people are worried about loss of mobile because it has all personal data that may be misused by others .Earlier woman were using fire kiln for cooking their common sense was around it. With the discovery of LPG or CNG their behavior is altogether different what it used to be fire kiln. Use of pressure cooker, induction cooker and many more appliances made the person with better common sense. When people travelled to distance by walk their common sense was different what a man own and travel by automobile. Is common sense associated with economy of area? Soap, comb, mirror and other daily products are contributing in progress of our mental horizon as well as physical strength but we never pay any attention. Utensils designed were different before the discovery of fire and as our technologies improved our designed experienced new dimension. Earlier human were using terracotta containers but that was not as hard after discovery of fire they designed the art of baking. Later they used iron, brass ceramic and stainless steel for utensils as well as various applications. Design of

common sense is also used in punishment. Earlier to handcuff they were using wooden plank that clubbed both hands, later they made handcuff with steel and modern time death sentence is executed by using electric chair. Is it not our common sense that is governing us?

We generally refer common sense as minimum basic behavior of prevailing local masses. We judge an individual by observing what a crowd can do. There was recent news of Australia where a man leg was trapped between gap of platform and metro coach. If it would have happen in India, railway staff might have used bit of hard iron rod for breaking that portion of platform to pull trapped leg and later on they would have repaired the platform. But it was the case of Australia and crowd of passengers waiting at platform came into action to pull his leg out of gap but it was proving impossible. Then common sense surfaced and first they tried to push the coach and they realized it is narrowing the gap as coach tilted. They switched to pull the coach toward the platform and gap became wider and leg was easily out of trap. Local newspaper declared the power of pulling of crowd but I say it was the act of common sense. Why designers are not working of this problem when it is happening every part of the world. The design need common sense and they might think of designing platform edge as opening of flap attach with strong hinge that can bear the weight of the crowd. If it does not sound safe we might think of using a pit one meter away from the edge of the platform filled with vertical slab. As you take out the slab anyone can push the edge of the platform toward pit and can free the trap person. There are many possibilities and hope someone thinks properly in designing foolproof safety for passengers. Most of the solution need our attention of common sense and can save many lives.

It is the common sense that happens to judge a personality. One day a girl student was talking to her friend and she was telling about the common friend that he always wears the clothes that reflect his immaturity and prefers clothes that normally do not wear of his age and mostly preferred by 9th or 10th standard. I was shocked to hear her opinion about her friend. Who has defined that these dress is for particular age group. I can understand newly born child's requirement is different so society has designed the dress according to their need. But at mature level it is difficult to distinguish things through age. Similarly male counterpart criticizes while noticing mature female wearing childish dress. Our daily life's judgments are generally guided by our common sense. The operational people like labor class, transport people, vendors who are selling daily core items are not bond by local laws but while accepting or executing any assignments follow their common sense. Common sense is driving force of a society to turn state progressive. The degree and quality of common sense makes one state different from others and we call in economic term developed nations or under developed.

In social area role of common sense is as important to handle any relationships. People generally faces difficult conditions to please their relations and it is my belief that handling a relation for longer time is hardest job because every moment alertness of common sense is required and any moment failing in judgment may ruin long term relations. Similarly establishing relation with product and human is crucial exercise and it needs proper interface design. Era of sustainability is nothing new but it is pointing toward aged old wisdom of common sense. When I look at Benjamin experiment with kite in rain is nothing but result of common sense. Edison's light bulb, Faraday's law of induction and Darwin's principle are nothing

but product of common sense and that has revolutionized the human minds.

Designing the Obvious is nothing but a feat by common sense. Common sense may seem appealing, but it may also keep us from making the best possible decision. We should not fall in such a trap.The design of chair, bed and cupboard is designed with common sense and I salute those unknown, recognized, unacknowledged people who have contributed with their common sense in progress of mental as well as using optimal for enhancing as well as for utilizing our physical strength for progress. Person sitting on ground wishes to stand is difficult preposition and design of chair or table or bed has almost solved that difficulty and we do not experience that difficulty while sitting on chair compared to sitting on ground. Every action has reaction and it has other side effects that are retarding the progress of the society. Origin of every fraudulent activity is also designed with common sense. Automatic teller machine is designed for financial traction for customers by banks but there are incidences of misuse of credit or debit card by using simple technique by using common sense.

We are thankful to Prof DebKumar Head of Design Department of Gowahati IIT, India who has encouraged Ms Nanki Nath Asstt Prof to be Guest Editor and invite the authors of her choice for August 2014 issue and made our Independence Day special. In such a short notice she did commendable job under the supervision of Prof DebKumar. Our salute to who have passion with selfless service to make a name of our nation in the world.

The three great essentials to achieve anything worthwhile are, first, hard work; second, stick-to-itiveness; third, common sense. -Thomas Edison

With regards
Dr. Sunil Bhatia
Design For All Institute of India
www.designforall.in

Forthcoming issues

"WOMEN DESIGNER YEAR OF 2014"

SEPTEMBER 2014 VOL-9, NO-9

Prof Lylian Meister, Dean of the faculty of design at Estonian Academy of Arts, Estonia, will be the Guest Editor. This issue will be about Design for All field research and outcomes in Estonia.

October 2014 Vol-9 No-10

Isabella TizianaSteffan, is an architect, and a certified European Ergonomist member of the executive board of the Italian Society of Ergonomics (SIE), expert in Ergonomics and Design for All.

She works in the field of accessible design and Ergonomics for public and private customers, focusing on mobility and safety of weak user and on urban furniture. She performs teaching activities for several Institutes, among which Politecnico di Milano, UniversitàCattolicadelSacroCuore di Milano and UniversitàdegliStudi di Milano-Bicocca, where she leads the workshop "Accessible Tourism".

In 2012 she published two volumes: "Design for All – Il Progetto per tutti. Metodi, strumenti, applicazioni.Parte prima e Parte seconda".Collana di ergonomia, ed. Maggioli. Assignment editor, area ProfessioneErgonomia of "RivistaItaliana di Ergonomia" since she has been scientific representative and responsible for the Working Group – thematic area Design for All for SIE, the Italian association of Ergonomics and member of NAB (National Assessment Board for European Ergonomist) and CREE (Centre for Registration of European Ergonomists) for SIE.

She is co-founder of ENAT (European Network for Accessible Tourism).

November 2014 Vol-9 No-11

ANNAGRAZIA LAURA joined CO.IN. (Cooperative Integrate Onlus and then ConsorzioSociale COIN), an organisation involved in creating job opportunities for people with disabilities, also through accessible tourism, with the responsibility of developing the Tourism Dept. at national and international level. She is presently responsible for Int.'l relations and European projects and represents CO.IN in several EU funded projects will be the Guest Editor.

December 2014 Vol-9 No-12

Lee Christopher is the Director of eLearning at Arapahoe Community College and also an ACC instructor. Lee has a BA in Philosophy, an M.Ed, and a M.F.A in Writing and Poetics. Lee is currently in the dissertation phase pursuing a Doctorate in Education from Capella University. Her dissertation title is Universal Design for Learning: Implementation and Challenges of Community Colleges. Lee's publications include: "Digital Storytelling" in Handbook of Research on Transformative Online Education and Liberation: Models for Social Equality, Kurubacak and Yuzer, Eds., IGI Global, 2011, "Hype versus Reality on Campus: Why eLearning Isn't Likely to Replace a Professor Any Time Soon" with Brent Wilson, The E-Learning Handbook, Carliner and Shank, eds.Pfeiffer, 2008 , and "What video games have to teach us about learning and literacy," located at http://edrev.asu.edu/reviews/rev591.htm, Lee is on the Colorado Community College System Task Force for Web-IT Accessibility. She has a passion for Universal Design for Learning and will be guest editor for concluding issue of year 2014 Women's Designer.

January 2015 Vol-10 No-1

Stephanie Battista, Senior Design Program Manager . Stephanie directs medical and wearable technology design programs at Modern Edge. She is responsible for project management, client relationships, business development, sourcing, and studio culture. For over a decade prior to joining Modern Edge, Stephanie was the principal of her own product design and development firm specializing in lifestyle product design, soft goods, and wearables for technology-driven start-ups. Stephanie brings expertise in medical devices, textiles, consumer goods, and wearable technology. She will be the Guest Editor and invite different authors of her choice on concept of universal design and it will be our fifth special issue on different occasions with IDSA, USA. Website: Modernedge.com Email: s.battista@modernedge.com

February 2015 Vol-10 No-2

Prof Mugendi K. M'Rithaa is an industrial designer, educator and researcher at the Cape Peninsula University of Technology. He holds postgraduate qualifications in Industrial Design, Higher Education, and Universal Design. He is passionate about various expressions of socially (responsive and) responsible design, including Participatory Design; Universal Design; and Design for Sustainability. Mugendi has a special interest in the pivotal role of design in advancing the developmental agenda on the African continent. He is associated with a number of international networks focusing on design

within industrially developing/majority world contexts, and is currently the President-Elect of the International Council of Societies of Industrial Design (Icsid). He will be the Guest Editor and his passion for universal Design is real driving force for establishing the concept in Africa continent.

March 2015 Vol-10 No- 3

Paula Sotnik, Institute for Community Inclusion, School for Global Inclusion & Social Development, University of Massachusetts Boston .

Paula Sotnik developed and directed 12 federal and state training and technical assistance projects (past and current) supporting individuals from traditionally underrepresented groups, including persons with disabilities. She is a recognized expert consultant, trainer and author on access and accommodations; culture brokering; diversity; outreach and recruitment strategies; team and partnership development; measurable outcome oriented strategic planning; national service, volunteerism and disability legislation, policy knowledge and practice acquired through years of personal, educational and professional life experiences. She serves as a consultant reviewer and trainer for an international fellowship exchange program. She will be Guest Editor of special issue and will focus on Universal design development in USA

April 2015 Vol-10 No-4

Debra Ruh is a Global Disability Inclusion Strategist, ICT Accessibility Training and Social Media Thought Leader on Disabilities. She focuses on Disability Inclusion, EmployAbility, Corporate Social Responsibilities, ICT Accessibility, Corporate Social Responsibility and Social Entrepreneurs. She is also the author of several books including “Uncovering Hidden Human Capital: How Leading Corporations Leverage Multiple Abilities in their Workforce” and “Finding Your Voice by Using Social Media”

May 2015 Vol-10 No-7

afUD (French Association of Universal Design) President Jean Rene Moussu has accepted our invitation for Guest Editor for our special issue. He is enthusiastic to popularize the concept of Universal Design in his country because he feels it is social responsibility of every citizen of the world to make the world accessible to all. He is inspired by Ron Mace and believes his word his philosophy

*The UD is a collective thought. Think different !UD*think! The UD* is notan evolution, it is a revolution.

June 2015 Vol-10 No-7

Dr.Antika Sawadsri is a full-time lecturer in the School of Interior-Architecture at King Mongkut's Institute of Technology Ladkrabang (KMITL). She received a PhD from the School of Architecture, Planning and Landscape, Newcastle University, UK. She has qualifications on Interior Architecture and Planning and is a specialist in an interrelationship between social construction of 'disability' and the designed environment.

Her academic interest focuses on inclusiveness in the process of creating living spaces. Recently, Antika has taken parts in both the State's agencies and non-government's movement in mobilising equal access to the buildings and city of disabled and ageing groups in Thailand.

August 2015 Vol-10 No-8

Dr. Bijaya K. Shrestha received Doctoral in Urban Engineering from the University of Tokyo, Japan (1995-'98), Master in Urban Design from the University of Hong Kong, Hong Kong (1993-'95) and Bachelor in Architecture from the University of Roorkee (now Indian Institute of Technology), India (1983-'88). Dr. Shrestha has got working experiences of more than two decades. He had already served to the Department of Housing and Urban Development, Ministry of Housing and Physical Planning, Government of Nepal, United Nations Centre for Regional Development (UNCRD), Japan and various architectural schools in Nepal before taking the present job at Town Development Fund (TDF). He has initiated a new master program in Urban Design and Conservation at Khwopa Engineering College, Purbanchal University, where he served two years as Head of Post-graduate Department of Urban Design and Conservation.

Dr. Shrestha is the recipient of numerous gold medals for his excellent academic performance and decorated by 'Calcutta Convention National Award 2006' by Indian Society for Technical Education for his best paper at the 35th ISTE Annual convention and National Seminar on Disaster – Prediction, Prevention and Management. He is also member of numerous professional bodies and life member of various alumni associations. He has already contributed more than five dozen of papers, published in various forms: book chapter, international journals, conference proceedings, local magazines and journals including in local newspapers. Moreover, he has been invited in numerous international conferences for presentation of his research findings. Finally, his field of expertise includes sustainable urban development, disaster management, housing, local government capacity building and development control. He will focus on universal design concept on Nepal.

September 2015Vol-10 No-9

Min Wang Dean of School of Design CAFA, Beijing Beijing City, China Design Currently with AGI, China Central Academy of Fine Arts School of Design and previously worked with Square Two Design, ICOGRADA, Beijing 2008 Olympic Committee. His education is from Yale University will be Guest Editor and he will highlight the contribution of China in Universal Design.

November 2015 Vol-10 No-11

Ewa Golebiowska, Poland is the president of EIDD Design For All and she has accepted our invitation of Guest Editor and she will invite the authors from European countries for special issue.

Message of Head (DoD)

Debkumar Chakrabarti
PhD.
Professor & Head
DoD, IIT Guwahati

Ministry of Human Resource Development is emphasising design inputs in the higher education systems in India. In tune to this endeavour, IIT Guwahati in 1998 started Department of Design with Bachelor of Design (B. Bes) for the first time in country and simultaneously felt need for a PhD programme in Design to enrich specific domains and initiated since the very beginning of establishing the department. It is observed that though women PhD scholars are engaged in every aspects of design, specifically being women they can look into social development causes where women involvement are specific. Dr. Sunil Bhatia when approached department of design for an issue of DFAII with contributions from women students of Design, we decided to concentrate on the women researchers working in various design relevant fields and are attached to the department; even the guest-editor also is from the same PhD researchers group. This issue thus is presenting a glimpse of IIT Guwahati women researchers' contemporary contribution in the design relevant fields.

GUEST EDITOR

Nanki Nath
Assistant Professor
(DoD), IIT Guwahati

The papers that are part of this issue celebrate women researchers and their pursuits that present an evolving praxis of research into design, research for design and research of design. They envisage new points of views and efforts to sharpen the research lens in order to focus and frame relevant theoretical as well as practice based themes in the field of design. According to the scholarly research done on women research designers' and their role or contributions in the world of knowledge in 2013, The Council of Scientific and Industrial Research (CSIR) and the National Institute of Science and Technology and Development Studies (NISTADS) revealed that among total indexed research projects, female scientists exclusively contribute a scarce 3.4 per cent research. In context of design research (within the realm of design acquiring greater recognition in society), a developing country like India requires more sensitive vision to feed more and more economic progress as well as a mobile social innovation wheel. This will help resurrect a dynamic, well informed nation with path-breaking research discoveries and inquiries. In the regard, educational universities and institutes like the IITs with most of them including their design departments must be the intellectual research centers in propagating more involved role of women researchers. This will aid in enhancing their much needed intellectual prowess and research capacity at par with other men researchers in design. The Department of Design women researchers of IIT Guwahati through their papers wish to highlight the extent of subject areas, research methods, concerns and possible contributions that women can achieve in the most conducive and contemporary times of design and design research in the 21st century.

We once again thank 'Design For All Institute of India' for this golden opportunity of featuring our work in the August 2014 issue. We hope for such collaborations in future as well and may the research wheel moves ahead with more and more active women researchers with their passionate objectives and concerns regarding issues addressing people and design for society at large.

Charu Monga

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Short Bio

With research interest in multi disciplinary domain and passion towards design, Charu Monga is a researcher cum film maker. Her current research aims to investigate variety of animation techniques to promote crafts, culture, tradition and empower educational areas. She uses animation techniques, films, videos, illustration, stories, technology, and participatory approaches to express her design concepts.

She did her Bachelors and Masters in Applied Arts from College of Art, University of Delhi and Animation Film making from Film and Television Institute of India, Pune. Her research interest includes indigenous communities, education, biographies of objects, ethnographic approaches of cultural construction and interpretation.

She has taught at FTII-Pune, College of Arts Delhi, NIFT-Kangra and worked as a game designer, animator and illustrator for various organizations. She has been associated with World Health Partners, Group Delphoenix, IDC-IIT Bombay, Foundation 9 Entertainment and Digikriti Entertainment for multiple research projects.

Her work has been sponsored by Red-Cross Society, UNIFEM to exhibit in galleries such as Romain Rolland, Habitat Center and Lalit kala Academy to name a few. She was involved in cross-cultural researches on communication, design education paradigms and creativity methods, and has presented it in India and abroad.

