
akshara

the newsletter of sankalp - a resolve for a progressive india

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The problems of poverty, illiteracy, corruption, unemployment and social inequalities are so intricately intertwined, that any attempt to establish cause-effect relationships, seems to break down upon analysis. One of the root causes of the growing mismatch between the needs of the fast-track Indian economy and the nation's 40 million registered unemployed is inadequate access to education, both in terms of quality and quantity. Besides, more than 70 per cent of the Indian population lives in the villages, but rural industries and employment are rarely a subject of debate and policy.

With this in mind, we have broadened our focus and we are determined to go beyond just supporting the literacy cause. With unrelenting enthusiasm shown by the team members and with funds gradually flowing in through innovative means, Sankalp is progressively gaining greater visibility among the community. We have decided to expand and accommodate projects, committed to promoting overall social development, by working closely with grass roots movements in India.

One concept that needs to be explored in the future is ubiquitous computer literacy, to help people reap the benefits of the head start India has enjoyed in the IT sector. Another concept that needs to be explored is entrepreneurship - the idea is to start with making people literate, but soon identify their talents, and help them put together a team to

enable them stand on their own feet. Such projects will go a long way in making India a self-reliant economy.

To embark on such ambitious projects, we need a large, concerted and energetic workforce with a single-minded intention to make India a better place. We look forward to your joining us in this humble endeavor. While it may be difficult to conceive how activities of a small organization like Sankalp may have far-reaching consequences, by no means can they be considered insignificant. To quote Mother Teresa - what we do is less than a drop in the ocean. But if it were missing, the ocean would lack something.

In this third issue of Akshara, Rahul, our former president, describes the various projects that are supported by Sankalp. In a separate article, Rahul presents the annual report of Sankalp. We have Vasu share her networking experience with NRI Home Coming, a movement started by NRIs who have returned to India to devote their time and resources to the cause of the country. Vidya chronicles the accomplishments of Sankalp since its inception and Kamal and Murali sketch the pen portraits of the committee members.

We also have Murali's review on Paul Hawken's best-selling text "The Ecology of Commerce." Murali explores the current understanding of why things have gone wrong in the present environmental, economic and social systems, and discusses how this trend can be reversed. As a part of the creative writing section, we have Srivatsan writing about some

world-famous scientists and their not so famous hilarious goof ups.

We thank you all for your encouragement and we eagerly look forward to your continued support to Sankalp and its activities.

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looking back: looking ahead

Sankalp was founded in 1995 to identify and fund projects in India that are focused on literacy. This initial focus on literacy gave the organization the ability to work with tangible goals and results. For a fledgling organization with limited budget, a small area of focus made best sense. However, as the organization grew, both in terms of budget, and more importantly in terms of experience and types of NGOs it interacted with, a broadening of focus became not only feasible, but also desirable. Rather than being restricted to the literacy domain, Sankalp decided to fund projects that address the other broad aspects of social problems prevalent in the remote parts of the country. With new dynamic student members joining Sankalp, deliberations like this marked the year 2002-2003. This year, Sankalp reached many important milestones.

annual report

The year started off by welcoming the new batch of students at ISU with the Fresher's Party. With a record number of students from India joining ISU in the Fall of 2002, the party was a well-attended and enthusiastic affair. The present core working committee has nearly 8 members from the batch of 2002. Sankalp gets almost all of its members from the new batch and this year was no exception. Increased awareness of Sankalp among the student community could be gauged from the improved attendance at the weekly Sankalp meetings. While previously, Sankalp meetings meant a small group of 8-10 people coming together, now it has grown to approximately 15 people discussing and participating in its daily activities.

Fall season also meant the biggest fundraising opportunity for Sankalp - ISU football volunteering. This year, through 8 home games with roughly 25 volunteers per game, Sankalp was able to collect a sum of \$4800, which was the biggest amount ever raised from any event in the past. All this has been made possible because of the ever-increasing student member base for Sankalp.

This was also the first year Sankalp participated in the Diwali night celebrations, organized by India Students Association, by playing a skit about a small village in India. The skit was based on the success story of Mr. Rangaswamy Elango who was hosted for a talk at ISU last year by Sankalp. Mr. Elango is the village chief of Kuthambakkam, a village in Tamil Nadu, India. Under his able leadership, Kuthambakkam was transformed

from an under-developed village to a model village where the local community participates actively in village developmental activities. Sankalp decided to depict this truly inspiring story in the form of a skit at the Diwali celebrations. A number of dedicated and creative minds worked together and made the skit a success, thereby bringing recognition to Sankalp, at the function attended by more than 300 people.

