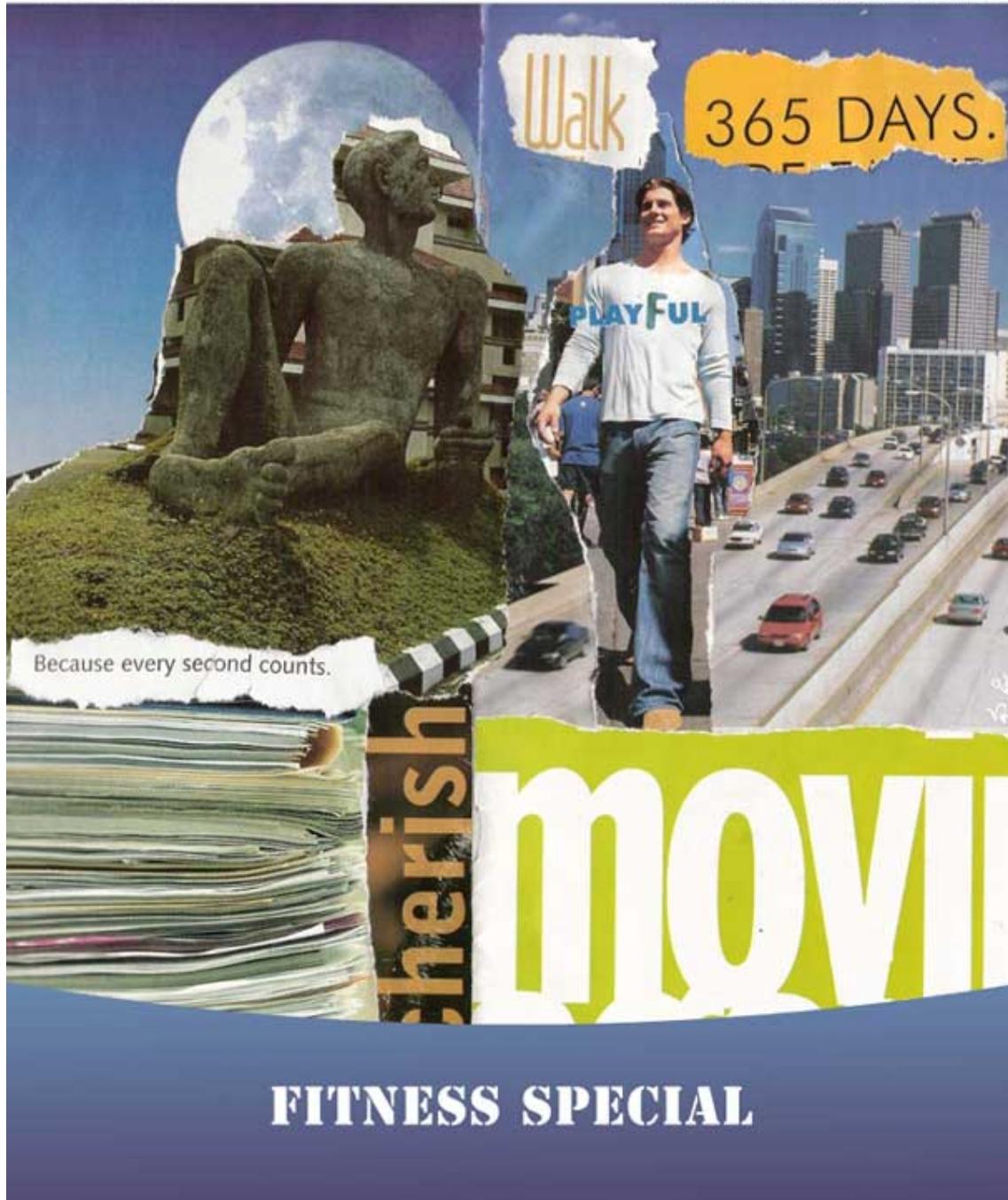


# Design for All

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This issue is dedicated to "Sports and Design" and our subscribers from the design fields and allied areas have demanded and compelled us to abandon the prepared special issue of August 2006 that we should do more in Sports, Anthropology and design. How can I ignore the voice of majority? I have published two articles on sports and one article on anthropology. In a simple word we can call this issue of fitness issue. It is dedicated to our human body and its design. How we can optimize our utility of the body. I am thankful to Dr. Irv Robenstein who has taken a pain and tried to educate our members with the motto 'Health is wealth' and his personal opinion is 'which would you rather do: exercise for one hour a day, or be dead 24 hours a day '

We have three categories of food preparation which are world wide popular. One is continental another is Chinese and Indian. Continental is based on how to prepare a different local food to global taste, Chinese preparation is to enhance the natural flavor of the food by supplementing the spices. Indian preparation is suppressing the natural flavor of the food and creating artificial flavor of the choice of the person who is preparing. Another type of food is popular in one part of the country – that is fermented food. The choice of the preparation of the food depends on what geographical area, what is easily available and what is the body demand to survive against the vagaries of weather. To prepare food every one required a place for comfort. To design a kitchen we should keep many points. I am thankful to Ms Ekta who has tried to educate us by making familiar with two extreme countries one is USA and India where economical condition is very different, preparation of food , space management with maintaining the religious beliefs and above all how our culture is changing with the influence of one another.

We have received many letters for our design, style and format of our newsletter. Initially our idea was let the people should notice our presence in design area and if content is nice people shall associate with us. The content wise we have excelled but format was lacking.

Nothing is standstill and absolute in life. Everything is changing. We are no exceptions. If you dip in river twice it is not the same water as the earlier one I hinted in my last editorial that we are changing our newsletter based on your feedback, suggestions We have posted our July 2006 issue of newsletter in new format after taking opinion of the experts in further designing before going to public through our web site [www.designforall.in](http://www.designforall.in) . Obviously our look has changed. The change is visible right from its cover to the last page. We are thankful to

Mr. Pudi Ravi Krishna for showing interest in changing the style and even designing of our issue. He has promised us he will help in future as we need. Our web site is not designed as per the concepts of Design for All/ Universal Design. We are working on this and we need active participation from you.

We need help and encouragement in our unusual task.

With warm regards,

Dr. Sunil Kumar Bhatia [ e-mail: [dr\\_subha@yahoo.com](mailto:dr_subha@yahoo.com);

website: [www.designforall.in](http://www.designforall.in) ]

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## Editor's Desk

It is a great pleasure for all of us that our Newsletter of July 2006 has received enthusiastic appreciation by critics, designers, entrepreneurs and government/non government organizations. The response was overwhelming from all walks of life. People are appreciating the contents and contributors but have criticized on us the layout of our web site ([www.designforall.in](http://www.designforall.in)). We are sincerely striving on improving the presentation.

We are sending you our fifth issue of July 2006 monthly newsletter with the latest news from *Design for All Institute of India* and the field of Universal design/ barrier free.

We do hope you will find this issue both interesting and informative. As ever, we are awaiting your proposals, criticisms and contributions.

Warm regards from the team of *Design for All Institute of India*.

Editor

### **A Fitness Paradigm for the Modern Era**

**Dr Irv Rubenstein, S.T.E.P.S Inc, USA**

First, let me introduce myself: I am an exercise physiologist, a Ph.D. in the science of the body during activity. As a professional, I apply my knowledge helping individuals achieve a healthier and fitter body through exercise. I am a personal fitness trainer (PFT).

Having been a student in the 1980s, when the science of exercise was just making headway into the culture of fitness, when more American socioeconomically-advantaged young people were jogging, taking aerobics classes, or building muscles on leverage and pulley machines, I was in the right place at the right time. Furthermore, the aging of the post-WWII generation made it possible to carve out a living helping the vain and feeble get healthier, stronger, and maybe even better looking bodies. Disposable income was available in my community, and I tapped into it by opening the first PFT studio in the center of the entire U.S. It did not make me rich, but it gave me rich experiences personally and professionally that I can share 20 years later in the way of this essay.

### A Brief History of Pre-Modern Fitness

Let's start with an understanding of where we've been, at least in the West, and that will assist our sojourn into where we are heading.

WWII was a global event of immense and devastating proportion. Survivors, both civilian and military, had to expend lots of energy putting their lives back together. Those countries most affected by the war had more physical labor to perform than those, like the U.S., where war's effects were distant, unless you or a loved one actually fought overseas. Upon return to their homeland, for those who could, rebuilding homes, families, and economies were necessary; leisure was delayed, as in the famous phrase, delayed gratification. Work, work, work...and have babies, was the motto, even during the Cold War. "Work out" was a concept as yet unheard of, for the most part. However, since the first two post-war decades retained some of the old ways, people walked around neighborhoods, kids walked to schools within reasonable distances from their homes, and families were lucky to have one, let alone more than one, car, so walking to bus stops or even to work was standard fare for most. Whatever happened by 1970 that made it possible to move less and get more done varied from culture to culture, but modernity had hit a larger portion of the world than pre-war.

Physical fitness was reserved for athletes; weekend warriors were adult children who wouldn't admit old age; and a few geeks in white shorts and regular old sneakers ran around neighborhoods to jeers and sneers of peers. But Dr. Kenneth Cooper, from Texas, wrote a book based on his studies that changed the world in some respects. "Aerobics", the term he coined, came to mean using large muscle groups with continuous movement in order to move oxygen to and from the heart, thereby improving cardiovascular health. (Cooper, 1968) Dr. Cooper was able to

demonstrate exactly how much exercise would make you how fit in order to reduce your risk of heart disease, and possibly extend your life in quality if not in quantity.

Thus was borne the jogging fad of the '70s and the aerobics fad of the 80's. As a student back then, I was reading of all the benefits of cardiovascular exercise – cardio, for those who want to learn the lingo of fitness – with very little in the literature on the benefits of muscle strength or power except for athletes. There was a small tinge of interest from a vanity standpoint – men wanted more muscle while women wanted to be toned – but mostly this was reserved for egotists or the young, perhaps with no real difference between them. (In truth, the aging baby boomers – only in their 30's but aging nonetheless – wanted to have it all: good incomes, good material possessions, good health, and good looks. Oh, they also wanted good sex, good wine, and good times, all while maintaining good family lives. Good luck!!)

But the research was just starting to break through the editors of such journals of repute as the American College of Sports Medicine's (ACSM) *Medicine and Science in Sports and Exercise*, the flagship journal of exercise's role in wellness, fitness, and medicine. Whereas the role of muscle was instrumental in all movement, the role of muscle building was hardly considered of value in health, so long as health was defined as "cardiovascular" in nature. A few lonely voices were making some noise, but not enough...yet. There was some rumbling about how resistance training (RT), which included every level of muscle building from toning to strength to power and even to athletic conditioning, could enhance not just form but function. And not just function as in "the ability to move or move better". Function for the early horn-blowers also meant health.

The landmark study by Fiatarone et al. at Tufts University, in 1990, demonstrated that even 90-year olds could get stronger, tossing away walking assistive devices and reducing musculoskeletal pains. (Fiatarone et al., 1990) The value of this should not be overlooked; it challenged the basic-science belief that muscle cannot grow in size or strength in those who do not produce prodigious amounts of testosterone, the hormone that differentiates men from women in size, strength, and sexual prowess, not to mention several psychosocial behavioral patterns.

At that point, more doctors and more people began to realize that there are indeed health benefits to building muscle, and RT became vogue...at least in the U.S. and other Western nations.

Along with many fads and some facts, RT has taken on many forms since then. New equipment, much of it borrowed from the physiotherapy world, was adapted to the group and personal fitness training needs of instructors and clients. Infomercials, those TV ads that look and sound like mini-documentaries purporting to turn facts into products, sold more useless equipment to consumers wanting results without effort. When that failed them, they went to their doctors to get magic pills that would trim their waistlines, or to magicians – plastic, or cosmetic, surgeons - themselves who would literally trim their waistlines, frown lines, and fatty depots wherever they may be. Cosmetic surgery took care of anything that failed diet and exercise didn't. Nonetheless, RT still held cache, among young and old, healthy and unhealthy, intact and injured.