Nanki Nath

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Short Bio

She did her B.F.A. in Applied Arts (2001-2005) from the Fine-Arts Department of the University of Rajasthan, Jaipur and Post Graduation in Graphic Design from NID, Ahmedabad (2005-2008). At NID, she

She did her B.F.A. in Applied Arts (2001-2005) from the Fine-Arts Department of the University of Rajasthan, Jaipur and Post Graduation in Graphic Design from NID, Ahmedabad (2005-2008). At NID, she did qualitative visual research based old city Jaipur Signage Design project with CEPT Ahmedabad team of architects and urban designers. In 2009, she was called as a Visiting Faculty to conduct the course of 'Typography & Layout for Document Design' by India Institute of Crafts & Design (IICD), Jaipur. Her doctoral thesis presents a visual analytical framework of shop signs in India. Alongside the doctoral studies at IDC, she got the opportunity to assist her PhD supervisor Prof. Ravi Poovaiah at IDC, IIT Bombay in the course on 'Visual Syntactics'. She gave two talks on 'Bilingual Typography' and 'Bodoni: Story of a beautiful typeface' as part of the course on 'Typography' by Prof. G.V. Sreekumar for Visual Communication Master students in

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Short Bio

(B.Arch, M.Arch, pursuing PhD)

Shruti is an architect/urban designer presently pursuing a PhD at the Department of Design, IIT Guwahati, India since 2011. Trained as an urban designer from The University of Nottingham, UK, she worked with URBED Manchester for four years before she moved back to India to work as an urban designer in her home country. Shruti's undergraduate design thesis was awarded the best thesis Gold Medal by The Maharaja Sayajirao University of Baroda, India (2002). She also won the 'Developing Solutions Scholarship for Taught Masters Programme, (2003-04)' at the University of Nottingham, UK where her M.Arch Design Project was awarded the students' joint first prize for the RIBA's International Design Ideas Competition (INREB, 2003). In 2010, she awarded commendation for the National Design and Planning Competition Surat Safe Habitat – Theme 2: Spatial Area Planning of Low lying Areas with High Flood Risk (2010) as part of the Rockefeller Foundation's ACCCRN Program. Recently, Shruti worked on a short assignment as Associate Project Engineer, and developed three design education modules under the project entitled “Creating Digital Learning Environment for Design in India, E-Kalpa” sponsored by the Ministry of Human Resources Development, Government of India. Since 2012, her research work has been presented and published at a number of national and international conferences held in Italy, North Cyprus, U.K, Malaysia and India, and

she has a number of papers under consideration for publication in academic journals. With more than eight years of experience, the main focus of Shruti's work so far has been design and research in the area of sustainable cities as well as running community consultation and design training programmes.

Sangeeta Pandit

Visiting Faculty,
IITDM Jabalpur

B.sc :- Human Physiology from Calcutta University
Msc:- in Human Physiology with specialization in Ergonomics and Work physiology

Presently pursuing PhD (Thesis submitted) from IIT Guwahati under Prof. Debkumar Chakrabarti on Ergonomic study on Commercial handloom of Assam and developing design intervention to reduce early muscle fatigue for commercial production.
Along with PhD, working as Visiting faculty in Design Discipline at PDPM-IIITDM Jabalpur.

De'Chakra
Method of Multidiscipline Design Education

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ABSTRACT

This article presents De'Chakra, a new method that uses Craft and Folk Art as a pedagogical platform for teaching design by crafting. This method challenges some old doubts that whether the traditional crafts and art forms can be mobilized for better and more efficient design education curricula or not? De?Chakra method embeds traditional crafts and art forms into design disciplines by two kinds of knowledge: Design Thinking and Creative Thinking; The core of this method composes designer and craftsman, student and instructor into an energetic whirlpool of interaction and integration by schooling over the wisdom of crafts. This session will arouse creative enthusiasm in class, bringing students close to their and others cultural heritage. This will enhance flow of creativity. Self-output will witness gained visual values and creative insights. This will empower self-esteem and personal identity as novice designers and creators of ideas.

AUTHOR KEYWORDS—

Pedagogical integration, Design crafting, Preserving visual heritage, Interaction between designer and craftsman.

INTRODUCTION

The center of this method or the core of teaching will focus on Design Thinking Processes in varied disciplines of design as part of a wide exposure to practical design and craft making. This mutual knowledge will be weaved by close “guide-interaction” of two professional instructors namely, Designer and Craftsman. The Syllabus Circle will be composed by rotating integration of process and materials as a kind of workshop of traditional working procedure of rural craftsmen techniques and aesthetics such as bamboo, paper mache, pottery, toy making, embroidery, bead work, painting, etc.

On the other hand, the instructor-designer will run two dialectic themes, design methods and design semantics. The output of class could be fruited by multi-discipline categories and combinations: Product

Design (objects, products, machines, systems, etc.); Visual Communication Design (images, messages, symbols, etc.); Typography (lettering, calligraphy, typefaces, etc.); Animation (motion, sound, script, etc.); New Media (interaction, interface, web, etc.); Fashion Design (themes, pattern, colors, images, symbols, etc.) and Interior Design (materials, space, light and color, ornamentations, images, etc.).

BACKGROUND

India is in a very blessed social condition with respect to Craft and Folk Art. It may be seen as paradise for beauty lovers, curators, marketers and educators. Every state and region in India faces to keep their own identity and traditions alive in an increasingly mechanized and global world. Nowadays, with the rise of a hedonic shopping culture envisaging skyscrapers, marketing complexes and fancy neighborhoods, there seems to be an apprehension of losing one of the most important value of our India culture – the craft and folk art, the art of the beauty and the inherent wisdom of hands of the artists and makers.

There are not many places in the world with such cultural resources of craftsmanship, as is India. In the craft communities of 650,000 villages all over the country, these springs of material, patterns, color schemes, ornaments, old methods and unique processes - identity the essence of these "family factories", characterized their way of conserving and preserving cultural heritage, traditions, and artistic knowledge. The main characteristic of handcrafts is that they maintain by their very nature a direct link with the human heart, so that the work always partakes a human quality.Some scholars have argued that Design in India till date has not yet achieved any significant global identity by style, uniqueness, innovative ideas and high-end product interventiond. It seems that designers are still intending to pursuit and follow westernized design trends, without enriching their ideas with their own cultural background. De?Chakra method based on fusing Craft and Folk Art in studio class is a sincere effort to enhance Design Thinking as the core of design education.

By observing design projects for years, it seems that designers and students rarely crunch and use their cultural heritage, physical artifacts and intangible attributes of their own society that are inherited from past generations. Very few involve their emotionally driven responses to Tangible Heritage such as buildings, monuments, landscapes, books, works of art, and artifacts; very few to intangible Culture contexts, such as folklore, traditions, myths, rituals, customs, poetry, oral history, ethnic and social values, and wisdom knowledge; or even in context of specific designs, artifact semantics or technical meaning of Natural Heritage such as culturally significant landscapes, spaces, historic places and biodiversity. Perhaps, a dramatic change in Design Education Curricula may ward off the threat of losing cultural heritage.

De'Chakra Method

De'Chakra is a mega structure of Design Education method,
that is focused and based on student-centered approach,. It involves students' varied cultural and individual backgrounds as main resources and inspirations in a practical studio class. Chakra, by its seven physical and mental types of traits, is a mental metaphor of the body energy both of learning and teaching showcased at various levels of activities, such as from the roots to clouds, from group atmosphere to mood of every participant, student and faculty. It offers a spring of contents and design themes by dynamic interventions made by every individual student via his personal body-mind and cultural heritage-physical, emotional, spiritual, behavioral and communal inter-relationships. Moreover, during every project instructor will also be deeply involved by being exposed to varied cultures, tradition, customs, ritual, crafts and art forms - because of heterogeneous students backgrounds. These kinds of interactions will generate a teaching/ learning atmosphere that could be a positive promise to lively, dynamic and fruitful design dialectics. Other benefits, not less important, are emerging awareness and maintaining visual heritage, rescuing vanishing Craft and Folk Art, and promoting wisdom of hands in an era of fast clicking and swiping. De?Chakra based on closed interaction between students imaginative self-world and their cultural lifestyle, through integrative method and processes stages chosen from its varied Craft and Folk Art practices. By crunching and playing with hand-crafting materials and techniques first step of knowledge and insight students gain. This stage offer a colorful rainbow of shapes, patterns, ornaments, images, objects that will inspire creative thinking as an
the student; stimulate his talents to generate flows of ideas, objects, images and stories by engaging to his authenticity and his real Self. Inter-weaving crafts and art-forms in an emotional channel will evolve unique and innovative ideas, autonomic say, and self-expression.

The method may offer a full curricula setting, for long term of design education, research and creation - by making Design Sense from hand-crafting sensuous explorations. Method structure focused on chained interactive and integrative process, of three important levels. The first, Creative Thinking – This level includes four phases: Visual Ethnographic Research, Tangible Practice, Ideation, and Deliverables. Friendly access to ancient knowhow of varied crafts and by observing craftsmen, practicing, studying and researching their techniques, materials, patterns, objects, images, colors, decorations, etc. – will be an exciting entrance and “wow? introduction for any design project, and will deepen the two other next levels. Second level, Technical Processes- Researching project needs and available technologies - from planning, production, and logistics; gathering updated science and technology knowledge of ideated concepts, from experts of the field. This level includes four phases: Materials, Functions, Engineering, and Ergonomics. The third one is Design Thinking- Getting design insights and working out the project brief. This level mix the full understanding of the two levels, Creative Thinking and Technique Process - prepared, based and framed the road to design sketching and detailing; enriching all this process by particular and

"Self- Toolbox" of ideas, visuals, objects, stories, symbolism and semantics, micro elements as color schema, lines, shapes, textures, forms and formations, materials, handy techniques, and grandpa tips. This level includes four phases: Data Research, Visual Synthesis, User, and Detailing.

All three levels, tracks design insights that will focus on real human being, that are always coined by different marketing names: guests, clients, consumers, users. This faithfulness to real human needs, emotional experience and sense of aesthetics is a crucial output of this method. It connects cultural heritage values to young generation of designers that will be responsible for our futuristic environments, buildings, products, communication, education and visual culture. Curricula of Design Education could be planned on a firmed disciplined De?Chakra triangle based on Creative Thinking, Technological Processes, and Design Thinking. This observation and thinking processes has a crucial part of evolving waves of emotions, memories, longing, rituals, customs, traditions, manners, homeland, mother tongue and individual biography - by accessing to crafts and art forms as a teasers and emotional reminders. This psychic experience of students - based on studying and crunching crafts and folk arts from craftsmen, artists, family, and community - is an

THE METHOD PRACTICE

Figure 1.A pedagogical spine of Chakra.

A pedagogical spine of educational values and goals contains seven different main-wheels chakras. Every wheel is a set of design educational content, dominated by energy and qualities of a chosen Chakra. Content could be, for instance, any discipline's assignment, intensive course, semester project, M.Des. thesis or B.Des four years curricula program. Practice can start from first chakra, Muladhara, to the seventh Sahasrara – and otherwise. All seven chakras schema colors and tones such as Red, Orange,

Yellow, Green, Blue, Indigo, Violate- will dominate and challenge all design task process.

This drawing formula describes three circles. In the center the chakra traits divided to main three pedagogical levels. The first, Creative Thinking: a- Visual Ethnographic Research, b - Tangible Practice, c - Ideation, and d - Deliverables; Second, Technological Processes: e – Material, f - Engineering, g - Ergonomics, h – Function; and the third is Design Thinking: i - Data Research, j - Synthesis of the two last levels, k - Varied Options, and l - Detailing. Second circle (black dots) just suggest 12 clockwise phases of Folk Arts: A,B,C,D,E,F,G,H,I,J,K, and L. Third circle (Red dots) - 24 units of „crafts? list.

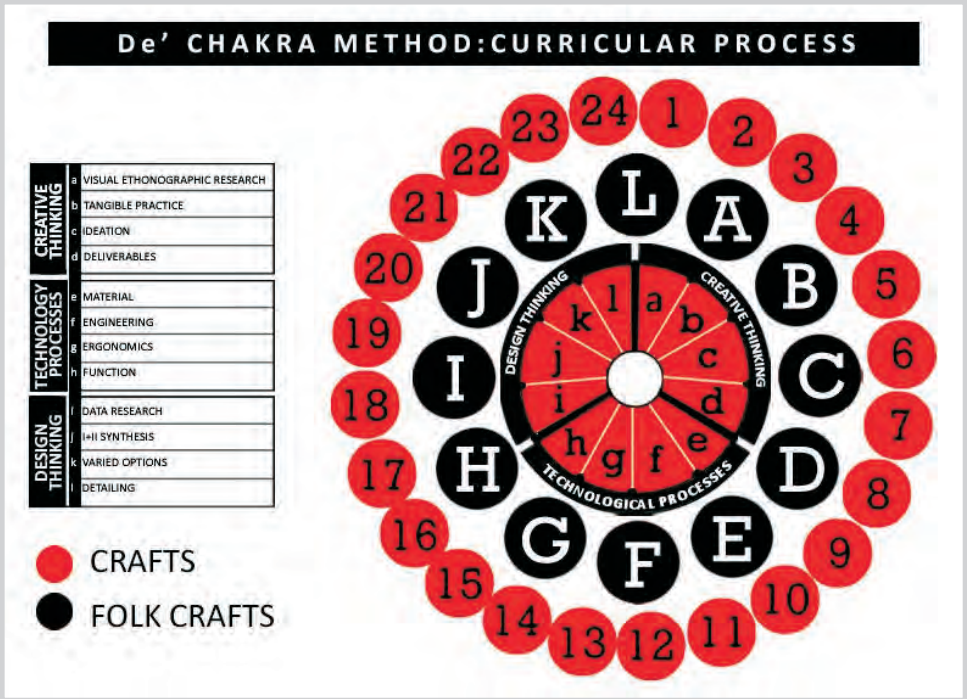
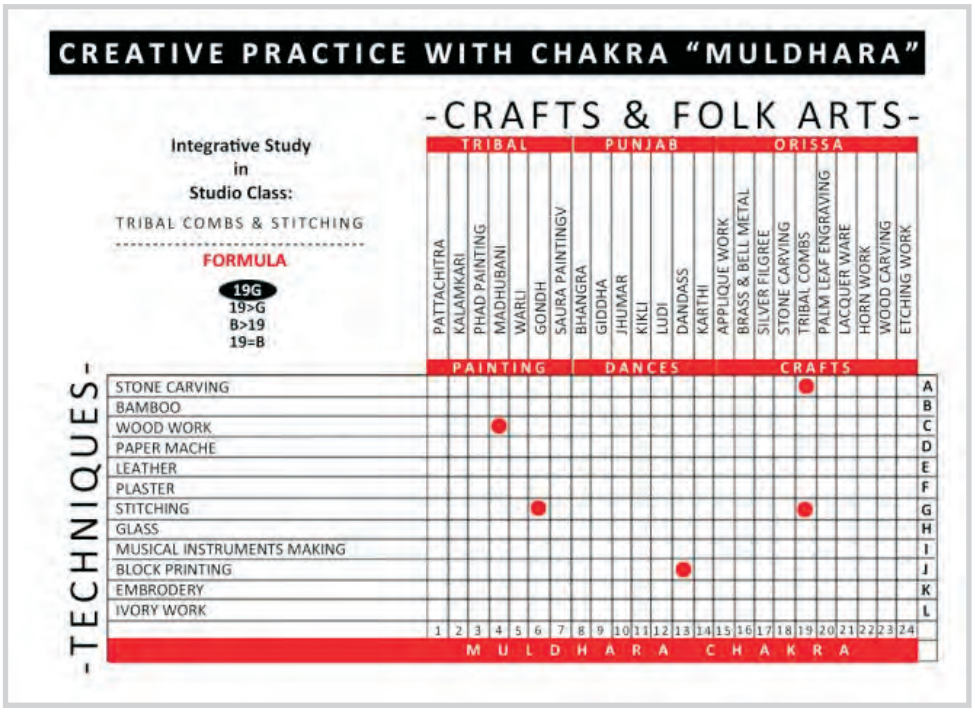


Figure 2. Method Process & Matrix

When a Chakra is chosen, it present all its traits and qualities; when a main-wheel chakra is located and in use, it offers hundreds of mix traits options diversity for faculty, lecturers, guides and facilitators. Design Topics can be selected from the movement of the two ring-wheels, or only one of them. This chart, course can be formulated from three different cultures of art forms: Crafts from ORISSA, Dances PUNJAB and TRIBAL (painting). These could be practice with varied techniques such as Stone Carving, Bamboo, Wood work, Paper Mache, Leather, Plaster, Stitching, Glass, Musical Instruments Making, Block Printing, Embroidery, and Ivory Work. Let us present some examples: 19G – is a session theme of "Tribal Combs" (19) with "stitching" (G). Apparently, it?s a weird combination, but this choice will challenge the students? imagination and creative energy. Of course, this chosen duo could change partners. Tribal Combs can change tech partner of Plaster, Block Printing or Paper Mache; the same for stitching' potential partner

could be Applique Work, and etc. But, Stitching could of course choose from Panjabi dance list, or one of the Tribal varied paintings. Other examples in De?Chakra matrix: Madhubani Tribal painting style (C) and Wood Work (4), Block Painting (J) and Dandis Panjabi Dance (13).



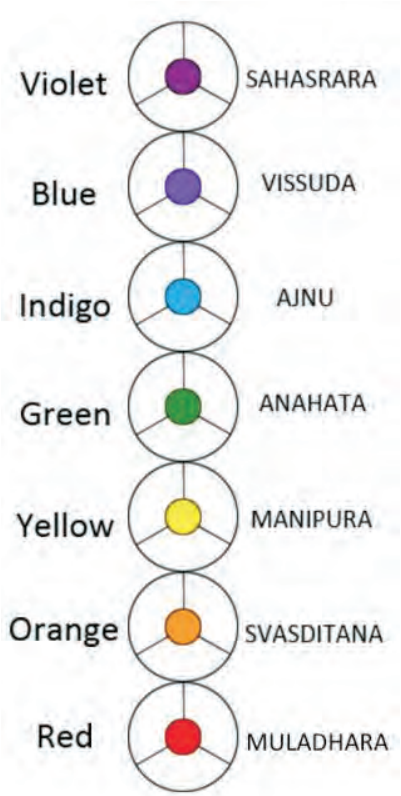
Every Formula can be implemented by some variations of the two (or more) components matrix. For example, in choosing 19G: it could be balanced, 19=B; it could be dominated by one of them, 19>B or B>19. By adding other component, let say Gond (number 6), formula will be19B6, will get much more options. First, varied balanced scene:19=B6, B=19 6 , 6=19B; Second, domination of one or more components:19 > B6, B > 19 6, 6 > 19B, or in otherwise combinations: 19 < B6, B < 19 6, 6 < 19B. The class studio practice, in this case, students will explore Tribal Combs" (19) "Stitching" (G), and Gond (6) practices with the first Chakra, Muladhara, qualities.