One of the main stated goals of Sankalp is to increase awareness amongst the student community about the existing social scenarios in India. Pride is taken in the fact that Sankalp is not just a 'funding organization that sends money to India for developmental projects', but, it is also an organization where interested individuals can come together and have meaningful discussions regarding various topics relevant to India. Towards this goal, Sankalp formally started debate and discussion sessions, and the first issue to be addressed was about dams, and its effects on society. This series was initiated with Dr. Balmurli Natarajan's (faculty member at the Department of Anthropology at ISU and chief faculty mentor for Sankalp) lecture on the reach, impact and essence of globalization in November 2001. A second debate session focusing on forms of governments, such as democracy and communism, was organized wherein the enthusiastic audience compared and contrasted the situation in China and India. Sankalp continues to hold sessions conducted by Dr. Natarajan on subjects like sociology, capitalism, politics etc.

In the summer of 2003, Sankalp co-hosted a cricket tournament with ISU Cricket Club. Ten teams participated in the event, generating funds totaling \$450. ISU Cricket Club provided the necessary cricket equipments, technical advice and helped with overall logistics. Great weather and tireless enthusiasm from the players ensured a very enjoyable time for all involved. In the future, Sankalp plans to organize more such tournaments as it proved to be a very positive fundraising opportunity. In addition to these activities, Sankalp, as it does every year, also participated in events like FACES (October 2002) and VEISHEA (March 2003), which are organized by the city of Ames and the university respectively. At both these festivals, Sankalp had stalls where handicrafts and greeting cards designed by artists from India, were on sale.

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association: action: achievement

One of the most tangible ways to support social development in India is to fund developmental projects in needy areas. In this spirit, Sankalp has been reaching out to many deserving Non Governmental Organizations (NGOs) working in various parts of the country. Sankalp's philosophy has been to support NGOs working at the grass-roots level in remote places, where access to funding sources may be very limited. As noted earlier, literacy is just a part of the bigger developmental cycle. Hence, Sankalp has broadened its scope from merely focusing on the educational aspects of development to all the activities that improve the living conditions of the needy. This year, owing to the successful fundraising efforts, Sankalp funded as many as four new projects apart from continuing support to the old projects. A brief look into the details of each project follows.

Samooch Relief Fund manages Little Star School, which is a non-profit service and education organization. Little Star School was founded by Asha Pandey in 1996 with the intention of providing free education for the poor and deprived children of Varanasi. This includes children who are orphans, children who work contributing meager earnings to their families, and those who are reduced to begging to make a living. The school is now operating from nursery level to 5th grade. The premise is that after receiving good primary education, children will be able to continue their education to 6th grade by obtaining admission into any state or privately run Hindi medium school.

Currently, there are 350 children enrolled in the school ranging in age from 4-14 years. These children are either from the neighborhood of the school (Assi), or they are brought in from the main ghat (Dasashwamedh). The children from Assi are mainly Bengali and mostly live in a small shanty located next to Varanasi's last ghat. The children from Dasashwamedh are mostly homeless. The project accords main priority to the children who are extremely poor and lack basic resources. This ensures that, the Dasashwamedh children are unconditionally accepted. The parents of these children who are employed drive cycle rickshaws, wash dishes, clean clothes, cook for others, or sweep the streets (all low paying jobs). Some children have parents who are alcoholics or drug addicts and some suffer from child abuse, while many of them are orphans. In addition to the formal textbook oriented syllabi, the school also has a non-formal educational component for its students.

The school also provides basic medical care and offers food on a daily basis. Sankalp donated \$2500 towards yearly expenses for the school's mid-day meal program.

SWAJAN is a NGO working in Pursurah and Tarakeswar block of Hooghly district in West Bengal. A project grant of \$1000 per year for a period of two years was provided to the organization for establishing Rural Developmental Centers (RDCs) in the area. RDCs are a common platform through which various services will be delivered to the target-beneficiaries of the project area. Some of the services provided through the RDCs would include adult literacy classes, coaching classes for primary school students, women empowerment, health and nutrition awareness, and income generation plans.

The long-term goal of the organization is to achieve all round socio-economic development of the project area through income generation schemes and health awareness programs using literacy as the key instrument. In spite of its general population having moderate income, there are around 40 pockets of poor people concentration. These sections belong to scheduled castes and tribes whose average family income is very low. This leads to low levels of literacy and health awareness, and a lack of support from parents in continuing their children's education. RDCs in the area is expected to help address at least some of these problems.

projects

SUPPORT, Society for Undertaking Poor People's Onus for Rehabilitation, is an organization working in Mumbai, Maharashtra. It started its work in 1985 with the main focus of rehabilitation of street children and increasing awareness amongst them about drug abuse and AIDS. Towards this, the organization has started centers in various suburbs of Mumbai. This covers a wide range of street population including sex workers and eunuchs. In addition, a rehabilitation center has been opened for drug addicts below the age of 16. Currently, SUPPORT runs a residential center for boys in Santacruz and a residential center for girls in Lonavala. Besides this, they also run a vocational education center in Goregon. The current project focuses on the center at Vakola, Santacruz. Sankalp partially funded the expenses for the educational, developmental and medical program at this center.