### Modern Fitness

This brings us to the current era, the 21st century, the era of truth and consequences. The Truth lies in the fact that fitness requires more than any one modality- cardio or RT- and any one piece of exercise equipment – treadmill or dumbbell. The Consequence is that dependence on one or the other, or both, still left most bodies in a less-than-optimal condition to perform as the body would be capable of doing if properly functioning. So, while fads and fast weight loss programs still abound, a skeptical and yet educated society, as Americans claim to be, is no longer willing to accept the canards of yesteryear. They want more - more health, more wellness, more freedom from pain and disability - but without more work, let alone work-out. This has led some to propose a model for fitness training that is more inclusive, more holistic, and more authentic; this model is called "functional fitness" (FF).

FF's basic tenet is that any exercise that one does should enhance one's ability to do the things one must do to live, such as basic activities of daily living (ADL's), work, and play, whether it is sports or gardening. FF is premised on the idea that training should simulate the kinds of movement patterns one must or wants to do. RT, therefore, is shifting from traditional models of machine- or metal-resisted, single- or multiple-joint movements to large body movements in multiple planes with a variety of implements that permit unfettered movements of individual joints that have to be controlled and stabilized. This is excessive jargon for "real-world movements and positions with resistances that mimic, or exaggerate, those that one might actually have to engage." In other words, train as you might have to or want to move.

Two new components of fitness, in addition to the original three – cardio, strength, and flexibility – have since been added: *stability/balance* and *core control*. Stability/balance refers to the ability of a joint or series of joints, including the entire body, to maintain movements within a controlled and safe range. Thus, spinal stability refers to the ability of those muscles around the spinal column that not only move it but keep it from moving outside its healthy and safe ranges of motion. The same is true for other major joints such as the shoulder, pelvis, and knee. Total body stability and balance refers to the ability to control the body both during stationary, or static, postures and during movement, or dynamic, positions. Core control is a new phrase stemming from research on low back pain management coming out of Australia and New Zealand. In the mid-1990s, physiotherapists determined that deep abdominal and small interspinal muscles were integral in the control of the spine when healthy. (Richardson et al., 1995; O’Sullivan et al., 1997; Hodges et al., 1996) However, in those with low back pain due to conditions that made the spinal column inherently unstable, such as spondylolysis and spondylolysthesis, these muscle groups failed to contract in the time frame necessary to prevent excess motion. By developing teaching methods for conditioning those muscles, they were able to help people with chronic low back pain reduce if not eliminate their painful backs. Further work has led to inclusion of pelvic muscles in controlling not just the low back but the knee as well, adding them to the list of cooperative muscles that provide what has since been labeled, “core control”. (This component differs from previous exercise specialties such as “ab(dominal) training” or “back conditioning”, which seemed too exclusive to be of value to those with or even without low back pain.)

Hence, the addition of these components of exercise programming to the originals has created a flood of new equipment and exercises that have added not only function but fun to the rigid programs of yore.

While this model is catching on, so much so that now everyone in the business says they do functional training, there’s still some intra-professional debate as to what is and is not functional training. Without going into great detail, the consensus seems to be that any exercise is functional if it enhances the ability to do things in the real world. The catch phrase is “real”. For example, the traditional bench press, where you lie on your back and push a weight from your chest toward the ceiling, is not considered functional since rarely does one lie on one’s back and have to push things off one’s chest. Granted, the muscles one develops while performing this classic exercise can enhance one’s ability to push an object

or person away from oneself. But FF purists would have you push a resistance away from the chest in an upright position, sitting or standing. Without getting too caught up in the details, let's just rest our case on the proposition that almost any exercise can justifiably be deemed "functional" if one can place it in the framework of the person's lifestyle needs. Thus, rugby players need to do bench presses lying down and standing up. Enough said.

### How Modern Fitness Applies to You

Wherever you live, whatever you do, and whatever state of physical health or condition you are in, if you wish to be independent, employed, engaged socially or physically, a certain amount of fitness is required. Too, if you want to live longer and live with less pain or disability as you age, another certain amount of fitness is required. Each level of fitness warrants a different amount and type of exercise emphasis, be it cardio, strength, power or flexibility. In America, there is more talk of power training for the elderly as many studies are showing that some of the deficiencies among the aged are linked to the rapid and excessive loss of muscle power, not just aerobic conditioning. Getting up from a chair, safely and without pain, is a power move, not an endurance event. That is, you need enough strength to be able to make a movement rapidly, not many times in a row. But again, how much of what exercises one must do is a shifting metric with broad guidelines. And even these vary from scientific community to scientific community based on the populations studied. Thus, in some European nations where walking and bicycling are still primary means of transport, there's less talk of strength training and more talk of cardio training. In the U.S., where almost two-thirds of the adult population is overweight or obese, and where almost a third of our children are heading in that direction, there's more talk about nearly *any* method that gets people moving, even if it doesn't directly burn enough calories to effect weight loss. So, again, how should one exercise?

Assuming you are going to allot a portion of your day or week toward getting in organized physical activity, which is what exercise is, compared to that activity that constitutes your lifestyle, such as ADLs or work, here's a boiled-down version of the ACSM's guidelines:

1. Cardiovascular training: 30-60 minutes nearly every day of the week, at an intensity sufficient to make you breathe hard enough that talking normally is challenged but do-able.

2. Muscle Strength: 2-3 days a week of RT, where you lift or push a resistance capable of making you strain at, say, 40%-90% of your ability, for 8-15 repetitions for all major muscle groups.

3. Flexibility: 10-20 minutes a day, 2 to 7 days/week of stretching each major muscle group for at least 30-60 seconds.

Adding FF to the formula, we now have an amendment to the second guideline:

2-a. perform large body movements against resistance in patterns similar to those you have to or want to perform for basic living or enjoyment, at least with enough effort to....to what? Breathe hard? Sweat? Strain? Hurt?

2-b. perform a variety of exercises that demand greater control of the major joints and of the body as a whole for....how long? How challenging? Who knows?

2-c. perform core exercises using all kinds of cool equipment for ....how many reps? Sets? At what loads? *Why, if you have a healthy back already?*

And therein lays the problem with the modern fitness paradigm. How to measure, how to prescribe functional training? Does everyone need it? Great athletes in the past hardly even lifted weights let alone done so on boards that teeter totter. And none ever used large air-filled balls to enhance their strength and power. People have recovered from low back pain using older, more basic models of rehabilitation; will newer techniques hasten recovery or extend the duration between recurrences? Fitness professionals have invested lots of time, money and energy into promoting and implementing these new principles, yet there are no concrete guidelines from which to prescribe exercise for health, let alone high-level performance such as for athletes.

### The Functional Fitness Formula

Since there are not hard and fast rules by which to prescribe FF, I am going to offer the average reader of this essay my thesis on what kind of exercises are mandatory and essential to ensure a body that is capable of doing regular ADL's as well as for those seeking stronger, fitter physiques for athletic or aesthetic performance. I will offer a model that simplifies the choice of exercises to perform, the only undefined variables being how hard, how long, and how many times a week you want to work in order to achieve your desired goals.

First, let's set some goals. These will establish the basic parameters of any component of fitness. These

parameters are: *frequency* (days/week), *duration* (minutes per day, repetitions per set, or numbers of sets), *intensity* (difficulty, usually graded as a percent of one's maximal ability).

While each individual may have his or her own specific set of goals, they can readily be categorized as being one or more of the following six: weight loss/management, more endurance, more strength, better performance, less pain, and better health. Many times these coincide synergistically such that the improvement in one area creates improvement in another. For example, by losing weight, one can reduce arthritic joint pain and lower blood pressure; also you will be improving endurance because the body is now able to move easier, even if the cardiovascular system has not been trained. Likewise, more strength may reduce pain and allow more cardio effort, thereby improving endurance and reducing weight. So, depending on what one's primary goal is, others may be met just by accomplishing that one.

Once a goal, or set of goals, is established, we can define the parameters of the exercise program better, more precisely. Hence, to improve endurance, we would recommend 3-7 days/week of cardio for 20 (for beginners) to 60 minutes. To reduce weight, we'd recommend the same amount of exercise, unless one is obese and has medical conditions, in which case we'd encourage that you work up to 90 minutes a day. However, if you wish to improve performance of cardio activity, we'd regulate the intensity and duration of your daily routine in order to maximize the benefits without risking injury or burn-out.

For the purposes of prescribing FF, what I am proposing is the foundational basis: all exercises should be performed in positions similar to those in which one is most likely to need to be fit. In other words, if you can stand and walk, then exercises should be performed standing. If you can't, then sitting is acceptable. Of course, if you can only lie down, due to illness, injury, or deformity, FF is limited to upper body activity, in which case, it, too, needs to be performed from a supine position. For the sake of simplicity, then, we shall treat the remainder of the discussion from the perspective of upright postural capability.

The next piece is defining the exercises themselves. There are six basic exercises: lower body, pushing, pulling, lifting, carrying, bending/rotating (the front of the trunk) and extending/rotating (the back of the trunk).

Finally there are the basic parameters – frequency, duration, and intensity. This is the most challenging

to prescribe in specific terms, so I will describe them in general such that one can create one's own program. As an exercise routine, these should be done at least twice a week; more if you have special needs, either due to injury, disease, work demands, or athletic endeavor. The routine should last no less than 8 minutes and only go beyond 20 minutes for those whose careers or recreational pursuits warrant that kind of time investment. Finally, the intensity should begin slightly below one's capabilities if one is a novice, and progress gradually by adding additional resistance to one's body weight; if you are an athlete, use a resistance that allows full completion of the routine at least two, up to five, times within a single workout. In all cases, however, it is recommended to perform at minimum two full cycles of the routine, in the order listed. Each exercise can be done in terms of repetitions or time. If in repetitions, choose a resistance that allows at least 10 repetitions. If based on time, start with 10 seconds per exercise.

### LOWER BODY EXERCISES

**Heel Raises** - a simple but effective way to maintain a bounce in your step, and the necessary muscles to ensure a natural stride. Initially, use a support system for balance and just go off the floor; as you improve, use a step or block of wood in order to increase the stretch of the calf muscles.



**Start**



**Finish**

**Wall Squats** – for true beginners, or those with knee problems, wall squats are relatively safe and easy to learn. Lean against the wall with the feet about 50 cm from the wall. Bend the knees until you feel tension

on the front of the thigh. As you progress, bend them more, but go no lower than thighs parallel to the floor.



**Squats** – a core exercise in any program, squats are essential and foundational for efficient function of ADL's and almost any sport. Squats, and their cousin, the Lunge, can be done for power, not just endurance and strength.

**Points of Concern:**

a. **Low back position** – to maintain a neutral, or naturally-curved, spine, aim your gaze several meters in front of you and higher than eye level. Keep the lordotic curve (the inward curve at the base of the spine) by pushing the rear end backwards as you descend.

b. **Knees** – to reduce the risk of straining the anterior knees, keep them from migrating forward over the toes. By maintaining proper back posture, this will be easier to do. For women, I would suggest putting the arms in front of you as you descend.