This practice started from the first Chakra, Muladhara. This root Chakra, located in the base of the spine, houses the mythic energy serpent Kundalini, that travels up the spine and opens all other chakras. Muladhara is symbolized by a lotus with four petals, based on a square includes a triangle and wrapped by an earth circle. Its related to security, stability, grounding, trust, home, family, nourishment, fight-or-flight response; emotionally it governs sensuality, and spiritually. Muladhara has a relation to the sense of smell, sound note of C- Do, and red color. These adding chakra qualities added to chosen formula, will address lot of variables in all stages along the design process, and may surprise students during creative thinking by hitting to a new sphere of ideation.

In the chakra itself, there are the basic forms of design: circle, square and triangle – which could be, with other properties and Creative Practices a treasure of aesthetic and content innovative concepts and ideas.

One of proposal theme, for example, could be “Design for Home”. This theme engages student and class, energizes them to a mental perceptual and freeway of imaginative state of self-longing, childhood, flora and fauna, biodiversity, bad/ good conflicts memories, fragrances, and so on. Every student will be emotionally involved, will

background, and also enrich class with his own creative contribution. Every discipline in design can gain and benefit of many ideas for kind of projects. All these, only by choosing one chakra, as a stage of design preparation. Interacting with real, not academic, craftsmen as a start of any relevant course, design attitude of students will change from imitating design trends, and deliver good or bad design - but surely, from his own personal and cultural roots. Another important use of this method, besides class studying go local school state's- culture, every student could be exposed to other state's-culture of other students in the same class. Design class, naturally is heterogenic by state of origin, every student bring to his class a cultural knowledge. Let say, Student from Manipur study in Design School in Maharashtra, will be exposed not only to local Crafts & Folk Arts but also to others states and regions in India. Obviously, he will enrich class study by his cultural background. Projects and tasks, by De'Chakra Method, can be programmed and developed from interdisciplinary trans- cultural perspectives, where student may also integrate each other culture and personal background, to a design project with authentic output and self say.



DISCUSSION AND CONCLUSION

Students in India are rarely familiar with other cultures? of their states. In the era of "Globalization?, cultural differences become melted by media and consumerism. Intermigration waves pack also metro cities to a heterogenic cultural soup of micro communities, and Craft and Folk Art became more and more, within the scope of technical development, tourist industry.

Global design shifted first from cradle-to-grave to cradle- to-cradle design (C2C), then from design project based- industry, service and business to socio-cultural and self- expressive based. India seems to lack these changes,and neglecting the god gift of 8 million of wisdom-of-hands practitioners in arts and crafts. Even Indian industries did not fully benefited yet from the power of entrepreneurship, innovation and creativity of design and designers.

Design has two elder sisters: craft and art; they gave birth to design by their integrating with technology and science. Design in India could engage back to sister's origin, suck the cultural nutrition value and rare aesthetics from locality of Arts and Crafts and get a unique global say. De'Chakra is a method that can make this pedagogical paradigm, shifting teaching methods from post-Bauhaus concept to a local based-culture program of Design Education.

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Indigenous Identities
Hand-painted letterforms in India

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ABSTRACT

Typography is becoming an important discipline that represents the vibrant, evolving and handmade visual culture and craftmanship of India. The word 'indigenous' with respect to Typography is a hidden communication element in most hand-painted letterforms in India. As expressed by J.H. Mason, "Type is like music in having its own beauty, and in being beautiful as an accompaniment and interpretation; and typography can be used to express a state of the soul, like the other arts and crafts." The sign painter's self-expression or the locally developed skills help us view the 'indigenous' expression of Type and its various traditionally driven epochs in India.

Man started writing and drawing many centuries ago with Indus writing or the technically more appropriate Sarasvati writing in 2600-1900 B.C. (Kak, 1993). The shapes of the letterforms present expressions and may be regarded as reflections of the traditionally acquired acumen of visual forms, symbols and abstract images created by the artists or sign painters belonging to different cities in India. The aesthetic beauty and the traditional native identity are imbued as one harmonious unit in the multitude letterforms of any script. Indigenous 'Scripts' in India mirrors the cultural essence of letterforms. Different form of writing each script represents the origin of a script from the respective local context – where a particular language written in specific script defines the context (Reddy and Nath, 2014). This paper envisages a crystallized discussion about the the native or indigenous conception as part of the structure of two examples (each of Devanagari and Dravidian letterforms) in the form of hand-painted display type expressions in outdoor signs of India.

KEYWORDS

Display Typography, Native hand-painted Type, Indigenous concept, Scripts, Signs in India, Outdoor Signage, Sign makers and artists

INTRODUCTION

In the context of the culture of India, the word 'Indigenous' has varied connotations. This is mostly due to the fact that Indian society has largely been driven by oral tradition1 since antiquity. The view of 'Indigenous' or native hand-painted Type expressions accumulate local skills and styles developed by the artists, but simultaneously addresses a more global public too. Such type and letterforms generally have a staunch native cultural identity. Typography is becoming an important discipline that represents the vibrant, evolving and handmade visual culture of India. Two current trends are extending the boundaries of type even further — the creation of an even greater number of typefaces especially in non-Latin based scripts and a simultaneous movement that explores handmade typography (Khosla, 2012). Moreover, in the context of Indian artisanship, Botnick. K. and Raja. I. (2010), explain the craft as follows:

> "If saris and lunghis point to the collective genius of Indian design, then hand painted signs on the streets of India suggest a more individualized agency. Hand lettering follows much of the same pattern of other craft areas but with a wholly different outcome, in that it doesn't produce a useable object. The flowering of signs and symbols points us to a universe of concrete language. The sign painters are amazingly adaptive as they explore new ways of creating familiar letterforms in a bid to capture the client's eye and stand out in the crowd.

Figure 1. *Painter Prakash (artist and signboard painter) with his big display type hand-painted expressions for Bengaluru as part of the mega-wall art project funded by Central govt. (Design Agency: Murugan Arts).*

The handmade (native) type subject area has paucity of visual analytical research in context of meaning making in the visual display culture of India. Therefore, this paper aims to present and highlight the salient features of the formal as well as subjective aspects in the lettering or type styles developed in few examples of exterior display of texts in the streets of cities in India.

[1] Sociologists might also emphasize a requirement that the material is held in common by a group of people, over several generations, and might distinguish oral tradition from testimony or oral history.

ANALYTICAL OVERVIEW

As Part of analysis, we present here various indigenous aspects of Dravidian letterforms in texts of signs from the southern cities of Chennai and Hyderabad. Likewise, the texts on signs in Jaipur and Mumbai city streets displayed in the Script of Gods have been analyzed in order to know another face of the indigenous as part of expressions of Typography in North and North-western India.

The indigenous is an outcome of a combination of skilled craftsmanship as well as the connotations associated with form and color roles in the structure of letterforms in both the scripts mentioned. Four such faces of the indigenous identity that drives typographic display expressions are as follows:

1. Letterform expressions in the form of embellishments2 in hand-painted text on Quartzite sandstone panel base, that is an official material signature identity in the facades of buildings and shop fronts in Jaipur (see Fig. 1. below). The embellishment features are the bold black and yellow brush strokes to animate the shop name 'Amarsariya' (local textile brand). This embellishment compliments the calligraphic, hand-painted form to represent 'Amarsariya'. The free-flowing and rhythmic expression of a Jaipur chhoondhi / dupatta is embedded in the form that is provided a solidity as a name against the subdued base of sandstone. Almost similar argument appears in the shop name 'Bharat Dental' (Fig. 2). The Type expression has an additional identity of tooth-like stroke endings that goes with the name of the local dental clinic as well as gives the letterforms an architectural resonance that cuts away the softness of pink and white paint over the sandstone panels (Fig. 2). The lettering styles and the royal identity as part of form and the color wash over the panels represents the indigenous that is unique to the pink city of Jaipur in India.

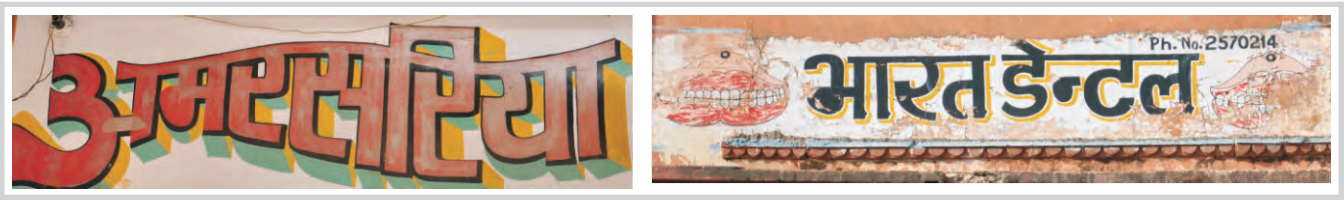


Figure 2. *Hand-painted Devanagari in shop names given a 3D relief on the sandstone panel base in Jaipur*

2. Letterforms as symbols that portray age-old conventions of socio-cultural and political meanings prominent in the city of dreams, Mumbai, India. The praxis of hand-painted display type in three dimensional representation is symbolic of pre-independence colonial times that envisaged three dimensional text expressions as part of the insignia on buildings, hoardings and shop fronts mostly. Here, in the visual example political figures are promoted as part of a promotional hoarding for a regionally well-known party of Maharashtra (see Fig. 3. below).

[2] 'A decoration added to something in order to make it more beautiful, the process of doing this' (Macmillan Dictionary, 2014).

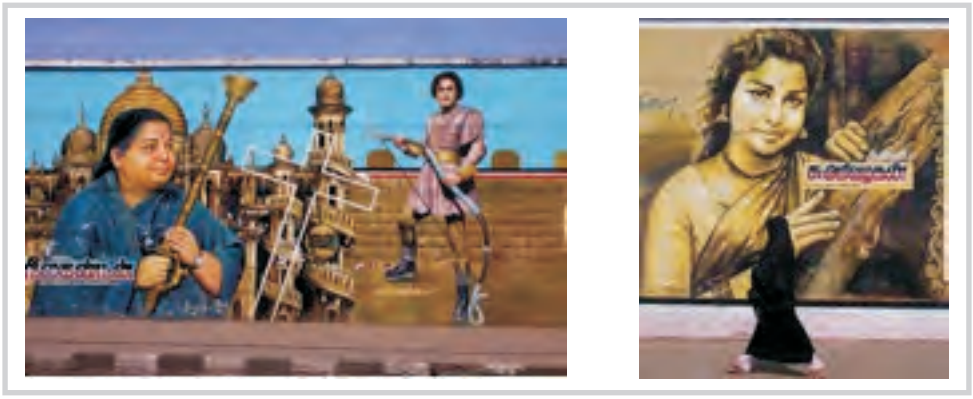
The symbolic rounded shape of the party symbol of 'Dhanush' is used in the rounded character, width of letterforms that reduces their total height and increases letter widths proportionally. Therefore, overall the symbolic form, meaning and indigenous ideology and philosophy of the party that evolved in Maharashtra long ago brings in the same indigenous character in the display type expressions as part of the promotional hoarding produced in hand-painted technique by the sign painters (Fig. 3).

Figure 3. *Cultural identity in red-orange; translating the socio-political idiom of popular imagination in Mumbai*

3. Letterform expressions in symbolic form3 celebrates and establishes a political ideology in hand paint over the city walls as part of the ephemeral and indigenous sentiments of Dravida Nadu4 in Chennai (see Fig. 4. below). The people of Dravida Nadu harbour strong devotion for their Tamil icons and this practice is almost a consistent visual motif or style that adorns the text in signboards, hoardings, wall art or the street grafitti and an equal symbolic expression of red and black parallel bands of a well known political party of Tamil Nadu accompanied by the glorified image of the party leaders and makers enhances the indigenous Dravida Nadu and the philosophy that is given a visual metaphor in Type and image styles and colors used for visual depictions (Fig. 4).

[3] 'Symbolism, as you see, can be found almost anywhere. Any time there is something that represents more than its literal meaning, this can be an example of symbolism /symbolic form.' For instance, ladder as an object sign may represent the relationship between heaven and earth or ascension (yourdictionary, 2014).

[4] E.V. Ramasamy is known as Periyar or Thanai Periyar is a social activist, politician and businessman who started the self-respect movement in which he proposed creation of an independent state called Dravida Nadu. He is also the founder of Dravidar Kazhagam (Mehta and Pantham, 2006).



4. Letterform expression appears in the form of a niche brand's commercial insignia5 as a whole in the twin city of Hyderabad-Secunderabad. The indigenous face as described is amplified more in the hand-painted meticulous pattern that takes a visual cue from the semantics of Arabic letterforms in terms of shape, density and richness that connotes the royal identity of the Nizams who ruled over the princely Hyderabad state for a long time (see Fig. 5 below).

Figure 5. *Indigenous script influence of in Latin Type expressions in shop names of business in Hyderabad*

INSIGHTS

This study has been an enriching analytical take on the display type design, hand-painted technique, indigenous scripts, indigenous symbolism / symbolic forms / other socio-political and cultural paradigms. Overall, we see two tendencies of communicating the indigenous emerging in relation to the native hand-painted typography in the presented four city visual examples. These two tendencies bring two faces to view indigenous identity of display type in cities of India:

1. Traditional letterforms have unique indigenous meaning with respect to the city identity: This tendency is seen in the visual styles of letterforms, their formal structure in the making and expression in hand-paint medium on signs crafted in traditionally well-known materials that regulate the identities of the two royal cities of India, namely Jaipur and Hyderbad in India as presented and discussed in the realm of the analysis in the current paper (Fig. 2 and 5).
2. Symbolic form emerges in the character of letterforms to display popular political idioms

[5] An insignia is known to be a distinguishing mark / sign or a badge of authority / honour (Merriam Webster Dictionary, 2014).

This tendency is particularly seen in the visual styles of letterforms, their design elements and forms that represent the expressions in hand-paint medium on signs crafted in the capital cities of two socio-politically prominent states of Maharashtra and Tamil Nadu in India (Fig. 3 and 4).

CONCLUSION

In a nutshell, we may put forth that Typography an in particular the indigenous or native type imbibed in hand-made traditions of crafting and making in India is a deep-rooted sub-culture. In order to understand the core of visual cultural display and meaning-making processes involved as part of sign craft in India, this paper modestly initiates a style of analytical overview over few known and other unknown influencing factors that bring forth the indigenous in the type expressions in the vivid strokes forming two beautiful and distinct scripts of India, namely Devanagari and Dravidian scripts. In this 21st century of globalization and visual deterioration that we see due to mass produced digital craft and visual expressions of texts on signs; the various faces of indigenous display typography is India is fading away. It is a matter of serious concern to create ways of restoring and reviving the almost-died art and craft of traditional and native symbols, metaphors, images and visual communication displays in the length and breadth of our great nation.

ACKNOWLEDGEMENTS

I offer my sincere gratitude to Dr. Debkumar Chakrabarti, Professor and Head, Dept. of Design (DoD), IIT Guwahati for encouraging me to pen down a slice of prominent work as part of my ongoing and almost towards the end Doctoral studies under the able guidance of Prof. Ravi Poovaiah, Professor of Interaction Design at Industrial Design Centre (IDC), IIT Bombay. The biggest gift is to contribute this work as part of “Women Researchers in Design” section in the issue of this magazine. I would also like to express my gratitude towards Dr. Bhatia, Editor, Design of All India Institute magazine to give me an opportunity to gain experience in the role of a guest editor for the section of papers contributed by Dept. of Design (DoD), IIT Guwahati.

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Occupational Risk Assessment of Health Condition of Women Handloom Weavers of Assam

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ABSTRACT

Handloom is widespread cottage industry of North East India (NE), especially Assam. It employs a large workforce that mainly consists of women weavers. In the present era of commercialization, handloom sector is also witnessing changes and large number of women are adopting weaving activity as their profession. The activity they performed previously during their leisure time has now been transformed to structure job hours. But, in spite of the increased weaving time spent on loom, the workstation design remains unaltered. The paper reports the ergonomic issues related to weaving practices as adopted in present Assam.

Keywords—

Small scale-cottage industry, Handloom industry in NE India, Women weavers, musculoskeletal pains.

INTRODUCTION

In Indian context earlier women were mostly responsible and involved into household activities as per traditional and social norms but with growing economic demands to contribute to overall wellbeing of the family and with the urge to become self-independent more and more women have made headway into economic sectors. They are joining day by day in increasing numbers in different male dominated work sectors. This condition has eventually led them to use workstations and work equipments that are not designed for them as per anthropometric and physiologic requirements (NIOSH Publication number 2001-123). Inappropriate working environment increases bodily discomforts and pains among this working group.

Workloads of working women are more strenuous. They perform household as well as workplace activities, resulting less time for muscle recovery. In this situation, inappropriate workstation increases risk of occupational hazards. There are many reasons. Apparently, it can be said that due to poor literacy rate and household responsibilities, Indian women are mostly found to be engaged in manual and daily wage earnings. Mostly they were found to be involved in agricultural sectors, health care sectors and traditional cottage industries. A very small population of Indian women are associated with white collar jobs, the rest around 96% are involved with small scale industries (Bhowmik, 1998).

Small scale industries are important production house in India and many other countries. India plays vital role in Asia's economic growth and listed as world's second largest workforce to some 500 million people (Sharma, 2012). Small scale and cottage industries are the backbone of India's economy. Use of human resource in small scale industry is huge and it is highly labour intensive sector. It is the primary source of employment for around 85% women workers throughout the world (Chen, n.d.).

Different craft items are manufactured in dwelling houses and women contribute a considerable man power for these productions. Previously women used to spend their leisure time into these craft works as a passion or for household requirements but now, these home based craft activities are taking the shape of commercial outlook under the umbrella of “small scale cottage industry”. Handloom is one such biggest home based cottage industry, and accounts to be the second largest industry in India, after agriculture (A brief report on textile industry in India, 2013) and 77.9% of workforce in this sector reports to be women (Handloom Census of India, 2009-2010).