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making new connections

It is very heartening to see that India is at the cutting edge of research in science and technology. But the progress India has made over the 50 years since independence cannot mask the striking poverty and illiteracy prevalent in most rural areas. Upliftment in these areas should directly reflect on the development of India in all possible facets.

It was with this motive that several organizations met under one roof on October 18, 2003, at Chicago, all willing to volunteer for a plethora of activities leading to overall development of the nation. Sankalp had the opportunity to participate in this conference organized by NRI Home Coming, and the experience and exposure gained were truly enlightening.

NRI homecoming

The conference was a congregation of a number of dedicated groups of the Indian Diaspora, all working toward a common goal - "understanding and catalyzing a campaign for Gram Swaraj (self-reliant villages) in India." The conference was marked by a series of presentations throwing insight into the various projects undertaken by NRIs in rural villages of India. The S.M. Sehgal Foundation, based in the United States, supports programs designed to promote sustainable developments in the villages of Gurgaon. It works to promote the benefits of small families in a culturally sensitive manner - i.e., by increasing income through skills development, promoting environmentally sound agricultural practices and so on. The other success stories were that of Mr. Umesh Rohatgi and Mrs Rashmi Rohatgi (social workers from

Novi, Michigan), in making villages in Chitrakoot self-reliant. Dr. Bhamy Shenoy from Stamford, Connecticut, spoke of the concept of decentralization and the need to focus on agriculture rather than just industry. Mr. Ramakrishnan, the coordinator of the NRI Home-Coming Group reinforced Shenoy's ideas of having a 'bottom up' approach instead of the conventional 'top down' approach. He called for the need to form Self Help Groups (SHG) and to improve the social status of women in general. Ekal Vidyalaya and Honey-Bee Networking Systems were some of the other institutions that took an active role to make the conference a success. In a nutshell, all the positive outcomes of several rural developmental projects were presented.

One of the main missions of the NRI Home-Coming Group is to identify under-developed places in India and involve an NRI to work in such a place for a period of 2 years. The program began on the 9th of January, 2004, which is also celebrated as the 'Pravasi Bharatiya Diwas' or the NRI day. With sustained efforts and commitment from the NRIs, they hope to pool in around 5000 volunteers within a period of five years. The program is open to NRIs from all parts of the world and more information can be obtained from the website, www.nri-home-coming.com. The conference was an appeal to all the established Non Resident Indians to consider this opportunity as a means of extending their gratitude to the home country.

On the whole, it was not only an entirely new learning and networking experience for Sankalp, but also an adventurous trip to Chicago.

... looking ahead

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Due to the enormous efforts put in by the members of Sankalp, specifically the volunteers at the Henna stall, Sankalp raised a record amount of funds and gained more visibility among the community. In May 2003, Sankalp participated at the Anup Jalota concert organized by the Hindu Temple committee, in Madrid, Iowa. At the temple, Sankalp members had the opportunity to network with the Indian community residing outside ISU campus - an interaction that would be built on in the future.

Sankalp was able to fund as many as five projects this year because of its improved financial situation. With the new committee in place and with increased team strength, Sankalp holds good promise for a steady uphill trend. However, this growth will bring new challenges and expectations for the organization and its members. With your assistance, we are confident of fulfilling these responsibilities. We look forward to your continued help and support. Your advice and help means a lot to us.

ecology of commerce

A Discussion on Paul Hawken's "The Ecology of Commerce".

About the author:

Paul Hawken, an ecologist, entrepreneur and activist, is also the cofounder of many businesses such as Datafusion, Smith & Hawken, Erewhon Trading Company, and several natural food companies. The Ecology of Commerce was voted in 1998 as the # 1 college text on the business and environment by professors in 67 business schools. In addition to this book, Hawken has written several others and produced a PBS video series on these subjects.

This article uses Paul Hawken's The Ecology of Commerce, as a basis to explore current understanding of why things have gone wrong in the present environmental, economic and social systems and what are some indicators of this decline. In addition, several suggestions proposed by Hawken towards reversing this trend are presented.