**Start**

**Finish**

**Lunges – often regarded as a one-leg squat, the lunge puts all the load on the forward leg. Keeping in mind the same cautions as for the squat – head faces forward and slightly upward, neutral spine, keep knees behind toes – lunges can be done for power, not just strength and endurance.**



**Start**



**Finish**

### **UPPER BODY EXERCISES**

**Pushing – the following pictures represent increasingly difficult versions of a push.**

**Points of Concern:**

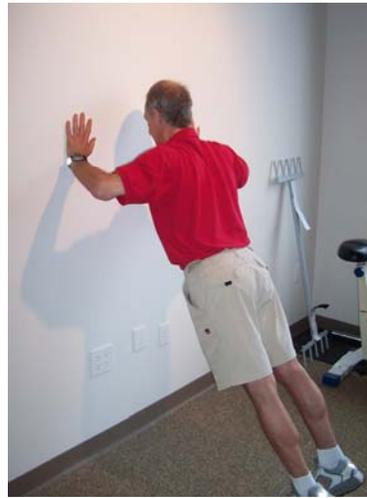
- a. Keep the spine neutral by not allowing your chin to drop.**

b. Do not bend the elbows past 90 degrees until you have practiced this exercise for a few weeks.

### Basic Wall Push Up



Start



Finish



### Desk, Counter-top, or Table Push Up



**Start**

**Finish**

**Half Push Up**



**Start**



**Finish**

**Full Push Up**



**Start**



**Finish**

**Pulling – these exercises cannot be done without some kind of resistance such as a weight or elastic band. If using a weight, you will have to bend forward, which is very functional, so use the other arm for support. If using elastic bands, stand with good posture. In either case, be sure to pull the shoulder blade toward the spine, not just bring the elbow past the ribs. And keep your chin tucked, neck straight.**

### **Bent-Over Row**



**Start**



**Finish**

### **Standing Tubing Row**



**Start**



**Finish**

**Lifting – lifting overhead is a reality of life. While it presents few risks, those with high blood pressure should avoid heavy or strenuous lifts overhead. Also, if you have shoulder problems, these movements may not be on your list until the problems are resolved medically.**

**Points of Concern:**

- a. Stand with good posture and do not bend backwards or look upwards as you raise the arms overhead.
- b. Raise arms directly over the shoulder, not behind them. There is no need to bring the arms directly over the head.
- c. Keep your back straight; do not bend backwards as you lift.

**Basic Overhead Press**



**Start**



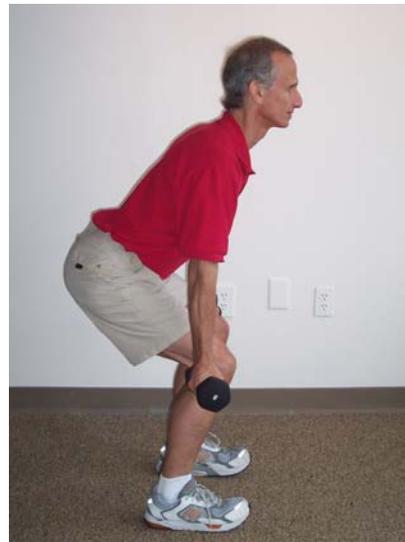
**Finish**

**Carrying – everyone has to carry their share of the load. Arm strength is only a part of the picture; proper lifting mechanics mandate use of the legs and trunk strength.**

### **Squat & Curl**



**Start**



**Finish**

### **TRUNK EXERCISES**

**Trunk Bending/Rotating – the following exercises represent two functional versions of the same muscle group training. The first is the most basic and can be done on the floor or even in bed. The standing version requires that you have mobility and balance, and can be made more difficult by bending backwards more, which could strain the back. Nonetheless, the movements are**

appropriate for how we live and play. Be sure to bend and rotate to each direction.

**Points of Concern:**

a. If you have low back problems, especially herniated discs in the lumbar region, both of these exercises will have to wait until you have been appropriately rehabilitated.

b. If you have high blood pressure, limit the difficulty by reducing the number of repetitions or the duration of the sets.

c. Allow the knees to bend as you bend forward while standing.

**Basic Crunch with a Twist**



**Start**



**Twist Left**



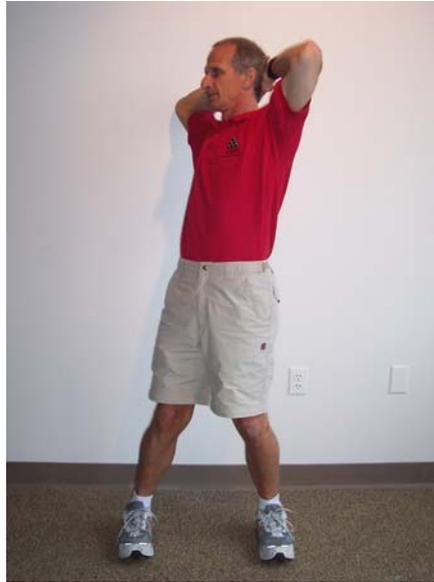
**Twist Right**

**Standing Lean & Twist**

Stand with your back to the wall, about 6 – 12 inches (15-30 cm) from the wall. Lean back and rotate so elbow touches wall gently. Then rotate the other direction until the elbow touches the wall gently. The knees may bend as you lean back. Feel the muscles on the front of the abdomen.



**Start**



**Twist Right**



**Twist Left**

**Trunk Extending/Rotating - similar warnings as for the Trunk Bending/Rotating. This can be done seated or standing, but do not challenge your ability to bend forward and rotate until you have built a strong foundation after several weeks of doing these exercises. Be sure to extend and rotate to each direction.**

**Points of Concern:**

- a. If you have low back problems, especially herniated discs in the lumbar region, both of these exercises will have to wait until you have been appropriately rehabilitated.
- b. Allow the knees to bend as you bend forward while standing.

### Seated Extending & Rotating

Start sitting straight up on the edge of a chair or bench. Then bend slowly while twisting to touch elbow to opposite knee. Return to upright position and twist to touch other elbow to opposite knee.



Start



Bend Left



Bend Right

### Standing Extending & Rotating

Start upright and allow the trunk to bend – do not forcefully bend it - as you bring one elbow toward the opposite hip. Return to upright position, and bend and rotate toward the other hip.



**Start**



**Bend Right**



**Bend Left**

## **Conclusions**

**As you can see, all the exercises relate to movements you do in the real world. That is the essential definition of "functional fitness" training. While it would be easy for me, or any exercise professional, to provide a full complement of exercises one can or should do, I have proposed to create a sequence of simple at-home, minimal-equipment exercises that can be done in minutes. One cycle is sufficient for the first 2-4 weeks, with hardly any increases in the difficulty of the challenges. Perform each exercise that is titled in bold print, unless you are**

fit enough to proceed to a more advanced lower body exercise. One need not start adding resistance or range of motion or time of each exercise until one finds that the initial work load is just too easy to perform. Depending on one's ultimate goals, more difficult challenges can be met in the fitness center or by purchasing exercise equipment that will add resistance to these or similar movements. But for the basics of life and recreation, the six component exercises, and any variants within them, will suffice.

Good luck and good health.

Or, as a cartoon I have hanging in the gym says, "Which would you rather do: exercise for one hour a day, or be dead 24 hours a day?"

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### Biography

Dr. Irv Rubenstein, exercise physiologist, is founder and president of S.T.E.P.S., Inc., Nashville's first personal training center. He is a certified personal trainer (ACSM-H/FI, NSCA-CSCS, ACE, AAHP-Post-Rehab Specialist) and national presenter of continuing education seminars and co-producer of an instructional video on the use of exercise tubes for Exercise Etc., Inc. Dr. Irv (as he is called on the speaking circuit) has co-authored chapters for personal training books and has published and been featured in fitness articles in Professional Personal Trainer magazine, NSCA's on-line magazine, Vogue magazine, and local publications. He created a dynamic medicine ball and stability ball routine called "Rock, Roll 'n Reggae"<sup>™</sup>. In Nashville, Dr. Irv has served on the board of the Nashville Arthritis Foundation and co-chairs the education committee of the Eating Disorders Coalition of Tennessee. He is also a sixth degree black belt in Tae Kwon Do. Dr. Irv can be reached at [irvrube@mindspring.com](mailto:irvrube@mindspring.com). Visit his website at [www.stepsfitness.com](http://www.stepsfitness.com).

## **Role Of Engineers and technologist in Sports**

Dr. Chris Bowen, Materials Research Center,  
Department of Mechanical Engineering,  
University of Bath (U.K)

Sports engineers and sports technologists make major contributions to almost every aspect of sporting achievement.

- Bodysuits are now commonly worn in swimming. This new swimsuit design includes the use of a fabric designed by marine biologists known as 'Fastskin' which is claimed to decrease drag by 3 percent. The swimsuit material is said to mimic the effect of shark skin by being covered with small indentations resembling tiny hydrofoils to reduce water turbulence.
- *In many sports equipment designs, advanced materials are playing an increasing role in reducing weight and improving properties over existing materials. In many cases materials developed for aerospace applications with high specific strength and stiffness are being utilised, such as Al-alloys, Ti-alloys and carbon fibre composites. Examples include high stiffness lightweight bicycles, tennis rackets and pole vaults.*
- *A high level of importance on technology is placed in the sport of cycling. Aerodynamics and equipment design are being increasingly utilised for the development of wheels, handlebars, aerodynamic tear-drop shaped helmets and silk tyres filled with helium.*
- Javelin design has changed to make throwing technique more important than power. With limited areas within 400m running tracks, javelins were landing dangerously close to the tracks. A new design is now used, requiring a more sophisticated throwing technique. This design, with a new weight distribution prevents the javelin from "floating" and shortens flight time and distance.

- *Sprinters are starting to wear body-hugging outfits made of lycra and silk, which reduce wind resistance. Even sprinting shoes with several internal chambers which are inflated with a hand-held canister of carbon-dioxide have been used.*
- **Two years ago in the winter Olympics, speedskating took on entirely different look and sound due to the development of the 'clap skate'. A spring-loaded hinge on the skate allowed the blade to stay on the ice longer, making a significant difference to race times. Five world records fell.**
- **Piezoelectric materials are being used in tennis rackets in an attempt to reduce vibration.**
- **Functional textiles with colour, temperature and moisture control.**

Further information on the impact of advanced materials on sports can be found in an excellent article at

<http://www.tms.org/pubs/journals/JOM/9702/Froes-9702.html> and also at [www.iom3.org/divisions/mst/smasc/sportslayout.pdf](http://www.iom3.org/divisions/mst/smasc/sportslayout.pdf)

## Long-Distance Nationalism: Constructing “Indian-ness” in American Kitchens

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“One of the effects of mass migration has been the creation of radically new types of human being: people in whose deepest selves strange fusions occur, unprecedented unions between what they were and where they find themselves. The migrant suspects reality. Having seen several ways of being, he understands their illusory nature. To see things plainly, you have to cross a frontier.”

*-Salman Rushdie*

Structured around a series of biographical narratives that investigate domestic kitchens in India and the U.S., this paper explores how Indians from disparate cultural backgrounds alter their ethnic identities when they immigrate to the U.S. By simultaneously adopting, adapting, and inventing new, “hybrid” practices because of the alien cultural and spatial environment of American suburban apartment kitchens, these immigrants construct a flexible behavior, which manifests itself in the formation of their transcultural identity. Through these transcultural practices, Indian immigrants end up performing roles that transcend the rigid boundaries of gender, class, caste, regional, and religious cultural identities that defined them in their home country. Being “different” in a new society actually erases previous differences among Indian immigrants, allowing them to create a singular national Indian community in the U.S. and to identify with the notion of “Indian-ness,” a

concept that Indians living in India rarely experience, except on special occasions, and never in their everyday lives.

The following essay consists of excerpts from the introductory and concluding chapter, and one of the biographical narratives, which demonstrates how an Indian immigrant couple reinvents its class status and particular religious traditions in the process of adaptation to their American domestic kitchen.