As per legendry evidences, NE India is powered with women workforce. Women are engaged in different economic sectors, like agro based industry such as tea, fruit processing and home based cottage industries like handloom. NE part of India enjoys totally different socio-geographical nature than other parts of the country. The products and production scenario is also unique. It falls under tropical rain forest zone and is very rich in flora and fauna. These plentiful natural resources have got translated into the décor and design in almost all the artefacts and work of the artisans in handloom and handicraft products. Availability of raw materials and traditional skill has promoted this region reach in crafts and cottage industries on small scale basis with small machineries. Manufacturing of these crafts and cottage items are mostly carried out in dwelling houses. Sometimes, it is done in outdoor shades near by the houses. One such industry is the handloom industry. Over 53% looms in the country and more than 50% weavers belongs to NE (Annual report, 2007-08). This region is renowned for its rich heritage of handlooms.

There are two types of weaving practices followed in these region one type of weaving is practiced on frame loom (78%) and another on loin loom (21%) (Handloom Census of India, 2009-2010). Loin loom still

retain their traditional method of weaving and concentrates for domestic use. Frame loom, on the other hand is gradually transferring from household industry to commercial industry (Figure 1).The data trends have shown that the characteristics of the North-Eastern states are distinctly different from the rest of India, where 99% weavers are women (Handloom Census of India, 2009-2010).

Figure. 1. Transformation of (A) Home based practice to (B) Commercial practice

It is worthy to mention that almost every household in rural areas of Assam is connected with weaving. Whenever women of the households were free from domestic works, they engage themselves in weaving. With time, this industry is gradually transferring to commercial industry being gathered together under specific work shed. Earlier they spend their leisure time for these craft work or they used to weavefor domestic requirements but now both time and competition plays important role giving rise to a new set of occupational issues. Commercialization has taken place, but workers occupational wellbeing relevant documentation on ergonomic study is very limited (Pandit et al, 2013; Pandit and Chakrabarti, 2014). This supports the need for further ergonomic studies in the handloom industry of Assam.

METHODS

The study was undertaken to identify whether effect of commercialization on existing workstation has any effect on health and wellbeing of women weavers. A survey was conducted on 118 handloom clusters from Kamrup district of Assam. Kamrup was selected purposively for its contribution towards commercial production (Chakravorty et al., 2010). A list of handlooms under both organized and unorganized sectors were selected for this study and from both these sectors 150 women weavers were sampled. Meetings were conducted between loom owners, weavers and managers. An empirical assessment for ergonomic evaluation of the existing handloom workstation was first done with the help of checklist to understand

level of occupational stress involved in the workstation. Quick Exposure Checklist (QEC) was used to screen the workstation followed by subjective assessment carried out by field study questionnaire.

RESULTS

Evaluation of the workstation was conducted based on observation and feedbacks from the weavers.Analysis of weaving activity using QEC gives exposure scores to specific body parts including back, shoulder/arm, wrist/hand and neck. The average of total QEC scores for weaving operation was found to be 145 out of 187 giving a percentage score of 77.86% (Table 1) which falls under very high risk and gives an indication that immediate ergonomic intervention was required. The results of the checklist revealed that the weavers undergoing weaving in such workstation are under high risk zone.

Table 1
Scores and area of risk in OCRA checklist

OCRA checklist Value	Risk Level	Consequences
Up to 7.5	Acceptable	No consequences
7.6-11	Borderline or very low	Advisable to set up health surveillance
11.1-22.5	Presence of Risk	Re-design of tasks and workplaces according to priorities, health surveillance, training, information
More than 22.5	High Risk	

The results of the checklist generated a strong ardour to find out health condition of handloom weavers performing weaving in such poor working conditions. Subjective assessments were carried out with the help of a questionnaire and also, a body map technique was used to understand reported pain in different body parts among 150 women weavers. The results of such assessments were discussed below.

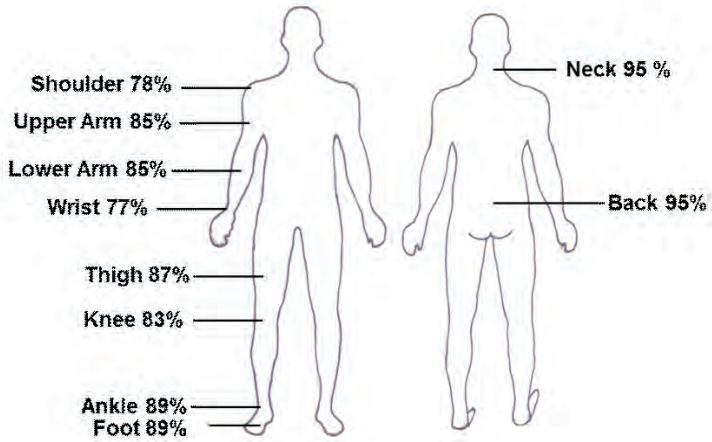

Figure.2 Percentage of pain in different body

Region wise mapping of pain (Figure 2) revealed that 95% weavers reported pain in the neck and back. Of the upper limbs, 78% of them reported of having pain in the shoulder, 85% in the upper and lower arms and 77% in the wrist area. Whereas, in the lower limbs 89% of the weavers reported pain in the ankle and foot, 83% in the knees and 87% in the thighs.

The body was categorized into four segments - neck, back, upper limb and lower limb which helped to understand which body segment the weavers were undergoing more pain. Reporting from the weavers revealed that maximum numbers of weavers were having acute pain at the back and lower limbs for handloom weaving (Figure. 3).

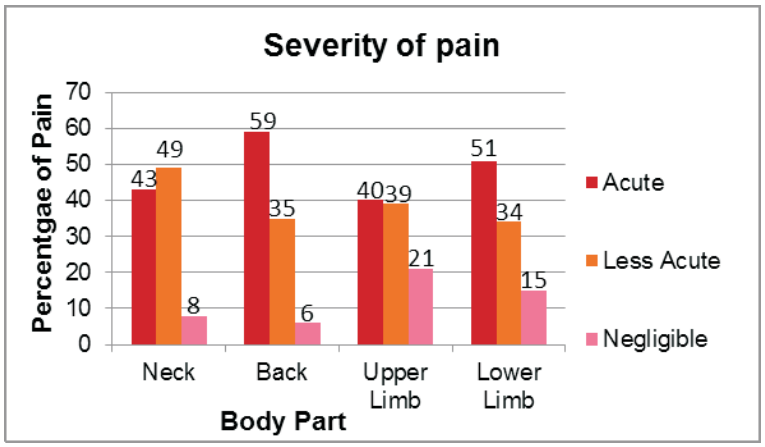

Figure 3 Severity of Muscular Pain

DISCUSSION AND CONCLUSION

The findings of the study through checklist analysis and subjective assessment of body pain suggest that there is high prevalence of ergonomic risk factors present in present handloom which suggest for ergonomic intervention.

This study is helpful in identifying that ergonomic intervention is required in the workstation to reduce leg and back pain among weavers. Paying attention to the occupational health and safety issues prevalent in this sector will have noticeable impact on national handloom production, socio-economic condition of the weavers, thereby improving their quality of life. The study underlines the needs for further work regarding ergonomic design implementations in the present loom workstations, along with the crucial gender specific requirements.

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It Ought To Be Good. It's Homegrown! Rethinking Slums And The Role Of Designers

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ABSTRACT

The phenomenon of growth of cities in developing nations, characterised by massive population rise and high migration rates, has created a huge demand-supply gap under the government-planned urban systems, especially with respect to the provision of inclusive, affordable housing. The urban poor, therefore, come up with home-grown solutions to housing, variously referred to as squatters, shanties, favelas, slums or informal settlements (IS) that cater to their immediate needs and desires. Often considered as the most obvious manifestation of poverty and deprivation, these informal settlements, as this paper argues, can alternatively be viewed as complex forms that emerge through several bottom-up processes of self-organisation in response to prevailing social, economic, political and physical factors. In each location, slight variations in these factors lead to completely different urban typologies that are responsive, versatile, diverse and resource-efficient just like the way most cities developed before planners and urban designers were invented! In India, there is a general realisation that IS are a significant component of the urban fabric, and thus must be integrated into the formal system. However, discussions relating to formalisation often revolve around issues of property rights and governance system. Emphasis on the spatial dimension, embedded in the socio-cultural values of those who inhabit them, remains highly limited. As a result, design proposals under the 'slum-free' or 'zero-slum' initiatives reject the home-grown spatial typologies in favour of stereotypical images of imported urban fabric, and thus are destined to fail. The aim of this short manuscript is, therefore, to bring to light the unique spatial qualities and design strength that the IS possess using empirical evidence from Guwahati city of the North Eastern State of Assam. It also investigates the potential role of designers as facilitators rather than dictators in this bottom-up process of home-grown housing that caters to one-third of the world's population's shelter needs. The paper finally concludes with a hope that a unique combination of bottom-up actions and innovative top-down interventions can transform these settlements into respectable neighbourhoods over a relatively short period of time, such that they no longer remain liabilities, and instead become wonderful catalysts of urban change!

KEYWORDS

Bottom-up growth, informal settlements, India, poverty, self-organisation, urbanisation

This article contains ideas from my papers earlier published in the following and has since evolved:

1. The role of emerging 'traditional' and 'contemporary' vernacular informalities in rapidly urbanizing Indian cities proceedings of the 6th International Seminar on Vernacular Settlements (ISVS-6). Contemporary Vernaculars: Places, Processes and Manifestations, Famagusta, North Cyprus. (ed) Pulhan. H., (East Mediterranean University). April 2012. Vol-2, pp. 107-103
2. Contemporary vernacular informalities: A renewed perspective to the slums of Guwahati. AAA Silver Jubilee Journal, Association of Architects, Assam, Baruah, R. (ed.), January 2014, pp.5-8.

1. A Place in the City: An Introduction

The world is becoming predominantly urban and this urbanisation is moving rapidly towards the Global South [90 percent urbanization is occurring in developing nations). India is no exception. With the pace of urbanization expected to accelerate over the next two decades from 27.8 percent in 2001 to 31.2 percent in 2011, and 40 percent by 2030 (2011 Census)], this demographic explosion would generate heavy demand for better quality infrastructure and housing for another 300 million urban residents by 2030. The gap between supply and demand of housing has been widening, making housing an unaffordable proposition. As per the report of the Technical Group on Urban Housing Shortage (2012-17) constituted by Ministry of Housing & Urban Poverty Alleviation, Government of India, there is a shortage of 18.78 million dwelling units, of which nearly 96 percent belong to the Economically Weaker Sections (EWS) and Lower Income Group (LIG) households. As a result, home-grown (self-constructed) informal settlements remain a common response to the housing needs of millions of people in Indian cities and towns where the housing deficit is increasing. Informal settlements, thus, represent a paradigm shift in terms of city building and economic growth in India. Their role as a significant housing delivery mechanism has seriously challenged the popular notion of formal planning held by policy makers, planners and architects.

Box 1. Poverty Statistics

As the number of people living in cities has grown, so has the number living in slums (Davis, 2006). According to the available global estimate to date, Urban poor having an annual household income of up to 1 lakh (1000 British Pounds) will be classified as EWS and those falling between 1 lakh and 2 lakh would be categorized as LIG (HUDCO Pavilion at IITF-2012).

approximately 924 million people, or one third of the world's urban population, lives in slums. This number is projected to increase 2 billion people by 2030 (UN-Habitat 2003). Today, slum dwellers in Asian cities account for 60 percent of the world's total slum population or 554 million people

(UN-Habitat 2003). 158 million of these Asian slum dwellers, or 17 percent of the world's total, reside in Indian cities.

Despite rural-to-urban migration, the relative number of slum dwellers seems to have dropped significantly during the past decade. Thus, while the 2001 Census found 22.6 percent of the urban population in India living in slums, the 2011 Census found “only” 17.4 percent. The 2011 Census enumerated 13,749,000 out of 78,900,000 households living in slums, based on a survey of all 4,041 statutory towns of India. It did, however, leave out 3,894 so-called “census towns”. It may not be wise to completely rely on these statistical figures; yet, it does bring to light the pressing issue of Urbanisation of Poverty that Indian cities are facing today and will continue to face in the future.

The UN estimates that a third of the annual global production of housing in recent years has been in informal settlements and that is set to double by 2030 (UN-Habitat, 2003; Ortiz, 2013). Thus, informal settlements today and perhaps, more importantly, in the future will remain the most important mode of housing production This phenomenon continues to take place despite the best efforts of the highly-controlled, top-down legal planning systems engaged in city building.There are a number of programmes targeted by the Government of India towards urban poverty reduction and improving access of the poor to basic services such as the Swarna Jayanti Shahari Rozgar Yojana (SJSRY), Sub-mission II on Basic Services to the Urban Poor (BSUP) under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Integrated Housing and Slum Development Programme (IHSDP) and the Rajiv Awas Yojana (RAY), to name a few. These initiatives, coupled with the discussions on tenure rights, multi-layered governance systems, contributions under CSR and role of NGOs in facilitating the process, are positive steps. Yet, many of the redevelopment schemes and concepts promoted by the Government are not workable solutions.

This is partly because, in most cases, under the 'slum-free' or 'zero-slum' initiatives, the spontaneous informal spatial typology is rejected and replaced by minimum-standard modernist housing blocks, simply because it does not fit into the stereotypical image of progressive urban fabric that is neat, modular and sterile. This overlooks the unique spatial configurations hidden within the apparent chaos of self-built informal settlements which have been spontaneously shaped by the slum dwellers. Such configuration embodies rich patterns of community, socio-cultural continuum as well as a unique system of dealing with the residents' needs and desires within the given urban constraints. These settlements and their dwellers also show immense ability to improve and progress through processes of constant but gradual change and adaptation. Despite the multifaceted problems that the informal settlements face, it is their spatial configurations, bottom-up formation and incremental growth that designers are now trying to understand

as they possess unique design strengths and possibly hold lessons for successful and sustainable city building.

The paper recognises the deprivation, ill-health and poverty that exists in informal settlements. It also accepts that urban informality is not disconnected from its political and economic loops, and that slum upgrading cannot be done without strong political will, government backing and community acceptability, as well a sense of partnership among all parties. Hence, this process of consolidation or formalisation cannot be seen in isolation. It also recognises that the growth of slums in cities often highlights the connection between social conflict of urban space and, in some cases, has repercussions for the natural land forms and the ecosystem. This short manuscript, however, goes beyond the politics of land occupation and attempts to bring to light the unique spatial configuration and design strengths of these informal spontaneous settlements (often unrecognized and misrepresented) which design proposals under government schemes for the poor often tend to reject or conveniently ignore. Such proposals that are sterile and inappropriate to the way of life, daily activities, social and cultural context of the people they house has led to “alienation and loss of identity” (Doshi, in Ameen ed., 1997) and, in the worst case scenario, degeneration into places worse than the slums they replaced!

In this paper, I first familiarise the reader with the terminologies used and discuss the formal–informal duality. I then describe the evolution of formal approaches to slum development, followed by a detailed spatial analysis of the informal settlements in Guwahati. I finally conclude by recognizing the importance of combining the two complementary approaches -- top-down and bottom-up -- to city building that re-defines the role of designers amidst these processes of urban change.

I end this introduction and begin my article with an extract published in The New York Times shortly after the release of Slumdog Millionaire by a Mumbai-based 'experimental initiative' Pukar, that took objection to the word 'slum' and sought to reposition Dharavi as a zone of economic enterprise:
Dharavi is probably the most active and lively part of an incredibly industrious city. People have learned to respond in creative ways to the indifference of the state... Dharavi is all about such resourcefulness. Over 60 years ago, it started off as a small village in the marshlands and grew, with no government support, to become a million-dollar economic miracle providing food to Mumbai and exporting crafts and manufactured goods to places as far away as Sweden. No master plan, urban design, zoning ordinance, construction law or expert knowledge can claim any stake in the prosperity of Dharavi... Dharavi is an economic success story that the world must pay attention to during these times of global depression. Understanding such a place solely by the generic term 'slum' ignores its complexity and dynamism (Echanove and Srivastava, 2009).

2. RE-ADJUSTING TERMINOLOGIES: SOME DEFINITIONS

Informal settlements, commonly referred to as squatter settlements or shanty town or slums, are erected on illegally occupied land that lie at the outskirts of the city or inner pockets of land that are hard to develop, using temporary, semi-permanent or even (gradually) permanent building materials by poor people who cannot afford to buy or rent permanent place to live. They are often seen as a shameful feature of poverty and inherited inequalities and are regarded by many as unhealthy and overcrowded blights on the urban landscape (Huchzermeyer & Karam, 2006 p.vii). Informality, in planning and urban design, has also been associated with urban self-help, self-built housing and as contemporary vernacular settlements.

Box 2. Some key definitions of a Slum

The UN-HABITAT (State of the World Cities 2006/2007) defines a slum as:

a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. Slum households are a group of individuals living under the same roof that lack one or more of the conditions listed below:

1. Durable housing of a permanent nature that protects against extreme climate conditions.
2. Sufficient living space which means not more than three people sharing the same room.
3. Easy access to safe water in sufficient amounts at an affordable price.
4. Access to adequate sanitation in the form of a private or public toilet shared by a reasonable number of people.
5. Security of tenure that prevents forced evictions.

One relevant definition is offered by the organization - Cities Alliance, which is comprised of a global coalition of cities, national governments, non-govermental and multilateral organisation such as the World Bank and UN-Habitat. In the "Cities Without Slums Action Plan," Cities Alliance (1999) provided the following definition of a slum:

Slums are neglected parts of cities where housing and living conditions are appallingly poor. Slums range from high-density, squalid central city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities. Some are more than fifty years old, some are land invasions just underway. Slums have various names, Favelas, Kampungs, Bidonvilles, Tugurios, squatters, shanties; yet share the same miserable living conditions.