Environmental Degradation:

Hawken expounds at considerable lengths on the destruction of our ecosystem and the ultimate destruction of earth. From the hole in the ozone layer, to the extinction of thousands of species annually, environmental degradation is hard to wish away. Not a day passes by without a report on another extinction, more environmental disasters, or other unforeseen consequences of mankind on nature. A few of the more telling points presented by Hawken are mentioned below:

- Mother's milk would be banned in most industrialized nations, if it were sold as a package product, because of the chemical pollutants it contains. The World Wide Fund for Nature (WWF) says more than 350 man-made pollutants have been identified in the breast milk of women in the UK (Source BBCNews).
- The Ogallala aquifer, an underwater river beneath the Great Plains, the largest fresh water body on earth, will dry up in 30 to 40 years at the present rate of extraction.
- Globally, 25 billions tonnes of topsoil is lost to erosion, the equivalent of all wheat fields of Australia.
- Fish are one of the final benefactors of all industrial wastes, since these wastes find their way to water streams. Harmful pollutants, like mercury, have been found in fishes from a significant percentage of water bodies, and so bad is the situation, EPA has states issue fish advisories warning people to watch their intake of fish. Fish, from being a nutritious meal has gone to being a final harbor for many chemicals.

Hawken believes that while the first industrial revolution improved the quality of life immensely, environmental protection was understandably not a priority. A second revolution is now required to realign the industry to the new realities of habitat destruction.

Once we do accept that man is changing the environment forever, there are other confounding factors to be reconciled with. The frequent argument is that extinctions are a natural part of evolution, and the world looks dramatically different from eras ago, and everything is a part of the natural order of evolution. Paul Hawken argues that there are differences: "excluding the five previous mass extinctions such as those that occurred in the Final Permian and Cretaceous periods, past extinctions opened new opportunities for speciation. These mass extinctions were caused by extraordinary, catastrophic event, such as a meteorite strike. Today, we are experiencing the first mass extinction in the 3.8 billion year history of life forms caused by another organism-homo sapiens. The general rate of extinction today is 1,000 to 10,000 times greater than the background level of extinction that has existed for the past 65 million years of the Cenozoic Age."

Waste Generation:

Nature is a zero waste system - everything is reused or scavenged and is a part of the cycle of life. In sharp contrast, the average American consumes 136 pounds of resources every week, while 2000 pounds of waste are discarded to support that consumption. While many people dream of a system that entails zero waste, a system as efficient as Mother Nature, today's industry seems to be headed the other direction from disposable kitchenware to disposable cameras. While these undoubtedly present the consumer with choice and convenience, they don't present the consumer with the real facts about such profligate products. Hawken relates the example of Hanford, Washington, the site of a nuclear weapons research facility managed for the US government by GE, where there exists enough liquid waste to cover Manhattan with a radioactive lake 40 feet deep. And every day nuclear power plants are producing more wastes whose ultimate disposal will be burial in the mountains. It is worthwhile to ask if this burying all our problems will solve them. Renewable sources of energy, such as solar and wind, even though more expensive, have fewer environmental

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drawbacks, and these forms of energy development need to be nurtured by the government, and given subsidies.

Skewed Development:

Symptomatic of our current economic system is that, in Brazil, rainforests are being razed to grow Soya to feed to cows in Germany that produce butter and dairy products that are piling up in warehouses. In this exchange, one million forest settlers have been displaced and forced to live in the ghettos of Rio de Janeiro. This is a situation endemic to the globe, be it the local tribals displaced by the building of Narmada Dam who will end up probably in Dharavi in Mumbai, or the uprootment of American Indians in the US who need to be sustained by reservations featuring gambling and other vices.

Positive Tales:

The business empire is larger than all the other kingdoms of the past and present- from the Greek to the Byzantine to the current era. Commerce is the single largest driver of our generation, and since the effects of commerce are part of the problem, they also need to be a part of the solution. Business has the power to change the way it is run, adapt more sustainable practices, be more socially equitable, and this will help alleviate the problems. Some industries have adapted to these new paradigms, and Hawken illustrates a couple of such examples:

A prototype of a minimum waste system has fallen into place in Denmark, wherein a coal-fired power plant sends its steam directly to an oil refinery, pharmaceutical company, local greenhouses, fish farms and local residents, instead of condensing the steam in a nearby Fjord as was done until the 1980s. The aforementioned oil refinery used to discard its surplus gas because of its high sulfur content, but after the installation of a process to remove the sulfur, the refinery sells the burning gas to a sheetrock factory and to the power plant. The extracted sulfur and co-extracted calcium sulfate are sold to local chemical companies. The fly ash generated from power production is used in road construction and concrete production. Waste heat from the refinery is used to warm the water of the fish farm, whose residual sludge is sold to local farmers as fertilizers.

While the above story is certainly heartening, various conditions such as the proximity of several successful,

non-competing industries need to be met first. In addition, the community had a strong stake and involvement in getting this symbiotic process going. Unfortunately, few such systems are in place, although the potential for more does exist. A few companies in the United States are attempting to ingrain sustainable concepts into their functioning- among them being 3M, Interface Inc. and Ben & Jerry's. While these companies have made a clear commitment to sustainability, for most companies sustainable development still remains a public relations tool.