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In the 1960s, when mechanical appliances like the dishwasher became fixed and regular features in apartment-house kitchens in the U.S., they imposed on their users certain uniform rules of behavior. This design invention coincided with the historical moment in which the United States Immigration Act of 1965 encouraged a vast number of Indians to emigrate from India to America by eliminating immigration quotas. Today, approximately one million Indian immigrants of diverse religious and regional backgrounds reside in urban and suburban apartment houses across the United States. Adaptation to the modern kitchen design of their domestic spaces has become one of the primary factors binding these immigrants together into an identifiable social group. For example, the majority of Indian families living in apartments in the U.S., especially in situations in which both men and women are working, modify and adapt their cooking styles to the microwave oven. This is a result of their fast-paced lives in the United States and the lack of domestic help for kitchen-related

activities. In India, even if some families can afford the microwave—a luxury item—they rarely use it, except for warming food because they believe that Indian meals cooked in the microwave do not taste good. Besides, they can easily manage elaborate cooking with the assistance of domestic servants or family members.

This behavioral change, along with other efforts of Indian immigrants to adapt to the American domestic environment, illustrates a larger cultural phenomenon referred to by post-colonial theorists<sup>ii</sup> as “transculturalism.” Kelly Chien Hui Kuo, in her article, “An Euphoria of Transcultural Hybridity” states that,

In this increasingly hybrid culture today, where the boundaries between cultures are ambiguous and cultural forms are rather transculturally syncretistic, neither globalism nor localism can justify the hybrid cultural phenomena or resolve the problems of cultural identity in a transnational locale like the United States.<sup>iii</sup>

Since Indian immigrants’ adaptation to modern American kitchens happens alongside their desire to maintain their local Indian customs and behavior, the concept of transculturalism proves quite useful for this discussion. It helps to explain Indian immigrants’ transcultural desire to “transcend their initial culture, in order to examine and infiltrate foreign cultures,”<sup>iv</sup> and simultaneously to preserve their local native distinctiveness. In such transcultural scenarios, neither globalism nor localism dominates; rather, a two-way situation of global localism exists.

When Indians immigrate to the United States, they encounter a condition that Homi K. Bhabha describes as unhomeliness.” This condition should not be mistaken for

being without a home. Rather, it represents a condition of displacement where “borders between home and world become confused, and private and public become



Figure 1 An apartment kitchen in New Delhi, India

a part of each other.”<sup>v</sup> In this context, the domestic kitchen, a private area in the dwellings of these individuals in India, increases in significance because it becomes a social space in their residential apartments in the United States. The communal bonding that occurs everyday in this space is much more powerful than the bonding that normally happens in Indian homes only on special occasions and not necessarily in kitchens.

Enclosed by walls on four sides, kitchens in India are isolated from the rest of the

residential space. This closed planning serves to isolate the individuals working in these spaces from the other activities of the house. Visitors in other activity areas also normally do not enter the kitchen because the extensive heat, fumes, and odors causes extreme discomfort in these closed, non air-conditioned spaces. Consequently, in India, the users prefer to spend a minimum amount of time in their domestic kitchens.



Figure 2 A suburban apartment kitchen in Richmond, Virginia

The open plan of the suburban apartment kitchens in the U.S., on the other hand, provides easy accessibility and visual openness toward other activity areas (entrance foyer, living room, and dining room). For many Indian immigrants living in these

new domestic environments, the kitchen acts as a focal point of domestic life. One of the major issues these immigrants have to deal with while living in the U.S. is the issue of what kind of food they should eat. They give considerable importance to home-cooked food, especially Indian, in order to create a feeling of being at 'home'.<sup>vi</sup> Despite their busy work schedules and fast-paced lives in the U.S., these immigrants spend a significant amount of time in their kitchens, cooking and socializing with their families and friends. Open planning (elimination of walls, low partitions) provides a dynamic view of cooking activities from a number of rooms, while placing the kitchen at the center of



Figure 3 An open planned American suburban apartment kitchen in Virginia

daily life. The kitchen not only becomes a part of other living spaces of the house in this scenario, but also serves as a potential spillover area during large gatherings.

The post-World War II period in the U.S. generated economic conditions in which land was cheap but labor and materials were expensive. Houses were small in size and multipurpose rooms became a common feature of cost-effective housing designs. The scarcity of interior space resulted in the elimination of walls in order to create a feeling of spaciousness. The white enamel finish of appliances, white or cream plastic laminated counter tops, and vinyl floor and wall coverings



Figure 4 A modern suburban apartment kitchen in California

enhanced this feeling of openness and have become common features of contemporary suburban apartment kitchen designs. Commenting on this character of openness, Jean Baudrillard notes, "Everything has to communicate, everything has to be functional—no more secrets, no mystery, everything is organized, everything is clear."<sup>vii</sup> The Indian users respond positively to this open design because it does not isolate them from the rest of the activities of the house. They can watch television or interact with other family members or friends over the low counter wall. Liberated from the isolation of the Indian kitchen, Indian immigrants, especially women, develop a new interest in this open-planned cooking space and its related activities despite the few social disadvantages such as the absence of a private

space where these women can hold personal conversations with their other female family members.

Inspired by the functionalist models of the 1920s and 1930s, the open design of the modern American kitchen features built-in cabinets and modern appliances flush with each other and the walls. This provides a uniform visual aesthetic characteristic of contemporary suburban apartment kitchens in the U.S. Mass-produced housing, with its standard interior design, became a cost-effective design solution during the post-war years. This led to the creation of communities with virtually

identical kitchen designs throughout the United States.<sup>viii</sup> the interiors of these spaces, turning in any direction, one encounters the same spatiality, with every activity area clearly demarcated and



In

Figure 5 A customized storage cabinet in an apartment kitchen in India



Figure 6&7 Electric stove and wash sink in an apartment kitchen in India

incorporating fixed modern machines. In India, apartment dwellers and homeowners purchase their own appliances, which are neither fixed nor flush with the cabinets, and customize their kitchens according to their personal needs. In America, the kitchen, of all the domestic spaces, is foreign in terms of both planning and design. Indian immigrants have to adapt, not only to the openness and centrality, but also to the high-tech appliances and the overall standardization of their apartment kitchen designs. In many suburban American apartments, electric stoves replace the direct gas stoves, dishwashers substitute for the sinks where people wash utensils by hand and electric exhausts replace the window-mounted exhausts of Indian kitchens. Confronted by

such a profound cultural, aesthetic, and technological difference, Indian immigrants become more aware of their own differences from native-born Americans. The conflict that arises out of this awareness concerns alternative strategies of adaptation: should the Indian families adapt American kitchens to their Indian style of living, or should they instead adapt their “Indian practices” to those spaces? By adopting American cultural practices, while simultaneously adapting their typically Indian practices to American kitchens, and inventing some new, “hybrid” practices, Indian immigrants redefine the use of these spaces and construct a flexible social behavior. The flexible behavior enables them to resolve the conflict of adaptation; it is a resolution that manifests itself in the formation of their transcultural identity.

This study examines the complex processes of adoption, adaptation, and invention—strategies that operate simultaneously in Indian immigrants’ constructions of transcultural identities. My work focuses on kitchens of Indian couples between the ages of 25-35, living in apartments in suburban areas in Virginia and California.<sup>ix</sup> A significant percentage of the Indian population in the U.S. lives in such apartments in suburban areas to save on the cost of living.<sup>x</sup> Many Indian immigrants employed in skilled professional jobs desire to live close to their offices in apartment communities in suburban areas inhabited by other Asian Indians.<sup>xi</sup> The apartment dwellings in suburban areas enable them to retain their mobile status, which is critical in their quest for better job opportunities throughout the United States.

The flexible, adaptive behavior of the Indian subjects living in such apartment houses in suburban areas is also formed and informed by the performance of roles that transcend the rigid boundaries of gender, class, caste, regional, and religious identities that exist in their home country. One distinguishing feature of Indian society as a whole is that it is a conglomeration of various units—religious, class, regional, and linguistic. Even though centuries of living side by side has resulted in some osmosis, it is not a melting pot. While there are pockets of fusion and syncretism, by and large the individual groups keep their separate regional, religious, and other cultural identities. This makes the Indian society a mosaic of different languages, religious beliefs, and lifestyles. Moreover, neither Hindus nor Muslims represent one uniform culture; various subgroups exist within these communities based on language, regional, and caste or occupational differences. These sub-groups show great diversity in their social practices, attire, food habits, and attitudes toward one another. Many of these cultural differences manifest themselves in domestic spaces. For example, class differences are communicated through the types of furniture placed in the bedroom and the living room, while in the room housing the altar, the religious difference becomes evident. However, it is the kitchen in particular, where all of these differences—gender, class, caste, region, and religion—become apparent simultaneously.

To demonstrate how these differences operate among Indian immigrants in the U.S., I have concentrated in this study on couples from diverse cultural backgrounds. These differences

(gender, region, caste, class, and religion) become the lenses through which I examine my Indian subjects. By constructing biographical narratives, I focus on the specificity of each couple's kitchen (personalization of spaces, storage use, technology, cooking styles, eating habits, and other social practices) in India and in the U.S., and reflect on how these contemporary Indian immigrants from different backgrounds alter their cultural identities when they immigrate to the United States. I further explicate how their specific regional, religious, and other cultural distinctions within India fuse into a singular Indian community in the United States. I have based the behavioral components of the biographies on the data gathered through fieldwork that involved interviewing and participant observation using visual and audio media. While I do not claim that the perspectives presented in this study stand for the Indian immigrant population as a whole, I do believe they represent the experience of the majority of the Indian immigrant population living in apartment communities in suburban areas in the U.S.

The following section is one of the selected biographical narratives.

### **One Step In or Out of Modernity?**

#### **Reinventing Class Status and Religious Traditions**

Sheetal and Vikram are an example of an Indian couple who had to reinvent both their class status and religious traditions in response to their move to America.<sup>xii</sup> Sheetal moved to the U.S. after marrying Vikram, a family friend who emigrated from

India in 2003 to work as a business manager in a cigarette company in Richmond, Virginia. Although Sheetal and Vikram are both Hindus from a high-class background, theirs was not an arranged marriage, as is typical throughout much of India, but one forged in love.<sup>xiii</sup> Sheetal and Vikram have proudly displayed their favorite marriage photograph



**Figure 8 Photographs on the meal counter of Sheetal's**

in which they both are sharing an intimate moment looking into each other's eyes amongst other family photographs on the kitchen counter of their American apartment. Vikram often teases Sheetal because of the easy chemistry between them; he has posted a reminder on the microwave door that reads, "Please Close Me." Vikram explains, "She is always in a hurry while

working in the kitchen and often needs a reminder to close the microwave door.”<sup>1</sup> Sheetal, who teaches in a primary school, counters by saying,

I have to rush up the kitchen chores in order to have some time to do my official work at home. Only after moving to the U.S., I have started thinking about how to balance my professional and domestic life. When I was working in India, I was never crunched on time because my mother used to manage the household with the assistance of three full-time servants.

Excited about living alone with her husband and decorating their new home in the U.S., Sheetal brought decorative objects with her from India on her very first visit to America. A wind chime suspended from the ceiling on top of the kitchen counter adds color to the light brown wooden cabinets, white floors, walls, and counter surfaces of Sheetal and Vikram’s apartment kitchen. A bronze art object composed of Ganesha symbols and tinkling bells dangles down the narrow wall that defines the



Figure 9 Bronze art object in Sheetal’s American kitchen

entrance of their open kitchen, expressing the couple’s Indian heritage. None of these objects however, reflects the high-class background of Sheetal and Vikram. In fact, one significant factor in Sheetal and Vikram’s immigration to America is their shedding of the economic status conferred upon them by their families in India.

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<sup>1</sup> Vikram Parekh, in an interview with the author, December 27, 2004, Richmond, Virginia. All interview quotes in this chapter are from the same date.