The definition of slum has been put forth by several agencies and organisations internationally and in India which vary significantly. The one adopted by India's ambitions poverty alleviation programme Rajiv Awaz Yogna RAY is:

A slum is a compact settlement of at least 20 households with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions.

A wide range of terminology exists that qualify settlements occurring outside the bounds of planning and legality: unplanned, informal, spontaneous, popular, irregular - “settlements of the urban poor developed through the unauthorised occupation of land” and thus, lie within the realm of urban informality. However, there is a general tendency of 'gross identification' of what is formal and informal, which can lead to inappropriate analysis and policy measures. Jenkins & Anderson argue that the binary of formal and informal is both misleading and often causes greater inequality. In the urban context, the notion of 'informality' and 'formality' are largely associated with two broadly-defined forms of city development. For eg., different spontaneous forms of illegal occupations, invasions and settlements are generally identified as 'informal' (Hutchison, 2010), while those that are planned through rational processes under legal institutional frameworks are all associated with the term 'formal' [Caves (ed), 2005]. The distinction between formal & informal is also blurred by the overlapping co-existence of both conditions across the sectors. For eg., not everyone in the informal housing settlements holds an informal sector job (Ejigu, 2012),or not everyone in a slum lives below the poverty line. Thus, it is inappropriate to classify any settlement and its urban form as a purified identity, since it constantly evolves under multiple and pluralistic conditions that makes it multi-layered. Hence, the formal gets connected to poverty and disorder and the informal meets prosperity and order.

3. Changing Perceptions: Re-thinking Slums

The existence of slums or informal settlements is common to most cities of developing countries. They represent a source of economic and residential opportunities as well as an initial point of access into the urban environment for incoming migrants, or for those moving from other parts of the city. Informal settlements, thus, serve a critical function as 'holding places' from where people can access the urban environment at extremely low financial cost and piece together various livelihood options. Some might remain permanently and even ultimately gain access to formal housing, whilst others might reside temporarily for specific purposes which, once fulfilled, result in them moving elsewhere in the city or even returning back to their place of origin. To some, these informal settlements may be recognised as a respect-less visual expression; however, to one-third of the world's population, it constitutes a home in which intricacy, variety, accomplishment & resource efficiency are evident (Pugh, 2000).

Box 3. Theories for emergence and expansion of informal settlements in developing nations

Sietchiping (2004) lays down the following four causes for the emergence and expansion of informal settlements in developing nations and argues that there is no single theory but a combination of various factors : first, land management [inefficiency of urban authorities, along with poor land management practices and inadequate urban planning schemes, result in the informalisation of urban areas (Fekade, 2000)] ; second, colonial legacy [the expansion of IS to political and historical factors, especially colonialism, postcolonial practices and civil and political instabilities (Debusmann & Arnold, 1996; Global Urban Observatory, 2003)]; third, inadequate economy [the introduction of urban trade, income and class differences is spatially translated into residential discrimination and social exclusion (Huchzermeyer, 2002)]; and fourth, demand and supply disequilibrium [the emergence and growth of IS by the imbalance between demand and supply of urban commodities (land, services and infrastructures) (Jacopsen et al., 2002)].

Box 4. Evolution of approaches to Slums

(http://www.oecd.org/dev/pgd/46837274.pdf)

1. Forced eviction and slum clearance

   Forced eviction relates to the removal of people from their homes or land against their will (Olds, et al., 2002). The past experiences show that slum clearance is not a solution to the proliferation of slums as it focuses on the symptoms rather than the root causes of such settlements— thus resulting in their displacement rather than elimination. Furthermore, slum clearance results in the destruction of fixed capital and livelihoods, loss of social and safety networks, family disintegration, psychological and emotional trauma, exacerbation of housing deficit and increased impoverishment.

2. Slum resettlement programmes

   Resettlement takes place when slum clearance entails the relocation of evicted households to alternative locations— usually outside the urban area. Relocation programmes may either take the form of the allocation of plots on which households are expected to build their houses or the provision of low-cost housing. City authorities do not have the financial and technical resources to fully undertake such resettlement programmes. Consequently, the plots and houses provided in the new locations tend to be grossly insufficient and in distant locations without adequate infrastructure and services— thereby worsening the housing problems and living conditions of evicted households.

3. Slum upgrading programmes

   Given the failure of previous strategies to effectively tackle the problem of many developing countries adopted slum upgrading programmes. Such programmes owe much to the work of John Turner (Werlin, 1999; Pugh, 2000). Although upgrading programmes have produced some impressive results, they have been criticized on several grounds key amongst them include: failing to have a citywide effect; low levels of investment; inability to address the more fundamental supply constraints of land, finance and building materials; weak institutional and financial mechanism as evidenced by the high dependence on external funding; and the absence of any clear focus on poverty reduction (World Bank, 1999; Abelson, 1996; Kessides, 1997; Okpala, 1999; Werlin, 1999; Tebbal and Ray, 2001; UN-HABITAT, 2003a; Gulayani and Bassett, 2007).

In the past decade, there is a growing realization among architects, planners, and other urban thinkers, that these settlements also possess unique design strengths, and may even hold lessons in successful & sustainable urban development. Traditionally, urban policies focused on slum-clearance, aimed at cleaning up urban landscapes of "unsightly" settlements. Such an approach, however, had deep social implications and did not succeed as informal settlements continued to increase in number and size (World Bank, 1996). Later, the government started housing programmes to replace the slum clearance approach. There were two issues with such mass or social housing. First, the rising demand-supply gap (due to high rate of urbanisation, rural-urban migration, low levels of public investments and slow pace of private agencies 'contribution to social housing). Second, the dissatisfaction with the modernist housing solutions that motivated reconsideration of traditional approaches to social housing provision (Ejigu, 2012).

This evolution in urban thinking saw a shift in the academic and professional debate in recent years towards a better understanding of the production and functioning of informal settlements when, in the 1960s,a few commentators started questioning the formal planning system and design approaches. Jane Jacobs (1961) argued that “diversity”, a key component of effective functioning and quality of a place, is formed from countless individual decisions that are generated from the bottom-up, but more often destroyed by the top-down urban planning. Later, in the book “A Pattern Language” (1977), Christopher Alexander and his collaborators defined a theory in which the city develops through an incremental growth of parts that, over time and synergistically, enriches the whole. John Turner in 1976 explained how people who built in informal settlements followed a different set of priorities than those imposed by public housing programs. He minimized the role of government, limiting it to providing essential environmental improvements and public services, thereby allowing squatters and/or slum-dwellers to gradually improve their living conditions. From Turner's ideas, also supported by other authors emerged a new “self-help” paradigm, after which programs such as upgrading, sites and services, and core housing were accordingly devised as a

new approach to the housing problem.

Such approaches have been criticised on the grounds that they depoliticize the issue of poverty and its associated problems, and also conveniently excuse the government of any responsibility towards the urban poor. Moreover, informal settlements are often developed on vulnerable sites which can be both dangerous to the inhabitants and ecologically damaging. Yet, there is a growing acceptance that such settlements represent the vernacular process of self-production, possess unique strengths that may hold lessons in sustainable city building (Brand, S. 2010) and are believed to show qualities that are in common with the concepts of 'New Urbanism', 'Incremental Urbanism' or 'Vernacular Urbanism'. Although there is still a debate about whether informality is positive or negative, the above ideas have started to influence architects, planners, and other urban thinkers in last few decades.

4. Setting the Scene: Case Study Guwahati

Guwahati, the capital city of Assam in North East India, is situated at 26° 10' North latitude and 92° 49' East longitude on the banks of the Brahmaputra River. It is an ancient city, with a long tradition of urbanization dating back as far as the Epic and Puranic periods. The emergence of a new Guwahati city started in 1826 when Assam came under British occupation after the first Anglo-Burmese War (1824-1826). The British military interest turned into economic interest as trade grew in tea, coal and oil became the new booming industries of the Colonial period. Since, the agro-based tea industries led to decentralised effect, Guwahati started to urbanise majorly as a result of commerce, spurred by new transport and communication links rather than industry. This growth gathered pace in the years after India's Independence (1947) and also after 1972, when Assam's regional government moved to the Guwahati suburb of Dispur. Within a century, Guwahati grew from a marshy settlement of mere 12,000 people (1911) into a vast urban agglomeration of nearly 1.26 million population (2011, provisional Census) covering more than 262sq km of the Guwahati Metropolitan Area.

This city is now one of the most rapidly-growing and important cities in North-East India. This pace of growth meant that informal settlements (squatters, shanties or slums) emerged as feasible economic and residential options for the urban poor. In Guwahati, slums have been part of the urban landscape for past several years however; they have become more obvious in number and size since past few decades. They are not massive sprawls found in other developing countries but are mainly in the form of pockets scattered around the general urban fabric.

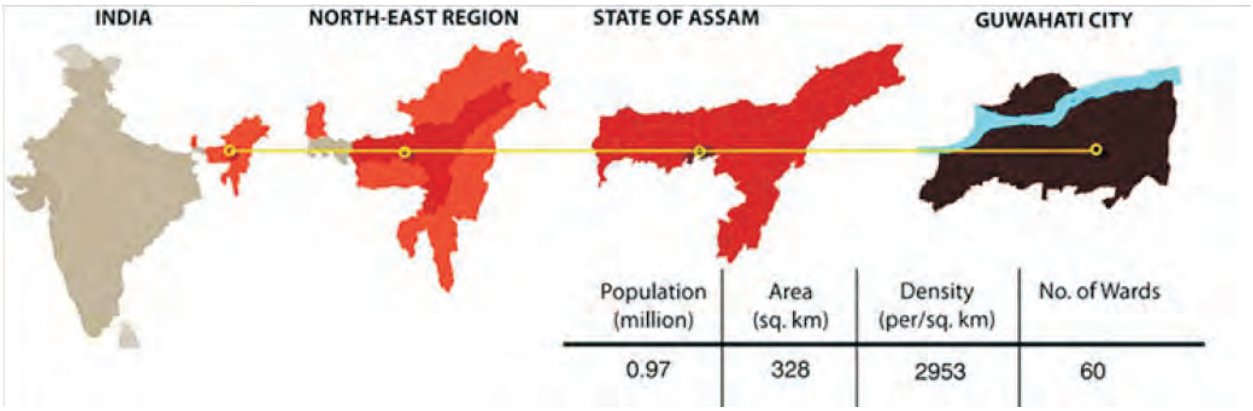


Figure 1. Positioning Guwahati in the context of India and North-Eastern Region

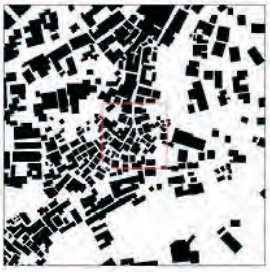
There are 217 slum pockets in the city as identified by the Guwahati Municipal Corporation (GMC) in which 15 percent of the city's population resides. Increasing land values and a lack of available land for urban development due to the city's topography (hemmed in by a series of hillocks and water bodies) has also led to the expansion of informal settlements on environmentally sensitive areas. Considering the increasing population of the urban poor, the government is preparing a plan of action for a slum-free city under the ambitious Rajiv Awas Yojna(RAY) announced by the Government of India to make Indian cities slum-free by according property rights, providing basic amenities and social infrastructure facilities in slums and low income settlements, adopting a 'whole city' approach. We only hope that the proposals are responds to the slum resident's true needs and desires. Since these settlements differ substantially from each other in terms of tenure security, environmental deficiencies, shelter conditions, income levels and affordability, the general and subjective definition of 'slums' as accepted by RAY (Please refer to box.2) must be revisited and supported by standardised parameters in order to rationalize the RAY subsidies for effective & sustainable targeting, when according property rights & providing urban infrastructure in slums (Risbud, 2010).

Figure 2. Government provided top-down planned social or mass housing in Guwahati, India.

Figure 3. Variety and intricacy in the informal forms that emerged through bottom-up process, case examples from Guwahati, India.

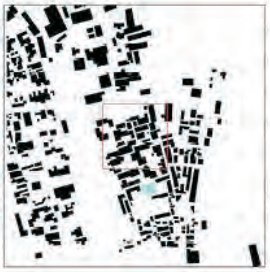
5. Home-grown settlements: Design Attributes

In this section, I discuss the spatial characteristics and design strengths of informal settlements that are home-grown or self-produced or user-generated by people and communities that inhabit them. The study is based upon empirical evidence of case studies in Guwahati. Five case study areas were selected and a detailed socio-morphological analysis was conducted at various spatial scales using digital footprints and configurations which are mapped on Google earth and GIS mapping techniques. Secondary data was collected from in-depth literature review and government databases. Primary data collection involved intensive fieldwork through observation and focussed group interviews, mapping, measurement, verification, photo/video documentation. Samples from the pilot study conducted in Ahmedabad, Gujarat has also been used. A brief description of the case studies in given below:



CASE STUDY 1
Jahajghat Aarikati Basti

Population: 930
Density: 1552 people/hectare (approx.)
Age of the settlement: 150 years
Topographical features: Built on a hill

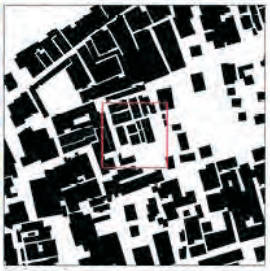


CASE STUDY 2
Koilashnagar

Population: 985
Density: 1673.7 people/hectare (approx.)
Age of the settlement: 25-30 years
Topographical features: Built on marshes

Figure 4. Case Study description

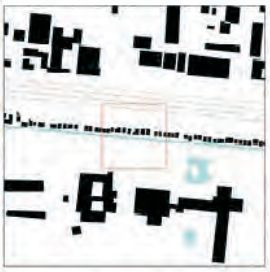




CASE STUDY 3
Shantipur Basti

Population: 400
Density: 1408 people/hectare (approx.)
Age of the settlement: -
Topographical features: Built on private land which was formerly a brick kiln

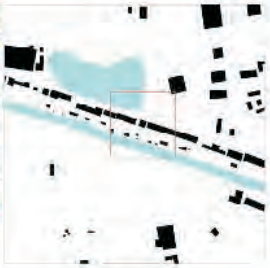




CASE STUDY 4
Hafiznagar

Population: 292
Density: 790 people/hectare (approx.)
Age of the settlement: 35-40 years
Topographical features: Built along the railway tracks





CASE STUDY 5
Madhavpur

Population: 290
Density: 303 people/hectare
Age of the settlement: 10 years
Topographical features: parallel to the rivulet

5.1 Complexity, Emergence and Dynamism

Complexity science studies how relationships between part give rise to collective behaviours of a system and how the system interacts and forms relationships with its environment (Batty, 2007). Complex systems are made up of many interacting lower level components that collectively have an ability to self-organize into a higher level system of sophistication and intelligence leading to emergent order (Robert Meyers, eds 2009, Johnson, 2002). This 'evolutionary growth' paradigm as opposed to 'imposive planned' paradigm thus allows informal settlements to be seen as complex, emergent structures, created not by top-down design, but through bottom-up actions, resulting in a spontaneous order generated through relatively simple rules and forces (Hemani & Rudlin, AESOP 2014). Organised complex patterns emerge over time by retaining what works and rejecting what does not, producing pragmatic, organic city growth. The theory of complexity and emergence is another topic altogether and thus going further in-depth into the subject is beyond the scope of this paper. But, from the case studies, it is evident that informal settlements emerge in unfavourable locations within or at the periphery of the city where the threat of eviction is minimum. The choice of site is based on availability of land for habitation and livelihood opportunities (Dwyer, 1975; Ulack, 1978). Other important factors include commuting costs (Alonso 1964; Mills 1972), local public

goods (Tiebout 1956) and individual preferences for neighbourhood composition (Schelling 1971). They have an inherent ability to adapt and ultimately improve, albeit not always fast, but through a gradual and incremental process of growth.