Remedial Proposals:

As mentioned earlier, Hawken proposes a number of suggestions to improve the performance of corporations on matters of society and environment. A couple of such measures are presented below:

Consumables, Durables and Unsaleables:

Hawken describes a system envisaged by Dr. Michael Braungart and Justus Englefried of the Environmental Protection Encouragement Agency (EPEA) in Hamburg, Germany. Under this system, products are divided into consumables, products of service, and unsaleables. Briefly, consumables are products that are consumed or end up as a biodegradable waste, with no toxic residue remainder. Many current day products from fabrics to footwear could be aligned with this category if chemical supplements were eliminated from their manufacturing process. Under products of service, commonly called durables, consumers would not purchase cars, refrigerators and televisions. Instead, these products would be licensed to the consumer with full rights to use and sell the item, however, final disposal of the item would be the responsibility of the company. At present, most of these products are not recycled but down-cycled, i.e. reduced to scrap, melted down to yield paper, aluminum, glass and plastics. The proponents of this idea argue that this will cause the company to be responsible for their product from cradle to grave, and would cause rethinking of the materials and methods involved in their production, and eventually promote the recycling and reuse of many products. Finally, the unsaleables category includes toxic chemicals, PCBs, heavy metals and the like, items that cannot be cycled into the system. These products would, at the end of their life, be stored on lots, owned by the government but leased to the manufacturer of the products. The costs borne on the storage of these

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products would lie with the manufacturer. This will, it is claimed, provide enough incentive for the manufacturers of such products, to actively seek acceptable substitutes. The essence of this system is that the manufacturer takes full liability of the product until the very end, and will make them more responsible, and not saddle the taxpayers with the cost of disposing the toxic chemicals produced by the industry.

In the German auto industry, BMW has a pilot disassembly plant to recycle its older cars and newer cars are built with disassembly in mind. Various measures including reducing the number of types of plastics used, bar coding each part, and design modifications have been introduced to achieve 100 percent reusability of cars.

“Markets are superb at setting prices, but incapable of recognizing costs”: Pigovian Taxes

Hawken argues that while markets are really good at delivering the lowest cost to the consumer, they do not account for the real cost of the product. For example, while a company produces cigarettes and sells them for about \$2 a pack, society pays more than \$3 per each pack in associated health costs (University of California at San Francisco study). The same holds true for all production/consumption systems, from steel, to wood, to food. There are costs associated with the side effects of these products, which always have to be borne by society (i.e. tax-payers).

To offset some of this inequity, Hawken harks back to the 1920s when A.C. Pigou, an English economist, proposed that competitive marketplaces would not work if products did not bear full costs of production, including whatever pollution, sickness, or environmental damage they entail. Pigou’s solution involves imposition of a tax on the producers to bear the direct harmful costs of their product and the indirect effects of their product on the environment. This kind of tax, it is argued, would nudge companies to be responsible about their sources of energy, means of production, and hasten innovations in efficiency. Environmentalists remain skeptical about such taxes because, they argue, companies could continue paying the tax and get away with the polluting. However, the free market, in its bid for lowest prices, put such companies at a disadvantage. The progressive companies that adapt to this tax, and try to overcome it, would be at the forefront of such a system. Economists dismiss this tax as impractical, since cataloging all the harmful environmental effects of a product is tedious

and formed of incomplete knowledge.

Hawken argues that attempting to measure these costs are better than ignoring them completely as is currently done. Economists of the status quo have also argued that a Pigovian tax would lower productivity and increases costs for the consumer. To this, Hawken argues that in the 1920s, when Pigovian taxes were first proposed, such arguments may have been true, since they were no clean alternatives to coal-based power. However, these days, cleaner alternatives exist, but are not used by most of the industries for various reasons including higher costs. To the argument of greater costs passed on to the consumer, Hawken argues that these costs are already being borne by them in the form of higher health care costs, higher insurance premiums, mitigation costs to cleanup toxic sites, and higher resource costs because of environmental degradation.

The premise of both these proposals is the same: keep business in charge of producing and disposing its final product, and that itself will ensure the elimination of as many toxic substituents as practical. The market, in these cases, will be the driving force for clean technologies.

Hawken argues that these kind of systemic changes can help improve the situation for the consumer and the environment. In the United States, any regulation or law that would inflate costs are passionately argued against, since they would harm the “little guy”. Hawken says, “like many political axioms, the truth is probably the opposite. By suppressing prices, we may have damped invention, innovation, and job creation while at the same time strengthening large corporations, the concentration of wealth, and the disenfranchisement of the little guy.”