Sheetal's affluent upper-class family lives in Jaipur, in the northwestern Indian state of Rajasthan. Several elements in the kitchen of Sheetal's three-story house in India signify the wealth and high class of the family. Living in the same home for the last 20 years, Sheetal's nuclear family of four hired an architect to redesign a modular kitchen for them.<sup>xiv</sup> A kitchen island opposite the range contains a sink that facilitates faster cooking, and an exhaust built into the storage cabinets above the gas stove indicates that the kitchen has been remodeled according to the latest Indian kitchen design. Most of the construction materials and equipment, from red galaxy granite stone for flooring, polished Udaipur green marble counters, golden yellow glazed ceramic tiles used both above and below the counters, and solid teak wood storage



Figure 10 Sheetal's Indian kitchen in Jaipur

cabinets, to the double door refrigerator, are expensive choices affordable only by high-class families in India.

Although Sheetal's family members own a microwave, they never really use it except for warming food. Sheetal explains,

The upper class status in India demands levels of consumption and practices that are in tune with the times and maintain a higher standard of living. An important reason that household goods like the microwaves have become 'requirements,' even when many families hardly use them, is that status competition demands such possessions.<sup>xv</sup>

Further expensive and stylish objects; for example, the silver trays hanging on the kitchen walls and the traditional brass equipment, are signifiers of the family's high status.<sup>xvi</sup> Sheetal's family often invites people from high-class backgrounds to their home. In such scenarios, the prestige among equals is an issue, as well as that of the status of "big people"<sup>xvii</sup> in relation to their social inferiors. In formal gatherings, the family honors its guests by serving their meals in brass kitchenware, which is unavailable in local markets. Many Indian restaurants in five-star hotels in India use similar brassware for serving meals.<sup>xviii</sup> According to Csikszentmihalyi and Rochberg-Halton, such status symbols (objects that are rare and expensive) are "a global measure of the owner's standing in the community,"<sup>xix</sup> and become an integral part of self [the person one feels oneself to be in relation to one's community] as well as the means by which people derive their identities. In Sheetal's Indian household, the expensive material possessions in the kitchen become one of the means of self-expression and self-realization through which the family exhibits its affluent status and derives a part of its identity.

In contrast, when Sheetal and Vikram moved to the U.S., they brought no antiques from India, nor did they buy expensive household goods and decorative items once they were here.<sup>xx</sup> Instead, like other Indians in the U.S., Vikram and Sheetal buy bargain goods or shop from outlets such as IKEA, which markets mass-produced household goods at comparatively reasonable prices. Many Indians like Vikram and Sheetal, who are in their mid-twenties, immigrate to the U.S. soon after finishing school with the intention of earning

their own money rather than surviving on the wealth of their families in India. In India, while living with their rich parents, even if they are not earning enough, these young immigrants maintain their high-class stature in the society. Once in America, they lose their high-class status and have to work hard for years to earn it back.<sup>xxi</sup>

This shift in status is clear when looking at Sheetal and Vikram's American kitchen. Even though Sheetal and Vikram belong to a high-class background, their American apartment kitchen is not very different in terms of its planning, design materials, and basic equipment from the apartment kitchens of several other Indian transplants in the U.S. who belong to different economic classes in India. Sheetal has no choice but to adapt to the materials in her modern American kitchen. The white plastic laminated counter surfaces contrast sharply with the easy-to-clean dark green marble counters



in her Indian kitchen. While chopping vegetables in her

Figure 11 Sheetal's adaptation to her American apartment kitchen

American kitchen, she places newspapers on the counter, which expedites her clean-up process and prevents scratches. In Sheetal's Indian kitchen, the domestic help cleans the red granite floor twice a day. In her American kitchen, Sheetal has placed a rug on the white vinyl floor in order to keep it clean longer. Sheetal comments,

Out here, it does not matter which class background you belonged to, how rich you were or whether you had two or ten servants

in India. Everyone including people like me, who did not even clean the kitchen counters in India are now down on our knees cleaning up our domestic spaces.

Sheetal, who is accustomed to working barefoot in the kitchen because of her Indian religious beliefs, explains that the rug also protects her feet from dirt and the cold. To maintain hygiene in their Indian kitchen, Sheetal and her Hindu Marwari<sup>xxii</sup> family forbid anyone, including one another, to enter their kitchen wearing shoes. During winters, when the kitchen floor becomes very cold because of the extreme Jaipur climate, the family wears socks or special home slippers (which are not allowed to be worn outside). Many Hindu Marwari families do not allow shoes in the kitchen because they consider the kitchen to be a holy place. In accordance with their traditional Hindu religious beliefs, Hindus do not wear shoes (which are considered dirty) in holy places. In addition, Sheetal and Vikram's family associates food with God. Everyday, before eating their meal or when they cook traditional sweets on some special festivals, the family offers their bounty first to God, before serving it to others or eating it on their own. The couple explains that, "Similar to many upper-class families in India, our families are modern in outlook; however, they still conform to their particular Hindu Marwari religious practices everyday."<sup>xxiii</sup>

Religion is another arena in which the move to America has forced Sheetal and Vikram to substantially tailor their traditional practices. For example, in India, Sheetal used to sit and pray in the traditional Hindu style in front of her altar on a regular basis. Like many Hindu families who position their altars in private rooms or in semi-private spaces, Sheetal's family have set up their altar in a special furniture cabinet in one corner of the lobby, isolated from the other living spaces of the house.<sup>xxiv</sup> In contrast, in their American apartment, Sheetal and Vikram pray in a public space, standing in front of a built-in kitchen cabinet that they use to hold a religious shrine. Living in the constricted space of a one-bedroom modern American suburban apartment has

inspired these immigrants to invent a new use for their kitchen cabinet, and to invent a new place and



Figure 12 Altar in Sheetal's American kitchen cabinet

new style of worship. They have become flexible not only in relation to American kitchen design by using a kitchen cabinet to meet their cultural needs (as Indians) to worship, but also in relation to their religious cultural traditions by worshipping a shrine embedded in a kitchen cabinet. The couple explains, "We have already moved twice in the past one-year. Buying a separate piece of furniture for the altar is not a practical decision, especially when we have the option of using the kitchen cabinet. We have kept minimal furniture even in our living room so that shifting is not a hassle."

Despite the presence of an altar in their kitchen, Vikram and Sheetal, who are extremely fond of buying shoes, have mounted their big shoe rack behind the door of the laundry space attached to their American kitchen. They comment, "We could not find any other place for this shoe rack in our apartment and do not like the idea of seeing shoes when we are spending private moments with each other in our bedroom."<sup>xxv</sup> The storage closet next to the entrance is full of empty packing boxes they have saved to transport their electronic devices on their next move. Sheetal defends her choice: "I always keep the door to the laundry closed because I do not need to enter the laundry space on a regular basis." Unlike other



Figure 13 Shoe rack in Sheetal's American kitchen

Indians who use the laundry space in their kitchen to store dry goods, she has consciously stored all her food items in the built-in cabinets in her kitchen. However, the presence of a dustpan, some kitchenware on top of the dryer in the laundry room and the basic ingredients of Indian meals—like onions, which Sheetal uses regularly—negate her defense.

By inventing a new use for the laundry space attached to their kitchen, the couple has defied two of their traditional Hindu religious beliefs—first, of bringing shoes into a sacred space, and second, of storing them in a space where food is stored and cooked. In addition, they have violated their specific Marwari tradition of not wearing shoes in the kitchen. Although Sheetal is habituated to working barefoot in the kitchen, it does not imply that she

conforms to her religious belief. She and Vikram often put on their shoes in the kitchen itself when they have to go out.

In fact, since moving to the U.S., the couple does not abide by many of the religious customs or traditions observed by their Hindu Marwari family in India. For example, according to Marwari customs, the family does not sit down to eat until they have ladled food onto the plate of each guest. In their American apartment, Sheetal and Vikram do not even set the table formally—instead, their guests help themselves to food directly from the kitchen. Living alone with her husband, Sheetal no longer pursues the tradition of not entering the kitchen during menstruation, a religious taboo strictly followed in Marwari and some other Hindu families in India. Hindu mythology associates the menstruation cycle of a female with the act of purification. Many Hindu Marwari households do not allow menstruating females to enter the kitchen because they believe their impure bodies would destroy the sanctity of their kitchen. <sup>xxvi</sup>

Living away from their families and the cultural and traditional environment of their home country gives Sheetal and Vikram relative freedom to live life on their own terms. Vikram comments, “Most of our Indian neighbors here are not even aware of our Marwari customs. Out here practicality rules. We did not think twice before storing our shoes in the kitchen.”

Nevertheless, all these transformations do not necessarily result in a decrease in religious observance and practice. Praying in a standing position in front of their kitchen cabinet does not make Sheetal and Vikram less religious than other Hindus living in India,



Figure 14 Lighted altar space in Sheetal's American kitchen cabinet

who sit and pray in a separate altar room, in front of exclusive furniture. In fact, Sheetal took special pains to bring heavy accessories (lamps, idols) from India for her altar space in America. She strategically placed her altar in a storage cabinet next to a power switch to light up the space with electric bulbs embedded in an ethnic lamp.<sup>xxvii</sup> Similarly, many Indian immigrants living in America pray regularly in their homes or visit temples (or other religious places) but do not tend to consider their religion as a set of strict dogmas and proscriptions. By becoming flexible in their specific religious traditions in the U.S., Sheetal and Vikram identify themselves as Indians rather than as Hindu Marwaris.

Raymond Williams, in describing the universalizing trends that are underway among Indian immigrants in America, notes,

The strength and growth of sectarian and regional forms of Hinduism and the secularization of the Asian-Indian community are threats from opposite sides...What results from the tension will be a redefinition of what 'Hindu' means in the United States and the redefinition of boundaries through the manipulation of symbols [for example, the altar] and the expansion of their cultural contextualization so as to include as many Asian Indians as possible under a single religious identity.<sup>xxviii</sup>

Hinduism, a religion practiced by the majority in India, is just one minority faith amongst others in America. This awareness of "religious pluralism" has affected the way Indians from diverse religious backgrounds practice their religious beliefs in the U.S. Instead of conforming to the everyday practices associated with their particular religious faith in their domestic spaces, many immigrants pursue their specific religious traditions only during festivals or at births, marriages, and deaths. In India, Sheetal and Vikram would not allow people to enter their Indian kitchen wearing shoes, a fact that makes them easily identifiable as Hindu Marwaris. In the U.S., they are identified as Hindu Marwaris only if they perform their particular religious ceremonies at the temple.

This identification with Indian-ness rather than with a specific caste/branch of Hinduism differentiates what it means to be an Indian in the United States from what it means in India. In India, Indian-ness does not exist. It is inseparable from the religious and other cultural sects that define its population. Practicing one's particular religious, social, and other cultural customs is an integral part of daily life in India. Indians living in India negotiate their identity through a volatile mix of influences hinging on region, religion, gender, language, class, and caste. The same individual has a number of different ethnic allegiances and any one of these might become more important than the others, depending upon the context. For example, in one context, Hindus and Muslims from South India might unite to defend themselves against North Indian domination. In another context, Hindus from both North and South India might regard Muslims as aliens among them. Under such circumstances, Indians identify themselves more as a member of their particular subculture (be it class, caste, regional, or religious) rather than as an Indian in their daily lives. The notion of Indian-ness or a unified Indian culture emerges only at the time of national crisis when Indians living in different parts of India unite for a common cause, or on special occasions such as national

holidays which Indians from different cultural backgrounds recognize and celebrate together as Indians and not as Hindus or Christians.

Paradoxically, it is only upon leaving their home country for a foreign nation like America, where Indian immigrants modify their specific caste, class, regional, religious, and gender-related beliefs and traditions in order to unite with Indians from different cultural backgrounds, that they begin to identify with the notion of "Indian-ness." Constructing and performing "Indian-ness" every day in America has the potential to make these immigrants even more "Indian" because they suppress their cultural distinctions in order to form a singular national Indian community. Indian immigrants' creation of a unique "ethnic"<sup>xxx</sup> Indian community in the U.S. that overrides their differences (such as gender, region, caste, class, and religion) helps to keep them from becoming further marginalized in the multicultural American community and is essential for these immigrants' struggle to avoid being racialized as non-white Americans.<sup>xxx</sup>

It is not enough to recognize that these religious and other cultural boundaries no longer exist between Indian immigrants. One must also examine the circumstances under which such boundaries are ignored. In contemporary Indian society, attempts by the government to diminish the gap between different cultural groups have resulted in an increase of tension and conflict between them.<sup>xxxi</sup> On the contrary, in America, there has actually been a decrease in tension and conflict between Indian immigrants because their cultural differences have diminished in response to a new cultural and spatial environment.