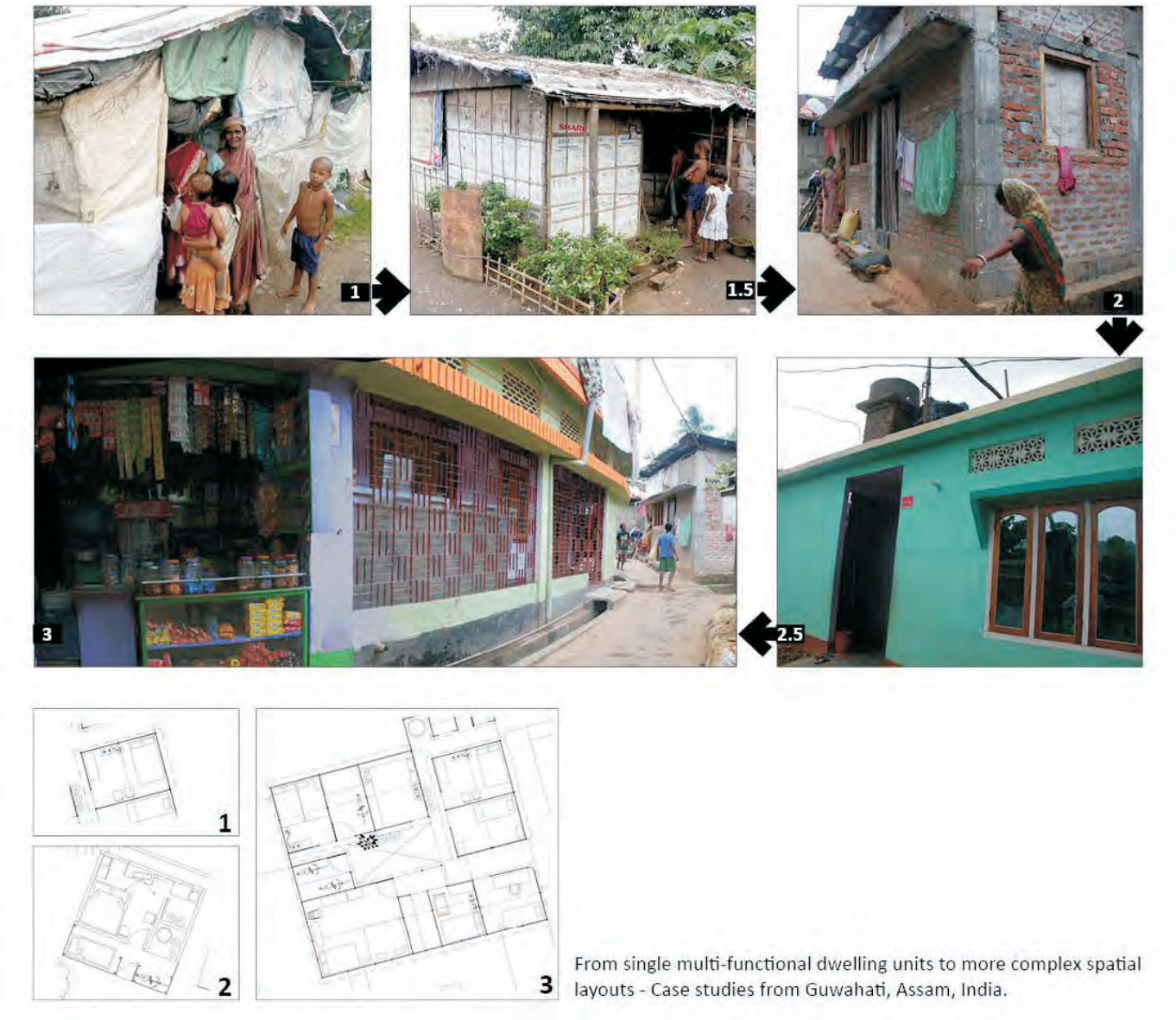


Figure 5. Various Stages of Consolidation - Case studies from Guwahati, Assam, India

The informal settlements are also highly dynamic. Constant transformations and alterations are made at individual dwelling (additions as per the growing needs and family size, rooms for rent and shops for additional income) as well as community level (building community centres, religious buildings, construction of primary school or education centres and also community-led infrastructural works such as roads, street lights etc). Such transformation often leads to consolidation, and later formalisation, of the

informal spontaneous settlements. These settlements, therefore, remain bottom-up, incremental forms of growth that have been propagated as a non-utopian alternative to high capital, centralized and inflexible top-down approaches that have dominated 'master planned' approach to planning, in which the idea of growth and evolution is based on gradual accretion so that the collective form is an outcome of broad spectrum of interests and efforts of agents and components playing at local, grassroot level. Incremental settlements are built incrementally through small changes responding to everyday, ever-changing conditions and therefore the dwellers behave as "everyday-planners" (Hemani & Rudlin, AESOP 2014) contributing to evolution of the city as whole.

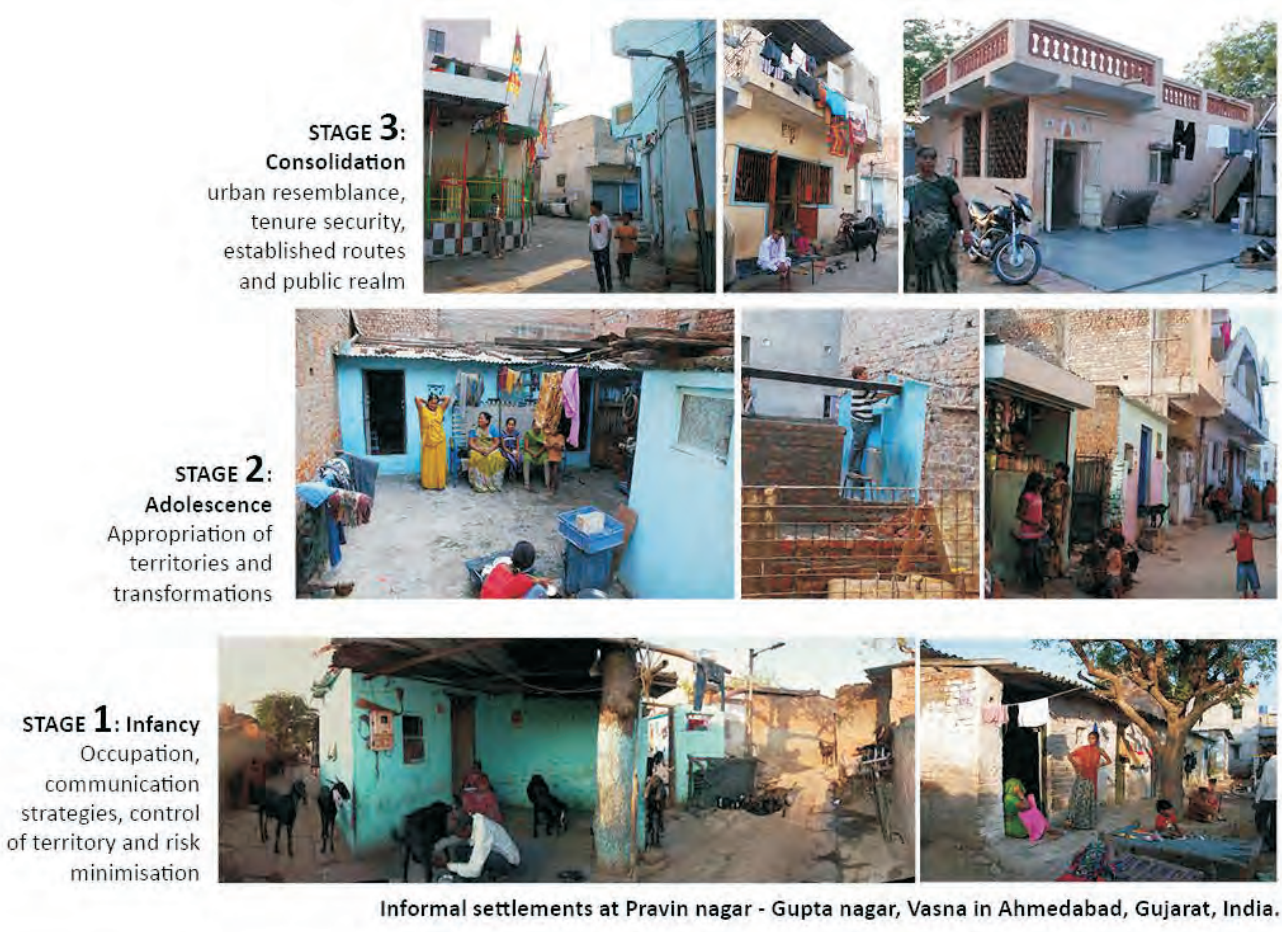


Figure 6: Incremental, Dynamic, Progressive - Pilot Study from Ahmedabad, Gujarat, India.

5.2 Order in the perceived Chaos

Since informal settlements are related to chaos, disorder and high density population, residents of such settlements are often associated with epidemics, crime or deprivation (Bornberg & Jaimes, 2005), and are generally seen to bear a high potential of conflicts (Zibell, 1995). The detailed morphological analysis

undertaken as part of this work illustrates that these settlements may look disorderly, but they are anything but. The apparent disorder is order of a different type. This is evident from the layout of the settlement in terms of arrangement and spatial hierarchy of internal routes and public spaces. Although they may be seen as spontaneous emergent settlements a certain level of sophisticated planning begins right from the selection of site to the construction of the dwellings and their alterations based on ideal schemata that the occupier possess. As Rapoport, 1988, p.52 argue, "spontaneous settlements, like all human environments, do not just happen; they are designed in the sense that purposeful changes are made to the physical environment through a series of choices among the available alternatives". "Taking full advantage of the vagaries of climate, the topographical obstacles" are also noted by Rudofsky (1964, p.3). Thus, informal settlements are built to meet the necessities of their dwellers and are influenced by factors such as class structures, perception of safety, climate, topography, land ownership patterns, local building materials, available resources, spatial assumptions, etc. These influences play on a process of self-organisation based on interplay of relatively simple rules, the result of which creates very effective ways of dealing with problems of living in urban areas. Apart from planning and design of their own settlements, the residents also shape a social order for their informal settlements which includes structures resembling governments, hierarchies and rules (Suttles, 1968). This parallel social order, together with its spatial structure, forms informal neighborhoods residing besides or overlapping and merging into the ones which are shaped by the formal socio-spatial framework.

Figure 7. Self-organisation and Spatial hierarchy

Case example, Koilashnagar in Guwahati, Assam, India.



Family Courtyards housing various domestic activities

Commercial establishments along the key routes

Primary Street

Secondary Street

Tertiary Street

5.3 Responsiveness, Versatility and Resource-efficiency

Responsiveness, versatility and resource-efficiency are observed to be integral characteristics of informal settlements. As Martin and Mathema (2006) have argued, when compared to formal housing, informal settlements has a closer fit of form to function, a more efficient use of space, a greater flexibility for change and better value for money. The smallest component of an informal settlement is the dwelling which in its simplest form contains a single multi-purpose space housing all kinds of activities. The spatial arrangement of activities and uses within this single space dwelling is simple but no less sophisticated and efficient than the formally planned ones. Later, spatial and functional alterations to meet the increasing privacy requirements and to overcome the problem of scarcity of living space, for addition income through conversion of rooms to shops or workshops, and intricacy in the construction work communicates possible economic and social empowerment and the slowly increasing sense of ownership. Such progressive improvements have significance to everyday living and socio- economic opportunities.

Figure 8. Responsiveness, Versatility and Resource-efficiency

It is also clear from the surveys that the informal settlement is not only a physical entity but also a social space. There exists a strong relationship between the spatial organisation of informal settlements (slums) and the socio-cultural values of those who build and inhabit them. As seen from the case studies in Guwahati, the form and spatial configuration of slum settlements, even within one Indian city, varies

hugely. Despite that all are developed through a similar process small differences in the social makeup of the community, or the conditions of the site, has led to quite divergent solutions. Therefore, the mode of occupation and use of land – both historically and contemporarily – depends on the specific geographical and environmental features of a site, while also reflecting evolving systems of social organization. From marshy lands to very steep sites, the buildings engage with their surroundings as a means to address the interface between natural and socio-economic environments at the community level. Ultimately, they represent interventions intended to generate wider social effects and function as part of a broader urban ecosystem. The spatial configuration is closely integrated with what Smit (2006, pp.109) also mentions, social networks, domestic economics and employment prospects. There is a very complex use of open space allowing innovative trade-offs between public - private spaces partly due to scarce indoor living spaces but largely due to the overlap of several social and domestic activities such as meeting, chatting, resting, playing, washing, sometimes cooking.

BOX-3

GOOD CHARACTERISTICS OF A 'SPONTANEOUS' URBAN MODEL

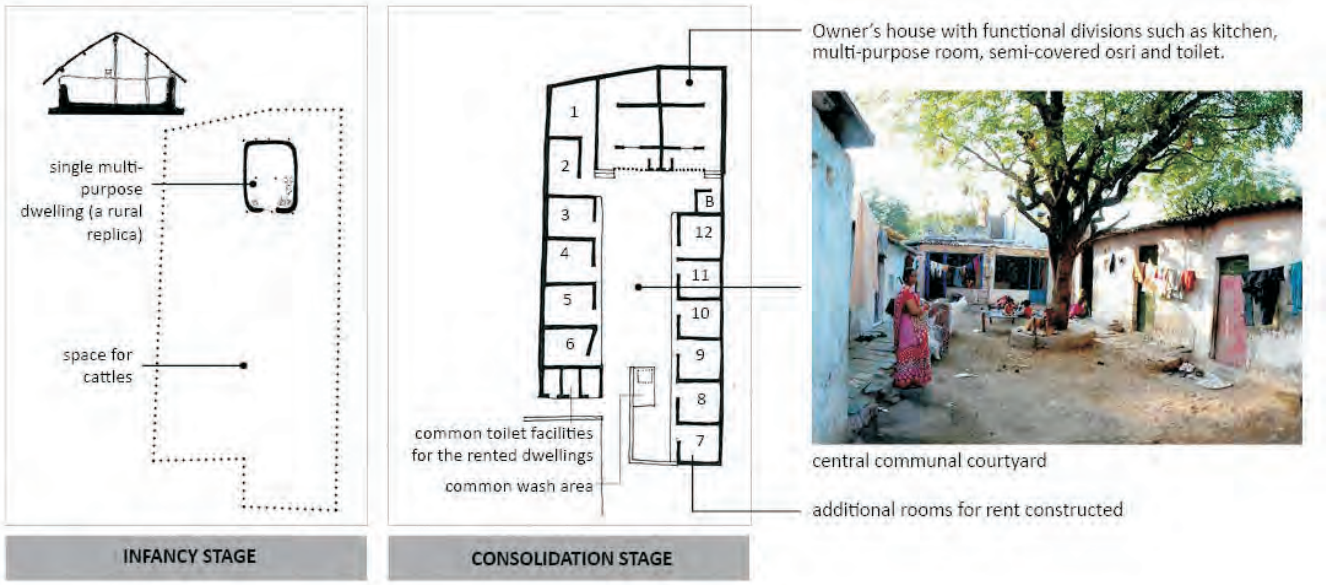
Design qualities of the informal settlements
Legibility/Multi-functionality: The streets & squares of informal settlements are not just routes but spaces where community life takes place, the ambiguous public-private boundaries are constantly negotiated throughout the day making them multi-functional or multi-purpose. There is also an established framework of streets that gives unique shape & structure to these areas. An obvious hierarchy of streets and open spaces with respect to their size, use and variety is seen which provides legibility.
Continuity:Informal settlements have a reasonably continuous building edge with active frontages. The built form tightly encloses the open spaces as opposed to broken building lines or buildings in landscape.
Variety: The buildings of informal settlements are self-produced and are constantly being modified in accordance with changing circumstances. This creates variety in built form which gives interest and richness to the overall built environment as opposed to monotonous modern housing estates.
Diversity: The dense built forms of informal settlements comprising of live-work units supports diversity in uses and activities.
Adaptability/flexibility: The building structures and the urban form of informal settlements show immense material and climate adaptability as well as flexibility in space usage (versatile use of space) and alterations to fulfil future needs and changes.
Walkability: the informal settlements built for movement on foot are socially vibrant.
Density: The compact urban form with high density is claimed to be environmentally sustainable as propagated under the Compact City Theories.

(Developed from Hemani and Das. 2012:114, Table 2)

5.4 Rural Similitude to Conventional Counterpart

The residents or builders of the case study slums were rural migrants and in most cases from a single ethnic group who have migrated from a specific rural region. It is therefore hardly surprising that they built they bring along with them the vernacular know-how which can be seen not only in the construction techniques and sometimes the building materials that they use, but quite often also in the spatial organization of the settlement. However, in contrast to vernacular or informal building culture that matures over time as knowledge is refined over time, many slums in the city are in their infancy and mature to resemble the formally planned counterparts. As the slum dwellers gain economic prosperity the initial vernacular forms may often get replaced by modern housing layouts, forms and materials. This is partly because it makes them feel part of the city, or because of their aspiration & desire for the modern urban lifestyle. Kellet in his paper Contemporary Vernaculars: Informal Housing Processes and Vernacular Theory concludes that fully consolidated and legalised settlements can become virtually indistinguishable from conventional formal residential neighbourhoods, despite contrasting trajectories (Kellet, 2011). These vernacular informal settlements also have the contemporary urban context to deal with such as complex space contestations, recurrent migrations, temporality, material constraints, as well as climate change and other occupational hazards.

Figure 9. Rural Similitude to Conventional Counterpart, Pilot Study from Ahmedabad, Gujarat, India. (image source: Hemani et al, 2012)



A 'Rabari' house in the process of consolidation and formalisation, Pravin nagar - Gupta nagar, Vasna in Ahmedabad, Gujarat, India.

Rural influence and vernacular resemblance

(image source: author)

1: Slum houses at Jahajghat Aarikati Basti and 3: Madhavpur Slum at Basistha in Guwahati showing close resemblance to the traditional vernacular rural typologies
2: Traditional vernacular settlements at a village in north Guwahati

The question is whether the process of consolidation homogenizes these unique spatial systems of urban morphology or whether is it a natural transition from rural forms and lifestyles to urban ones? The question here is not of vernacular to conventional continuum but a trade-off from a vibrant, resource-efficient, diverse urban model to a resource intensive, uniform modern form. This repetition and lack of diversity, as identified by Jane Jacobs, does more harm than good. However, the case study example showed more optimistic than negative observations.

6. Changing Roles: Is there room for Designers?

Throughout history, designers have worked within the notion of ideal or perfect living environments. Such notions remained embedded in city planning - from the ancient cosmic ideology, to modernist technological perfections, to the present day emerging sustainable orthodoxies - design of cities and its forms are viewed as instruments of social change. Revolutionary designs of modernist building and planning in the early to mid 20th century emerged as “solutions to the social crises of industrial capitalism (Holston, 1996)”. Gradually the social concerns were suppressed in favour of designer's authorship, and celebrity. The traditional or informal forms of the city were considered chaotic, unruly, dangerous and even unjust, awaiting the orderly and efficient plans developed or imposed through top-down formal planning (Nickerson, 2010). Such a notion to design and planning that dominated the European social housing projects in 1960's and 70's is now very much part of current policy in parts of India where strong public sector involvement in a centralized production of minimum-standard units for urban poor, is introduced both to address the problem of housing shortage and to solve the 'problem of slums' (Hemani & Rudlin, AESOP 2014). However, the failure of such modernist approaches in solving the issues of slums and raising social and environmental concerns has over-ruled the idea that cities and their environments can be designed for a utopian end state. The thoughts that the city is a collection of interdependent, co-evolving parts whose collective action can lead to larger consequences, is at odds with the way that planning operates, and thus questions the role of architects, urbanists and planners in the design of cities, in particular the informal. However, efforts to improve the negative aspects of informal settlements and formalize them worldwide show that there can be ample room for designers to reinvent and reapply their skills in a way such that formal processes are not barriers but facilitators to home-grown human endeavours to city building.