Summary:

Paul Hawken makes convincing arguments on the necessity of change in our current system, and goes beyond the usual rhetoric to suggest possible course-corrections. He believes in using competition to the advantage of the environment, not its destruction. Getting companies to be responsible for their product from cradle to grave, he believes, will usher in safer and friendlier alternatives. Hawken believes a critical mass stage in corporate responsibility is being reached and companies are proactively striving to improve. We can only hope he is right.

scientists must be crazy

little do we know about some of their little experiments that did not succeed. As the story goes, when Edison was six years old, he saw a goose sitting on some eggs until they hatched. Being the curious youngster, Edison sat on other goose eggs to see if they would hatch. Unfortunately for Edison, the eggs did not hatch. In an experiment to make a human balloon, Edison had a boy swallow Seidlitz powders which give off gas when mixed with water. Edison hoped the powder would mix in the boy's stomach and create a gas, and this gas would cause the boy to float. This experiment did not work as well.

When he was just five, Nikola Tesla, got himself involved with his first miscarried venture. He perched on the roof of the barn, clutching the family umbrella and hyperventilating on the fresh mountain breeze until his body felt light and the dizziness in his head convinced him he could fly. Plunging to earth, he lay unconscious and was carried off to bed by his mother. Tesla's sixteen-bug-power motor was, likewise, not an unqualified success. This was a light contrivance made of splinters forming a windmill, with a spindle and pulley attached to live bugs. When the glued insects beat their wings, as they did desperately, the bug-power engine prepared to take off. This line of research was forever abandoned however when a young friend dropped by who fancied the taste of bugs. Noticing a jarful standing near, he began cramming them into his mouth. The youthful inventor threw up.

We all feel that scientists are nerds, weirdoes etc. but some are jinxed too. The great scientist Pauli was one so jinxed creature that whenever he went near a lab, a dreadful thing was likely to happen. The so-called Pauli effect ranged from explosions in labs to fires to breakage of apparatus. Once in Hamburg, Pauli was invited to visit the observatory. He first declined the invitation saying, "No, telescopes are expensive." However the astronomer smilingly assured him that the "Pauli effect" would have no effect on the observatory. Later when Pauli entered the observatory, he was welcomed by an ear splitting clatter. A large cast-iron lid had fallen off one of the telescopes and shattered on to the floor. Another story asserted the Pauli effect. One morning, in Gottingen, James Franck woke up to find his lab in utter chaos. The cooling water had failed, the pump had blown up, and there were broken glass all over the place. Franck immediately sent a telegram, "Pauli, where were u last night?" Pauli replied, "Traveling from Zurich to Berlin." The train passed through Gottingen! Believe it or not, while I was

typing in these lines, the nib of my pen broke into two! I dare not write anything more about the Pauli effect.

Pauli was also known to be an arrogant man. Once a bright graduate student approached Pauli asking if he could assist him in his work. Pauli firmly replied "No thanks, I don't think you could be of any help to me in my work." One of the best of the many Pauli jokes tells of Pauli's arriving in Heaven and being given, as befits a theoretical physicist, an appointment with God. When granted the customary free wish, he requests that God explain to him why the value of the fine-structure constant, $\alpha = e^2/(\hbar c)$, which measures the strength of the electric force, is 0.00729735 ... God goes to the blackboards and starts to write furiously. Pauli watches with pleasure but soon starts shaking his head violently...

Here is what Bohr and Otto had to say about Pauli. Bohr was trying to explain the difference between a trivial truth and a profound truth to Otto. Bohr explained, "A trivial truth is a statement, the opposite of which is a falsehood. A profound truth is a statement, the opposite of which is also a profound truth. For instance, the opposite of the statement "Matter is a particle is "Matter is a wave" Both are profound truths." Then he spoke of Pauli. "You know deep down, Pauli was a modest man." "A profound truth, indeed!", replied Otto.

Two look-alikes switching places may have become a hackneyed theme in cinema. But in real life? Oh, C'mon give me a break! Well, actually such a "role switching" did happen in Einstein's life with a small difference. The story is that Albert Einstein's driver used to sit at the back of the hall during each of his lectures, and after a period of time, remarked to Einstein that he could probably give the lecture himself, having heard it several times. So at the next stop on the tour, Einstein and the driver switched places, with Einstein sitting at the back, in driver's uniform. The driver gave the lecture, flawlessly. At the end, a member of the audience asked a rather involved question about some of the subject matter, upon which the lecturer replied, "Well, the answer to that question is quite simple, I bet that my driver, sitting up at the back, there, could answer it..." The "driver" appeared on the stage immediately and answered the question much to the surprise of the audience.