Living as Indians in the United States, these immigrants construct their identity through the influence of both Indian and American culture. Despite Western influences, and even while these immigrants reinvent their Indian traditions, the sense of "Indian-ness" remains strong. It no longer exists at merely psychological levels or comes into existence only at the time of national

crises or on national holidays. Rather, it is manifest in the practices that Indian immigrants construct every day in their domestic spaces. In his description of the process of identity construction, Slater notes, "The membership of a particular social order or identity as a member of a specific culture is produced and reproduced through culturally specific consumption."<sup>xxxii</sup> The habits, customs, and social practices enacted in the American suburban apartment kitchens around cultural issues such as gender, class, caste, and religion are first redefined and then codified into "Indian-ness" or "Indian identity" in the U.S.

The creation of Indian-ness in America, however, suggests more than long-distance nationalism. It proposes that our ethnic identity need not be our totalizing identity; and that our identity could be situationally reconstructed. One of the respondents of my study comments, "I am an Indian here, but essentially I am a Hindu Brahmin because I was born into a Brahmin family." Though many Indian immigrants anchor the creation of their identity to the subcontinent, their construction of a transcultural "Indian identity" in the United States has challenged this notion. In this sense, Indian-ness becomes transnational as it transcends the limits of nationalist geography. Both Indian-born Indians who have created a version of "Indian-ness" upon moving to the U.S., and American-born Indians who witness this "Indian-ness" everyday in their domestic spaces, can perform this transnational identity, which is accomplished, not just by crossing national borders, but also by the will of the person performing the self.

#### Endnotes

<sup>1</sup> Salman Rushdie, *Imaginary Homelands* (London: Granta Books, 1992), p. 124.

<sup>1</sup> Some of the renowned postcolonial theorists who theorize this concept are Homi K. Bhabha, Sneja Gunew.

<sup>1</sup> Kelly Chien hui Kuo, "An-other Nihilism: An Euphoria of Transcultural Hybridity." [http://www.international.ucla.edu/cira/paper/TW\\_Kuo.pdf](http://www.international.ucla.edu/cira/paper/TW_Kuo.pdf).

<sup>1</sup> Claude Grunitzky, ed. *Transculturalism: How the world is coming together* (New York: True Agency, Inc, 2004), p. 25.

<sup>1</sup> Homi K. Bhabha, *Location of Culture* (London: Routledge, 1994), p. 9.

<sup>1</sup> Although many Indian restaurants have opened in the U.S., many Indian immigrants still prefer to eat at home because home-cooked food is considered more healthy and fresh and they cannot save much if they eat out on a regular basis.

<sup>1</sup> June Freeman, *The Making of the Modern Kitchen: A Cultural History* (London and New York: Berg Publishers, 2002), p. 230.

<sup>1</sup> Avi Friedman, "The Evolution of Design Characteristics during the Post-Second World War Housing Boom," *Journal of Design History* 1995. Vol. 8 No. 2.

<sup>1</sup> Indian immigrant communities in the U.S. are concentrated in California, New York, New Jersey, Illinois, Texas, Florida, Michigan, Ohio, Massachusetts, and Virginia. 67 percent of Indians living in the U.S. are married. <http://www.census.gov/prod/2004pubs/censr-17.pdf>.

<sup>1</sup> 53.1 percent of Indian immigrants in the U.S. live in rented apartments, *ibid*.

<sup>1</sup> Other considerations for living in suburban areas are security, better schools, less pollution, and less crime.

<sup>1</sup> Class status in India is determined solely by finances, not by birth or by the inheritance or ownership of land.

<sup>1</sup> Love marriages in India, in which both the partners know each other well, often makes them frank and comfortable with each other right from the onset of their married life, as opposed to arranged marriages where it usually takes time to know one's partner and become comfortable with each other.

<sup>1</sup> Only affluent families in India hire architects for designing their homes because average middle-class families cannot bear the added expense of the architect's fees. Instead, they get their homes constructed by contractors and spend the saved amount on actual construction.

<sup>1</sup> Sheetal Parekh, in an interview with the author, December 27, 2004, Richmond, Virginia. All interview quotes in this chapter are from the same date.

<sup>1</sup> Commenting on this idea that real function of goods is to signify status, Jean Baudrillard notes "People no longer consume things but signs." In addition, Don Slater in his text *Consumer Culture and Modernity* argues that "People buy the most expensive version of a product not because it possesses more use-value than a cheaper version but because it signifies status and exclusivity." Don Slater, *op. cit.*, p. 158.

<sup>1</sup> Rich people in India are often identified as "big" people.

<sup>1</sup> "Five-star hotel" or "five star culture" holds a popular image in India as an island of luxury. These terms are often used in Indian society to talk about consumer aspirations and to qualify the luxurious desires of consumers.

<sup>1</sup> Mihaly Csikszentmihalyi and Eugene Rochberg-Halton, *The Meaning of Things-Domestic Symbols and the Self* (New York: Cambridge University Press, 1981), p. 31.

<sup>1</sup> A U.S. dollar is equivalent to 43 Indian rupees. You can buy five bottles of Pepsi (300 ml) for 43 rupees in India.

<sup>1</sup> Many upper-class Indians immigrate to the U.S. either for achieving higher education (undergraduate or graduate level) from reputed American universities, for working in American firms, which have a better work environment than many Indian firms, or just to achieve liberation from the social norms of Indian society. They do not mind struggling to gain economic mobility in the U.S. as long as they are receiving satisfaction at such other fronts.

<sup>1</sup> The four original castes of Hindu religion have been subdivided over many centuries into several different castes, each region having its own distinct groups, defined by craft and fixed by custom. Marwaris refer to the merchants and traders community originating from Marwar, an old state of Jodhpur in Rajasthan. Many "Marwari" families originally come from the districts of Jhunjhunu and Shekhawati in Rajasthan and are now settled in Calcutta and other cities in Eastern India.

<sup>1</sup> In India, most modern Hindu families also pursue their specific religious traditions and do not adopt or create homogenous practices. This fact negates the argument made by Steven Vertovec that "Modernization, in all of its variegated forms, has had far-reaching impact on the practices and social institutions-even basic belief structures of Hinduism in contemporary India and has given way to more homogenous ones."  
Steven Vertovec, *The Hindu Diaspora: Comparative Patterns* (London: Routledge, 2000), p. 27.

<sup>1</sup> In India, lobby is an architectural term that refers to a semi-private common area ideally designed as a family meeting room.

<sup>1</sup> In urban Indian homes, shoes are considered unsightly because dirty. They are usually kept in closed cabinets, closets, or corners obscured by furniture.

<sup>1</sup> Females from most Hindu households do not pray in front of an altar or even go to the temple when they are menstruating.

<sup>1</sup> Lighting up the altar space is a tradition followed by both Hindus and some Christian sects in India.

<sup>1</sup> R.B. Williams, *Religions of Immigrants from India and Pakistan: New Threads in American Tapestry*, (Cambridge: Cambridge University Press, 1988), p. 54.

<sup>1</sup> H.S. Morris defines this notion of ethnic group— as one in which the members feel themselves or are thought to be bound together by common ties of race, nationality, or culture.  
H.S. Morris quoted in *Communal Identity in India: Its Construction and Articulation in the Twentieth Century*, Bidyut Chakrabarty, ed. (New Delhi: Oxford University Press, 2003), p. 139.

<sup>1</sup> They cannot be qualified as white unless they assimilate into mainstream American culture, which leaves them with the potential risk of being identified

as non-whites. Creation of this unique racial identity— “Asian Indians”—is a protest against the racial politics of American society, which tends to racialize every single group of population in terms of two white supremacist inventions: Blackness and Whiteness. “The 1980 population census for the first time included a number of single elderly native American persons under ‘Asian Indian’ race category based on place of birth or ancestry.”  
<http://www.indnet.org/census/80-90/>.

<sup>1</sup> For example, Harijans (often referred to as untouchables in Indian society) were discriminated against by all four Hindu caste groups and segregated from many areas of social life. In contemporary Indian society, these barriers have been legally abolished and Harijans are given opportunities to politically organize themselves. However, doing so has resulted in confrontations with members of the upper castes who still do not willingly accept them as equals.

<sup>1</sup> Don Slater, *Consumer Culture and Modernity* (Oxford: Blackwell Publishers Ltd., 1997), p. 132.

## News

From issue 2565 of New Scientist magazine, 19  
August 2006

### Time your protein with your workout

BODYBUILDERS can become obsessed with their diet, often to the point of consuming sports supplements at precise times.

Now a study has found that timing is indeed important. Consuming protein supplements immediately before and after weight training builds more muscle compared with taking them at other times. What's more, the volunteers in the study only trained at moderate intensity, suggesting that similar gains are within reach even of an average gym user.

Paul Cribb and Alan Hayes of Victoria University in Melbourne, Australia, got eight men to take widely available sports supplements just before and after weight training. A control group of nine men took the supplements first thing in the morning and last thing at night. After 10 weeks, those who had taken supplements close to training had gained 2 to 3 kilograms of muscle, compared with 1 to 1.5 kilograms in the control group.

Cribb presented the findings this week at the Fresh Science symposium in Melbourne.

A number of previous studies have hinted that more amino acids are assimilated by muscle when protein supplements are taken just after training.

Soon to be launched "Pune Design Forum" (name may change) along with FICCI is organizing "Pune Design Festival" on 17 and 18th of November this year. FICCI has got Italy as a partner country to this event.

This year the agenda will be a two day international conference and a exhibition. Details of the program will soon be posted here.

Hopefully this would be a yearly event.

So keep 17/18 November free to be in Pune.

## Letters

Dear Dr. Sunil Bhatia,

Thank you for sending your newsletter to me. I will forward the info to the Chinese Institute of Design, so that the information can be distributed to design researchers in Taiwan.

Sincerely,

Lin-Lin Chen

Prof Lin- Lin Chen, Ph.D,  
NTUST, Taiwan

Dear Dr Bhatia,

Hope you are well.

Regarding the article, can you tell me what exactly are you looking for?  
Is it gender differences in design? and aspects of design like colour?

Usually my lectures are in a variety of topics, if you can tell me specifically what you are looking for, and how long it should be, that would be great.

Regards  
Ravina.

Dear Dr.Sunil bhatia,

The article format looks good except I still think the figures (photos and captions) should appear in the copy near their point of reference. It would be easier for the reader to see the photo in the text instead of looking for it and losing their place in the article.

Thank you,  
Jim Puhalla

Dear Sunil,

Thank you very much for your mail. Sorry for not answering you before. I have been on vacation and I have also had an operation in my eye and have had to relax for some time. For the last two weeks I have been working very hard on a user survey – visiting and interviewing people in their homes. And I am writing articles for the Danish Design Association as well. I am finishing the project in the beginning of next week and then I will for sure get back to you.

All the best

Karin

Venlig hilsen/kind regards  
Karin

---

**Karin Bendixen**  
Atlasvej 12  
DK-8270 Hjøbjerg  
T: +45 30 23 66 55  
[k.bendixen@bexcom.dk](mailto:k.bendixen@bexcom.dk)  
[www.bexcom.dk](http://www.bexcom.dk)

Dear Dr. Bhatia

Thanks a lot...I have received the news letter.

Will try to be in touch and support your effort as far as the auto world in India is concerned.