7. Reimagining the future of informality: Some Conclusions

As the most visual manifestation of urban poverty, the informal spontaneous habitats are receiving immense social, environmental, design and political attention. They have so far, had paradoxical viewpoints. Devoid of basic services & infrastructure, and characterised by extreme poverty, ill health &

deprivation, the informal slum settlements may be seen as illegal, unsightly and disrespectful expressions of poverty in the city. Hence, as seen from one perspective, these disordered, criminal and improvised settlements should be hidden or cleared for the sake of society. On the other hand, such a perspective is contrasted with an optimistic dimension in which the informal settlements are presented as 'vernacular', 'innocent' 'authentic' (Ballegooijen, 2013) and possessing heroic entrepreneurship (De Soto, 1989, 2003). However, both lamenting and romanticizing urban informality is problematic -- they should not be conceived as closed systems, but rather as being in flux, characterised by a variety of formal and informal systems.

Today, the often chaotic and incomprehensible city of Guwahati, just like other Indian cities can neither be explained by a specific urban order, nor through urban principles of rationality and functionality. However, hidden in such complexities are various ways of inhabiting the city that are a result of different social, political and economic forces, working together formally or informally, in response to present day exigencies of urbanisation. Even with renewed interest in the role of design to improve informal settlements' living conditions, the (urban) design discipline lacks a comprehensive understanding of the process of change and how built environments accommodate such change within this urban phenomena and, therefore, effective intervention tools. It is important that policymakers understand the underlying causes of the phenomenon of informal development so that it can be wisely confronted and addressed. Similarly, design professionals, architects and urbanists cannot participate in the peoples' processes of place-making unless they understand the true characteristics of the settlements in which they act. Lack of such an understanding, as seen in many cases elsewhere in the country, can lead to the formulation and implementation of schemes that may reproduce or even worsen the phenomenon. We have seen that the spatial configuration of the informal settlements possess unique strengths of adaptability, progressiveness, flexibility, sustainability and community living. The transferability of processes, practices and designs derived from informal urbanization into formal contexts may, no doubt, present several challenges;yet there is potential here, if regulated and supported by the government, that vernacular self-help building can be in a way an alternative to lifeless, monotonous and conventional designed housing solutions for the urban poor.

BOX-4

Today's architects and urbanists may have a role to play here, not to impose plans, but to search and facilitate ways by which these traditional and contemporary vernacular informalities become better, bit by bit, piece by piece. This intervention can be made by 1) acting as design facilitators instead of creators 2) generating awareness & appreciation to avoid systematic cleansing of such effective vernacular urban models, and 3) intervening at the policy level to support their right to shelter, employment, urban advantage and decision (Hemani and Das, 2012:116).

Alternative approaches to urban planning can operate at the equilibrium or in-between the formal and the informal and invest on empowerment. Today's urbanists may have a role to play here, not to impose plans but to search and facilitate ways, by which these traditional and contemporary vernacular informalities become better bit by bit, piece by piece. The idea is to enable people to shape their own immediate environment in a sustainable and responsible way. This intervention can be made at two levels 1) acting as design facilitators in response to the concern for homogenisation & systematic cleansing of such effective urban models; hence, generating awareness & appreciation for these vernacular informalities, and 2) intervening at policy level to support their right to shelter, employment, urban advantage and decision. It is possible that if informal settlements are allowed to develop in this manner, they can develop into urban form that is very similar to the traditional parts of the city seen today. This may not always be successful as some informal areas may disintegrate over time, but without romanticizing the deprivation and poor conditions that the slums face today, the paper does suggest that we should think carefully before writing them off and seeking their redevelopment with modern blocks as slum-free city may be neither possible, nor entirely desirable. Over a short period of time, the cultural richness, spatial vitality and economic dynamism of these informal forms will enrich not just the local dwellers, but the city as a whole. Therefore, home-grown informal forms of urban existence should not be seen as liabilities, but wonderful catalysts of urban change,

“acting as benign parasites on a city that work in harmony and helps it grow” (Hemani et al., 2014).

8. Acknowledgement

I acknowledge the support and guidance from my supervisor Prof. A. K. Das during the course of PhD studies, at the Department of Design, IITG, Guwahati, India.

I also acknowledge the inspiring and creative inputs from David Rudlin, Director, Urbanism Environment Design URBED, Manchester, UK.

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BOOK RECEIVED

1. A New eBook from UniversalDesign.com
Universal Design Tips: Lessons Learned from Two UD Homes

This new electronic book from UniversalDesign.com is filled with tips and ideas that will help guide anyone through the process of designing and constructing their own Universally Designed home. The book was co-authored by John Salmen, AIA, the publisher of Universal Design News and founder of UniversalDesign.com, and Ron Knecht, whose durable, energy efficient Universally Designed house was featured in the January 2012 issueof Universal Design News.

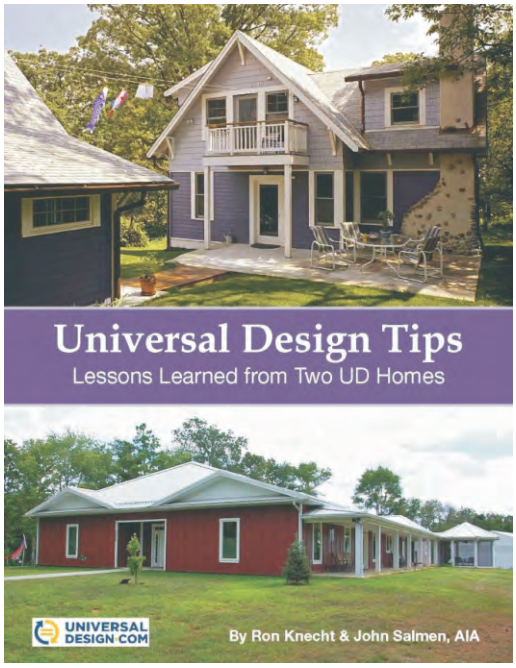
The first section of the book deals with the planning process, providing insight on how to choose a location for the house, consider activities of daily living during planning, best use various types of design professionals, finalize a floor plan and develop a building schedule.

The rest of the book is organized according to different areas or elements of the home (i.e. exterior doors, bathing, and kitchen counters, just to name a few.) Whether designing a whole house or simply remodeling one area, Universal Design Tips makes it easy to quickly refer to the relevant section and find valuable tips that ensure success. Each of these sections includes design tips, photos and important lessons that the two authors learned through their personal projects.

John Salmen has been working in the field of accessible architecture and Universal Design for over 30 years, and he put this expertise to good use when remodeling a historic property to create the Universally Designed house he and his wife hope to live in for many years. Salmen's “Home for the Next 50 Years” has been featured in various media outlets: including The Washington Post, Fine Homebuilding, AARP's television show Inside E Street and the book The Accessible Home: Designing for All Ages and Abilities. Now, readers will be able to explore Salmen's home in even greater detail and apply his experience to their own Universally Designed home projects.

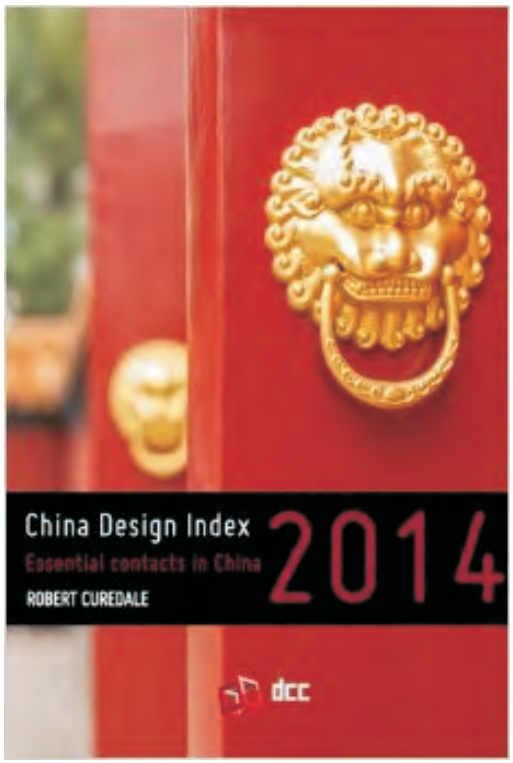
Ron Knecht's experience with Universal Design started after his wife of 46 years became ill with cancer. As her health worsened, Knecht learned first-hand the importance of accessibility for maintaining independence, safety and one's quality of life. Before Knecht's wife passed away, she extracted a promise from him that he would move to a Universally Designed house located closer to their daughter. Knecht was underwhelmed by both the houses that he saw on the market and the UD house plans that he found online; he realized that he would have to plan and build a custom house in order to fulfill his promise.

Knecht and Salmen were mutually impressed with the thoughtful Universal Design details present in each other's homes, and eventually they decided to co-author a book that would draw from their experiences to provide guidance for anyone planning to build or remodel their home for enhanced safety, comfort, independence, convenience and aging in place.



The eBook is available from UniversalDesign.com as a downloadable PDF, for $20. A short excerpt of the book is also available for preview prior to purchase. To buy the eBook or view the preview visit UniversalDesign.com.

2. China Design Index 2014: The essential directory of contacts for designers Paperback – February 1, 2014 by Robert A. Curedale (Author)



3.

The Road Ahead

Transition to Adult Life for Persons with Disabilities

Volume 34 Assistive Technology Research Series
Editors: Storey, K., Hunter, D.
December 2013, 318 pp., hardcover (revised 3rd edition)
ISBN 978-1-61499-312-4 (print)
ISBN 978-1-61499-313-1 (online)
Price: €69 / US$100 / £59

Successful transition from school to adult life has always been difficult for people with disabilities, especially in the area of employment. The vast majority of people with disabilities are either unemployed or underemployed with low wages and few benefits, and many governments are struggling to find a way of providing employment and benefits to people with disabilities without creating disincentives to work.

This book provides strategies and ideas for improving the lives of people with disabilities, exploring new ways of enabling a successful transition to an integrated adult working life by providing effective instruction and support. Following an introduction which outlines the importance of transition services and meaningful outcomes, topics covered in the remaining chapters include: person centered transition planning; enhancing competence and independence; employment assessment and career development; collaboration between agencies for a seamless transition; independent living and supported living; and community functioning skills.

The book will be of interest to all those who work with transition age students as well as those who work with adults with disabilities and want to enable them to have the best life possible. To paraphrase Helen Keller: "People with disabilities not only need to be given lives, they need to be given lives worth living."

4.

Luigi Bandini Buti
DESIGN FOR ALL | AREE DI RISTORO | il caso Autogrill |
Maggioli Editore, 2013
http://shop.wki.it/risultatoricerca.aspx?indizioricerca=luigi+bandini+buti

This book has been born following the collaboration with Autogrill that, for its new facilities "Villoresi Est", has developed an innovative, Design for All oriented project. We then realized that the cares foreseen for "all" would not be noted by "the majority".
If you are not on a wheel-chair, or blind, or you are not travelling with a large family or you don't have to look after your old grand-father, you will not be able to appreciate many of the attentions included into the project. It was therefore necessary to make more visible the virtuosity of the planning process and its results, which may not appear obvious to many people.

This publication is not meant to be a mere description, it is rather a critical analysis of the Villoresi Est rest area, included in a context that wants to examine in depth the methods and the means of Design for All.
Its main objective is therefore to use the "Autogrill case" to investigate the necessary steps to develop projects Design for all oriented, hopefully in an authoritative way.

Edmonton Architect publishes - Adult Children's Book—Accessible Architecture: A Visit From Pops.

Edmonton Architect Ron Wickman launches his first book titled: ***Accessible Architecture: A Visit From Pops*** at the City Room in City Hall, Tuesday, March 18 at 6 p.m. Ron, son of the late Percy Wickman, MLA Edmonton-Rutherford 1989-2001, is a story written on the focus of Percy and his 3 grandchildren. Ron is best known for his accessible design. His most recent endeavor published by Gemma B. Publishing draws on this knowledge. Edmonton draughtsman Jared Schmidts illustrates with wit and precision the need for a house to be visitable by everyone.

As a child, Ron Wickman learned firsthand about the need for accessibility. His father became paraplegic after being injured by an industrial accident. Ron wheeled his father into many inaccessible places. A longtime Edmonton City Councilor Percy Wickman advocated for people with disabilities throughout his life.

Ron Wickman studied architecture in Edmonton and in Halifax, Nova Scotia, specializing in barrier-free design, designing houses and public spaces that were both beautiful and accessible.

Accessible Architecture: A Visit From Pops—is an adult children's book, which demonstrates the three principles for ensuring a house can be visited and enjoyed by everyone equally, including those with a disability. Following Wickman's design and renovation also enables homeowners to age in place.

Visitability principles include

- the front entrance must have no steps;
- all main floor doors must be at least 36" wide
- an accessible washroom must be on the entrance floor.

Accessible Architecture: A Visit From Pops, by Ron Wickman, illustrated by Jared Schmidts and edited by Sarah Yates, is published by Gemma B. Publishing, a Winnipeg-based publisher. Gemma B. Publishing creates heroes and heroines living with a disability, in both fiction and non-fiction. The book will be launched at Edmonton City Hall, March 18 at 6 p.m. and available later at Audrey's Books in Edmonton.

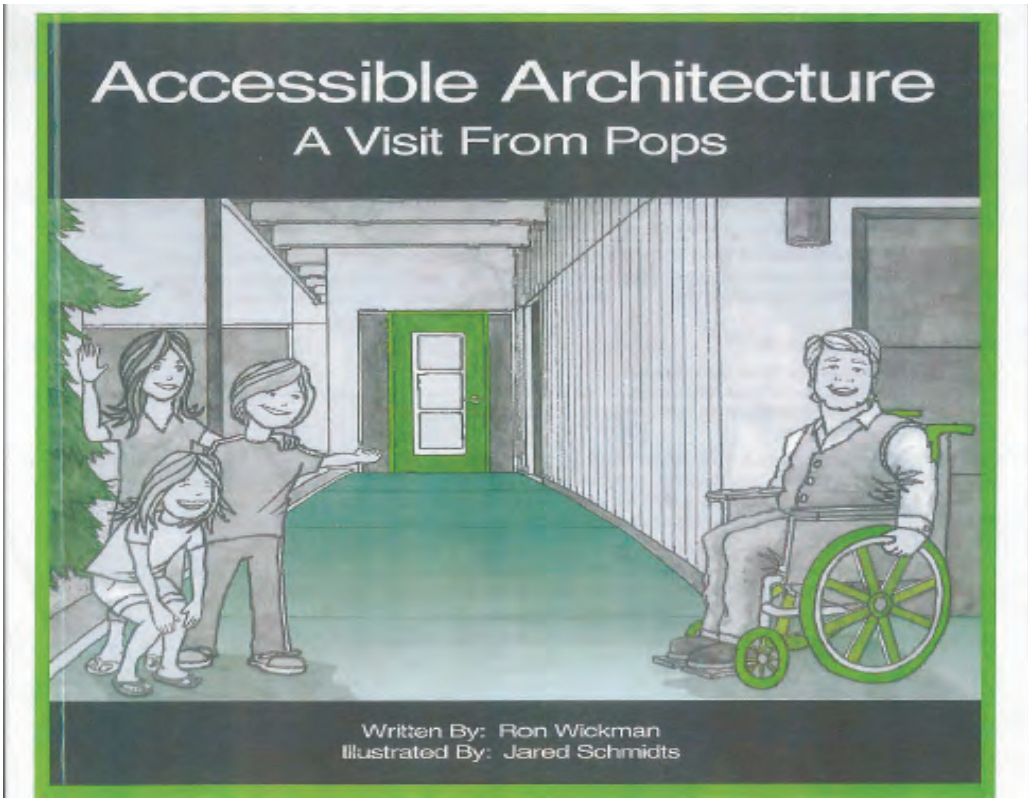
Ron Wickman will be available for interviews after the press conference at City Hall. His lecture at the Buildex Conference, Edmonton Expo Centre, Northlands will be held Wednesday, March 19 at 2:30 p.m.

Accessible Architecture: A Visit From Pops ISBN978-0-991697-0-8 sells for $20.

– 30 –

For additional information, contact:
Ron Wickman
Architect
780-430-9935
E-mail: rwickman@shaw.ca

5.



6.

This book will retail for a recommended price of $19.95 USD ISBN 978-1-77143-155-2, with an ebook version also available at a recommended price of $7.95 USD ISBN 978-1-77143-156-9. You'll be able to buy it from all the usual places - Angus & Robertson, Bookworld, Fishpond, Amazon, Kobo, iBookStore, and Google's Play Store, amongst others.

NEWS

1. Designing for emotional needs

Guy Luscombe

Universal design should go beyond addressing accessibility to include what a person needs and makes them feel happy, according to architect Guy Luscombe, who specialises in ageing.

While meeting physical needs was a must, addressing emotional and psychological needs in design would allow people to feel more included and connected, he said.

Mr Luscombe, director of GLADStudio, will outline what designers can do to go beyond universal design at COTA NSW's inaugural Universal Design Conference in Sydney next week.

"Universal design is seen in terms of making wider doorways and that sort of thing but it goes deeper than that," Mr Luscombe told Australian Ageing Agenda.

A truer approach looks at making things more inclusive for people who have a disability, are older or different in some way, by removing the barriers that make them feel different, he said.

Mr Luscombe will present findings from a recent trip to Europe looking at innovative aged care and housing options for older people, which he undertook after winning the Byera Hadley Travelling Scholarship.

Rather than specific aspects of design to include, Mr Luscombe said it is about looking at what people need.