Einstein had another odd feather in his rather colorful cap.

anecdotes

scientists must be crazy

When he published his equations of General relativity, he failed to notice that his theory predicted an expanding universe. A Russian mathematician, Friedman, found that Einstein had made a school boy error in Algebra that caused him to overlook a solution to his own equations. Einstein, had in effect, divided by zero at one point in his calculations - a no-no in mathematics.

There is another interesting story involving Einstein and a little girl. There was a little girl who boasted to her father that the great scientist Albert Einstein was tutoring her. The girl's father dismissed her claims as mere childish prattle. However, he was surprised to see his five-year old daughter leave the house every evening to return an hour later. One day, he decided to follow her and was shocked to see his little girly truly

anecdotes

enter the scientist's house. Later he knocked Einstein's door and he was delighted to meet the man himself. He introduced himself and inquired whether his little girl's claims were true. "Well, yes." Said Einstein "and she pays me for it." The father was all the more surprised as to why the great scientist should waste his time and energy for a paltry sum of 80 cents. For which Einstein replied, "It might just be 80 cents, but I was prepared to teach her because she was willing to part with 80% of her monthly \$1 pocket money. Now tell me, would any one part with 80% of their income for education?"

Surprising as it may seem, many scientists have a great sense of humor. The task of calculating the value of pi to many decimal places attracted attention of a great many over centuries. People resorted to interesting ways to remember the value of pi. "How I want a drink, alcoholic of course, after the heavy lectures involving quantum mechanics!" was one such mnemonic. The number of letters in each word of the above sentence constitute the value of pi to 14 decimal places - 3.14159265358979. Once, P. A. M. Dirac, unable to understand how Oppenheimer, while studying physics, could still write poetry, reproached Oppenheimer thus, "How can you do two things at the same time?", Oppenheimer replied, "Simple. In science, one tries to tell a thing that no one knows in way that every one can understand it. But in poetry, you just do the opposite. One tries to tell a thing that everyone knows in a way that no one understands it!" Another incident involves Chandrashekar, who, when he got the Rumford medal for his outstanding contributions in physics, narrated a joke. It seems there was a military

general who had won many awards and medals. A young lady came near by and started admiring all the medals. She asked him, "How do you win all these?" The general looked at her, pointed to a tiny medal in the middle and said, "Do you see this medal, dear? I was awarded this by mistake, and after this the others followed!"

There were a few scientists who were actively involved in politics. Benjamin Franklin, one such scientist-politician, was a well-known member of the parliament gifted with a good sense of humor. One day, to defuse an acrimonious debate, "Gentlemen, gentlemen, we must all hang together, if we don't..", Franklin remarked, "we shall hang separately." The parliament also had some not-so-active scientists and Newton was one such 'passive' politician whose only recorded utterance was a request to open the window !!

The American physicist Henry Augustus Rowland was well known for his modesty. Once, when he testified at a trial as an expert witness, a lawyer asked who the greatest living American physicist was. Rowland answered, "I myself am." Afterwards, when a friend asked him in amusement how he could give such an uncharacteristically conceited answer, Rowland replied seriously, "I couldn't help myself. I was under oath." Famed physicist Werner Heisenberg won a Nobel Prize for his formulation of the uncertainty principle. Before his death, Heisenberg prepared an epitaph, which was later inscribed upon his tombstone. The epitaph? "He lies here, somewhere."

Well, its true that scientists live in their own worlds surrounded by their inventions. It is also true that in their pursuit of "knowing the unknown", they sometime do transcend the bickering of mundane existence. They might miss out on the little pleasures and pains in life but.. hey, they are humans too. As Lord Florey puts it, "Scientists are often enumerated, divided into categories, constructed into tables, illustrated by graphs, and pronounced upon in bulk. But it is sometimes forgotten that they are human beings"

Acknowledgements:

I would like to thank Harsha who helped me pen down this article. References for this article include Physics World, Physics Today, Nature, New Scientist, Physics Teacher and several biography links on the internet. I apologize for having lost track of the numerous websites and books and journals from which the above excerpts were taken.

a decade of projects

An annual meeting was organized in March 2004 for the first time to create awareness about Sankalp among the residents of Ames. The next annual meeting will mark the decennial celebrations of Sankalp. We look forward to your presence at the event. Over the last 9 years, we have funded various projects. Presented here, is a summary of the same.