Best regards

*Jagjit Rana*

*Automobile designer*

*Styling Studio*

*Maruti Udyog Ltd, Gurgaon*

## Program & Events

Hi all,

we invite you to participate in the workshop we're organizing at EPIC this year on Design Documentaries: Construction and Perspective in Video Ethnography. At the workshop we will explore the opportunities and methods that documentary film offers to ethnographic practitioners in design research. We will discuss issues in both documentary and design ethnography surrounding the construction of situations and stories, with an emphasis on bringing the perspective of the filmmaker/researcher into a film.

Film clips from, for instance, Robert Flaherty, Jean Rouch, Robert Gardner and Morgan Spurlock will be used to illustrate these issues. Discussing your own material and that of your peers will help you think about your own video practices whether you are a beginner or a seasoned user of video. You will take away new ideas about how to use video in your ethnographic practice, and thoughts on how to improve the communication of your ethnographic work to multidisciplinary teams and clients.

Below is a longer description of the workshop. If you want to participate, please send us a 150 word statement explaining your interest and background and email it to [bas.raijmakers@rca.ac.uk](mailto:bas.raijmakers@rca.ac.uk). We will accept about 12 participants. Please bring a clip (on dvd or DV-tape) from your own video material or film or a clip from ethnographers you worked with. If you

have any questions you can contact us at the same address.

See you at EPIC!

Bas Raijmakers (Royal College of Art)

Susan Faulkner (Intel)

Wendy March (Intel)

**Design Documentaries: Exploring new ways to communicate ethnographic research using construction and perspective**

**Workshop facilitators: Bas Raijmakers (Royal College of Art), Susan Faulkner (Intel), Wendy March (Intel)**

Ethnographic practice in design research is often supported by video. However, the rich spectrum of techniques seen in documentary film is seldom used in ethnographic research videos. This is perhaps surprising given documentary film's hundred plus years of history in portraying everyday life. One point of controversy in both the discipline of documentary filmmaking, and in ethnographic design research, concerns the level of construction in a video. Film and video are by nature constructed realities – a camera is present, subjects are often asked (directed) to perform certain situations or answer specific questions, and the footage is almost always edited. Filmmakers and ethnographers can have good reasons to use construction. Sometimes it is the only way to film a situation, for instance the morning ritual of Eskimos in *Nanook of the North* (Robert Flaherty, 1922), the first documentary film ever and entirely scripted. Or construction can be used to include a strong perspective into the film, for instance Morgan Spurlock's view on fast food and obesity in the United States in his personal documentary *Super Size Me* (2004).

This workshop explores the opportunities that documentary techniques and approaches offer to

ethnographic practitioners in design research. Discussing your own material and that of your peers will help you think about your own video construction practices, and how you might want to improve or expand the ways in which you use video in your work. The ideas we explore in the workshop are relevant to beginners as well as seasoned users of video.

As a source of inspiration we will screen short excerpts of films of Flaherty, Spurlock and others that deliberately use construction and include the perspective of the filmmaker. We will also view short clips from filmmakers who make a big effort to avoid construction. Robert Gardner's *Forest of Bliss* (1986) will be shown as an example of pure visual filmmaking with no textual guidance given to the viewer, and very minimal intervention by the filmmaker in the action he is depicting. By contrast, excerpts from films by French filmmaker and anthropologist Jean Rouch, for instance *Chronicle of a Summer* (1961), will demonstrate approaches such as cinéma vérité and ethno-fiction. Rouch insisted on bringing the perspective of the ethnographer/filmmaker into his films and he used the language of film to construct a conversation between filmmakers, protagonists and viewers.

Rouch's goal is not dissimilar to what we try to achieve with ethnographic practices in design research. Ethnographers and designers do research in collaboration with participants, to inform and inspire a larger, multidisciplinary team. The understanding that ethnographers and designers create from their research often results in a certain perspective on the situations and people the team designs for. It is often difficult however to communicate the full richness of the results of ethnographic research to the diverse team. Video is used to support this process but not always to one's satisfaction.

Structure, activities and goals

The workshop organisers will show excerpts of some of their own films in addition to the films mentioned

above. We will ask participants to bring excerpts from edited films or unedited video material they have used. We will view these excerpts in two small group sessions, discuss individual clips, the circumstances surrounding the shooting and editing decisions, and how these reflect issues of perspective and construction of reality:

- What techniques did you use and how much did you construct?
- How effective were the filming and editing techniques you used:
  - to communicate the perspective of the protagonists?
  - to communicate your analysis as an ethnographer?

Each small group will show one clip to the entire workshop at the end of the session, and will discuss the techniques that were used to produce it, and how it reflects issues of perspective and construction of reality.

You will take away new ideas about how to use video in your ethnographic practice, and how to improve the communication of your ethnographic work to multidisciplinary teams in your company or with a client.

#### Application

If you would like to participate please send a 150 word statement explaining your interest and background. Please add details about the clip you want to bring. It would be helpful to include length, format (region-free dvd or mini DV preferred), subject and technique you used (for instance observation, interviews, re-enactment, etc.). You can send your application to [bas.raijmakers@rca.ac.uk](mailto:bas.raijmakers@rca.ac.uk).

Maximum number of participants: around 12.

#### Organisers

- Bas Raijmakers  
PhD candidate Interaction Design, Royal College of Art, London, UK.
- Susan Faulkner

Documentary filmmaker and ethnographer, Intel,  
Portland, OR.

· Wendy March  
Interaction designer and ethnographer, Intel,  
Portland, OR.

**Second International Conference on Cognitive Science  
2006**

**December 10-12, 2006**

**Centre for Behavioural and Cognitive Sciences  
Allahabad, India**

**Organizing Committee**

**Rajen Harshe (Chair) Janak Pandey D. N. Dwivedi**

**A.K.Gupta A. K. Dalal U. S. Tewary Komilla Thapa**

**Namita Pande Ashish Khare N. Srinivasan (Co-  
Convenor) Bhoomika kar (Co-Convenor)**

**Advisory Committee**

**S. Bapi Raju, India, Axel Cleeremans, Belgium**

**Amita Chatterjee, India, Avi Chaudhuri, Canada**

**David Eagleman, USA, Jim Georgeas, Greece**

**G. C. Gupta. India, Aravind Joshi, USA**

**Harish Karnick, India, Manas K. Mandal, India**

**R.C. Mishra, India, Bruce Overmier, USA**

**Shobhini L. Rao, India, V. Ravindranath, India**

**P. N. Tandon, India, Cess Van Leeuwen, Japan**

**Max Velmans, UK**

**Call for Papers**

**The Centre proposes to hold the Second International  
Conference on Cognitive Science from Dec 10-12,  
2006 at Allahabad. The Conference would attempt to  
explore the truly interdisciplinary nature of  
cognitive science by organizing scientific sessions on  
all the major domains of cognitive science. It  
would consist of symposia by invited speakers from**

**India and abroad. This conference would also encourage young scientists to present their work in scientific sessions.**

#### **Topics**

**Cognitive Neuroscience Reading and Language Processing  
Computational Neuroscience Learning and Memory  
Computational Intelligence Creative Cognition  
Cognitive Modelling Philosophy of Mind  
Human Computer Interaction Culture and Cognition  
Cognitive Development Social Cognition  
Visual Perception and Attention Emotion and Cognition**

#### **Conference Venue**

**The conference will be held at the Centre for Behavioural and Cognitive Sciences, which is located in the Psychology Building of Allahabad University.**

#### **Important Dates**

**Abstract Submission: August 31, 2006**

**Notification of Acceptance: September 15, 2006**

#### **Registration**

**All participants are required to register for the conference.**

#### **India**

**Students: Rs. 500**

**Professional: Rs. 1500**

**International Delegates: \$50**

#### **Submission of Extended Abstracts**

**Invited speakers and participants presenting papers and posters are required to submit an abstract. The extended abstracts (of around 500 words) should be sent my email ([cbcsau@rediffmail.com](mailto:cbcsau@rediffmail.com)) as an attached file in MS word or RTF. The abstracts should reach by July 31, 2006. All the accepted**

abstracts will be made available to the participants in a CD at the time of the conference. The conference proceedings will be published in a book form with selected papers after the conference.

#### **Travel**

Allahabad is well connected by air and train from Varanasi, Delhi and Kolkata.

#### **Travel Document**

Every foreign visitor entering India must have a valid passport and an Indian visa. Visas can be obtained from Indian Embassies and Consulates in most countries. Formal invitation letters will be sent to the speakers.

#### **Weather**

Minimum temperature will be 10 o C and maximum temperature will be 20 o C.

#### **Contact**

Dr. Narayanan Srinivasan/Dr. Bhoomika R. Kar  
Centre for Behavioural and Cognitive Sciences

Psychology Building

Allahabad 211002

Tele/Fax: 0532-2460738

Email: [cbcsau@rediffmail.com](mailto:cbcsau@rediffmail.com)

Detailed information regarding the conference can be obtained from [www.cbcsau.org.in/conf.htm](http://www.cbcsau.org.in/conf.htm).

## **Appeal**

1. *Design for All Institute of India* appeals to their members, subscribers and well wishers to kindly contribute towards for ways of establishing a state of the art Design Institute and in what way it can benefit all living.

2. We seek opinion on formulating curricula of different program of 1-year of 2- semesters for beginners, 4-year Bachelors program of 8- semesters, 2-year master program of 4- semesters and areas of research for PhD program. It is a backbone of society and if we produce competent workforce for future, we can make a better society. All the experts, intellectuals, philosophers of different walks of life should contribute their opinion freely and help us in making a world class Design Institute.

3. Those of you who are really working for the cause for the betterment of society and are known to few persons in and around are working at individual level or looking for some platform to raise genuine issues or not being registered with any institute/ organizations, either you can e-mail us. We will request them to join our institute and we can work mutually for common cause in effective ways or they are welcome to us and directly registered with us through e-mail or write to our correspondence address.

Many readers were inspired to voice their opinion about our special issue on "Tourism and Design- Case of Germany" (May 2006, Vol-1, Number-4) - so many, in fact, that even after we expanded our "feedback" this month. We still had many more thought provoking responses.

Design for all Institute welcomes correspondence from readers. Letters should be sent via e-mail to [dr\\_subha@yahoo.com](mailto:dr_subha@yahoo.com) . All letters should include daytime telephone number, and all letters may be called for length and clarity.

We are sorry to inform all those who have encouraged us by giving us their valuable suggestions, comments and appreciations and we can not accommodate all and we have selected few letters on first cum first basis. Our intention is not disheartened and discouraged any one .Your guidance is source of inspiration for us. Kindly do write us and help us in making our efforts world class.

Editor

Prof. L.K.Das

## Advertisements

We would like to introduce our products for your newsletter on sports and design. We have two products that could fall into this range and could be of interest to you and your readers:

### 1. Newtest Powertimer testing system:

- a completely portable athletic performance testing system. Known users include Manchester United, Arsenal, Liverpool...to name a couple

### 2. Newtest Bone Exercise Monitor:

- an exercise monitor specifically designed for osteoporosis prevention through exercise
- product is based on extensive scientific research and R&D
- designed especially 30-50 -year-old women in mind
- featured in the Finnish Design Yearbook 2006

Newtest Oy has developed a personal Bone Exercise Monitor

A Finnish wellness and sports technology company, NEWTESTOY, has Osteoporosis is a serious national health threat and a national health and economy burden in most industrialized countries. It is estimated that every other woman and every fourth man over age of 50 will suffer from osteoporotic fracture. It is estimated that osteoporosis is suffered by 75 million people in EU, USA and Japan.

Good news is that osteoporosis can be prevented and its impact reduced significantly. Bone exercise is one the things one must consider when looking for ways to prevent osteoporosis. Newtest Bone Exercise Monitor shows the person using it if she has engaged in physical activities that may have been helpful in strengthening her bones.