"A part of the need, which certainly came out in my tour, was that idea that people wanted to feel happy and they wanted to feel comfortable," he said.

A lot of people talked about large windows as one of the things they liked best, he said. In addition to letting more light in, people said it was because it made them connected to the outside world. "They can see what is going on. They felt they knew they weren't isolated and were part of a community too."

It goes to the notions of feeling separated, isolated and not belonging, which are among issues that come up in aged care facilities where people feel they are alone, he said. "The window in a sense was addressing some of those issues. It wasn't so much about the window but what the window was doing."

Freedom of choice as a basic human right and variety are other themes from his trip Mr Luscombe said he would draw on.

"If [choice] is taken away we lose some of our humanity. It is something I hadn't considered before but that starts to affect the ways we look at space," he said. "We don't live in bland environments. We decorate and we choose. We fashion the world to our own desires."

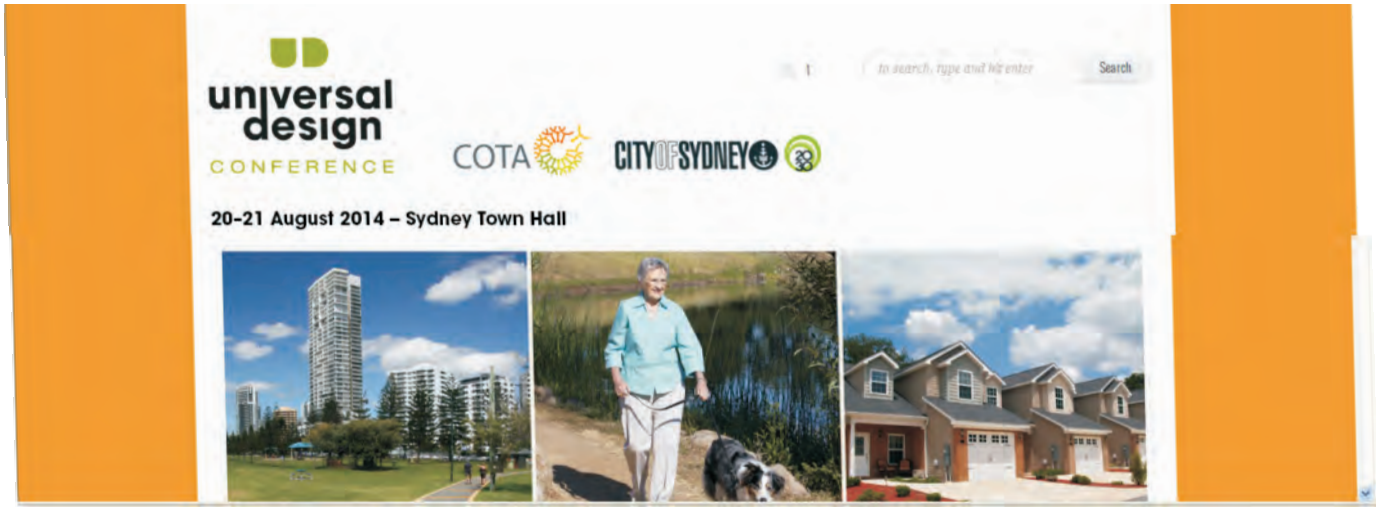
While not necessarily about universal design in the traditional sense, Mr Luscombe said he wanted to show that these things were important in design. "Important because they speak of a broader humanity and a way of thinking about things in a much more intrinsic and meaningful way. That then starts to say we take you seriously and you are included, you are human and you are connected."

(By Natasha Egan)

PROGRAM & EVENTS:

1.

2.



3.

4. Transportation connects us all.

Whether it's simply getting from home to work or using products shipped over distances near and far, in every region of the world transportation impacts our daily lives.

At first glance, transportation may simply appear to be about the movement of people and goods. But looking deeper, it's also closely linked to equality, access to healthy food and good schools, and wildlife impacts, for example.

As the mobility demands of people and freight have grown, so too has the need for products, systems, and services that will make the transportation sector more life-friendly, for both people and the planet.

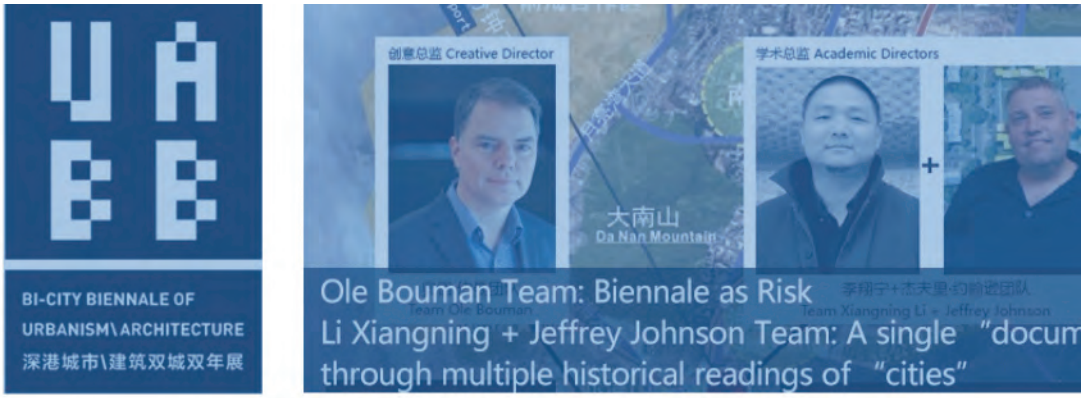
Registration is now open

Learn biomimicry and how to apply it while competing for cash prizes with students from around the world. Register your team for immediate access to the biomimicry design resources and start developing your design solution today!

5.


WORLD SUMMIT ON THE INFORMATION SOCIETY
WSIS STOCKTAKING PROCESS
WSIS
PROJECT
PRIZES
2014

6.


BI-CITY BIENNALE OF
URBANISM\ARCHITECTURE
深港城市\建筑双城双年展
创意总监 Creative Director
学术总监 Academic Directors
大南山
Da Nan Mountain
Ole Bouman Team: Biennale as Risk
Li Xiangning + Jeffrey Johnson Team: A single "docum
through multiple historical readings of "cities"

7.


london|2014
uxpa
conference
UXPA2014 is 21-24 July, 2014. Be part of it.

8.

9.

10.

11.

The Biennale Internationale Design SaintÉtienne 2015

12.


The Spark 8th Annual International Awards
EIGHT NEW COMPETITIONS SERVING EVERY DESIGN DISCIPLINE
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13.


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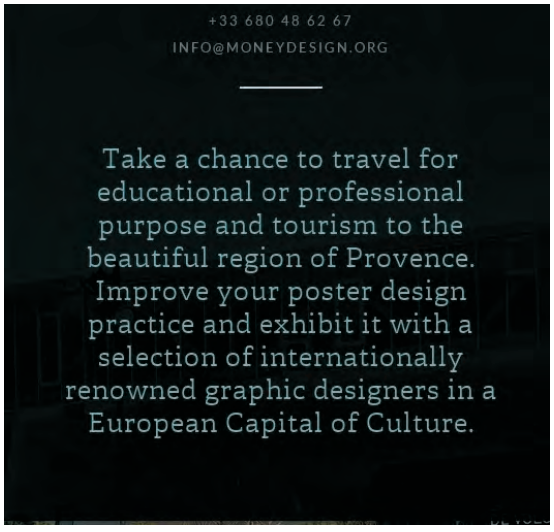
A comprehensive convergence & showcase of knowledge creators / providers / facilitators / users forging knowledge-business and knowledge solution partnerships in the areas of
• Science & Technology • Research & Development
• Design • Higher Education
• Innovation & Entrepreneurship • Intellectual Property Rights

14.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15.

aiap
associazione italiana design
della comunicazione visiva

Aiap Summer School con Martin Foessleitner
Emergency / Emergenza

Da venerdì 27 a lunedì 30 giugno 2014
dalle ore 10.00 alle 17.30
Accoglienza summer school venerdì 27 alle ore 9.45
Accademia di Belle Arti di Genova,
via Agostino Bertani, 5 - 16125 Genova
Sono aperte le iscrizioni con sconti per tutti gli iscritti entro il 5 giugno!
Potete leggere e scaricare il modulo a questo link.

16.

17.

Welcome to the
Faith & Form/IFRAA International Awards Program for Religious Art & Architecture

The Annual Religious Art and Architecture Design Awards program is co-sponsored by *Faith & Form* Magazine and the Interfaith Forum on Religion, Art and Architecture (IFRAA), a knowledge community of the American Institute of Architects. The awards program was founded in 1978 with the goal of honoring the best in architecture, liturgical design and art for religious spaces. The program offers five primary categories for awards: Religious Architecture, Liturgical/Interior Design, Sacred Landscape, Religious Arts, and Unbuilt Work.

Awards and Recognition

Award recipients receive significant recognition including printed and framed citations, recognition at an IFRAA awards presentation, full-page coverage in *Faith & Form's* Annual Awards Issue and project board exhibition at the AIA National Convention.

Award Categories

Entries are welcomed and encouraged from architects, landscape architects, designers, artists, students, and consultants. Our entry categories and entry requirements are detailed below.

The 2014 Jury Panel

Chair/Liturgical Designer: Terry Byrd Eason
Terry Byrd Eason Design / Chapel Hill, NC

Architect: Craig Rafferty
Rafferty Rafferty Tollefson Lindke Architects / St. Paul, MN

Architect: Douglas Johnston
William Rawn Associates / Boston, MA

Artist: Michael Berkowicz
Presentations Gallery / Mount Vernon, NY

Clergy: Robb Webb
The Duke Endowment / Charlotte, NC

18. Design in Motion: the 4th Annual Seattle Design Festival From Sept. 5 to 19

Mark Your Calendars for the 4th Annual Seattle Design Festival

From Sept. 5 to 19, there will be a little something dazzling for everyone

19.

20.

Typography Day 2015

7th - 9th March 2015,

Organized at IDC, IIT Bombay with support from InDeAs and Aksharaya

http://www.typoday.in

Theme:

Focus on 'Typography, Sensitivity and Fineness'

Introduction

Typography Day will be organized for the eight time from 7th to 9th March 2015 at the Industrial Design Centre (IDC), Indian Institute of Technology Bombay (IIT Bombay) with support from India Design Association (InDeAs) and Aksharaya.

The theme for this year's event is 'Typography, Sensitivity and Fineness'.

21.

EBU

The voice of blind and partially sighted people in Europe

The Vision for Equality Award

The EBU Vision for Equality Award is given to European organisations, institutions, policy makers, enterprises or individuals in recognition of their commitment to protect and promote the rights of blind and partially sighted people and to improve their living conditions. The Award, which consists of a certificate and a piece of art by a visually impaired artist, is presented every four years on the occasion of EBU general assemblies.

Nominations may be put forward by EBU national members and are processed by the EBU Awards Working Group.

CALL FOR NOMINATIONS FOR THE 2015 EBU "VISION FOR EQUALITY" AWARD

22.

2nd International Conference on Inclusive Education

9 - 11 January, 2015

Venue: Institution of Diploma Engineers, Kakrail, Dhaka, Bangladesh

Conference Theme: Achieving Inclusive Education through Post EFA Goals 2015--How Far are We?

22.

operæ

INDEPENDENT DESIGN FESTIVAL

Open call for designers for the fifth edition

Operæ invites design studios, handicraft designers, makers, design publishers and digital designers to participate with their self-productions in the fifth edition of the event, to be held in Turin from the 10th to the 12th of October 2014.

24.

25. 5th International Conference on Accessible Tourism (ICAT) 2014 organized by Beautiful Gate Foundation for the Disabled, will be held on December 4-7, 2014, at MBPJ Civic Hall, Petaling Jaya, Selangor, Malaysia.

26.

27.

28.

UNWTO

Policies and measures to promote universal accessibility in tourism will be at the center of the 1st UNWTO European Conference on Accessible Tourism, jointly organized by UNWTO and the Government of the Republic of San Marino in November 2014.

29.

SADHANA VILLAGE, 1, PRIYANKIT, LOKMANYA COLONY, PAUD ROAD, PUNE-411038.
SADHANA ENGLISH SCHOOL, AT KULE, TALUKA MULSHI, DIST. PUNE, MAHARASHTRA.
E-MAIL:- SADHANAVILLAGESCHOOL@GMAIL.COM

30.

JOB OPENINGS:

1. Idiom Design & Consulting Ltd. Bangalore, is looking for creative content/copy writers. Ideally we are looking for a couple of people with at least three/four years of experience. Freshers with good and relevant academic background could also be considered. Those interested may please forward their CV to: mgd.nair@idiom.co.in or contact the undersigned on phone.

2. Please send your CVs to zaheeruddin[dot]mohammed[at]oracle[dot]com
   Work Location: Mumbai

Job Description

- Understanding user/consumer needs and translating these into compelling multi-channel digital strategies and experiences
- Translate user experience strategies into tangible on-screen experiences
- System thinking in relation to holistic digital environments, considering relationships from handheld device to to web and beyond
- Understand technical constraints and opportunities
- Investigate and understand our product and usage context and apply to design strategy
  Strong user experience strategy skills in areas of consumer/user research and analysis, personas and customer journeys, ideation and brainstorming techniques, sketching, prototyping, and concept validation.
- Strong user experience design skills in requirements definition and prioritization, task analysis and use case development, content management, information architecture, interaction design, interface design and usability

- Expert ability to understand & create flow-charts, systems diagrams, annotated wireframes and content structure.
- Ability to speak software engineering language and work closely with design development teams to drive effective and efficient implementation of designs
- Good graphic, typography, and visual concept demonstration skills
- Simple html/actionscript/CSS prototyping skills a plus
- Knowledge of emerging technologies and software engineering/programming development process preferred.
- Excellent presentation, communication, and organization skills
- Experience in BFSI domain is preferable
- Certifications around Human Computer interface space is desirable
- 4+ years experience in leading user experience and/or interaction design of multi-channel digital experiences

Please send your CVs to zaheeruddin[dot]mohammed[at]oracle[dot]com

3. To support its future growth plans, Tata Motors Design is looking for an enthusiastic and talented Design Project Manager for placement at their Pune design Studio with

1. Demonstrable experience in managing and operating within the full design process from sketch development to A-surface resolution and review.
2. A team player with management experience and capable of working jointly with other designers, engineers, clay and CAS modellers in a busy studio environment
3. High quality verbal communication skills and ability to confidently present new design proposals at a high level
4. Self-motivated and proactive character with an adept ability to develop designs to process and to pre-agreed budgets and timeline

Experience : Min Experience in design after post graduation : 10 to 12 years
Management experience of projects of at least 3-4 years
Demonstrable experience in a similar role or a product designer with automotive production knowledge.
Education : Post Graduation in design
Interested candidates,
Pl write with your resumes to
rohan.gavade@tatatechnologies.com

4. Shanq Designs Studio, Bangalore is looking for a interior designer 1-2 years of experience.

Job skills required :-

Achiever's attitude , Site Visits (supervision) Autocad (Must) / 3dsmax /Sketchup (preffered).

Please get in touch through careers@shanq.co.in

5. Cinemacraft is looking for a talented UX designer/ front end developer who can help them with their new innovative products. Please see the job description here - http://cinemacraft.tv/careers.html.

Intereste folks - please send a mail along with your portfolio to the following email id - rahul@cinemacraft.tv

6. Triature is a Digital Agency looking for a UI designer to join our growing team. We are a young and fast moving agency with a focus on Brand Related projects and Digital Marketing Campaigns.

What is your role?

Triature is looking to bring on board someone who combines and channelizes the visual and technical talents of our team in Mumbai. You will need to envision platforms across the web and mobile universe by understanding both user behavior and technical functionality.

Responsibilities

- Have an understanding of branding and design and how they influence the user experience.
- You will responsible for coming up with pixel perfect mockups for both web and mobile
- Have an understanding of web and mobile technical limitations and work with them
- Be familiar with how interactions vary across platforms.

What makes you qualified for this post?

- 3 to 5 years of User Interface Design experience across platform (mobile & web)
- Familiarity with Agency design terms and concepts
- Agency experience preferred but not necessary
- Strong portfolio
- Team player with a great sense of humor.

Please send CV's , expected CTC and portfolio links to rohit.tandon@triature.co

7. Opening for Graphic Designers, Frontend Developers and Product Designer @DFO

1. Graphic Designer (2 Positions)

You are a craftsman/craftswoman

You have a keen eye for design and possibly a arts/design background

You are able to conceive fresh novel concepts and visual languages for each project depending on the context.

Be interested in a wide spectrum of work such as Web, New media installations, Software UI, Info-

graphics/data visualizations, publication, branding etc.
A great portfolio and solid communication skills
Thorough knowledge of tools such as Illustrator, Photoshop, etc.
Mail your CV along with a link to your online portfolio to joinus@designflyover.com
2. Frontend Developer (2 Positions)
You are a craftsman/craftswoman
You have a keen eye for design
You have amazingly solid front end skills
You are up-to-speed on the latest and greatest in HTML5, CSS3, JS/jQuery
Knowledge of PHP / MySQL development
Mail your CV to joinus@designflyover.com
3. Product Designer (1 Position)
You have a keen eye for design and an engineering background
1-2 years experience in product development and packaging
Good skills with Pro E/ Solid Works/ Auto Cad
Knowledge of Material, tooling, manufacturing processes
Knowledge of Electronics and experience with medical equipments will be an added bonus
Mail your CV along with a link to your online portfolio to joinus@designflyover.com

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A PUBLICATION OF
DESIGN FOR ALL INSTITUTE IN INDIA

DESIGN FOR ALL

Address for Correspondence:

13, Lodhi Institutional Area, Lodhi Road, New Delhi-110 003India.

This Newsletter is published monthly, by Design for AllInstitute of India,
3 Lodhi Institutional Area, Lodhi Road, New Delhi-110 003 (INDIA) Tel: +91-11-27853470

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