Year	Projects/ NGO	Location	Amount
1995-1997	Rishi Valley Rural Education Program	Chittoor, Andhra Pradesh	\$1000
1996-1997	Overall Development through non-formal Education	Golia Panchayat, West Singbhum district, Bihar	\$1000
1997-1998	Marr-Munning Ashram project	Gramdam villages of Koraput districts of Orissa	\$4500
1998-1999	Inner Wheel Club, Bangalore North	Village Palanahalli, Karnataka	\$3000
1999-2000	Saikripa	Noida, Uttar Pradesh	\$1000
1999-2000	SHEDS	Jatni , Khurda District, Orissa	\$905
1999-2000	Gyanna Deepam Charitable Trust	Pammal, Madras	\$600
1999-2000	CARD	Polaki, Srikakulam District, Andhra Pradesh	\$1000
Feb 2001	Earthquake Relief	Surendranagar and Jamnagar, Gujarat	\$3250
2000-2001	Adivasi Mitra	Tribal villages of Vizag District, Andhra Pradesh	\$3150
2002-2003	Trust for Village Self Governance	Kuthambakkam, Tamilnadu	\$3500
2002-2003	Kotwalwadi	Neral, Maharashtra	\$1100
2003-2004	Adivasi Mitra	Tribal villages of Vizag District, Andhra Pradesh	\$779
2003-2004	Little Star School	Varanasi, Uttar Pradesh	\$2500
2003-2004	Swajan	Hoogly, West Bengal	\$1100
2003-2004	Support	Santacruz, Mumbai	\$3000
2003-2004	Manav Jagriti Kendra	Basuham, Bahera, Darbangha, Bihar	\$3306

milestones

who's who

First the cabinet:

LN: Whose real name, Lakshminarasimhan Krishnaswamy, is the bane of telephone operators all over the country, juggles between being the president of Sankalp and getting a PhD in Plant Sciences.

Rajee: Who is getting her PhD in Chemistry, on understanding the effect of ethanol vapors on humans, took over as the vice-president, to add to her collection of vices.

Vasumathi: The unofficial nightwatchwoman of Gilman Hall, who is also getting her PhD in chemistry, is the treasurer, keeping the Sankalp committee an all science affair.

Kanaga Karuppia: The dedicated coin and can collection coordinator, is out to prove that he "can" do a great job

Aditya: The project coordinator, of controversial views, who is working on his PhD in mechanical engineering, also harbors an interest in primate-tree relationships.

And then the old cabinet:

Rahul, the ex-president, Vidya, the ex-vicepresident, Dinesh, the ex-treasurer and Subbu the ex-project

coordinator dropped anchor and helped Sankalp, by being available for the new cabinet at all times.

And who moved on:

Abu: The international man of mystique, the Ladies man, has moved his base to the Swiss-alps. After completing a PhD in Electrical Engineering, he works at IBM in Zurich now, where he is engaged in more top-secret projects.

Anil: After acquiring a dual PhD, this venerable gentleman has moved to Santa Barbara, to work for Asylum Research. He expects to be very busy and work occasionally.

Natarajan: Moved to Boise to work with Micron after getting a Masters from Electrical Engineering.

Vishwanath: A dedicated volunteer, he transferred to Georgia Tech after a year at ISU. Had a bowling action that resembles the mating ritual of an exotic bird. Organized the ISU cricket tournament in the summer of 2003.

Vivek: Got a postdoctoral degree from the chemical engineering department and returned to India to work in the Birla group, he put together the new Sankalp homepage. The local Godfather of Ames, he could decide the fate of people with a nod.

snippets

association: action: achievement

(continued from page 3)

This enables SUPPORT to provide basic necessities such as food, clothing and shelter for nearly 300 children. The main goal of this project is to make these children aware of AIDS, STD and sexual abuse and to make the youth self reliant by training them in small-scale industry. The budget of \$3000 approved by Sankalp also has provisions for food and medical needs for these children.

The most recently funded project is the Bihar project, where the amount of \$3300 was provided to the NGO for promoting education and encouraging the art of Mithila paintings as a means of self-employment for tribals of the area. The NGO in-charge of the project is **Manav Jagriti Kendra**, which was established in 1990 (a child organization of the institution, Bharati Vikas Manch started in 1981). Mr. Kashyap is the founder member of the organization, the main objective of which is to develop traditional folk-wisdom and arts as a tool for education and earning. To achieve this goal, the organization wants to establish a "University of Arts & Crafts". The short-term goal of the organization is to

educate children and women through motifs of their body painting (tattoo called Godana), folk paintings on their walls and other sources of folk-wisdom revealed in folk-songs/folklores. In the first year, girls and women students of poor and backward families get a nominal stipend and they learn to create utility items (fashion wear, painted in Mithila and Godana styles of paintings). A small group of 15 girls are expected to be trained under the "Education & Vocation Project".

Another short-term objective is to prepare hand-written books authored by Mr. Kashyap and Ms. Shashibala (compiled for the first time in India as an educational tool), and to establish folk arts as a source of education and employment for women from poor communities. The long-term objective is to establish an institution, that offers education from basic literacy to advanced levels, and that creates employment opportunities by encouraging entrepreneurship. The organization is also in the process of establishing five literacy centers for the tribal people in these regions.