Newtest Bone Exercise Monitor is a small device worn on the hip. The monitor measures and analyzes the user's physical activity in real-time and shows how many percentage of the required daily bone exercise is achieved in very easy-to-understand format.

Newtest Bone Exercise Monitor is also a new tool for physicians, physical therapists and fitness instructors as it offers a new method to follow up, instruct and motivate women to engage in bone exercise. The monitor is also a tool for the specialists in helping their clients to achieve their bone health goals.

Newtest Bone Exercise Monitor is a first of kind product in the world! It is based in the patented innovations by the Newtest Oy. The Bone Exercise Monitor has been used in award winning bone exercise research conducted by the Medical School of Oulu University and Oulu Deaconness Institute.(Aki Vainionpää, Young Scientist Award, European Calcified Tissue Society (ECTS), Nice ja Timo Jämsä, Clinical Biomechanics Award 2004, European Society for Biomechanics).

The Newtest Bone Exercise Monitor is, now, available for distribution, globally.

An additional website for Bone Exercise Monitor is [www.womencanjump.com](http://www.womencanjump.com).

Further information on the design of the Bone Exercise Monitor is available at [www.desigence.com](http://www.desigence.com) Contact persons are Ms. Irina Viippola irina( [viippola@desigence.com](mailto:viippola@desigence.com) ) and Mr. Jorma Savolainen jorma ( [savolainen@desigence.com](mailto:savolainen@desigence.com) ). They will be able to answer you any questions related to the design approach to the BEM.

Newtest Oy, Kiviharjuntie 11, FIN-90220 Oulu, Finland, Phone +358-8-537 2277 Fax +358-537 2270 Email: [info@newtest.com](mailto:info@newtest.com) Internet: [www.newtest.com](http://www.newtest.com).

**Product:**

29.6.2006

Newtest Oy

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Email: [info@newtest.com](mailto:info@newtest.com) Internet: [www.newtest.com](http://www.newtest.com)

## Building Better Bones - A new Bone Exercise Monitor

NEWTEST OY, Oulu, Finland recently launched a patented Newtest Bone Exercise Monitor (see fig. 1). The monitor is designed for 30 to 50-year-old women who are interested in their health and well-being and especially in bone health. The Newtest Bone Exercise Monitor offers an excellent tool for these women to personally monitor and evaluate the effectiveness of their bone exercise.



Figure 1: The bone exercise monitor

Osteoporosis is a serious national health threat and burden on national health and economy in most industrialized countries. It is estimated



Figure 2: The monitor at work

that every other woman and every fourth man over the age of 50 suffer from osteoporotic fracture. It is estimated that over 75 million people in the EU, USA and Japan have osteoporosis. There is a great demand for new methods and tools to cope with this vast health problem.

Good news is that osteoporosis can be prevented and its impact be reduced significantly. Bone exercise is one of the most important things one must consider when looking for ways to prevent osteoporosis. Newtest Bone Exercise Monitor shows the person using it having engaged in physical activities that may have been helpful in strengthening her bones. Exercise affects the bones through mechanical loading and the resulting adaptation. This means that loading causes structural changes in the bones and in cell metabolism, which finally leads to improved mineral density, mass and structural strength. If the loading caused by the exercise is of the right type, i.e. sufficiently intensive and dosed properly, exercise will result in positive bone effects. Good bone exercises are generally those that require jumping, leaping and fast direction changes, such as step aerobic, football, floor ball, basket ball, rope skipping and even Nordic walking if combined with jumps and leaps.

Newtest Bone Exercise Monitor is a small device worn on the hip (see fig. 2). The monitor tracks and analyses the user's physical activity in real time through daily exercise, including everyday chores. The Monitor shows, as a percentage, how much of the required daily and weekly bone exercise has already been done and motivates users to keep themselves physically active. One can then find out if the daily exercise is adequate, both in quality and quantity, for bone loading.

Newtest Bone Exercise Monitor is also a new tool for physicians, physical

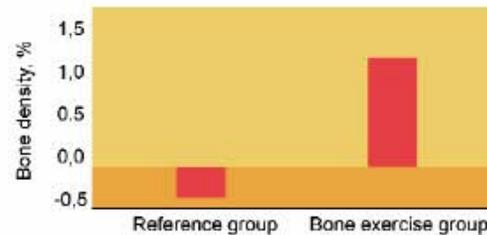


Figure 3: Effect of bone exercise on the neck of the femur, 12-month follow-up. Source: Vainionpää et al. Osteoporosis Int. 2005;16:191-7.

therapists and fitness instructors as it offers a new method to follow up, instruct and motivate women to engage in bone exercise. The monitor is also a tool for the specialists in helping their clients to achieve their bone health goals.

The system is based on an accelerometer, combined with a microprocessor. Newtest Bone Exercise Monitor is a first-of-kind product in the world. It is based on the patented innovations by the Newtest Oy.

The monitor has been used in award-winning bone exercise research conducted by the Medical School of Oulu University and Oulu Deaconess Institute (Aki Vainionpää, Young Scientist Award, European Calcified Tissue Society (ECTS), Nice and Timo Jämsä, Clinical Biomechanics Award 2004, European Society for Biomechanics).

In a survey conducted by the Oulu University and Oulu Deaconess Institute the effect of bone exercise on bone density among 120 women aged 35-45 years was examined during a period of one year. A statistical significant rise in bone density was observed in the femur, lumbar skeleton and heel bone (see fig. 3).

#### Contact:

Matti Tossavainen  
 Director, Development & Export sales  
 M.Sc Exercise Physiology & Biomechanics  
 NEWTEST OY  
 KNIharjuntie 11, FIN-90220 Oulu, Finland  
 Phone: +358 8 537 2277, 2274  
 Fax: +358 8 537 2270  
 E-Mail: info@newtest.com  
 www.newtest.com

## Job openings

These job openings are informed to us by our members and we don't claim any responsibility. It is just a beginning.

### Editor

One of the oldest and biggest Exhibit design and management organizations in Dubai catering to multinational and elite clientele is looking for an experienced Staff as follows.

1. Exhibit designers / Architects-2 Nos
2. Exhibition production supervisors.-2 Nos

Following are the details regarding each position

1.Exhibit designer, preferably from premier Design/Architectural institutes like SPA, JJ, IDC,NID.

- \* Minimum 3-4 yrs experience in exhibit and retail design.
- \* Strong conceptualizing and visualizing capabilities
- \* Good eye for detail and experience with the fabrication/production process
- \* Quick thinker with good presentation skills and making fabrication drawings.
- \* Proficient at using software like 3D Max, ACAD, Photoshop, Illustrator, CorelDraw etc.

2. Exhibition production supervisors.

- \* Minimum 3-4 yrs experience with production and site supervision
- \* good at managing workflow and the production operatives.
- \* Quality conscious with good knowledge of carpentry and metal fabrication methods.
- \* good knowledge of costing and should be able to quote jobs, negotiate with vendors and aim high profitability.
- \* Computer and internet literate and able to interact with clients.

\* work under pressure and cater to tight deadlines.

If you are interested in relocating to Dubai ,UAE which is growing at a phenomenal rate and fast becoming an important business hub in the middle east, please send your latest CV with portfolio and any links to online works/website to peeyush@alnaboodah.com ( peeyush at alnaboodah dot com)or peeyusharas@yahoo.com. You can expect a very competitive salary and ticket and 30 days/year annual paid leave to home country are some of the few benefits of working in Dubai.

2.Hi All!

Our apparel design house is looking to recruit a senior level fashion designer (around 4 - 5 yrs relevant experience) who's good with high fashion, western, women's and men's wear.

Our styling is international with clean cuts, intelligent pattern making and luxurious fabric and trims. We're not heavy on embroidery. Also our emphasis is on women's wear. If the profile interests you, write in asap!

A qualification from NIFT, NID, SNDT or international fashion schools would be preferable.

The position is based in Mumbai. Remuneration would be as per industry standards.

Contact me directly via email, with your resume and contact numbers.

Meera

--

Meera Mittal | Fashion Designer

[meeramittal@gmail.com](mailto:meeramittal@gmail.com)

Seam Network: <http://tinyurl.com/cpqj3>

Ryze Profile: [www.ryze.com/go/](http://www.ryze.com/go/)

### 3. We need at least 2 Graphic Designers.

They should...

1. have an online portfolio.
2. know (and understand) graphic design history.
3. love typography (should reflect in their work).
4. conversant with print+screen production tools
5. have the ability to undertake research and manage content
5. love Apple

:: Illustration skills are added bonus.

:: Corel Draw is not.

:: We are located in Gurgaon+Delhi

:: Nature of Design Projects- Branding, Interaction Design, Publications

:: Clients- Levi's, Titan, TCS, AmSoft Systems, DLF, Reebok, Luxor Pens, Bistro....

:: Interested designers can write to us at [dahiya\\_rajesh@ designindia.com](mailto:dahiya_rajesh@designindia.com)

### 4. dear friends,

the Zee Network English Cluster team, based in Mumbai and Singapore, requires On Air Promo Producers and Designers....

Any one interested can e mails their Resumes to [devilonahigh@...](mailto:devilonahigh@...)

### 5.

There is a company in Chennai that is looking for someone who is interested in handling clients/ projects for their company.

They deal with couture embroidery and require a person who can manage a particular client/ project in terms of create designs and follow up the fabrication. They mainly work on interior spaces but have also done garments. They would preferably like someone who can speak English and Hindi, knowing Tamil/ French is also helpful.

Anyone interested (not necessarily someone with a textile background)

please send me your resume.

Natasha Jeyasingh

Evoke ventures Pvt Ltd.

Chennai

[njeyasingh@...](mailto:njeyasingh@...)

6. Greetings!

We are immediately looking for 3-4 creative designers for the Interactive Advertising and Graphic User Interface designing.

Design mechanics is an interactive creative agency indulged in online design and technologies. we endeavors to set trends and provide innovative technological web solutions to the businesses and unique online advertising solutions to the advertisers, tapping the immense potential online advertising has to offer as a new medium for advertising.

**MANDATORY SKILL – Online Advertising!**

**Typography:** can you see characters in the typefaces?

**Layout:** if you believe that it's not always about the negative and positive space!

**Illustrations & Drawings:** it will be an added advantage not essential though!

**Concepts:** No out of the box idea required, just blow the box away.

**Photoshop:** It's fine even if you use Photoshop 3.5

**Flash:** It's interactive so you'll have to animate

**HTML:** basic understanding of HTML is required

**Best client tail:** can you handle Pepsi, Xerox, Maruti...?

**MANDATORY SKILL – Graphic User Interface Designers!**

**Typography:** can you see characters in the typefaces?

**Layout:** if you believe that it's not always about the negative and positive space!

**Illustrations & Drawings:** it will be an added advantage not essential though!

**Concepts:** No out of the box idea required, just blow the box away.

**Photoshop:** It's fine even if you use Photoshop 3.5

**Adobe Illustrator:** if you will create your own icons

Flash: It's interactive so you'll have to animate  
HTML/CSS/Java Scripts: sound knowledge is required

We are located in Delhi.

Money is not an issue for the right candidate.

Interested candidates please forward your resume and work samples to  
Nitin Ahlawat at [nitin@...](mailto:nitin@...) or [nitinahlawat@...](mailto:nitinahlawat@...) or you  
can give him a call at 9810665156

Pradeep Kumar

"Everything should be made as simple as possible, but not simpler."

7 We are looking for following people

Product Designer with 2-3 yrs of work ex

Graphic Designer with 2-3 yrs of work ex

Graduates from Reputed Institutes

Positions are at our Pune Office

Kindly visit us at [www.lokusdesign.com](http://www.lokusdesign.com)

Send in your resume to [careers@lokusdesign.com](mailto:careers@lokusdesign.com)

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*More job vacancies are in our web site [www.designforall.in](http://www.designforall.in)*

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